



III. A.

690 Chesterfield Pkwy W • Chesterfield MO 63017-0760
Phone: 636-537-4000 • Fax 636-537-4798 • www.chesterfield.mo.us

Architectural Review Board Staff Report

Project Type:	Site Development Section Plan
Meeting Date:	December 08, 2016
From:	Justin Wyse, AICP Senior Planner
Location:	Chesterfield Parkway W and Olive Blvd
Applicant:	CRG Real Estate Solutions
Description:	<u>Chesterfield Ridge Center, Parcel VII (875 Chesterfield Parkway W) SDSP:</u> A Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design for a 31.8 acre tract of land zoned "C-8" Planned Commercial District located on the northwest portion of the intersection of Chesterfield Parkway W and Olive Blvd.

PROPOSAL SUMMARY

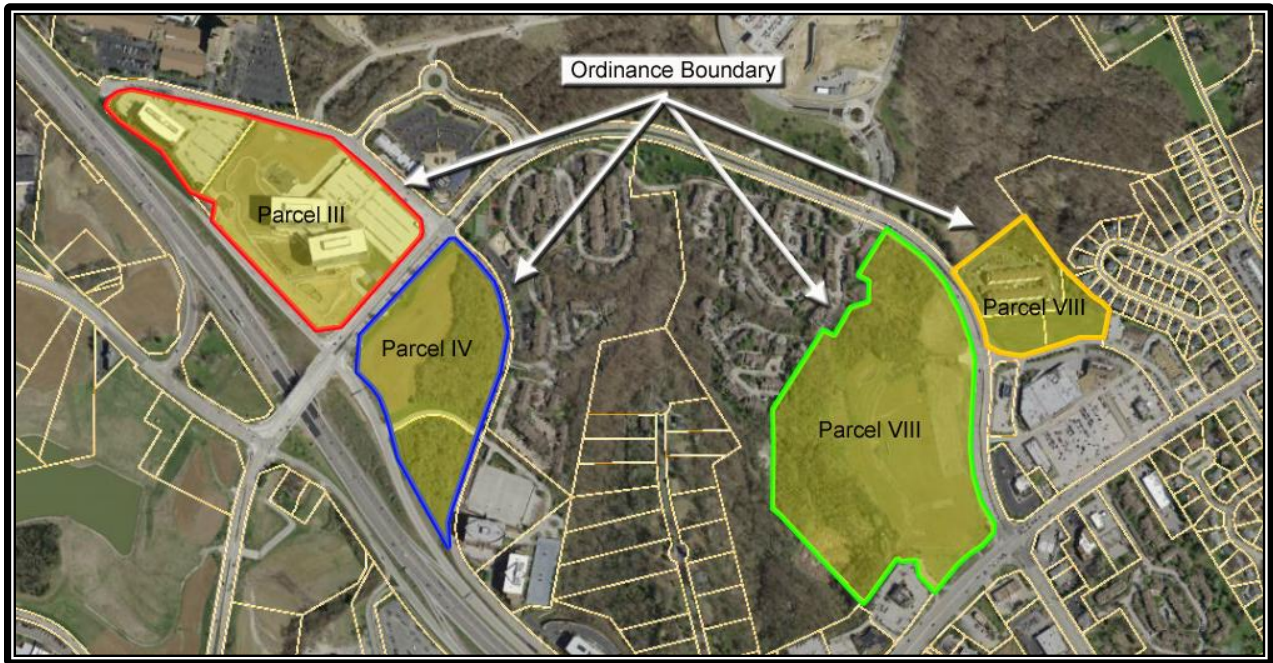
The request is for a 305,000 square foot biopharmaceutical building located on the northwest side of the Chesterfield Parkway W and Olive Blvd. intersection. The subject site is zoned "C-8" Planned Commercial District and is governed under the terms and conditions of City of Chesterfield Ordinance Number 2916. The exterior building materials will be primarily comprised of curtain wall with high performance glass with a custom ceramic frit, and a base of natural gray stone veneer. Rooftop mechanical equipment will be screened with pre-finished metal panels, as shown on the elevations.

HISTORY OF SUBJECT SITE

In 1979, Chesterfield Village Inc. submitted five petitions covering a total of 197.8 acres in the northwest quadrant. Two general areas of "C-8" zoning were proposed, one along the north side of Highway 40 (including the subject site) and the other surrounding the existing Hilltown Center. The 43.3 acres along Highway 40 would include 1,000,000 square feet of floor area being primarily offices, a hotel, theater, professional laboratories and schools.

In 1997, the City of Chesterfield approved two additional amendments to this "C8" Planned Commercial District to modify the permitted land uses and allow additional flexibility in the density requirements and the City of Chesterfield approved a Commercial-Industrial Design Development (CIDD) procedure in 2012

to permit additional shifting of density within the development. The City of Chesterfield approved Ordinance 2723 which modified building groups, building heights, and density requirements for the development. Finally, the City of Chesterfield amended the ordinance again to permit consolidation of building groups on the subject site and modify density allotments.



STAFF ANALYSIS

General Requirements for Site Design:

The subject site sits at the intersection of Chesterfield Parkway W and Olive Blvd. The proposed building location is oriented toward the arterial roadways to minimize site disruption and provide buffers between the new development and existing residential development to the north.

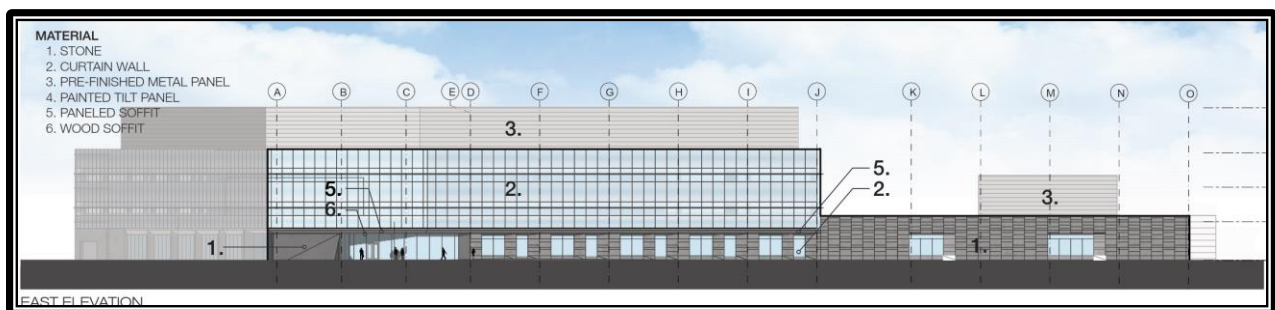
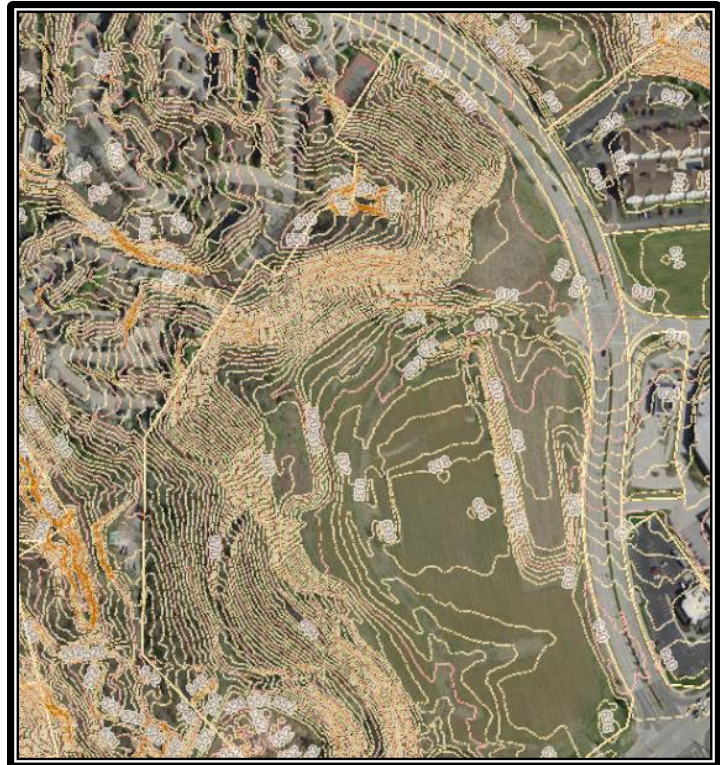
Circulation System and Access

Two curb cuts service the site. Upon entering each of the locations, a security check-in station is provided. The initial project includes surface parking along the frontage with the entrance to the building accentuated with pavement styles. Finally, pedestrian accommodations are included in the parking area to allow for safe travel between the parking and building.

Topography & Retaining Walls

The building is placed on the eastern portion of the site where grades are more gradual than on the northern and western portions of the site. Existing contours for the site are shown in the image to the right.

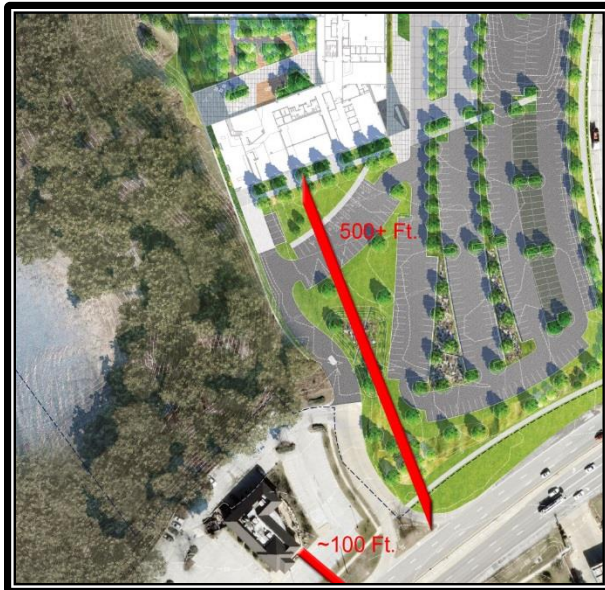
Modular block retaining walls are included on the northern and western ends of the disturbed area.



General Requirements for Building Design:

A. Scale

The building's relative tall height is offset by a large setback off both Olive Blvd. and Chesterfield Parkway W. The image below shows the difference in setback from the existing restaurant and the proposed building. This setback helps reduce the overall visual impact from the right-of-way.



The submitted renderings show how material changes are included on the first floor to add a human scale to the design.

B. Design

The building includes a four-sided design with similar materials and treatments on each façade. As mentioned above, additional materials are included on the first floor of the building. Plane changes between the first and second floors of the building provide a dramatic appearance of the building.

C. Materials and Color

The proposed materials include fritted glass with a ceramic custom frit and a stone veneer on the base of the building. The overall design is similar to the concept approved on Parcel III of the subdivision for

Reinsurance Group of America (RGA) with subtle differences to accommodate the laboratory use and changes to details to differentiate the buildings.

D. Landscape Design and Screening

A prairie style landscape is proposed to provide benefits of native species and low maintenance. Landscape buffers are required along the frontage of both Chesterfield Parkway and Olive Blvd. The proposal also includes landscaping throughout the parking area that helps to alleviate the large parking field associated with this first phase of development on the site.

Rooftop mechanical equipment is included on the building. Metal panel systems are proposed that would screen this equipment from view. Finally, concrete walls painted to match the color of the gray stone veneer on the building are included to screen the exterior storage and loading area on the north of the site.

F. Lighting

Site lighting is proposed for walkways and parking fields to assure security and safe travel while on the site and not contribute to light pollution. Several decorative fixtures are proposed that require approval from the City as they are not fully shielded, flat lens fixtures.

DEPARTMENT INPUT

Be advised, this project is still going through development review by City Staff and will not proceed to the Planning Commission until all outstanding items have been addressed. All recommendations made by the ARB will be included in Staff's report to the Planning Commission.

Staff requests review and recommendation on this submittal for Chesterfield Ridge Center, Parcel VII (875 Chesterfield Parkway W).

MOTION

The following options are provided to the Architectural Review Board for consideration relative to this application:

- 1) "I move to forward the Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design for Chesterfield Ridge Center, Parcel VII (875 Chesterfield Parkway W), as presented, with a recommendation for approval (or denial) to the Planning Commission."
- 2) "I move to forward the Site Development Section Plan, Landscape Plan, Lighting Plan, and Architectural Elevations for Chesterfield Ridge Center, Parcel VII (875 Chesterfield Parkway W), to the Planning Commission with the following recommendations..."

Attachments

1. Architectural Review Packet Submittal



ARCHITECTURAL REVIEW BOARD
Project Statistics and Checklist

Date of First Comment Letter Received from the City of Chesterfield _____

Project Title: Project Fit (P.Z. 06-2016) Ordinance #2916 Location: 875 W. Chesterfield Parkway

Developer: CRG Architect: Forum Studio Engineer: Stock & Associates

PROJECT STATISTICS:

Size of site (in acres): 31.70 acres Total Square Footage: 305,000 Building Height: 50'-0" Building Roof
73'-3" Penthouse Roof

Proposed Usage: Laboratory

Exterior Building Materials: Predominate materials are curtainwall and stone

Roof Material & Design: Single ply membrane roofing

Screening Material & Design: Prefinished metal panels

Description of art or architecturally significant features (if any): Please refer to the Architectural Design
Statement for a complete description of the significant features

ADDITIONAL PROJECT INFORMATION:

Checklist: Items to be provided in an 11" x 17" format

- Color Site Plan with contours, site location map, and identification of adjacent uses.
- Color elevations for all building faces.
- Color rendering or model reflecting proposed topography.
- Photos reflecting all views of adjacent uses and sites.
- Details of screening, retaining walls, etc.
- Section plans highlighting any building off-sets, etc. (as applicable)
- Architect's Statement of Design which clearly identifies how each section in the Standards has been addressed and the intent of the project.
- Landscape Plan.
- Lighting cut sheets for any proposed building lighting fixtures. (as applicable)
- Large exterior material samples. (to be brought to the ARB meeting)
- Any other exhibits which would aid understanding of the design proposal. (as applicable)
- Pdf files of each document required.

690 Chesterfield Parkway West, Chesterfield, MO 63017-0760
Ph. (636)537-4746 Fax (636)537-4798 www.chesterfield.mo.us

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ARCHITECTURAL REVIEW DESIGN STANDARDS

Please refer to [Section 04-01 of the Unified Development Code](#) for the Architectural Review Design Standards.

ARCHITECTURAL TERMS

Please refer to [Section 10-06 of the Unified Development Code](#) for definitions of Architectural Terms.

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ARB 12/2015

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Project Fit
Architectural Design Statement
CRG/Clayco/Forum/Ewing Cole
November 23, 2016

CRG is excited and proud to partner with a premier biopharmaceutical corporation in the development of this campus at the intersection of Chesterfield Parkway and Olive Blvd. This world class R&D facility reflects the highest standards for excellence, quality, safety and value. The three level, 305,000 BGSF research facility provides state-of-the-art laboratories coupled with a dynamic work environment that is nestled into this unique site. A future 3 level, 140,000 BGSF expansion with an associated parking structure is planned though the timing is unknown.

GENERAL REQUIREMENTS FOR SITE DESIGN

Site Relationship: The project is located on 31.7 acres at the intersection of Olive Blvd and Chesterfield Parkway. The building is integrated into the landscape yet situated at the highest point of the site to provide bluff like views across the adjacent woodland treetops. Responding to the scale of the campus and surrounding properties, the building is pulled back over 280' from Chesterfield Parkway and 550' from Olive Blvd.

With an initial occupancy of 625, minimal impact on traffic is anticipated on the surrounding roads.

Circulation System and Access: The campus can be accessed by two secured entrances. The primary entrance is located at the signalized intersection off Chesterfield Parkway with a secured entry leading up to a distinct drop off plaza that offers clear access for visitors, scientist, and staff. The guard house at this entrance complements the architecture of the building and features similar stone, glass and metal trim. A second secured and much less prominent entrance is provided with a right-in, right-out drive at Olive Blvd that is shared with Ya Ya's restaurant.

Pedestrian access to the campus is provided at the Chesterfield Parkway entrance and provides direct access from the public sidewalk along Chesterfield Parkway. Illuminated sidewalks within the campus define safe and secure access to the building's entrance and property.

Topography: The campus embraces a comprehensive sustainability approach utilizing natural systems and low impact solutions that enhance the existing topography. The building is nestled into the site in a respectful manner to minimize the impact on the ecosystem. Great care is taken to integrate the development into the existing topography and minimize the need for retaining walls.

Stormwater management systems utilizes a series of bio-retention basins at the higher elevations of the site that then flow into a regional detention basin at the low point.

Parking & Service Yard: A surface parking lot for 665 spaces is provided with access from both Chesterfield Parkway and Olive Blvd. The scale of the parking field is broken down through the creative integration of bio-retention basins featuring native grasses and lined with gabion walls. Numerous landscaped islands are provided to enhance the human experience while further reducing the scale of the parking field.

Landscape & Screening: The landscape embraces low maintenance, indigenous species including deciduous trees, evergreen trees, shrubs, grasses and perennials. Prairie landscape and raised berms engage the site along Olive Blvd and Chesterfield Parkway to frame views of the campus yet provide visual separation from parking.

A service yard located on the north side of the facility contains a 3 birth loading dock, trash/recycling containers, cooling towers, emergency generator, electrical transformers, and fuel oil tank. The existing dense tree canopy provides a natural barrier that screens the service yard from the west and north while proposed fields of evergreen trees screen the east.

Retaining walls: Modular block retaining walls are provided at select locations in response to sloping topography as noted on the site plan. Furthermore, an architectural concrete retaining wall frames the edge of the dining terrace at the courtyard.

Storage: Designated storage areas are provided at the service yard for gas cylinders, bulk gases, flammable waste and bio-waste. Each area will be clearly designated, secured, screened from view and confirm to all applicable building codes.

Utilities: All utilities will be buried underground.

GENERAL REQUIREMENTS FOR BUILDING DESIGN

Scale: The scale of this 3 story facility is comparable to those in the Chesterfield Village including the 3 story Mitek buildings at 16023 Swingley Ridge Rd, 6 story Centenne Building at 16090 Swingley Ridge Rd, and multiple 3 story office buildings at 16020, 16052 & 16091 Swingley Ridge Rd.

The building steps back at the ground level along the east elevation to create a dynamic entrance that is appropriately scaled for the public realm.

Design: The building design takes advantage of solar orientation, maximizes scenic views of the surrounding neighborhoods and provides a highly collaborative research environment. The upper two levels float above the base and are clad in fritted glass to project a simple, forward thinking presence. A large covered entrance at the east is created by the outward folding of the building volume at the upper levels while stepping back at the first floor in response to the human scale.

The Ground Floor features the main entrance with framed views to an interaction courtyard, laboratories, pilot plant, offices, kitchen/dining, seminar rooms, and various building infrastructure. The upper levels provide a continuous loop of laboratories, office and collaboration space for the scientific community. Situated atop the 3 level structure is a mechanical penthouse for the systems that are critical to the operation of the building.

Materials & Colors: The materials selected for this project are highly sustainable and provides an iconic image of a global biopharmaceutical corporation. The glazing system features high performance insulated glass with a custom ceramic frit to enhance solar performance. The base of the building is clad in gray stone veneer to anchor the building to the site. The walls of the central utilities plant and loading dock are site-cast, tilt-up concrete panels painted to complement the tones of the adjacent stone veneer. The two large penthouses are clad in gray, insulated metal panels that are ribbed for added interest while breaking down the scale of these elements.

Lighting: Site lighting provides illumination of the parking, drives and loading dock without contributing to light pollution or trespass on adjoining properties. Walkway lighting provides safe and secure access to the main entrance while accent lighting on the building will highlight select building features.

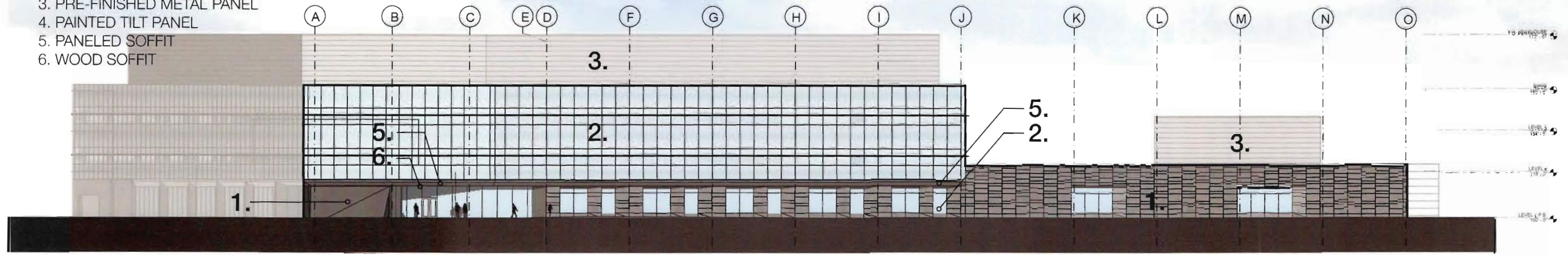
Lighting on the building is integrated into the underside of soffits and loading dock canopy. We do not anticipate any lights exposed on the face of the building

This facility, enhancing Chesterfield's presence among the global research community, is an authentic expression of the strength and expertise of this biopharmaceutical leader. The design utilizes clean and authentic expression of program, form, function and material to create a language of simplicity, economy and efficiency.

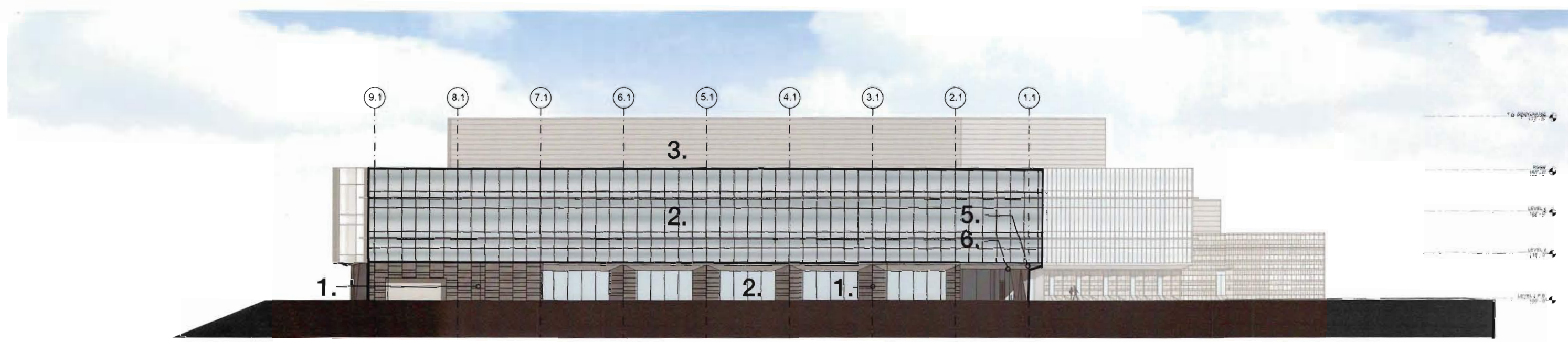


MATERIAL

- 1. STONE
- 2. CURTAIN WALL
- 3. PRE-FINISHED METAL PANEL
- 4. PAINTED TILT PANEL
- 5. PANELED SOFFIT
- 6. WOOD SOFFIT



EAST ELEVATION

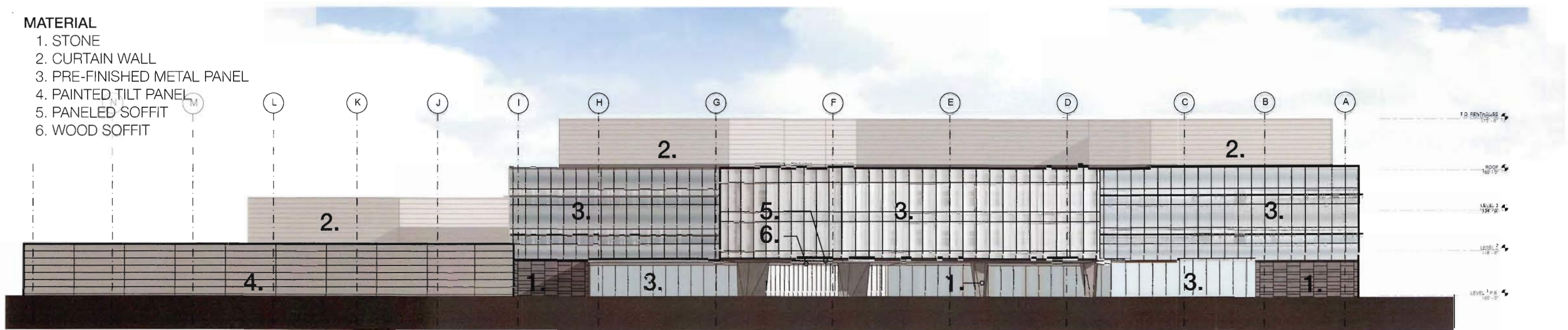


SOUTH ELEVATION

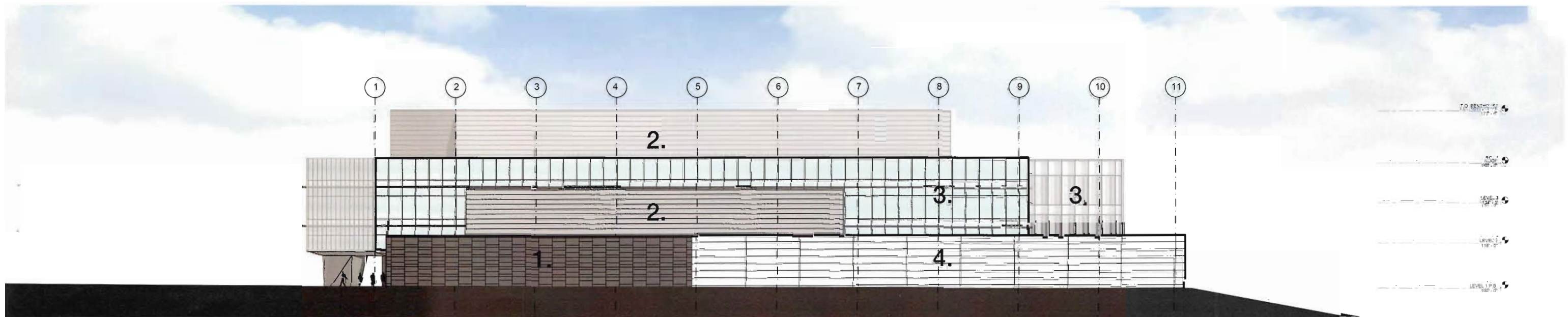


MATERIAL

- 1. STONE
- 2. CURTAIN WALL
- 3. PRE-FINISHED METAL PANEL
- 4. PAINTED TILT PANEL
- 5. PANELED SOFFIT
- 6. WOOD SOFFIT



WEST ELEVATION



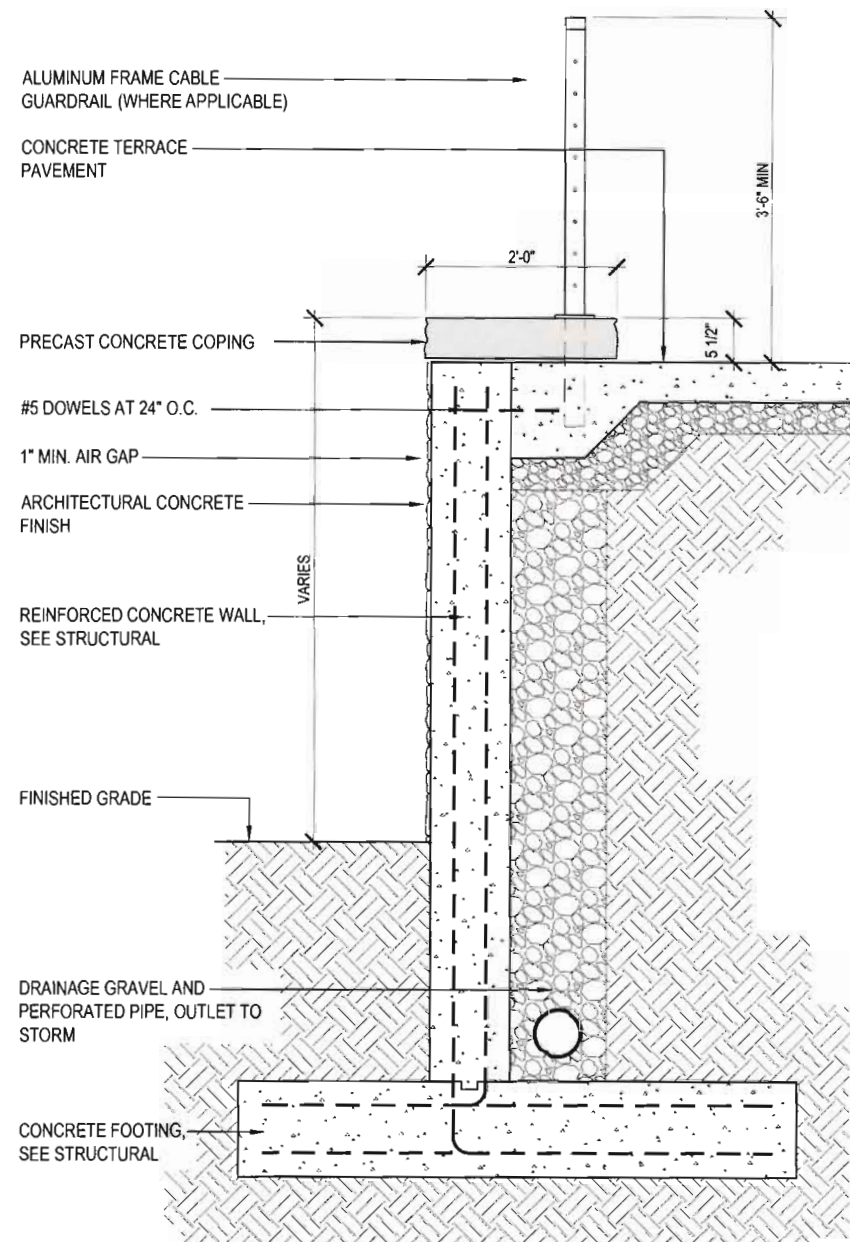
NORTH ELEVATION



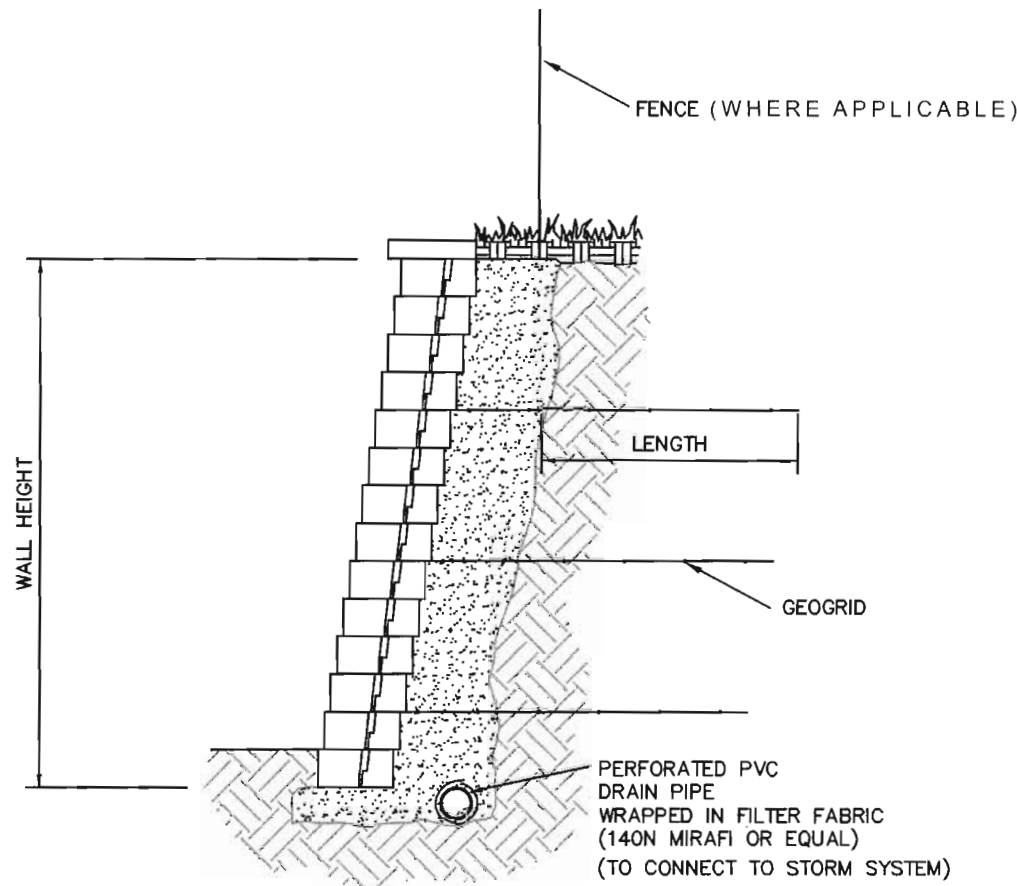




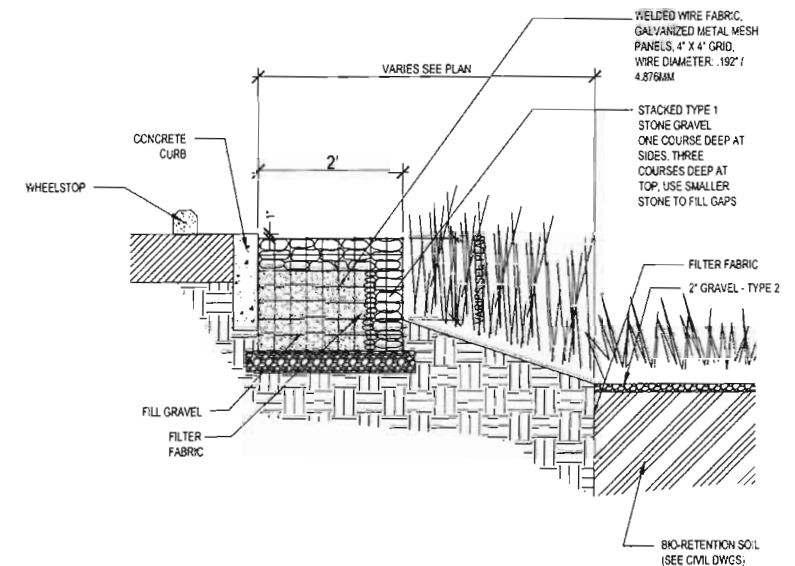




TERRACE RETAINING WALL DETAIL
NTS

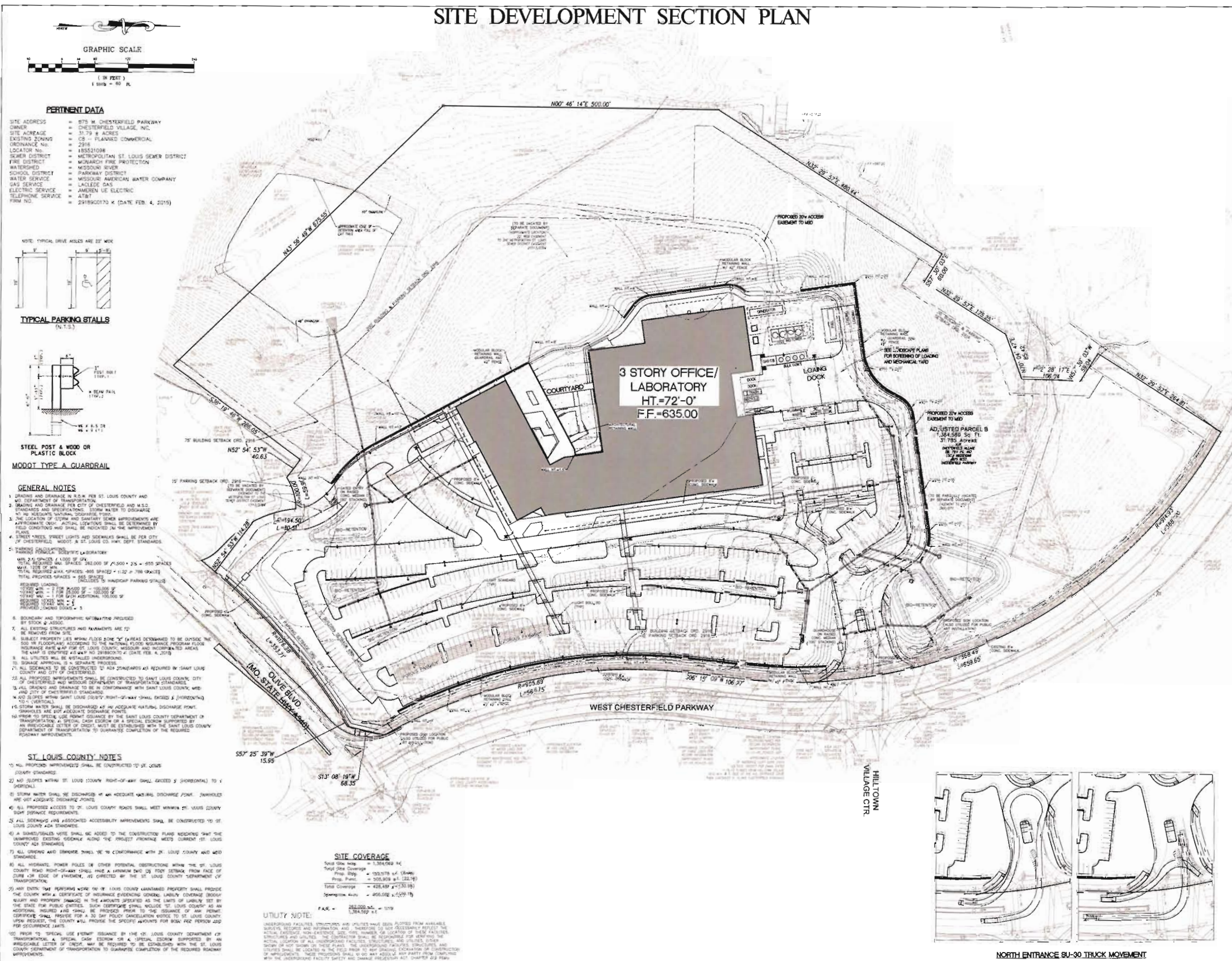


MODULAR RETAINING WALL DETAIL
NTS



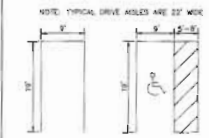
BIO-RETENTION EDGE GABION WALL
NTS

SITE DEVELOPMENT SECTION PLAN

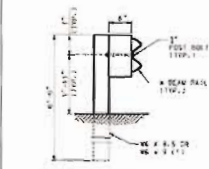


PERTINENT DATA

- SITE ADDRESS = 875 W. CHESTERFIELD PARKWAY
- OWNER = CHESTERFIELD VILLAGE, INC.
- SITE AREA = 31.79 ± ACRES
- EXISTING ZONING = CS - PLANNED COMMERCIAL
- ORDINANCE NO. = 2318
- LOCATION NO. = 18552108
- SEWER DISTRICT = METROPOLITAN ST. LOUIS SEWER DISTRICT
- FIRE DISTRICT = MONARCH FIRE PROTECTION
- WATERGATED = MISSOURI SEWER
- SCHOOL DISTRICT = PARKWAY DISTRICT
- WATER SERVICE = MISSOURI AMERICAN WATER COMPANY
- GAS SERVICE = LACLEDE GAS
- ELECTRIC SERVICE = AMEREN UE ELECTRIC
- TELEPHONE SERVICE = AT&T
- FORM NO. = 2918K0070 K (DATE FEB. 4, 2015)



TYPICAL PARKING STALLS (N.T.S.)



STEEL POST & WOOD OR PLASTIC BLOCK MODOT TYPE A GUARDRAIL

GENERAL NOTES

1. GENERAL NOTES SHALL BE IN ACCORDANCE WITH THE ST. LOUIS COUNTY AND MISSOURI DEPARTMENT OF TRANSPORTATION (MUDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS AND BRIDGES.
2. THE LOCATION OF STORM AND SANITARY SEWER IMPROVEMENTS AND APPROPRIATE DRAINAGE LOCATIONS SHALL BE DETERMINED BY FIELD CONDITIONS AND SHALL BE INDICATED IN THE IMPROVEMENT PLANS.
3. STREET LIGHTS, STREET LIGHTS AND SIGNAGE SHALL BE PER CITY OF CHESTERFIELD, MISSOURI & ST. LOUIS COUNTY PER CITY STANDARDS.
4. STORM SEWER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. DISCHARGES ARE NOT ADEQUATE DISCHARGE POINTS.
5. STORM SEWER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. DISCHARGES ARE NOT ADEQUATE DISCHARGE POINTS.
6. BOUNDARY AND TERRAIN INFORMATION PROVIDED BY STOCK & ASSOCIATES.
7. ALL EXISTING STRUCTURES AND IMPROVEMENTS ARE TO BE REMOVED FROM SITE.
8. SUBJECT PROPERTY LIES WITHIN FLOOD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 500 YEAR FLOODPLAIN) ACCORDING TO THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP FOR ST. LOUIS COUNTY, MISSOURI AND NEIGHBORING AREAS. THE MAP IS DATED AS OF 08/20/10. NO 2918K0070 K (DATE FEB. 4, 2015)
9. ALL UTILITIES SHALL BE RELOCATED UNDERGROUND.
10. SEWERAGE APPROVAL IS A SEPARATE PROCESS.
11. ALL SEWERAGE TO BE CONSTRUCTED TO MEET STANDARDS AS REQUIRED BY SAINT LOUIS COUNTY AND CITY OF CHESTERFIELD.
12. ALL IMPROVED IMPROVEMENTS SHALL BE CONSTRUCTED TO MEET SAINT LOUIS COUNTY, CITY OF CHESTERFIELD AND MISSOURI DEPARTMENT OF TRANSPORTATION STANDARDS.
13. ALL GRADING AND DRAINAGE TO BE IN CONFORMANCE WITH SAINT LOUIS COUNTY, MISSOURI AND CITY OF CHESTERFIELD STANDARDS.
14. ALL SLOPES WITHIN SAINT LOUIS COUNTY RIGHT-OF-WAY SHALL EXCEED 3% (HORIZONTAL TO 1 VERTICAL).
15. STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. DISCHARGES ARE NOT ADEQUATE DISCHARGE POINTS.
16. WHEN TO SPECIAL USE PERMIT ISSUED BY THE SAINT LOUIS COUNTY DEPARTMENT OF TRANSPORTATION, A SPECIAL CASH ESCROW OR A SPECIAL ESCROW SUPPORTED BY AN IRREVOCABLE LETTER OF CREDIT, MUST BE ESTABLISHED WITH THE SAINT LOUIS COUNTY DEPARTMENT OF TRANSPORTATION TO GUARANTEE COMPLETION OF THE REQUIRED ROADWAY IMPROVEMENTS.

ST. LOUIS COUNTY NOTES

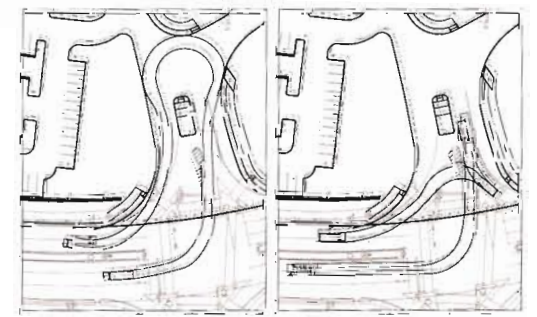
17. ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO ST. LOUIS COUNTY STANDARDS.
18. NO SLOPES WITHIN ST. LOUIS COUNTY RIGHT-OF-WAY SHALL EXCEED 3% (HORIZONTAL TO 1 VERTICAL).
19. STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. DISCHARGES ARE NOT ADEQUATE DISCHARGE POINTS.
20. ALL PROPOSED ACCESS TO ST. LOUIS COUNTY ROADS SHALL MEET MINIMUM 20' STORM SEWER RIGHT-OF-WAY REQUIREMENTS.
21. ALL SIDEWALKS AND ASSOCIATED ACCESSIBILITY IMPROVEMENTS SHALL BE CONSTRUCTED TO ST. LOUIS COUNTY ADA STANDARDS.
22. A DISCHARGED WATER SHALL BE ADDED TO THE CONSTRUCTION PLANS NOTICING THAT THE UNIMPROVED EXISTING GROUND ALONG THE PROJECT FRONTAGE MEETS CURRENT ST. LOUIS COUNTY ADA STANDARDS.
23. ALL CURBS AND SIDEWALKS SHALL BE IN CONFORMANCE WITH ST. LOUIS COUNTY AND ADA STANDARDS.
24. ALL HORIZONTAL POWER POLES OR OTHER POTENTIAL OBSTRUCTIONS WITHIN THE ST. LOUIS COUNTY ROAD RIGHT-OF-WAY SHALL BE A MINIMUM TWO (2) FEET SETBACK FROM FACE OF CURB OR EDGE OF PAVEMENT, AS DIRECTED BY THE ST. LOUIS COUNTY DEPARTMENT OF TRANSPORTATION.
25. ANY ENTITY THAT PURSUING WITHIN ST. LOUIS COUNTY UNIMPROVED PROPERTY SHALL PROVIDE THE COUNTY WITH A CERTIFICATE OF INSURANCE EVIDENCING GENERAL LIABILITY COVERAGE (BROKER NAME AND POLICY NUMBER) IN THE AMOUNTS SPECIFIED AS THE LIMITS OF LIABILITY SET BY THE STATE FOR PUBLIC OFFICIALS. SUCH COVERAGE SHALL INCLUDE ST. LOUIS COUNTY AS AN ADDITIONAL INSURED AND SHALL BE PROVIDED PRIOR TO THE ISSUANCE OF ANY PERMIT. CERTIFICATE SHALL EXPIRE FOR A 30 DAY POLICY CANCELLATION NOTICE TO ST. LOUIS COUNTY PERMITS DIVISION. THE COUNTY WILL PROVIDE THE SPORETY AMOUNTS FOR BWA PER PERSON AND PER OCCURRENCE LIMITS.
26. PRIOR TO SPECIAL USE PERMIT ISSUANCE BY THE ST. LOUIS COUNTY DEPARTMENT OF TRANSPORTATION, A SPECIAL CASH ESCROW OR A SPECIAL ESCROW SUPPORTED BY AN IRREVOCABLE LETTER OF CREDIT, MAY BE REQUIRED TO BE ESTABLISHED WITH THE ST. LOUIS COUNTY DEPARTMENT OF TRANSPORTATION TO GUARANTEE COMPLETION OF THE REQUIRED ROADWAY IMPROVEMENTS.

SITE COVERAGE

Spot Area = 1,384,069 sq. ft.
 Total Coverage = 1,384,069 sq. ft.
 Total Area = 1,384,069 sq. ft. (31.79 ac)
 Open Space = 205,052 sq. ft. (4.70 ac)

UTILITY NOTE:

UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES WERE PLOTTED FROM AVAILABLE SURVEY RECORDS AND INFORMATION AND WERE NOT NECESSARILY VERIFIED. THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES, OTHER THAN AS NOTED ON THESE PLANS, SHALL BE DETERMINED BY FIELD SURVEY. ALL UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES SHALL BE LOCATED TO AVOID ALL ABOVE-GROUND FACILITIES, STRUCTURES AND UTILITIES. THESE FACILITIES SHALL BE LOCATED TO AVOID ALL ABOVE-GROUND FACILITIES, STRUCTURES AND UTILITIES. THESE FACILITIES SHALL BE LOCATED TO AVOID ALL ABOVE-GROUND FACILITIES, STRUCTURES AND UTILITIES.



NORTH ENTRANCE SU-30 TRUCK MOVEMENT

CLAYCO
THE ART & SCIENCE OF BUILDING

STOCK & ASSOCIATES
Consulting Engineers, Inc.

LEED-NC
REAL ESTATE SOLUTIONS

CRG
REAL ESTATE SOLUTIONS

PROJECT FIT

C2.0

Pole top luminaires with asymmetric wide spread light distribution

Housing/fitter: Die-cast and extruded aluminum construction. The fixture slip fits a 3" O.D. pole top or tenon and is secured by six (6) socket head stainless steel set screws threaded into stainless steel inserts. Die castings are marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy.

Enclosure: Clear acrylic diffuser and reflector made of pure anodized aluminum held in place by die-cast aluminum frame and stainless steel rods. Fully gasketed for weather tight operation using a molded silicone rubber gasket.

Electrical: 44.2W LED luminaire, 46 total system watts, -30°C start temperature. Integral 120V through 277V electronic LED driver, 0-10V dimming. LED module(s) are available from factory for easy replacement. Standard LED color temperature is 4000K with a >80 CRI. Available in 3000K (>80 CRI); add suffix K3 to order.

Note: LEDs supplied with luminaire. Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

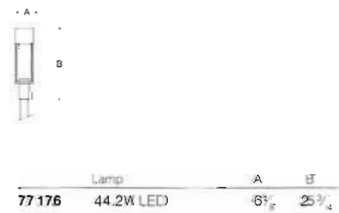
Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

CSA certified to U.S. and Canadian standards, suitable for wet locations. Protection class IP65

Weight: 11 lbs.

Luminaire Lumens: 3230

Type:
BEGA Product:
Project:
Voltage:
Color:
Options:
Modified:



BEGA-US 1000 BEGA Way, Carpinteria, CA 93013 (805)684-0533 FAX (805)566-9474 www.bega-us.com
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Type:
Project:
Options:
Modified:
Luminaire:
Fixture EPA:
Optional Tenon: 2 3/8" ϕ x 3 1/2" H
GCO:
GFI:

Approval:

1108HR 3" - 5" Tapered round hinged pole

Shaft: Extruded from all new seamless 6063 aluminum alloy tubing, heat treated to a T-6 condition.

Anchor base: Round cast aluminum A356 alloy, heat treated to a T-6 condition. Anchor base and shaft continuously welded at the outside top and inside bottom of the anchor base casting. Pole base to be round hinged two piece casting. Hinge Pole shaft to be welded to upper base casting which is secured to lower base casting by three (3) stainless steel bolts. Bolts to be fastened to cast-in stainless threaded inserts in lower casting. Cast round two piece base cover supplied with pole.

Anchor bolts: Four (4) 3/4" x 17" galvanized steel anchor bolts supplied with double nuts and flat washers. Maximum bolt projection 3/8". For luminaires requiring threaded inserts and pole cap -specify: 1D (single); 2D (2@ 180°); 3D (3 @ 120°).

GCO or GFI: Standard GCO/GFI location is opposite the hinge. Height above base for ballast luminaire is 18". For single luminaires with a pole base mounted (PBM) ballast the minimum height is 24" and 42" minimum for double PBM luminaires.

Weight: 50.0 lbs.

Disclaimer

BEGA-US warrants the specific anchor bolts and pole combination according to the product number(s) and description(s) indicated on this submittal sheet. Structural changes to the pole requested by the customer, including changes to pole length, may affect the compatibility of the anchor bolts and corresponding poles. BEGA-US is not responsible for the incompatibility of the anchor bolts and poles resulting from such structural changes without review by the BEGA-US engineering department. This includes, but is not limited to, any labor charges, charges for replacement materials and shipping.

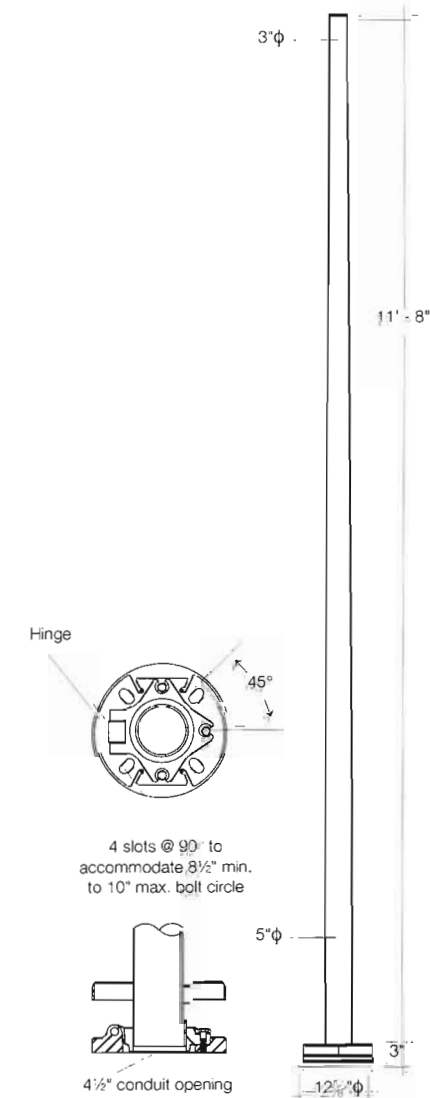
Pole wind load rating:
MPH: 70 80 90 100 120

EPA: 15.5 11.5 8.7 6.8 4.4

Note: Data above assumes grade level installation and a maximum luminaire weight of 50 lbs.

BEGA-US 1000 BEGA Way, Carpinteria, CA 93013 [P] 805-684-0533 [F] 805-684-6682

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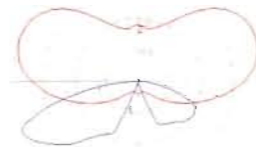


BEGA

Photometric Filename: 77176.IES

TEST: NA
TEST LAB: BEGA
DATE: 03/11/2015
LUMINAIRE: 77 176
LAMP: 31W LED

All results in accordance with IESNA LM-63-95



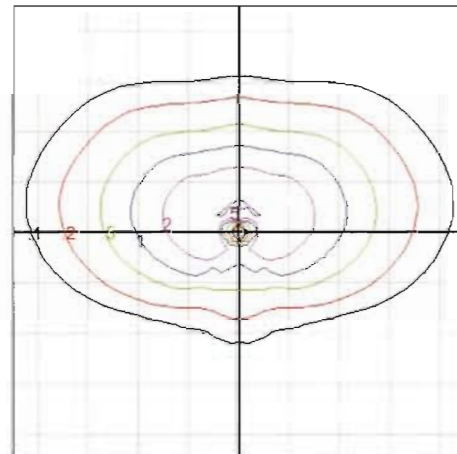
Characteristics

IES Classification	Type I
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3148
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	87
Total Luminaire Watts	36
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Max. Cd.	1437.3 (160H, 65V)
Max. Cd. (<90 Vert.)	1437.3 (160H, 65V)
Max. Cd. (At 90 Deg. Vert.)	2.3 (0.1%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	633.5 (20.1%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

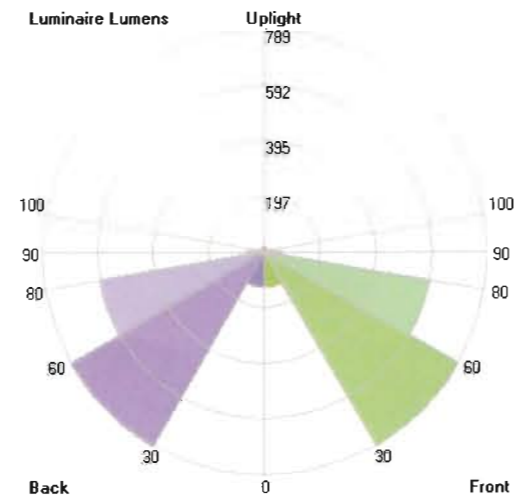
Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	124.8	N.A.	4.0
FM (30-60)	789.1	N.A.	25.1
FH (60-80)	590.9	N.A.	18.8
FVH(80-90)	62.5	N.A.	2.0
BL (0-30)	124.8	N.A.	4.0
BM (30-60)	789.1	N.A.	25.1
BH (60-80)	590.9	N.A.	18.8
BVH(80-90)	62.5	N.A.	2.0
UL (90-100)	0.8	N.A.	0.0
UH (100-180)	12.9	N.A.	0.4
Total	3148.3	N.A.	100.0

BUG Rating B2-U2-G2



Mounting Height = 10 ft. Grid Spacing = 10 ft.



In the interest of product improvement, BEGA reserves the right to make technical changes without notice.

BEGA 1000 Bega Way, Carpinteria, CA 93013 (805)684-0533 Fax (805)566-9474 www.bega-us.com © Copyright BEGA-US 2016

2/24/2016



Project _____
 Location _____
 Cat. No. _____
 Type _____
 Qty _____
 Notes _____

Philips Gardco PureForm luminaires combine LED performance excellence and advanced LED thermal management technology with a distinct purity of style to provide outdoor area lighting that is both energy efficient and aesthetically pleasing. PureForm is defined by its high performance, sleek low profile design and rugged construction.

Ordering guide

example: P21-APD-A1-1-5M-130LA-NW-120-NP-PCB

Prefix	Controls	Arm	Mounting	Optical System*	Wattage	Color Temp	Voltage	Finish	Options
P21									
P21- PureForm 21" fixture	Standard luminaire DIM 0-10V Dimming APD ¹ Automatic Profile Dimming APD-MRO ² APD with Motion Response Override pole mounted sensor APD-MRI ³ APD with Motion Response Override luminaire mounted sensor MRI ⁴ Motion Response at 50% low, luminaire mount sensor MRI ⁵ Motion Response at 50% low, pole mounted sensor MR50 ⁶ Motion Response at 50% low, pole mounted sensor Wireless Controls (Remote wireless controller available. See p 2 for details) LLC2 ^{7,8} #2 lens for 8" mounting heights LLC3 ^{7,8} #3 lens for 9-20" mounting heights LLC4 ^{7,8} #4 lens for 21-40" mounting heights	A1 ⁹ Standard 9" Arm A2 ⁹ Short 5" Arm A3 ⁹ Decorative Arm MA Mast Arm (requires 2 1/2" O.D Mast Arm)	1 Standard 2 2@180 3 2@90 4 2@90 W Wall Mount WS ¹⁰ Wall mount including surface conduit rear entry permitted	Standard 2 Type 2 3 Type 3 4 Type 4 5M Type 5 Medium SW Type 5 Wide 2BL Type 2 with backlight (less shield) LCL ¹¹ LEED Corner Cutoff Optics LCR ¹¹ LEED Corner Cutoff Optics Optics Rotated Left (90°) ¹² 2-90 Type 2 3-90 Type 3 4-90 Type 4 BLC-90 Backlight Ctrl 2BL-90 Type 2 with backlight (less shield) Optic Rotated Right (270°) ¹³ 2-270 Type 2 3-270 Type 3 4-270 Type 4 BLC-270 Backlight Ctrl 2BL-270 Type 2 with backlight (less shield)	350 mA 55LA 70LA 90LA 530 mA 80LA 105LA 130LA 640 mA 165LA ¹⁴ 700 mA 110LA 140LA 180LA 800 mA 200LA ¹⁵	CW Cool White 5,700K 70CRI (nominal) NW Neutral White 4,000K 70CRI (nominal) WW Warm White 3,000K 80CRI (nominal) 200LA ¹⁵	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V UNV 120-277V 50hz/60hz HVV 347-480V 50hz/60hz	BRP Bronze Paint BLP Black Paint WP White Paint NP Natural Paint OC Optional Color Specify optional color or RAL (ex. OC-LGP or OC-RAL7024) SC Special color Specify, must supply color chip Requires factory quote	TL Tool-Less entry and driver removal hardware TB Terminal Block F ¹⁶ Fusing LF In-Line/In-Pole Fusing PC ^{17,18} Photocell (Includes PCRS) PCB ^{17,18} Photocell Button PCRS ^{17,18} Photocell Receptacle only with 2 dimming connections PCR7 ^{17,18} Photocell Receptacle only with 2 dimming and 2 auxiliary connections EHHS External Houseside Shield PTF2 Pole Top Filter for 2 1/2" - 3" Tenon PTF3 Pole Top Filter for 3" - 3 1/2" Tenon PTF4 Pole Top Filter for 3 1/2" - 4" Tenon SPA1-2 Square Pole Adapter for use with A1 or A2 Arms SPA3 ¹⁹ Square Pole Adapter for use with A3 Arms DL ²⁰ Diffusing Lens CLR ²⁰ Clear Glass Lens POLY ²⁰ Polycarbonate Lens (1 year warranty on lens) BD Bird Deterrent Spike Kit - consist of 25 injection molded plastic bird deterrent spikes (field installed only)

- Available 120-277V only (UNV, 120, 208, 240 & 277).
- Available 120V or 277V only. MR50 and APD-MRO require one motion sensor per pole, ordered separately. See page 2 for Accessories.
- Available 120V or 277V only. Wattages 180LA and 200LA require outboard sensor enclosure mounted to the arm of the luminaire (A1 arm only).
- Not available with A3 Arm Style.
- LLC2/LLC3/LLC4 wireless controls not configurable with PC/PCB/PCRS/PCR7 Options. See pages 6-7 for more info.
- Arm Styles mount to a round pole with no adapter. If mounting to a square pole, specify Square Pole Adapter option: SPA1-2 for A1/A2 arms, or SPA3 for A3 arms.
- Available with A1 or A2 Arms only. Not available in P21-MR50, or P21-APD-MRO.
- Luminaire door frame and optic assembly provided standard without glass lens. Specify CLR option for clear glass lens.
- Available with 130LA or 200LA only.
- See page 8-9 for information on optical rotation prior to ordering.
- 200LA and 165LA not available in 347V or 480V.
- Available with A1 arm or with MA mounting only. Provide specific input voltage.
- Not configurable with 480V. Voltage must be specified.
- Works with 3-pin or 5-pin NEMA photocell/dimming device.
- If ordered with DIM, APD, MRI, MR50, APD-MRI, APD-MRO, dimming will not be connected to NEMA receptacle.
- Works with 3-pin or 5-pin NEMA photocell/dimming device and auxiliary connections are not connected (for future use only).
- Option reduces performance.

P21 PureForm LED area luminaire

21" housing

PureForm Accessories (order separately)

MS-A-120V

120V Input Area Motion Sensor

For MR50 (Motion Response) or APD-MRO (Automatic Profile Dimming with Motion Response Override)

MS-A-277V

277V Input Area Motion Sensor

For MR50 (Motion Response) or APD-MRO (Automatic Profile Dimming with Motion Response Override)

Note: Motion Sensors are ordered separately, with one (1) motion sensor required per pole location for MR50 or APD-MRO luminaires. See Luminaire Configuration Information on page 5 for more details. Area motion sensor color is Arctic White. MR50 and APD-MRO luminaires include an integral motion sensor.

PureForm Wireless Controls Accessories (for wall or pole mount)^{1,2,3,4}

LLCR2-(F)

Standalone wall or pole wireless controller with #2 Lens.

LLCR3-(F)

Standalone wall or pole wireless controller with #3 Lens.

LLCR4-(F)

Standalone wall or pole wireless controller with #4 Lens.

- When using the wireless remote accessory option (LLCR-F) in a pole mount application, specify pole option (CU-Coupling Internal Thread, 3/4" size)
- 120-277V only
- Must specify finish (F-Specify matching finish)
- Luminaire configuration must include 0-10V Dimming 'P21-DIM' option when Wireless Controls Accessories are specified

LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Type 2				Type 2BL				Type 3			
				Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating
55LA	48	350	4000K	54	5,327	99	B1-U0-G1	54	5,981	111	B3-U0-G3	54	5,330	98	B1-U0-G1
70LA	64	350	4000K	69	7,350	107	B1-U0-G1	69	8,252	120	B3-U0-G3	69	7,354	107	B1-U0-G2
90LA	80	350	4000K	88	9,370	106	B1-U0-G2	89	10,521	119	B3-U0-G3	89	9,375	106	B1-U0-G2
80LA	48	530	4000K	78	7,656	98	B1-U0-G2	79	8,596	109	B3-U0-G3	79	7,660	97	B1-U0-G2
105LA	64	530	4000K	103	10,521	102	B1-U0-G2	103	11,814	114	B3-U0-G3	103	10,527	102	B1-U0-G2
130LA	80	530	4000K	127	13,490	106	B1-U0-G2	128	15,147	118	B4-U0-G4	128	13,498	105	B1-U0-G2
165LA	80	640	4000K	162	15,651	97	B2-U0-G2	162	17,425	107	B4-U0-G4	162	15,691	97	B1-U0-G2
110LA	48	700	4000K	108	9,735	90	B1-U0-G2	108	10,931	101	B3-U0-G3	108	9,740	90	B1-U0-G2
140LA	64	700	4000K	137	13,287	97	B2-U0-G2	138	14,918	108	B4-U0-G4	138	13,294	96	B1-U0-G2
180LA	80	700	4000K	176	16,723	95	B2-U0-G2	177	18,777	106	B4-U0-G4	177	16,732	94	B2-U0-G3
200LA	80	800	4000K	205	18,514	90	B2-U0-G2	206	20,788	101	B4-U0-G4	206	18,524	90	B2-U0-G3

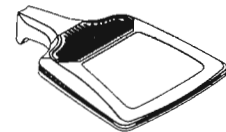
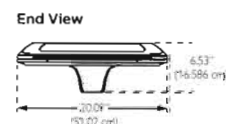
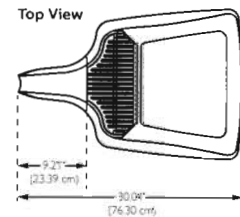
Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Type 4				Type 5M				Type 5W			
				Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating
55LA	48	350	4000K	54	5,279	98	B1-U0-G1	54	6,059	112	B3-U0-G3	53	6,506	122	B3-U0-G1
70LA	64	350	4000K	69	7,284	106	B1-U0-G2	69	8,360	122	B3-U0-G1	70	8,966	128	B3-U0-G2
90LA	80	350	4000K	88	9,286	105	B1-U0-G2	88	10,657	121	B3-U0-G1	86	11,437	133	B4-U0-G2
80LA	48	530	4000K	78	7,588	97	B1-U0-G2	79	8,708	111	B3-U0-G1	82	9,341	115	B3-U0-G2
105LA	64	530	4000K	103	10,428	101	B1-U0-G2	103	11,967	116	B3-U0-G1	108	12,839	119	B4-U0-G2
130LA	80	530	4000K	127	13,370	105	B1-U0-G2	128	15,344	120	B3-U0-G1	134	16,470	123	B4-U0-G2
165LA	80	640	4000K	162	15,389	90	B1-U0-G2	162	17,663	109	B4-U0-G1	164	19,319	118	B4-U0-G2
110LA	48	700	4000K	108	9,648	96	B1-U0-G2	108	11,073	102	B3-U0-G1	110	12,115	108	B4-U0-G2
140LA	64	700	4000K	137	13,168	94	B1-U0-G2	138	15,112	110	B4-U0-G1	146	16,272	110	B4-U0-G2
180LA	80	700	4000K	176	16,574	95	B2-U0-G2	177	19,021	108	B4-U0-G1	179	20,401	114	B5-U0-G3
200LA	80	800	4000K	206	18,349	89	B2-U0-G3	206	21,058	102	B4-U0-G2	206	22,079	106	B5-U0-G3

- Wattage and lumen output may vary by +/- 8% due to LED manufacturer forward volt specification and ambient temperature. Wattage shown is average for 120V through 277V input. Actual wattage may vary by an additional +/- 10% due to actual input voltage.
- Lumen values based on photometric tests performed in compliance with IESNA LM-79.

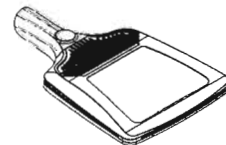
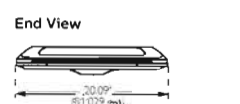
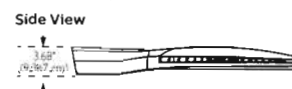
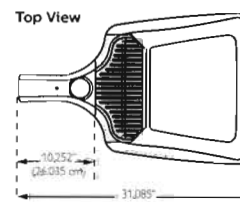
P21 PureForm LED area luminaire

21" housing

Dimensions – Standard Arm (A1)

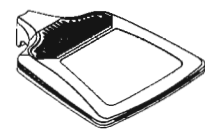
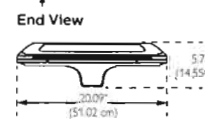
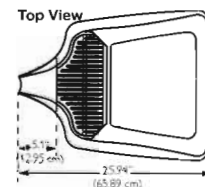


Dimensions – Mast Arm (MA)

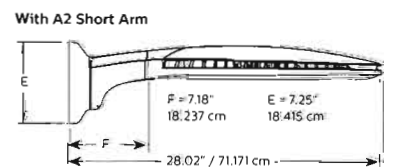
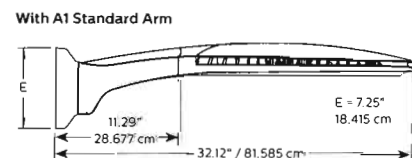


PureForm_P21_LED 03/16 page 3 of 9

Dimensions – Short Arm (A2)



Dimensions – Wall Mount



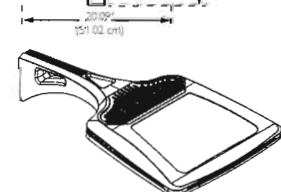
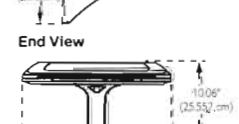
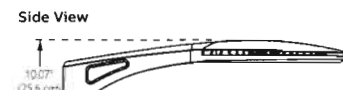
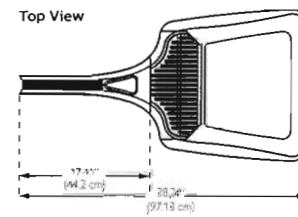
Single Luminaire Weight

Mounting	Approx. Weight
A1	38 lbs / 17.237 kg
A2	37 lbs / 16.783 kg
A3	41.5 lbs / 18.824 kg
MA	38 lbs / 17.237 kg
W or WS	39 lbs / 17.69 kg

Effective Projected Area (ft²/m²)

Mounting	Effective Projected Area (ft ² /m ²)		
	Single	Twin @ 180°	3/4
A1	0.35 / 0.033	0.70 / 0.066	1.25 / 0.117
A2	0.30 / 0.028	0.60 / 0.056	1.10 / 0.103
A3	0.59 / 0.047	1.0 / 0.093	1.70 / 0.158
MA	0.35 / 0.033	N/A	N/A

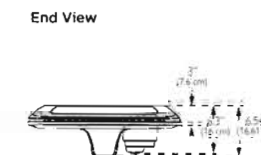
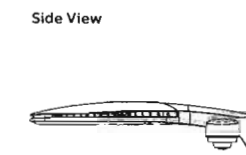
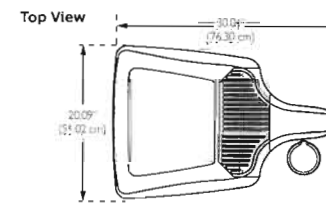
Dimensions – Decorative Arm (A3)



P21 PureForm LED area luminaire

21" housing

Dimensions – PureForm with wireless controls (luminaire mounted controller)



Luminaire Configuration Information

P21

Philips Gardco PureForm LED standard luminaire providing constant wattage and constant light output when power to the luminaire is energized.

P21-DIM

Philips Gardco PureForm LED luminaires provided with 0-10V dimming for connection to a control system provided by Philips or by others.

P21-APD

Philips Gardco PureForm LED luminaire with Automatic Profile Dimming. Luminaire is provided with a programmable LED Driver, programmed to go to 50% power, 50% light output two (2) hours prior to night time mid-point and remain at 50% for six (6) hours after night time mid-point. Mid-point is continuously recalculated by the programmable LED Driver based on the average mid-point of the last two full night cycles. Shift duration cycles, and power interruptions are ignored and do not affect the determination of mid-point.

P21-APD is available in 120V - 277V input only.

P21-APD Dimming Profile:

100%	2 hours	6 hours	100%
100%	50%	50%	100%

Power On Mid Point Power Off

The P21-APD offers many of the advantages of a sophisticated control system, including an average energy savings of at least 33% versus constant wattage, constant light output systems, without the need for a control system.

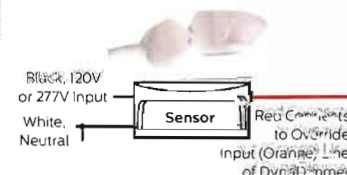
P21-MR50

Philips Gardco PureForm LED luminaires with motion response, providing a 50% power reduction on low and a commensurate reduction in light output. The power and light output reduction is accomplished utilizing the Philips DynaDimmer module, programmed for a constant 50% power. Power supplied by the motion sensor connected to the override line on the DynaDimmer takes the luminaires to high setting, 100% power and light output, when motion is detected. The luminaire remains on high until no motion is detected for the motion sensor duration period, after which the luminaire returns to low. Duration period is factory set at 15 minutes, and is field adjustable from 5 minutes up to 15 minutes.

This configuration is not available for use with wall mounted luminaires.

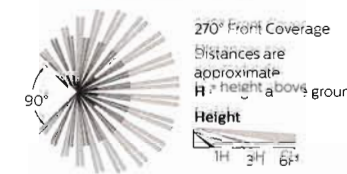
P21-MR50 is available in 120V-277V input only to the luminaire. Motion sensors require single voltage 120V or 277V input.

The Area PIR motion sensor is the WattStopper EW-200-120-W (120V input - MSA-120V) or the WattStopper EW-200-277-W (277V input - MSA-277V). One motion sensor per pole is required and is ordered separately. Area sensors require single voltage 120V or 277V input.



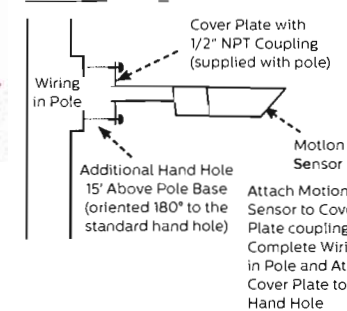
The area motion detector provides coverage equal to up to 6 times the sensor height above ground, 270° front from the center of the sensor.

Area PIR Motion Sensor Coverage Pattern:



Motion response requires that the pole include an additional hand hole 15 feet above the pole base, normally oriented 180° to the standard hand hole. For Philips Gardco poles, order the pole with the Motion Sensor Mounting (MSM) option which includes the hand hole and a special hand hole cover plate for the sensor with a 1/2" NPT receptacle mounted on the hand hole cover plate into which the motion sensor mounts. Once the motion sensor is connected to the hand hole cover plate, then wiring connections are completed in the pole. The plate (complete with motion sensor attached and wiring) is then mounted to the hand hole. If poles are supplied by others, the customer is responsible for providing suitable mounting accommodations for the motion sensor in the pole.

Mounting to a Philips Gardco Pole:



PureForm_P21_LED 03/16 page 4 of 9

P21 PureForm LED area luminaire

21" housing

Specifications

Housing

The PureForm features a die cast aluminum housing, and mounts directly to a pole or wall. The low profile rounded form reduces the effective projected area of the luminaire significantly. PureForm luminaires supplied with A1, A2 and A3 arms are provided with arms firmly attached to the main luminaire housing body. As a result, the luminaires provide the functionality, strength and installation ease of an integral arm luminaire. Mast arm mount luminaires are provided with the mast arm mounting assembly firmly attached to the main luminaire housing body.

IP Rating

PureForm luminaires have a rating of IP66.

Vibration Resistance

PureForm carries a 3G vibration rating that conforms to standards set forth by ANSI C136.31. Testing includes vibration to 3G acceleration in three axes, all performed on the same luminaire.

Electrical

Luminaires are equipped with an LED driver that accepts 120V through 277V, or 347V through 480V, 50hz to 60hz, input. Driver output is based on the LED wattage selected. Component-to-component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600 VAC at 302°F / 150°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher. Power factor is not less than 90%. Luminaire consumes 0.0 watts in the off state. All motion sensors utilized consume 0.0 watts in the off state. Surge protector standard. 10KA per ANSI/IEEE C62.41.2.

LED Performance

Predicted Lumen Depreciation Data ¹				
Ambient Temperature °C	Driver (mA)	Calculated L ₇₀ Hours ^{1,2}	L ₇₀ Per TM-21 ^{2,3}	Lumen Maintenance % @ 60,000 hours
Up to 40 °C	Up to 800mA	> 154,000 Hours	> 51,400 Hours	91%

1. Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.
2. L₇₀ is the predicted time when LED performance depreciates to 70% of initial lumen output
3. Calculated per IESNA TM21-11. Published L₇₀ hours limited to 6 times actual LED test hours.

LED Thermal Management

The Philips Gardco PureForm LED provides die cast aluminum integral thermal radiation fins to provide the excellent thermal management so critical to long LED system life.

Wireless Controls

The wireless controls system includes: gateway, controller (with wireless radio, motion response, and photocell), and commissioning/training. This intelligent web-based system operates through a high density mesh (HDM) wireless technology. Wireless radios with motion response and photocell sensors are integrated with PureForm luminaires, and enable the fixtures to communicate via the ZigBee protocol. The gateway is a mini computer that connects to the internet, and is located in a secure location. The central database channels communication to and from the gateway, allowing data to be viewed or managed through the web-based graphical user interface (GUI). See pages 6-7 for details and technical information.

Optical Systems

The advanced LED optical systems provide IES Types 2, 3, 4 and 5 distributions, as well as a Backlight Control optic. Special LEED corner cutoff optics are also available, both as LCR (right) and LCL (left). All optical systems feature unitized lens optic construction.

Types 2, 3, 4, BLC and LCR/LCL optical systems utilize an innovative redirecting reflector to complement the performance of the LED optic. The redirecting reflector system utilizes 95% specular reflective material to maximize reflected light forward. Reflector facets minimize aperture brightness when viewed from the rear of the luminaire.

PureForm luminaires are provided standard without a glass lens, for maximized performance. A glass lens is available as an option, resulting in reduced performance. All PureForm luminaires provide full cutoff performance.

Listings

All luminaires bear UL or CUL (where applicable) Wet Location labels. PureForm LED P21 luminaires (with the exception of 55LA at 277V) are DesignLights Consortium qualified.

Finish

Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidyl isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include bronze (BRP), black (BLP), white (WP), and natural aluminum (NP). Consult factory for specs on optional or custom colors.

Warranty

Philips Gardco luminaires feature a 5 year limited warranty. Philips Gardco LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED Drivers also carry a 5 year limited warranty. Motion sensors are covered by warranty for 5 years by the motion sensor manufacturer. See Warranty information on www.sitelighting.com for complete details and exclusions. Polycarbonate lenses carry a 1 year warranty.

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Philips Lighting North America Corporation
200 Franklin Square Drive, Somerset, NJ 08873
Tel. 855-486-2216

Philips Lighting Canada Ltd.
281 Hillmount Rd, Markham, ON, Canada L6C 2S3
Tel. 800-668-9008

PureForm_P21_LED 03/16 page 9 of 9



Project: _____
 Location: _____
 Cat. No.: _____
 Type: _____
 Qty: _____
 Notes: _____

Philips Gardco PureForm luminaires combine LED performance excellence and advanced LED thermal management technology with a distinct purity of style to provide outdoor area lighting that is both energy efficient and aesthetically pleasing. PureForm is defined by its high performance, sleek low profile design and rugged construction.

Ordering guide

example: P21-APD-A1-1-5M-130LA-NW-120-NP-PCB

Prefix	Controls	Arm	Mounting	Optical System*	Wattage	Color Temp	Voltage	Finish	Options
P21									
P21-	Standard luminaire	A1 ¹ Standard 9" Arm	1 Standard	Standard Optic Position	350 mA	CW Cool White 5,700K	120V	BRP Bronze Paint	TL Tool-Less entry and driver removal hardware
	DIM 0-10V Dimming	A2 ¹ Short 5" Arm	2 2@180	2 Type 2	55LA	70LA 70CRI (nominal)	208V	BLP Black Paint	TB Terminal Block
	APD ² Automatic Profile Dimming	A3 ¹ Decorative Arm	3 2@90	3 Type 3	90LA	105LA 4,000K 70CRI (nominal)	208V	WP White Paint	F ¹³ Fusing
	APD-MRO ² APD with Motion Response Override	MA Mast Arm Filter (requires 2 1/2" O.D. Mast Arm)	3 3@90	4 Type 4	530 mA	130LA 4,000K 70CRI (nominal)	240V	NP Natural Paint	LF In-Line/In-Pole Fusing
	APD-MRI ² APD with Motion Response Override (luminaire mounted sensor)		4 4@90	5M Type 5 Medium	700 mA	165LA ⁸ 4,000K 80CRI (nominal)	240V	OC Optional Color Specify optional color or RAL (ex. OC-LGP or OC-RAL7024)	PC ^{4,5,9} Receptacle with Photocell (includes PCH5)
	MRI ¹ Motion Response at 50% low, luminaire mount sensor		W Wall Mount	2BL Type 2 with backlight (less shield)	640 mA	180LA 4,000K 80CRI (nominal)	277V	SC Special color Specify, must supply color chip (Requires factory quote)	PCB ^{13,9} Photocell Button
	MR50 ² Motion Response at 50% low, pole mounted sensor		WS ⁷ Wall mount including surface conduit rear entry permitted	LCL ⁸ LEED Corner Cutoff Optics	800 mA	200LA ⁹	347V		PCRS ^{13,14} Photocell Receptacle only with 2 dimming connections
	Wireless Controls (Remote wireless controller available. See p. 2 for details)			LCR ⁹ LEED Corner Cutoff Optics					PCR7 ^{13,9} Photocell Receptacle only with 2 dimming and 2 auxiliary connections
	LLC2 ^{4,5} #2 lens for 8' mounting heights			Optics Rotated Left (90°) ¹⁰					EHHS External Houseside Shield
	LLC3 ^{4,5} #3 lens for 9-20' mounting heights			2-90 Type 2					PTF2 Pole Top Fitter for 2 1/2"-3" Tenon
	LLC4 ^{4,5} #4 lens for 21-40' mounting heights			3-90 Type 3					PTF3 Pole Top Fitter for 3"-3 1/2" Tenon
				4-90 Type 4					PTF4 Pole Top Fitter for 3 1/2"-4" Tenon
				BLC-90 Backlight Ctrl					SPA1-2 Square Pole Adapter for use with A1 or A2 Arms
				2BL-90 Type 2 with backlight (less shield)					SPA3 Square Pole Adapter for use with A3 Arms
				Optic Rotated Right (270°) ¹¹					DL ¹⁷ Diffusing Lens
				2-270 Type 2					CLR ¹⁸ Clear Glass Lens
				3-270 Type 3					POLY ¹⁹ Polycarbonate Lens (1 year warranty on lens)
				4-270 Type 4					BD Bird Deterrent Spike Kit - consist of 25 injection molded plastic bird deterrent spikes (field installed only)
				BLC-270 Backlight Ctrl					
				2BL-270 Type 2 with backlight (less shield)					

- Available 120-277V only (UNV, 120, 208, 240 & 277).
- Available 120V or 277V only. MR50 and APD-MRO require one motion sensor per pole, ordered separately. See page 2 for Accessories.
- Available 120V or 277V only. Wattages 180LA and 200LA require outboard sensor enclosure mounted to the arm of the luminaire (A1 arm only).
- Not available with A3 Arm Style.
- LLC2/LLC3/LLC4 wireless controls not configurable with PC/PCB/PCRS/PCR7 Options. See pages 6-7 for more info.
- Arm Styles mount to a round pole with no adapter. If mounting to a square pole, specify Square Pole Adapter option: SPA1-2 for A1/A2 arms, or SPA3 for A3 arms.
- Available with A1 or A2 Arms only. Not available in P21-MR50, or P21-APD-MRO.
- Luminaire door frame and optic assembly provided standard without glass lens. Specify CLR option for clear glass lens.
- Available with 130LA or 200LA only.
- See page 8-9 for information on optical rotation prior to ordering.
- 200LA and 165LA not available in 347V or 480V.
- Available with A1 arm or with MA mounting only. Provide specific input voltage.
- Not configurable with 480V. Voltage must be specified.
- Works with 3-pin or 5-pin NEMA photocell/dimming device.
- If ordered with DIM, APD, MRI, MR50, APD-MRI, APD-MRO, dimming will not be connected to NEMA receptacle.
- Works with 3-pin or 5-pin NEMA photocell/dimming device and auxiliary connections are not connected (for future use only).
- Option reduces performance.

P21 PureForm LED area luminaire

21" housing

PureForm Accessories (order separately)

MS-A-120V

120V Input Area Motion Sensor

For MR50 (Motion Response) or APD-MRO (Automatic Profile Dimming with Motion Response Override)

MS-A-277V

277V Input Area Motion Sensor

For MR50 (Motion Response) or APD-MRO (Automatic Profile Dimming with Motion Response Override)

Note: Motion Sensors are ordered separately, with one (1) motion sensor required per pole location for MR50 or APD-MRO luminaires. See Luminaire Configuration Information on page 5 for more details. Area motion sensor color is Arctic White. MRI and APD-MRO luminaires include an integral motion sensor.

PureForm Wireless Controls Accessories (for wall or pole mount)^{1,2,3,4}

LLCR2-(F)

Standalone wall or pole wireless controller with #2 Lens.

LLCR3-(F)

Standalone wall or pole wireless controller with #3 Lens.

LLCR4-(F)

Standalone wall or pole wireless controller with #4 Lens.

- When using the wireless remote accessory option (LLCR-F) in a pole mount application, specify pole option (CL-Coupling, Internal Thread, 3/4" size)
- 120-277V only
- Must specify finish (F-Specify matching finish)
- Luminaire configuration must include 0-10V Dimming 'P21-DIM' option when Wireless Controls Accessories are specified

LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Type 2				Type 2BL				Type 3			
				Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating
55LA	48	350	4000K	54	5,327	99	B1-U0-G1	54	5,981	111	B3-U0-G3	54	5,330	98	B1-U0-G1
70LA	64	350	4000K	69	7,350	107	B1-U0-G1	69	8,252	120	B3-U0-G3	69	7,354	107	B1-U0-G2
90LA	80	350	4000K	88	9,370	106	B1-U0-G2	89	10,521	119	B3-U0-G3	89	9,375	106	B1-U0-G2
80LA	48	530	4000K	78	7,656	98	B1-U0-G2	79	8,596	109	B3-U0-G3	79	7,660	97	B1-U0-G2
105LA	64	530	4000K	103	10,521	102	B1-U0-G2	103	11,814	114	B3-U0-G3	103	10,527	102	B1-U0-G2
130LA	80	530	4000K	127	13,490	106	B1-U0-G2	128	15,147	118	B4-U0-G4	128	13,498	105	B1-U0-G2
165LA	80	640	4000K	162	15,651	97	B2-U0-G2	162	17,425	107	B4-U0-G4	162	15,691	97	B1-U0-G2
110LA	48	700	4000K	108	9,735	90	B1-U0-G2	108	10,931	101	B3-U0-G3	108	9,740	90	B1-U0-G2
140LA	64	700	4000K	137	13,287	97	B2-U0-G2	138	14,918	108	B4-U0-G4	138	13,294	96	B1-U0-G2
180LA	80	700	4000K	176	16,723	95	B2-U0-G2	177	18,777	106	B4-U0-G4	177	16,732	94	B2-U0-G3
200LA	80	800	4000K	205	18,514	90	B2-U0-G2	206	20,788	101	B4-U0-G4	206	18,524	90	B2-U0-G3

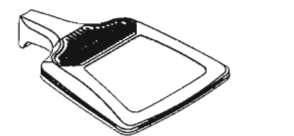
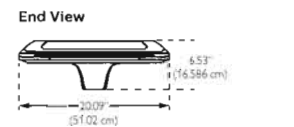
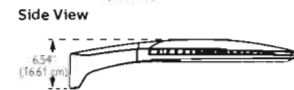
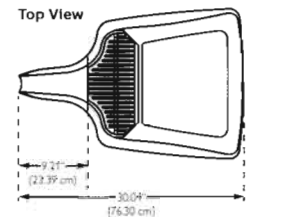
Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Type 4				Type 5M				Type 5W			
				Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating
55LA	48	350	4000K	54	5,279	98	B1-U0-G1	54	6,059	112	B2-U0-G0	53	6,506	122	B3-U0-G1
70LA	64	350	4000K	69	7,284	106	B1-U0-G2	69	8,360	122	B3-U0-G1	70	8,966	128	B3-U0-G2
90LA	80	350	4000K	88	9,286	105	B1-U0-G2	88	10,657	121	B3-U0-G1	86	11,437	133	B4-U0-G2
80LA	48	530	4000K	78	7,588	97	B1-U0-G2	79	8,708	111	B3-U0-G1	82	9,341	115	B3-U0-G2
105LA	64	530	4000K	103	10,428	101	B1-U0-G2	103	11,967	116	B3-U0-G1	108	12,839	119	B4-U0-G2
130LA	80	530	4000K	127	13,370	105	B1-U0-G2	128	15,344	120	B3-U0-G1	134	16,470	123	B4-U0-G2
165LA	80	640	4000K	162	15,389	90	B1-U0-G2	162	17,663	109	B4-U0-G1	164	19,319	118	B4-U0-G2
110LA	48	700	4000K	108	9,648	96	B1-U0-G2	108	11,073	102	B3-U0-G1	110	12,115	108	B4-U0-G2
140LA	64	700	4000K	137	13,168	94	B1-U0-G2	138	15,112	110	B4-U0-G1	146	16,272	110	B4-U0-G2
180LA	80	700	4000K	176	16,574	95	B2-U0-G2	177	19,021	108	B4-U0-G1	179	20,401	114	B5-U0-G3
200LA	80	800	4000K	206	18,349	89	B2-U0-G3	206	21,058	102	B4-U0-G2	206	22,079	106	B5-U0-G3

- Wattage and lumen output may vary by +/- 8% due to LED manufacturer forward volt specification and ambient temperature. Wattage shown is average for 120V through 277V input. Actual wattage may vary by an additional +/- 10% due to actual input voltage.
- Lumen values based on photometric tests performed in compliance with IESNA LM-79.

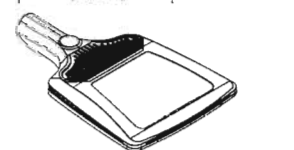
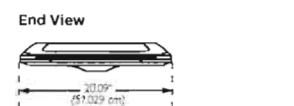
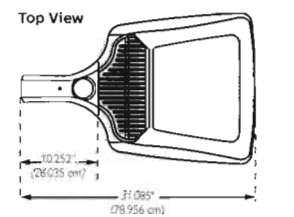
P21 PureForm LED area luminaire

21" housing

Dimensions – Standard Arm (A1)

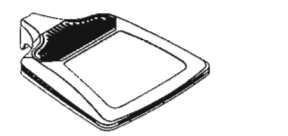
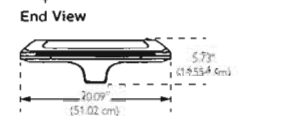
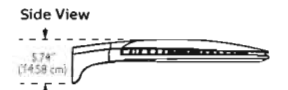
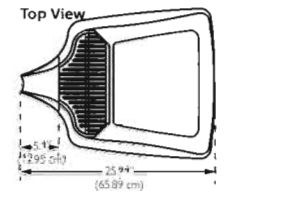


Dimensions – Mast Arm (MA)

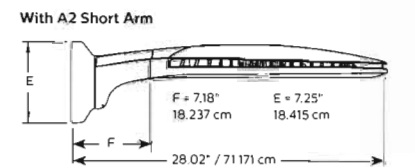
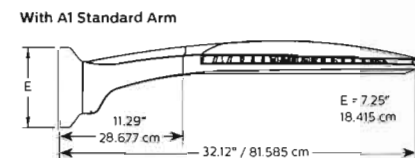


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Dimensions – Short Arm (A2)



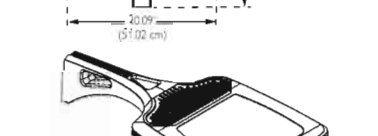
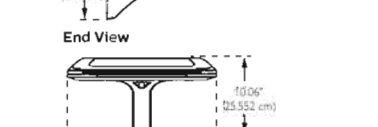
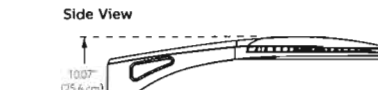
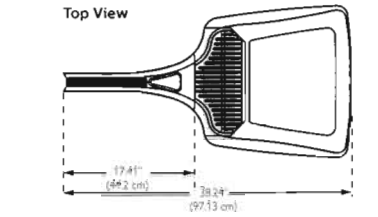
Dimensions – Wall Mount



Single Luminaire Weight

Mounting	Approx. Weight
A1	38 lbs / 17.237 kg
A2	37 lbs / 16.783 kg
A3	41.5 lbs / 18.824 kg
MA	38 lbs / 17.237 kg
W or WS	39 lbs / 17.69 kg

Dimensions – Decorative Arm (A3)



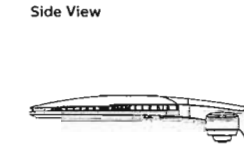
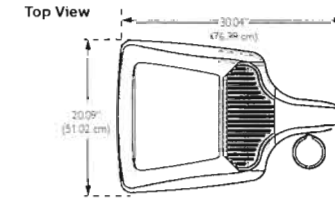
Effective Projected Area (ft²/m²)

Mounting	Effective Projected Area (ft ² /m ²)		
	Single	Twin @ 180	3/4
A1	0.35 / 0.033	0.70 / 0.066	1.25 / 0.117
A2	0.30 / 0.028	0.60 / 0.056	1.10 / 0.103
A3	0.50 / 0.041	1.0 / 0.093	1.70 / 0.158
MA	0.35 / 0.033	N/A	N/A

P21 PureForm LED area luminaire

21" housing

Dimensions – PureForm with wireless controls (luminaire mounted controller)



Luminaire Configuration information

P21
Philips Gardco PureForm LED standard luminaire providing constant wattage and constant light output when power to the luminaire is energized.

P21-DIM
Philips Gardco PureForm LED luminaire provided with 0-10V dimming for connection to a control system provided by Philips or by others.

P21-APD
Philips Gardco PureForm LED luminaire with Automatic Profile Dimming. Luminaire is provided with a programmable LED driver, programmed to go to 50% power, 50% light output two (2) hours prior to night time mid-point and remain at 50% for six (6) hours after night time mid-point. Mid-point is continuously recalculated by the programmable LED driver based on the average mid-point of the last two full night cycles. Short duration cycles and power interruptions are ignored and do not affect the determination of mid-point.

P21-APD is available in 120V – 277V input only.

P21-APD Dimming Profile:

Power On	2 hours	6 hours	Power Off
100%	50%	50%	100%

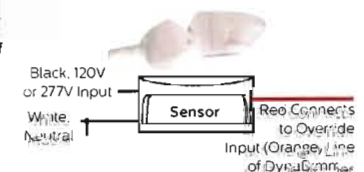
The P21-APD offers many of the advantages of a sophisticated control system, including an average energy savings of at least 33% versus constant wattage, constant light output systems, without the need for a control system.

P21-MR50
Philips Gardco PureForm LED luminaire with motion response, providing a 50% power reduction on low and a commensurate reduction in light output. The power and light output reduction is accomplished utilizing the Philips DynaDimmer module, programmed for a constant 50% power. Power supplied by the motion sensor connected to the override line on the DynaDimmer takes the luminaire to high setting, 100% power and light output, when motion is detected. The luminaire remains on high until no motion is detected for the motion sensor duration period, after which the luminaire returns to low. Duration period is factory set at 15 minutes, and is field adjustable from 5 minutes up to 15 minutes.

This configuration is not available for use with wall mounted luminaires.

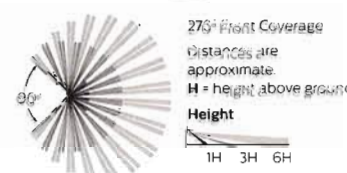
P21-MR50 is available in 120V-277V input only to the luminaire. Motion sensors require single voltage 120V or 277V input.

The Area PIR motion sensor is the WattStopper EW-200-120-W (120V input - MSA-120V) or the WattStopper EW-200-277-W (277V input - MSA-277V). One motion sensor per pole is required and is ordered separately. Area sensors require single voltage 120V or 277V input.



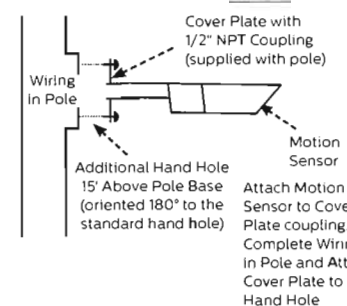
The area motion detector provides coverage equal to 6 times the sensor height above ground, 270° from the front-center of the sensor.

Area PIR Motion Sensor Coverage Pattern:



Motion response requires that the pole include an additional hand hole 15 feet above the pole base, normally oriented 180° to the standard hand hole. For Philips Gardco poles, order the pole with the Motion Sensor Mounting (MSM) option which includes the hand hole and a special hand hole cover plate for the sensor with a 1/2" NPT receptacle centered on the hand hole cover plate into which the motion sensor mounts. Once the motion sensor is connected to the hand hole cover plate, then wiring connections are completed in the pole. The plate (complete with motion sensor attached and wired) is then mounted to the hand hole. If poles are supplied by others, the customer is responsible for providing suitable mounting accommodations for the motion sensor in the pole.

Mounting to a Philips Gardco Pole



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P21 PureForm LED area luminaire

21" housing

Specifications

Housing

The PureForm features a die cast aluminum housing, and mounts directly to a pole or wall. The low profile rounded form reduces the effective projected area of the luminaire significantly. PureForm luminaires supplied with A1, A2 and A3 arms are provided with arms firmly attached to the main luminaire housing body. As a result, the luminaires provide the functionality, strength and installation ease of an integral arm luminaire. Mast arm mount luminaires are provided with the mast arm mounting assembly firmly attached to the main luminaire housing body.

IP Rating

PureForm luminaires have a rating of IP66.

Vibration Resistance

PureForm carries a 3G vibration rating that conforms to standards set forth by ANSI C136.31. Testing includes vibration to 3G acceleration in three axes, all performed on the same luminaire.

Electrical

Luminaires are equipped with an LED driver that accepts 120V through 277V, or 347V through 480V, 50hz to 60hz, input. Driver output is based on the LED wattage selected. Component-to-component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600 VAC at 302°F / 150°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher. Power factor is not less than 90%. Luminaire consumes 0.0 watts in the off state. All motion sensors utilized consume 0.0 watts in the off state. Surge protector standard, 10KA per AN SI/IEEE C62.41.2.

LED Performance

Predicted Lumen Depreciation Data ¹				
Ambient Temperature °C	Driver (mA)	Calculated L ₇₀ Hours ^{2,3}	L ₇₀ Per TM-21 ^{2,3}	Lumen Maintenance % @ 60,000 hours
Up to 40 °C	Up to 800mA	> 154,000 Hours	> 51,400 Hours	91%

1. Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.
2. L₇₀ is the predicted time when LED performance deprecates to 70% of initial lumen output.
3. Calculated per IESNA TM-21-11. Published L₇₀ hours limited to 6 times actual LED test hours.

LED Thermal Management

The Philips Gardco PureForm LED provides die cast aluminum integral thermal radiation fins to provide the excellent thermal management so critical to long LED system life.

Wireless Controls

The wireless controls system includes: gateway, controller (with wireless radio, motion response, and photocell), and commissioning/training. This intelligent web-based system operates through a high density mesh (HDM) wireless technology. Wireless radios with motion response and photocell sensors are integrated with PureForm luminaires, and enable the fixtures to communicate via the ZigBee protocol. The gateway is a mini computer that connects to the internet, and is located in a secure location. The central database channels communication to and from the gateway, allowing data to be viewed or managed through the web-based graphical user interface (GUI). See pages 6-7 for details and technical information.

Optical Systems

The advanced LED optical systems provide IES Types 2, 3, 4 and 5 distributions, as well as a Backlight Control optic. Special LEED corner cutoff optics are also available, both as LCR (right) and LCL (left). All optical systems feature unitized lens optic construction.

Types 2, 3, 4, BLC and LCR/LCL optical systems utilize an innovative redirecting reflector to complement the performance of the LED optic. The redirecting reflector system utilizes 95% specular reflective material to maximize reflected light forward. Reflector facets minimize aperture brightness when viewed from the rear of the luminaire.

PureForm luminaires are provided standard without a glass lens, for maximized performance. A glass lens is available as an option, resulting in reduced performance. All PureForm luminaires provide full cutoff performance.

Listings

All luminaires bear UL or CUL (where applicable) Wet Location labels. PureForm LED P21 luminaires (with the exception of 55LA at 277V) are DesignLights Consortium qualified.

Finish

Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidyl isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include bronze (BRP), black (BLP), white (WP), and natural aluminum (NP). Consult factory for specs on optional or custom colors.

Warranty

Philips Gardco luminaires feature a 5 year limited warranty. Philips Gardco LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED Drivers also carry a 5 year limited warranty. Motion sensors are covered by warranty for 5 years by the motion sensor manufacturer. See Warranty Information on www.sitelighting.com for complete details and exclusions. Polycarbonate lenses carry a 1 year warranty.

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Philips Lighting North America Corporation
200 Franklin Square Drive, Somerset, NJ 08873
Tel. 855-486-2216

Philips Lighting Canada Ltd.
281 Hillmount Rd, Markham, ON, Canada L6C 2S3
Tel. 800-668-9008



Project: _____
 Location: _____
 Cat No: _____
 Type: _____
 Qty: _____
 Notes: _____

Philips Gardco PureForm luminaires combine LED performance excellence and advanced LED thermal management technology with a distinct purity of style to provide outdoor area lighting that is both energy efficient and aesthetically pleasing. PureForm is defined by its high performance, sleek low profile design and rugged construction.

Ordering guide

example: P21-APD-A1-1-5M-130LA-NW-120-NP-PCB

Prefix	Controls	Arm	Mounting	Optical System*	Wattage	Color Temp	Voltage	Finish	Options
P21-									
P21-	Standard luminaire DIM 0-10V Dimming APD ² Automatic Profile Dimming APD-MRO ² APD with Motion Response Override pole mounted sensor APD-MRI ¹ APD with Motion Response Override luminaire mounted sensor MRI ¹ Motion Response at 50% low, luminaire mount sensor MR50 ² Motion Response at 50% low, pole mounted sensor Wireless Controls (Remote wireless controller available. See p. 2 for details) LLC2 ^{4,5} #2 lens for 8" mounting heights LLC3 ^{4,5} #3 lens for 9-20" mounting heights LLC4 ^{4,5} #4 lens for 21-40" mounting heights	A1 ¹ Standard 9" Arm A2 ² Short 5" Arm A3 ³ Decorative Arm MA Mast Arm Filter (requires 2 1/4" O.D. Mast Arm) W Wall Mount WS ⁷ Wall mount including surface conduit rear entry permitted	1 Standard 2 2@180 3 2@90 4 2@90 3 3@120 4 4@90 W Wall Mount WS ⁷ Wall mount including surface conduit rear entry permitted	Standard Optic Position 2 Type 2 3 Type 3 4 Type 4 5M Type 5 Medium 5W Type 5 Wide BLC Backlight Ctl 2BL Type 2 with backlight (less shield) LCL ⁸ LEED Corner Cutoff Optics LCR ⁸ LEED Corner Cutoff Optics Optics Rotated Left (90°) ⁹ 2-90 Type 2 3-90 Type 3 4-90 Type 4 BLC-90 Backlight Ctl 2BL-90 Type 2 with backlight (less shield) Optic Rotated Right (270°) ⁹ 2-270 Type 2 3-270 Type 3 4-270 Type 4 BLC-270 Backlight Ctl 2BL-270 Type 2 with backlight (less shield)	350mA 55LA 70LA 90LA 530mA 80LA 105LA 130LA 640mA 165LA ⁸ 700mA 110LA 140LA 180LA 800mA 200LA ⁸	CW Cool White 5,700K 70CRI (nominal) NW Neutral White 4,000K 70CRI (nominal) WW Warm White 3,000K 80CRI (nominal) UNV 120-277V 50hz/60hz HVV 347-480V 50hz/60hz	120V 208V 240V 277V 347V 480V 120-277V 50hz/60hz 347-480V 50hz/60hz	BRP Bronze Paint BLP Black Paint WP White Paint NP Natural Paint OC Optional Color Specify optional color or RAL (ex OC-LGP or OC-RAL7024) SC Special color Specify, must supply color chip. Requires factory quote	TL Tool-Less entry and driver removal hardware TB Terminal Block F ¹⁰ Fusing LF In-Line/In-Pole Fusing PC ^{11,12} Photocell Receptacle with Photocell (includes PCRS) PCB ^{13,14} Photocell Button PCRS ^{15,16} Photocell Receptacle only with 2 dimming connections PCR7 ^{17,18} Photocell Receptacle only with 2 dimming and 2 auxiliary connections EHHS External House/Slide Shield PTF2 Pole Top Filter for 2 1/2" - 3" Tenon PTF3 Pole Top Filter for 3" - 3 1/2" Tenon PTF4 Pole Top Filter for 3 1/2" - 4" Tenon SPA1-2 Square Pole Adapter for use with A1 or A2 Arms SPA3 ¹⁹ Square Pole Adapter for use with A3 Arms DL ¹⁴ Diffusing Lens CLR ¹⁴ Clear Glass Lens POLY ¹⁴ Polycarbonate Lens (1 year warranty on lens) BD Bird Deterrent Spike Kit - consist of 25 injection molded plastic bird deterrent spikes (field installed only)

- Available 120-277V only (UNV, 120, 208, 240 & 277).
- Available 120V or 277V only. MR50 and APD-MRO require one motion sensor per pole, ordered separately. See page 2 for Accessories.
- Available 120V or 277V only. Wattages 180LA and 200LA require outboarded sensor enclosure mounted to the arm of the luminaire (A1 arm only).
- Not available with A3 Arm Style.
- LLC2/LLC3/LLC4 wireless controls not configurable with PC/PCB/PCRS/PCR7 Options. See pages 6-7 for more info.
- Arm Styles mount to a round pole with no adapter. If mounting to a square pole, specify Square Pole Adapter option: SPA1-2 for A1/A2 arms, or SPA3 for A3 arms.
- Available with A1 or A2 Arms only. Not available in P21-MR50, or P21-APD-MRO.
- Luminaire door frame and optic assembly provided standard without glass lens. Specify CLR option for clear glass lens.
- Available with 130LA or 200LA only.
- See page 8-9 for information on optical rotation prior to ordering.
- 200LA and 165LA not available in 347V or 480V.
- Available with A1 arm or with MA mounting only. Provide specific input voltage.
- Not configurable with 480V. Voltage must be specified.
- Works with 3-pin or 5-pin NEMA photocell/dimming device.
- If ordered with DIM, APD, MRI, MR50, APD-MRI, APD-MRO, dimming will not be connected to NEMA receptacle.
- Works with 3-pin or 5-pin NEMA photocell/dimming device and auxiliary connections are not connected (for future use only).
- Option reduces performance.

P21 PureForm LED area luminaire

21" housing

PureForm Accessories (order separately)

MS-A-120V

120V Input Area Motion Sensor

For MR50 (Motion Response) or APD-MRO (Automatic Profile Dimming with Motion Response Override)

MS-A-277V

277V Input Area Motion Sensor

For MR50 (Motion Response) or APD-MRO (Automatic Profile Dimming with Motion Response Override)

Note: Motion Sensors are ordered separately, with one (1) motion sensor required per pole location for MR50 or APD-MRO luminaires. See Luminaires Configuration Information on page 5 for more details. Area motion sensor color is Arctic White. MRI and APD-MRI luminaires include an integral motion sensor.

PureForm Wireless Controls Accessories (for wall or pole mount)^{1,2,3,4}

LLCR2-(F)

Standalone wall or pole wireless controller with #2 Lens.

LLCR3-(F)

Standalone wall or pole wireless controller with #3 Lens.

LLCR4-(F)

Standalone wall or pole wireless controller with #4 Lens.

- When using the wireless remote accessory option (LLCR2-F) in a pole mount application, specify pole option (C) Coupling Internal Thread, 3/4" size.
- 120-277V only.
- Must specify finish (F) Specify matching finish.
- Luminaire configuration must include 0-10V Dimming "P21-DIM" option when Wireless Controls Accessories are specified.

LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Type 2				Type 2BL				Type 3			
				Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating
55LA	48	350	4000K	54	5,327	99	B1-U0-G1	54	5,981	111	B3-U0-G3	54	5,330	98	B1-U0-G1
70LA	64	350	4000K	69	7,350	107	B1-U0-G1	69	8,252	120	B3-U0-G3	69	7,354	107	B1-U0-G2
90LA	80	350	4000K	88	9,370	106	B1-U0-G2	89	10,521	119	B3-U0-G3	89	9,376	106	B1-U0-G2
80LA	48	530	4000K	78	7,656	98	B1-U0-G2	79	8,596	109	B3-U0-G3	79	7,660	97	B1-U0-G2
105LA	64	530	4000K	103	10,521	102	B1-U0-G2	103	11,814	114	B3-U0-G3	103	10,527	102	B1-U0-G2
130LA	80	530	4000K	127	13,490	106	B1-U0-G2	128	15,147	118	B4-U0-G4	128	13,498	105	B1-U0-G2
165LA	80	640	4000K	162	15,651	97	B2-U0-G2	162	17,425	107	B4-U0-G4	162	15,691	97	B1-U0-G2
110LA	48	700	4000K	108	9,735	90	B1-U0-G2	108	10,931	101	B3-U0-G3	108	9,740	90	B1-U0-G2
140LA	64	700	4000K	137	13,287	97	B2-U0-G2	138	14,918	108	B4-U0-G4	138	13,294	96	B1-U0-G2
180LA	80	700	4000K	176	16,723	95	B2-U0-G2	177	18,777	106	B4-U0-G4	177	16,732	94	B2-U0-G3
200LA	80	800	4000K	205	18,514	90	B2-U0-G2	206	20,788	101	B4-U0-G4	206	18,524	90	B2-U0-G3

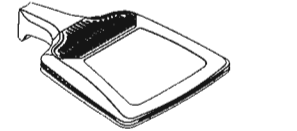
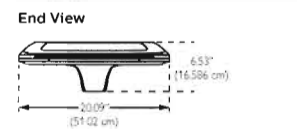
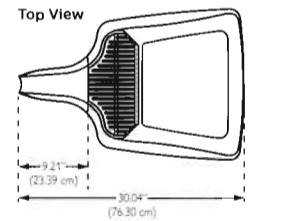
Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Type 4				Type 5M				Type 5W			
				Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating
55LA	48	350	4000K	54	5,279	98	B1-U0-G1	54	6,059	112	B2-U0-G0	53	6,506	122	B3-U0-G1
70LA	64	350	4000K	69	7,284	106	B1-U0-G2	69	8,360	122	B2-U0-G1	76	8,966	128	B3-U0-G2
90LA	80	350	4000K	88	9,286	105	B1-U0-G2	88	10,657	121	B3-U0-G1	86	11,437	133	B4-U0-G2
80LA	48	530	4000K	78	7,588	97	B1-U0-G2	79	8,708	111	B3-U0-G1	82	9,341	115	B3-U0-G2
105LA	64	530	4000K	103	10,428	101	B1-U0-G2	103	11,967	116	B3-U0-G1	108	12,839	119	B4-U0-G2
130LA	80	530	4000K	127	13,370	105	B1-U0-G2	128	15,344	120	B3-U0-G1	134	16,470	123	B4-U0-G2
165LA	80	640	4000K	162	15,389	90	B1-U0-G2	162	17,663	109	B4-U0-G1	164	19,319	118	B4-U0-G2
110LA	48	700	4000K	108	9,648	96	B1-U0-G2	108	11,074	102	B3-U0-G1	110	12,115	108	B4-U0-G2
140LA	64	700	4000K	137	13,168	94	B1-U0-G2	138	15,112	110	B4-U0-G1	146	16,272	110	B4-U0-G2
180LA	80	700	4000K	176	16,574	95	B2-U0-G2	177	19,021	108	B4-U0-G1	179	20,401	114	B5-U0-G3
200LA	80	800	4000K	206	18,349	89	B2-U0-G3	206	21,058	102	B4-U0-G2	206	22,079	106	B5-U0-G3

- Wattage and lumen output may vary by +/- 8% due to LED manufacturer forward volt specification and ambient temperature. Wattage shown is average for 120V through 277V input. Actual wattage may vary by an additional +/- 10% due to actual input voltage.
- Lumen values based on photometric tests performed in compliance with IESNA LM-79.

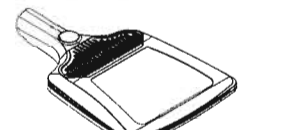
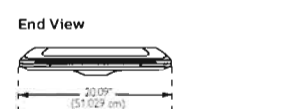
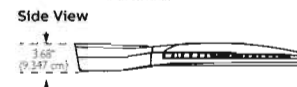
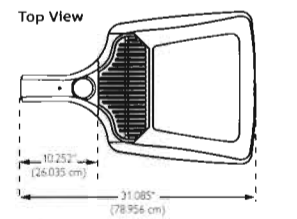
P21 PureForm LED area luminaire

21" housing

Dimensions – Standard Arm (A1)

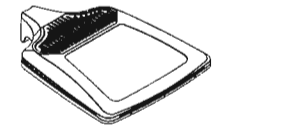
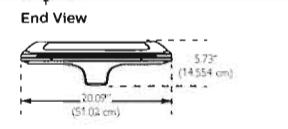
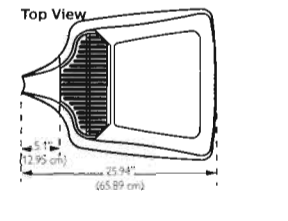


Dimensions – Mast Arm (MA)

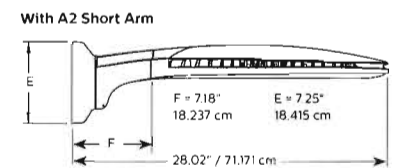
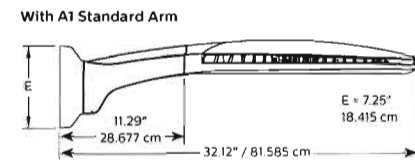


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Dimensions – Short Arm (A2)



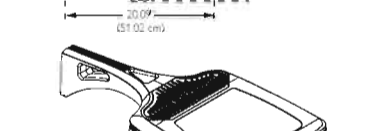
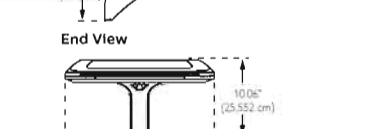
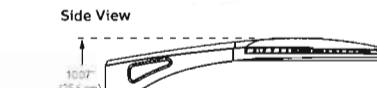
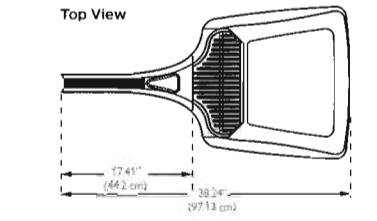
Dimensions – Wall Mount



Single Luminaire Weight

Mounting	Approx. Weight
A1	38 lbs / 17.237 kg
A2	37 lbs / 16.783 kg
A3	41.5 lbs / 18.824 kg
MA	38 lbs / 17.237 kg
W or WS	39 lbs / 17.69 kg

Dimensions – Decorative Arm (A3)



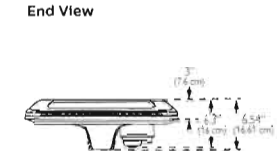
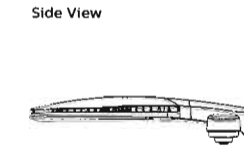
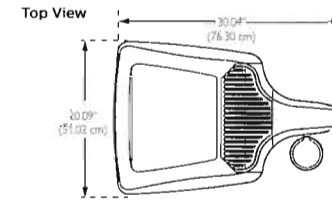
Effective Projected Area (ft²/m²)

Mounting	Single	Twin @ 180	3/4
A1	0.35 / 0.033	0.70 / 0.066	1.25 / 0.117
A2	0.30 / 0.028	0.60 / 0.056	1.10 / 0.103
A3	0.50 / 0.047	1.0 / 0.093	1.70 / 0.158
MA	0.35 / 0.033	N/A	N/A

P21 PureForm LED area luminaire

21" housing

Dimensions – PureForm with wireless controls (luminaire mounted controller)



Luminaire Configuration Information

P21
Philips Gardco PureForm LED standard luminaire providing constant wattage and constant light output when power to the luminaire is energized.

P21-DIM
Philips Gardco PureForm LED luminaire provided with 0-10V dimming for connection to a control system provided by Philips or by others.

P21-APD
Philips Gardco PureForm LED luminaire with Automatic Profile Dimming. Luminaire is provided with a programmable LED Driver, programmed to go to 50% power, 50% light output two (2) hours prior to night time mid-point and remain at 50% for six (6) hours after night mid-point. Mid-point is continuously recalculated by the programmable LED Driver based on the average mid-point of the last two full night cycles. Short duration cycles, and power interruptions are ignored and do not affect the determination of mid-point.

P21-APD is available in 120V – 277V input only.

P21-APD Dimming Profile:

100%	2 hours	6 hours	100%
	50%	50%	

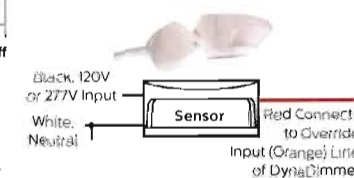
The P21-APD offers many of the advantages of a sophisticated control system, including an average energy savings of at least 33% versus constant wattage, constant light output systems, without the need for a control system.

P21-MR50
Philips Gardco PureForm LED luminaire with motion response, providing a 50% power reduction on low and a commensurate reduction in light output. The power and light output reduction is accomplished utilizing the Philips DynaDimmer module, programmed for a constant 50% power. Power supplied by the motion sensor connected to the override line on the DynaDimmer takes the luminaire to high setting, 100% power and light output, when motion is detected. The luminaire remains on high until no motion is detected for the motion sensor duration period, after which the luminaire returns to low. Duration period is factory set at 15 minutes, and is field adjustable from 5 minutes up to 15 minutes.

This configuration is not available for use with wall mounted luminaires.

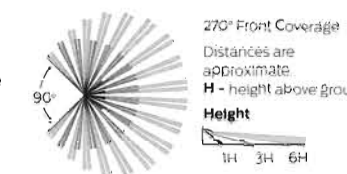
P21-MR50 is available in 120V–277V input only to the luminaire. Motion sensors require single voltage 120V or 277V input.

The Area PIR motion sensor is the WattStopper EW-200-120-W (120V input – MSA-120V) or the WattStopper EW-200-277-W (277V input – MSA-277V). One motion sensor per pole is required, and is ordered separately. Area sensors require single voltage 120V or 277V input.



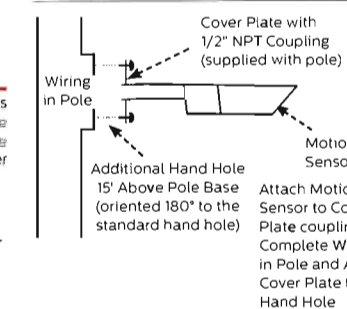
The area motion detector provides coverage equal to up to 6 times the sensor height above ground, 270° from the front-center of the sensor.

Area PIR Motion Sensor Coverage Pattern:



Motion response requires that the pole include an additional hand hole 15 feet above the pole base, normally oriented 180° to the standard hand hole. For Philips Gardco poles, order the pole with the Motion Sensor Mounting (MSM) option which includes the hand hole and a special hand hole cover plate for the sensor with a 1/2" NPT receptacle centered on the hand hole cover plate into which the motion sensor mounts. Once the motion sensor is connected to the hand hole cover plate, then wiring connections are completed in the pole. The plate (complete with motion sensor attached and wired) is then mounted to the hand hole. If poles are supplied by others, the customer is responsible for providing suitable mounting accommodations for the motion sensor in the pole.

Mounting to a Philips Gardco Pole:



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P21 PureForm LED area luminaire

21" housing

Specifications

Housing

The PureForm features a die cast aluminum housing, and mounts directly to a pole or wall. The low profile rounded form reduces the effective projected area of the luminaire significantly. PureForm luminaires supplied with A1, A2 and A3 arms are provided with arms firmly attached to the main luminaire housing body. As a result, the luminaires provide the functionality, strength and installation ease of an integral arm luminaire. Mast arm mount luminaires are provided with the mast arm mounting assembly firmly attached to the main luminaire housing body.

IP Rating

PureForm luminaires have a rating of IP66.

Vibration Resistance

PureForm carries a 3G vibration rating that conforms to standards set forth by ANSI C136.31. Testing includes vibration to 3G acceleration in three axes, all performed on the same luminaire.

Electrical

Luminaires are equipped with an LED driver that accepts 120V through 277V, or 347V through 480V, 50hz to 60hz, input. Driver output is based on the LED wattage selected. Component-to-component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600 VAC at 302°F / 150°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher. Power factor is not less than 90%. Luminaire consumes 0.0 watts in the off state. All motion sensors utilized consume 0.0 watts in the off state. Surge protector standard. 10KA per AN SI/IEEE C62.41.2.

LED Performance

Predicted Lumen Depreciation Data ¹				
Ambient Temperature °C	Driver (mA)	Calculated L ₇₀ Hours ^{1,2}	L ₇₀ Per TM-21 ^{2,3}	Lumen Maintenance % @ 60,000 hours
Up to 40 °C	Up to 800mA	> 154,000 Hours	> 51,400 Hours	91%

1. Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.
2. L70 is the predicted time when LED performance depreciates to 70% of initial lumen output.
3. Calculated per IESNA TM21-11. Published L70 hours limited to 6 times actual LED test hours.

LED Thermal Management

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Wireless Controls

The wireless controls system includes: gateway, controller (with wireless radio, motion response, and photocell), and commissioning/training. This intelligent web-based system operates through a high density mesh (HDM) wireless technology. Wireless radios with motion response and photocell sensors are integrated with PureForm luminaires, and enable the fixtures to communicate via the ZigBee protocol. The gateway is a mini computer that connects to the internet, and is located in a secure location. The central database channels communication to and from the gateway, allowing data to be viewed or managed through the web-based graphical user interface (GUI). See pages 6-7 for details and technical information.

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The advanced LED optical systems provide IES Types 2, 3, 4 and 5 distributions, as well as a Backlight Control optic. Special LEED corner cutoff optics are also available, both as LCR (right) and LCL (left). All optical systems feature utilized lens optic construction.

Types 2, 3, 4, BLC and LCR/LCL optical systems utilize an innovative redirecting reflector to complement the performance of the LED optic. The redirecting reflector system utilizes 95% specular reflective material to maximize reflected light forward. Reflector facets minimize aperture brightness when viewed from the rear of the luminaire.

PureForm luminaires are provided standard without a glass lens, for maximized performance. A glass lens is available as an option, resulting in reduced performance. All PureForm luminaires provide full cutoff performance.

Listings

All luminaires bear UL or CUL (where applicable) Wet Location labels. PureForm LED P21 luminaires (with the exception of 55LA at 277V) are DesignLights Consortium qualified.

Finish

Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidyl isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include bronze (BRP), black (BLP), white (WP), and natural aluminum (NP). Consult factory for specs on optional or custom colors.

Warranty

Philips Gardco luminaires feature a 5 year limited warranty. Philips Gardco LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED Drivers also carry a 5 year limited warranty. Motion sensors are covered by warranty for 5 years by the motion sensor manufacturer. See Warranty Information on www.sitelighting.com for complete details and exclusions. Polycarbonate lenses carry a 1 year warranty.

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Philips Lighting North America Corporation
200 Franklin Square Drive, Somerset, NJ 08873
Tel. 855-486-2216

Philips Lighting Canada Ltd.
281 Hillmount Rd, Markham, ON, Canada L6C 2S3
Tel. 800-668-9008



Project: _____
 Location: _____
 Cat No: _____
 Type: _____
 Qty: _____
 Notes: _____

Philips Gardco PureForm luminaires combine LED performance excellence and advanced LED thermal management technology with a distinct purity of style to provide outdoor area lighting that is both energy efficient and aesthetically pleasing. PureForm is defined by its high performance, sleek low profile design and rugged construction.

Ordering guide

example: P21-APD-A1-1-5M-130LA-NW-120-NP-PCB

Prefix	Controls	Arm	Mounting	Optical System*	Wattage	Color Temp	Voltage	Finish	Options
P21									
P21- PureForm 21" fixture	Standard luminaire DIM 0-10V Dimming APD Automatic Profile Dimming APD-MRO APD with Motion Response Override pole mounted sensor APD-MRI APD with Motion Response Override luminaire mounted sensor MRI Motion Response at 50% low luminaire mount sensor MR50 Motion Response at 50% low pole mounted sensor Wireless Controls (remote wireless controller available See p. 2 for details) LLC2 ^{1,4,5} #2 lens for 8' mounting heights LLC3 ^{1,4,5} #3 lens for 9-20' mounting heights LLC4 ^{1,4,5} #4 lens for 21-40' mounting heights	A1 ¹ Standard 9" Arm A2 ¹ Short 5" Arm A3 ¹ Decorative Arm MA Mast Arm Fitter (requires 2 1/2" O.D Mast Arm) W Wall Mount WS ¹ Wall mount including surface conduit rear entry permitted	1 Standard 2 2@180 3 2@90 4 2@90 5M Type 5 Medium 5W Type 5 Wide BLC Backlight Ctrl 2BL Type 2 with backlight (less shield) LCL ¹ LEED Corner Cutoff Optics LCR ¹ LEED Corner Cutoff Optics Optics Rotated Left (90°) ¹⁵ 2-90 Type 2 3-90 Type 3 4-90 Type 4 BLC-90 Backlight Ctrl 2BL-90 Type 2 with backlight (less shield) Optic Rotated Right (270°) ¹⁵ 2-270 Type 2 3-270 Type 3 4-270 Type 4 BLC-270 Backlight Ctrl 2BL-270 Type 2 with backlight (less shield)	350mA 55LA 70LA 90LA 530mA 240 80LA 105LA 130LA 640mA 165LA ⁸ 700mA 110LA 140LA 180LA 800mA 200LA ⁸	CW Cool White 5,700K 70 CRI (nominal) NW Neutral White 4,000K 70 CRI (nominal) WW Warm White 3,000K 90 CRI (nominal) UNV 120-277V 50hz/60hz HVV 347-480V 50hz/60hz	120 208 240V 277V 347V 480V UNV 120-277V 50hz/60hz HVV 347-480V 50hz/60hz	BRP Bronze Paint BLP Black Paint WP White Paint NP Natural Paint OC Optional Color Specify optional color or RAL (ex OC-LGP or OC-RAL7024) SC Special color Specify must supply color chip. Requires factory quote	TL Tool-Less entry and gasket removal hardware TB Terminal block F ¹² Fusing LF In-Line In-Pole Fusing PC ^{1,13,14} Receptacle with Photocell (includes PCR5) PCB ^{1,14} Photocell Button PCR5 ^{1,14,15} Photocell Receptacle only with 2 dimming connections PCR7 ^{1,14,15} Photocell Receptacle only with 2 dimming and 2 auxiliary connections EHHS External Houseshield PTF2 Pole Top Fitter for 2 1/2"-3" Tenon PTF3 Pole Top Fitter for 3"-3 1/2" Tenon PTF4 Pole Top Fitter for 3 1/2"-4" Tenon SPA1-2 Square Pole Adapter for use with A1 or A2 Arms SPA3 ¹ Square Pole Adapter for use with A3 Arms DL ¹⁷ Diffusing Lens CLR ¹⁷ Clear Glass Lens POLY ¹⁶ Polycarbonate Lens (1 year warranty on lens) BD Bird Deterrent Spike Kit - consist of 25 injection molded plastic bird deterrent spikes (field installed only)	

- Available 120-277V only (UNV, 120, 208, 240 & 277).
- Available 120V or 277V only. MR50 and APD-MRO require one motion sensor per pole, ordered separately. See page 2 for Accessories.
- Available 120V or 277V only. Wattages 180LA and 200LA require outboarded sensor enclosure mounted to the arm of the luminaire (A1 arm only).
- Not available with A3 Arm Style.
- LLC2/LLC3/LLC4 wireless controls not configurable with PC/PCB/PCR5/PCR7 Options. See pages 6-7 for more info.
- Arm Styles mount to a round pole with no adapter. If mounting to a square pole, specify Square Pole Adapter option. SPA1-2 for A1/A2 arms, or SPA3 for A3 arms.
- Available with A1 or A2 Arms only. Not available in P21-MR50, or P21-APD-MRO.
- Luminaire door frame and optic assembly provided standard without glass lens. Specify CLR option for clear glass lens.
- Available with 130LA or 200LA only.
- See page 8-9 for information on optical rotation prior to ordering.
- 200LA and 165LA not available in 347V or 480V.
- Available with A1 arm or with MA mounting only. Provide specific input voltage.
- Not configurable with 480V. Voltage must be specified.
- Works with 3-pin or 5-pin NEMA photocell/dimming device.
- If ordered with DIM, APD, MRI, MR50, APD-MRI, APD-MRO, dimming will not be connected to NEMA receptacle.
- Works with 3-pin or 5-pin NEMA photocell/dimming device and auxiliary connections are not connected (for future use only).
- Option reduces performance.

P21 PureForm LED area luminaire
21" housing

PureForm Accessories (order separately)

MS-A-120V

120V Input Area Motion Sensor
For MR50 (Motion Response) or APD-MRO (Automatic Profile Dimming with Motion Response Override)

MS-A-277V

277V Input Area Motion Sensor
For MR50 (Motion Response) or APD-MRO (Automatic Profile Dimming with Motion Response Override)

Note: Motion Sensors are ordered separately with one (1) motion sensor required per pole location for MR50 or APD-MRO luminaires. See Luminaire Configuration information on page 5 for more details. Area motion sensor color is Arctic White. MRI and APD-MRI luminaires include an optional motion sensor.

PureForm Wireless Controls Accessories (for wall or pole mount)^{1,2,3,4}

LLCR2-(F)

Standalone wall or pole wireless controller with #2 Lens.

LLCR3-(F)

Standalone wall or pole wireless controller with #3 Lens.

LLCR4-(F)

Standalone wall or pole wireless controller with #4 Lens.

- When using the wireless remote accessory option (LLCR-F) in a pole mount application, specify pole option (CL=Coupling Internal Thread, 3/4" size)
- 120-277V only
- Must specify Finish (F=Specify matching finish)
- Luminaire Configuration must include 0-10V dimming (P21-DIM option when Wireless Controls Accessories are specified)

LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Type 2				Type 2BL				Type 3			
				Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating
55LA	48	350	4000K	54	5,327	99	B1-U0-G1	54	5,981	111	B3-U0-G3	54	5,330	98	B1-U0-G1
70LA	64	350	4000K	69	7,350	107	B1-U0-G1	69	8,252	120	B3-U0-G3	69	7,354	107	B1-U0-G2
90LA	80	350	4000K	88	9,370	106	B1-U0-G2	89	10,521	119	B3-U0-G3	89	9,375	106	B1-U0-G2
80LA	48	530	4000K	78	7,656	98	B1-U0-G2	79	8,596	109	B3-U0-G3	79	7,660	97	B1-U0-G2
105LA	64	530	4000K	103	10,521	102	B1-U0-G2	103	11,814	114	B3-U0-G3	103	10,527	102	B1-U0-G2
130LA	80	530	4000K	127	13,490	106	B1-U0-G2	128	15,147	118	B4-U0-G4	128	13,498	105	B1-U0-G2
165LA	80	640	4000K	162	15,651	97	B2-U0-G2	162	17,425	107	B4-U0-G4	162	15,691	97	B1-U0-G2
110LA	48	700	4000K	108	9,735	90	B1-U0-G2	108	10,931	101	B3-U0-G3	108	9,740	90	B1-U0-G2
140LA	64	700	4000K	137	13,287	97	B2-U0-G2	138	14,918	108	B4-U0-G4	138	13,294	96	B1-U0-G2
180LA	80	700	4000K	176	16,723	95	B2-U0-G2	177	18,777	106	B4-U0-G4	177	16,732	94	B2-U0-G3
200LA	80	800	4000K	205	18,514	90	B2-U0-G2	206	20,788	101	B4-U0-G4	206	18,524	90	B2-U0-G3

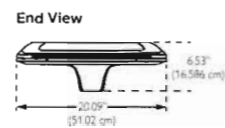
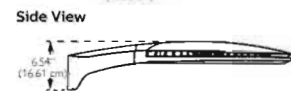
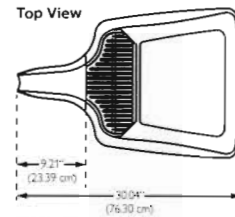
Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Type 4				Type 5M				Type 5W			
				Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating	Average System Watts ⁵	Lumen Output ⁶	Efficacy (LPW)	BUG Rating
55LA	48	350	4000K	54	5,279	98	B1-U0-G1	54	6,059	112	B2-U0-G0	53	6,506	122	B3-U0-G1
70LA	64	350	4000K	69	7,284	106	B1-U0-G2	69	8,360	122	B3-U0-G1	70	8,966	128	B3-U0-G2
90LA	80	350	4000K	88	9,286	105	B1-U0-G2	88	10,657	121	B3-U0-G1	86	11,437	133	B4-U0-G2
80LA	48	530	4000K	78	7,588	97	B1-U0-G2	79	8,708	111	B3-U0-G1	82	9,341	115	B3-U0-G2
105LA	64	530	4000K	103	10,428	101	B1-U0-G2	103	11,967	116	B3-U0-G1	108	12,839	119	B4-U0-G2
130LA	80	530	4000K	127	13,370	105	B1-U0-G2	128	15,344	120	B3-U0-G1	134	16,470	123	B4-U0-G2
165LA	80	640	4000K	162	15,389	90	B1-U0-G2	162	17,663	109	B4-U0-G1	164	19,319	118	B4-U0-G2
110LA	48	700	4000K	108	9,648	96	B1-U0-G2	108	11,073	102	B3-U0-G1	110	12,115	108	B4-U0-G2
140LA	64	700	4000K	137	13,168	94	B1-U0-G2	138	15,112	110	B4-U0-G1	146	16,272	110	B4-U0-G2
180LA	80	700	4000K	176	16,574	95	B2-U0-G2	177	19,021	108	B4-U0-G1	179	20,401	114	B5-U0-G3
200LA	80	800	4000K	206	18,349	89	B2-U0-G3	206	21,058	102	B4-U0-G2	206	22,079	106	B5-U0-G3

- Wattage and lumen output may vary by +/- 8% due to LED manufacturer forward volt specification and ambient temperature. Wattage shown is average @ 120V through 277V input. Actual wattage may vary by an additional +/- 10% due to actual input voltage.
- Lumen values based on photometric tests performed in compliance with IESNA LM-79.

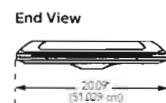
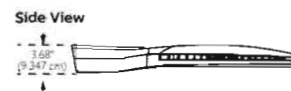
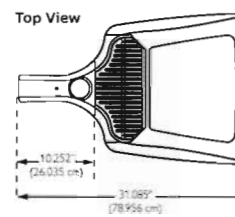
P21 PureForm LED area luminaire

21" housing

Dimensions – Standard Arm (A1)

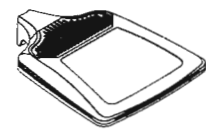
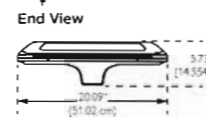
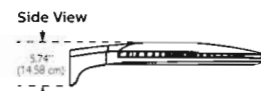
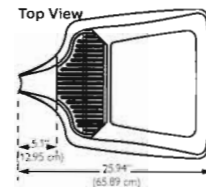


Dimensions – Mast Arm (MA)

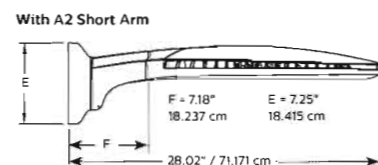
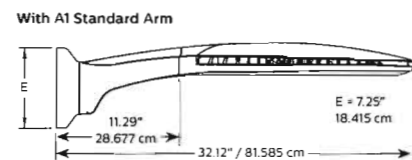


PureForm_P21_LED 03/16 page 3 of 9

Dimensions – Short Arm (A2)



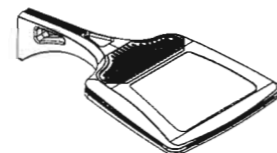
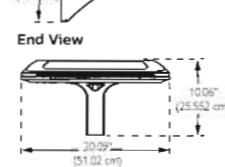
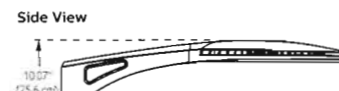
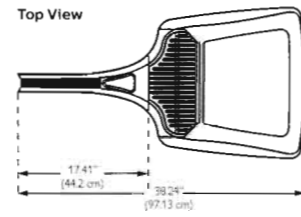
Dimensions – Wall Mount:



Single Luminaire Weight

Mounting	Approx. Weight
A1	38 lbs / 17.237 kg
A2	37 lbs / 16.783 kg
A3	41.5 lbs / 18.824 kg
MA	38 lbs / 17.237 kg
W or WS	39 lbs / 17.69 kg

Dimensions – Decorative Arm (A3)



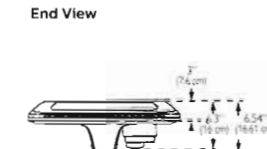
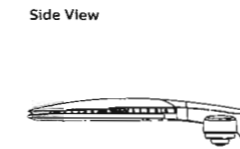
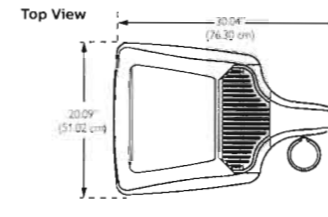
Effective Projected Area (ft²/m²)

Mounting	Single	Twin @ 180	3/4
A1	0.35 / 0.033	0.70 / 0.066	1.25 / 0.117
A2	0.30 / 0.028	0.60 / 0.056	1.10 / 0.103
A3	0.50 / 0.047	1.0 / 0.093	1.70 / 0.158
MA	0.35 / 0.033	N/A	N/A

P21 PureForm LED area luminaire

21" housing

Dimensions – PureForm with wireless controls (luminaire mounted controller)



Luminaire Configuration Information

P21

Philips Gardco PureForm LED standard luminaire providing constant wattage and constant light output when power to the luminaire is energized.

P21-DIM

Philips Gardco PureForm LED luminaire provided with 0-10V dimming for connection to a control system provided by Philips or by others.

P21-APD

Philips Gardco PureForm LED luminaire with Automatic Profile Dimming. Luminaire is provided with a programmable LED Driver, programmed to go to 50% power, 50% light output two (2) hours prior to night time mid-point and remain at 50% for six (6) hours after night time mid-point. Mid-point is continuously recalculated by the programmable LED Driver based on the average mid-point of the last two full night cycles. Short duration cycles, and power interruptions are ignored and do not affect the determination of mid-point.

P21-APD is available in 120V – 277V input only.

P21-APD Dimming Profile:

Power On	2 hours	6 hours	Power Off
100%	50%	50%	100%

The P21-APD offers many of the advantages of a sophisticated control system, including an average energy savings of at least 33% versus constant wattage, constant light output systems, without the need for a control system.

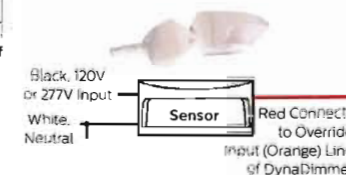
P21-MR50

Philips Gardco PureForm LED luminaire with motion response, providing a 50% power reduction on low and a commensurate reduction in light output. The power and light output reduction is accomplished utilizing the Philips DynaDimmer module, programmed for a constant 50% power. Power supplied by the motion sensor connected to the override line on the DynaDimmer takes the luminaire to high setting, 100% power and light output, when motion is detected. The luminaire remains on high until no motion is detected for the motion sensor duration period, after which the luminaire returns to low. Duration period is factory set at 15 minutes, and is field adjustable from 5 minutes up to 15 minutes.

This configuration is not available for use with wall mounted luminaires.

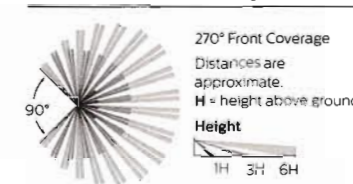
P21-MR50 is available in 120V-277V input only to the luminaire. Motion sensors require single voltage 120V or 277V input.

The Area PIR motion sensor is the WattStopper EW-200-120-W (120V input - MSA-120V) or the WattStopper EW-200-277-W (277V input - MSA-277V). One motion sensor per pole is required and is ordered separately. Area sensors require single voltage 120V or 277V input.



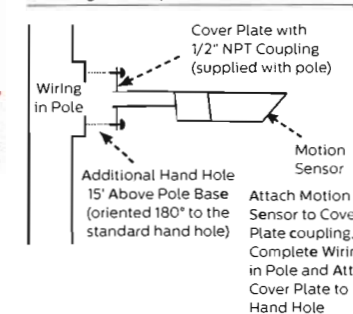
The area motion detector provides coverage equal to up to 6 times the sensor height above ground. 270° from the front-center of the sensor.

Area PIR Motion Sensor Coverage Pattern:



Motion response requires that the pole include an additional hand hole 15 feet above the pole base, normally oriented 180° to the standard hand hole. For Philips Gardco poles, order the pole with the Motion Sensor Mounting (MSM) option which includes the hand hole and a special hand hole cover plate for the sensor with a 1/2" NPT receptacle centered on the hand hole cover plate into which the motion sensor mounts. Once the motion sensor is connected to the hand hole cover plate, then wiring connections are completed in the pole. The plate (complete with motion sensor attached and wired) is then mounted to the hand hole. If poles are supplied by others, the customer is responsible for providing suitable mounting accommodations for the motion sensor in the pole.

Mounting to a Philips Gardco Pole:



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P21 PureForm LED area luminaire

21" housing

Specifications

Housing

The PureForm features a die cast aluminum housing, and mounts directly to a pole or wall. The low profile rounded form reduces the effective projected area of the luminaire significantly. PureForm luminaires supplied with A1, A2 and A3 arms are provided with arms firmly attached to the main luminaire housing body. As a result, the luminaires provide the functionality, strength and installation ease of an Integral arm luminaire. Mast arm mount luminaires are provided with the mast arm mounting assembly firmly attached to the main luminaire housing body.

IP Rating

PureForm luminaires have a rating of IP66.

Vibration Resistance

PureForm carries a 3G vibration rating that conforms to standards set forth by ANSI C136.31. Testing includes vibration to 3G acceleration in three axes, all performed on the same luminaire.

Electrical

Luminaires are equipped with an LED driver that accepts 120V through 277V, or 347V through 480V, 50hz to 60hz, input. Driver output is based on the LED wattage selected. Component-to-component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600 VAC at 302°F / 150°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher. Power factor is not less than 90%. Luminaire consumes 0.0 watts in the off state. All motion sensors utilized consume 0.0 watts in the off state. Surge protector standard. 10KA per AN SI/IEEE C62.41.2.

LED Performance

Predicted Lumen Depreciation Data ¹				
Ambient Temperature °C	Driver (mA)	Calculated L ₇₀ Hours ^{2,3}	L ₇₀ Per TM-21 ³	Lumen Maintenance % @ 60,000 hours
Up to 40 °C	Up to 800mA	> 154,000 Hours	> 51,400 Hours	91%

1. Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.
2. L₇₀ is the predicted time when LED performance depreciates to 70% of initial lumen output
3. Calculated per IESNA TM21-11. Published L₇₀ hours limited to 6 times actual LED test hours.

LED Thermal Management

The Philips Gardco PureForm LED provides die cast aluminum integral thermal radiation fins to provide the excellent thermal management so critical to long LED system life.

Wireless Controls

The wireless controls system includes: gateway, controller (with wireless radio, motion response, and photocell), and commissioning/training. This intelligent web-based system operates through a high density mesh (HDM) wireless technology. Wireless radios with motion response and photocell sensors are integrated with PureForm luminaires, and enable the fixtures to communicate via the ZigBee protocol. The gateway is a mini computer that connects to the internet, and is located in a secure location. The central database channels communication to and from the gateway, allowing data to be viewed or managed through the web-based graphical user interface (GUI). See pages 6-7 for details and technical information.

Optical Systems

The advanced LED optical systems provide IES Types 2, 3, 4 and 5 distributions, as well as a Backlight Control optic. Special LEED corner cutoff optics are also available, both as LCR (right) and LCL (left.) All optical systems feature unitized lens optic construction.

Types 2, 3, 4, BLC and LCR/LCL optical systems utilize an innovative redirecting reflector to complement the performance of the LED optic. The redirecting reflector system utilizes 95% specular reflective material to maximize reflected light forward. Reflector facets minimize aperture brightness when viewed from the rear of the luminaire.

PureForm luminaires are provided standard without a glass lens, for maximized performance. A glass lens is available as an option, resulting in reduced performance. All PureForm luminaires provide full cutoff performance.

Listings

All luminaires bear UL or CUL (where applicable) Wet Location labels. PureForm LED P21 luminaires (with the exception of 55LA at 277V) are DesignLights Consortium qualified.

Finish

Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidyl isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include bronze (BRP), black (BLP), white (WP), and natural aluminum (NP). Consult factory for specs on optional or custom colors.

Warranty

Philips Gardco luminaires feature a 5 year limited warranty. Philips Gardco LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED Drivers also carry a 5 year limited warranty. Motion sensors are covered by warranty for 5 years by the motion sensor manufacturer. See Warranty information on www.sitelighting.com for complete details and exclusions. Polycarbonate lenses carry a 1 year warranty.

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Philips Lighting North America Corporation
200 Franklin Square Drive, Somerset, NJ 08873
Tel. 855-486-2216

Philips Lighting Canada Ltd
281 Hillmount Rd, Markham, ON, Canada L6C 2S3
Tel. 800-668-9008

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Pole top luminaires with symmetrical light distribution

Housing/fitter: Die-cast and extruded aluminum construction. The fixture slip fits a 3" O.D. pole top or tenon and is secured by six (6) socket head stainless steel set screws threaded into stainless steel inserts. Die castings are marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy.

Enclosure: Clear acrylic diffuser and reflector made of pure anodized aluminum held in place by die-cast aluminum frame and stainless steel rods. Fully gasketed for weather tight operation using a molded silicone rubber gasket.

Electrical: 31.0W LED luminaire, 36.0 total system watts, -30°C start temperature. Integral 120V through 277V electronic LED driver. 0-10V dimming. LED module(s) are available from factory for easy replacement. Standard LED color temperature is 4000K with a >80 CRI. Available in 3000K (>80 CRI); add suffix K3 to order.

Note: LEDs supplied with luminaire. Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

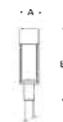
CSA certified to U.S. and Canadian standards, suitable for wet locations. Protection class IP65.

Weight: 11.0 lbs.

Effective Projection Area (EPA): 1.1 ft²

Luminaire Lumens: 3435

Type:
BEGA Product:
Project:
Voltage:
Color:
Options:
Modified:



Pole-top luminaires - symmetrical			
Lamp		A	B
77175	44.2W LED	6 1/2"	25 1/2"

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Pole top luminaires with symmetrical light distribution

Housing/fitter: Die-cast and extruded aluminum construction. The fixture slip fits a 3" O.D. pole top or tenon and is secured by six (6) socket head stainless steel set screws threaded into stainless steel inserts. Die castings are marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy.

Enclosure: Clear acrylic diffuser and reflector made of pure anodized aluminum held in place by die-cast aluminum frame and stainless steel rods. Fully gasketed for weather tight operation using a molded silicone rubber gasket.

Electrical: 31.0W LED luminaire, 36.0 total system watts, -30°C start temperature. Integral 120V through 277V electronic LED driver. 0-10V dimming. LED module(s) are available from factory for easy replacement. Standard LED color temperature is 4000K with a >80 CRI. Available in 3000K (>80 CRI); add suffix K3 to order.

Note: LEDs supplied with luminaire. Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

CSA certified to U.S. and Canadian standards, suitable for wet locations. Protection class IP65.

Weight: 11.0 lbs.

Effective Projection Area (EPA): 1.1 ft²

Luminaire Lumens: 3435

Type:
BEGA Product:
Project:
Voltage:
Color:
Options:
Modified:



Pole-top luminaires - symmetrical			
Lamp		A	B
77175	44.2W LED	6 1/2"	25 1/2"

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Pole top luminaires with symmetrical light distribution

Housing/fitter: Die-cast and extruded aluminum construction. The fixture slip fits a 3" O.D. pole top or tenon and is secured by six (6) socket head stainless steel set screws threaded into stainless steel inserts. Die castings are marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy.

Enclosure: Clear acrylic diffuser and reflector made of pure anodized aluminum held in place by die-cast aluminum frame and stainless steel rods. Fully gasketed for weather tight operation using a molded silicone rubber gasket.

Electrical: 31.0W LED luminaire, 36.0 total system watts, -30°C start temperature. Integral 120V through 277V electronic LED driver. 0-10V dimming. LED module(s) are available from factory for easy replacement. Standard LED color temperature is 4000K with a >80 CRI. Available in 3000K (>80 CRI); add suffix K3 to order.

Note: LEDs supplied with luminaire. Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

CSA certified to U.S. and Canadian standards, suitable for wet locations. Protection class IP65

Weight: 11.0 lbs.

Effective Projection Area (EPA): 1.1 ft²

Luminaire Lumens: 3435

Type:
BEGA Product:
Project:
Voltage:
Color:
Options:
Modified:



Pole-top luminaires - symmetrical			
	Lamp	A	B
77 175	44.2W LED	6 1/2"	25 1/4"

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Project: _____
 Location: _____
 Cat No: _____
 Type: _____
 Qty: _____
 Notes: _____

Philips Gardco 106 LED wall sconces feature a low-profile design that provides wide flexibility in high performance exterior wall illumination. Full cutoff performance, usable illumination patterns, and powerful wattages combine into a compact and architecturally pleasing design. 106L sconces are available in Type 2, 3, and 4 distributions, and provide output of up to 9500 lumens. Energy saving control options increase energy savings and offer California Title 24 compliance. Emergency Battery Backup option available for path of egress.

Ordering guide

example: 106L-32L-700-NW-G1-3-120-IMR12-BZ

Prefix	Number of LEDs	Drive Current	LED Color - Generation	Distribution	Emergency	Voltage	Options			
							Controls	Electrical	Finish	
106L										
106L 106L LED Wall Sconce	16L 16 LEDs (1 module)	530 530mA	CW-G1 Cool White 5700K, 70 CRI Generation 1	2 Type 2 3 Type 3 4 Type 4	EBPC Emergency Battery Pack Cold Weather ^{11,12}	UNV 120-277V	DD 0-10V Dimming Driver ¹⁴ DCC Dual Circuit Control ¹³ DynaDimmer: Automatic Profile Dimming CS50 Safety 50% Dimming (7 hours) ^{17,18} CM50 Median 50% Dimming (8 hours) ^{17,18} CE50 Economy 50% Dimming (9 hours) ^{17,18} DAS0 All Night 50% Dimming ^{17,18}	Fusing F1 Single (120, 277, 347VAC) ⁹ F2 Double (208, 240, 480VAC) ⁹ F3 Canadian Double Pull (208, 240, 480VAC) ⁹	Textured BK Black WH White BZ Bronze DGY Dark Gray MGY Medium Gray Customer specified RAL Specify optional color or RAL (ex. OC-LGP or OC-RAL7024) CC Custom color (Must supply color chip for required factory quote)	
		700 700mA				HVU 347-480V				
		1000 1000mA				120 120V				
		1200 1200mA				208 208V				
						240 240V				
						480 480V				
	32L 32 LEDs (2 module)	530 530mA	NW-G1 Neutral White 4000K, 70 CRI Generation 1	WW-G1 Warm White 3000K, 70 CRI Generation 1	Leave blank to omit an emergency option	277 277V	Photoelectric Systems PCB Photocontrol Button ^{10,12} Infrared Motion Response Systems IMR12 Integral with #2 lens ^{12,13} IMR13 Integral with #4 lens ^{12,13} Wireless Controls LLC2 Integral module with #2 lens ^{12,13} LLC3 Integral module with #3 lens ^{12,13}			
		650 650mA ¹								
		700 700mA								
		1000 1000mA ¹								

- 650mA only available with Emergency Battery Pack Cold Rated (EBPC) option
- 32L rated for 30°C at 1000mA
- Available for use with 16L and 32L in 530mA or 650mA only. Rated for -20°C to 35°C.
- Available in 120 or 277V only.
- Not available with Dual Circuit Control (DCC) option.
- 16L not available with Dimming Driver (DD) in following configurations: 530, 700 and 1200mA in 347 and 480V.
- Not available with Dimming Driver (DD) option
- Available in 32L with 530mA. Consult technical support center for use with photocell and CS/CM/CE/DA.
- Available in 120-277V (UNV) only.
- Not available with LLC and DCC.
- Not available with 480V.
- Must specify input voltage.
- Not available with DD, DCC or LLC.
- LLC2/3 Not available with PCB, IMR1, CS/CM/CE/DA. Ships with WS accessory attached to wireless module. Not for use with LLCR accessory.



Project: _____
 Location: _____
 Cat No: _____
 Type: _____
 Qty: _____
 Notes: _____

Philips Gardco 106 LED wall sconces feature a low-profile design that provides wide flexibility in high performance exterior wall illumination. Full cutoff performance, usable illumination patterns, and powerful wattages combine into a compact and architecturally pleasing design. 106L sconces are available in Type 2, 3, and 4 distributions, and provide output of up to 9500 lumens. Energy saving control options increase energy savings and offer California Title 24 compliance. Emergency Battery Backup option available for path of egress.

Ordering guide

example: 106L-32L-700-NW-G1-3-120-IMR12-BZ

Prefix	Number of LEDs	Drive Current	LED Color - Generation	Distribution	Emergency	Voltage	Options			
							Controls	Electrical	Finish	
106L										
106L 106L LED Wall Sconce	16L 16 LEDs (1 module)	530 530mA	CW-G1 Cool White 5700K, 70 CRI Generation 1	2 Type 2 3 Type 3 4 Type 4	EBPC Emergency Battery Pack Cold Weather ^{11,12}	UNV 120-277V	DD 0-10V Dimming Driver ¹⁴ DCC Dual Circuit Control ¹³ DynaDimmer: Automatic Profile Dimming CS50 Safety 50% Dimming (7 hours) ^{17,18} CM50 Median 50% Dimming (8 hours) ^{17,18} CE50 Economy 50% Dimming (9 hours) ^{17,18} DAS0 All Night 50% Dimming ^{17,18}	Fusing F1 Single (120, 277, 347VAC) ⁹ F2 Double (208, 240, 480VAC) ⁹ F3 Canadian Double Pull (208, 240, 480VAC) ⁹	Textured BK Black WH White BZ Bronze DGY Dark Gray MGY Medium Gray Customer specified RAL Specify optional color or RAL (ex. OC-LGP or OC-RAL7024) CC Custom color (Must supply color chip for required factory quote)	
		700 700mA				HVU 347-480V				
		1000 1000mA				120 120V				
		1200 1200mA				208 208V				
						240 240V				
						480 480V				
	32L 32 LEDs (2 module)	530 530mA	NW-G1 Neutral White 4000K, 70 CRI Generation 1	WW-G1 Warm White 3000K, 70 CRI Generation 1	Leave blank to omit an emergency option	277 277V	Photoelectric Systems PCB Photocontrol Button ^{10,12} Infrared Motion Response Systems IMR12 Integral with #2 lens ^{12,13} IMR13 Integral with #4 lens ^{12,13} Wireless Controls LLC2 Integral module with #2 lens ^{12,13} LLC3 Integral module with #3 lens ^{12,13}			
		650 650mA ¹								
		700 700mA								
		1000 1000mA ¹								

- 650mA only available with Emergency Battery Pack Cold Rated (EBPC) option
- 32L rated for 30°C at 1000mA
- Available for use with 16L and 32L in 530mA or 650mA only. Rated for -20°C to 35°C.
- Available in 120 or 277V only.
- Not available with Dual Circuit Control (DCC) option.
- 16L not available with Dimming Driver (DD) in following configurations: 530, 700 and 1200mA in 347 and 480V.
- Not available with Dimming Driver (DD) option
- Available in 32L with 530mA. Consult technical support center for use with photocell and CS/CM/CE/DA.
- Available in 120-277V (UNV) only.
- Not available with LLC and DCC.
- Not available with 480V.
- Must specify input voltage.
- Not available with DD, DCC or LLC.
- LLC2/3 Not available with PCB, IMR1, CS/CM/CE/DA. Ships with WS accessory attached to wireless module. Not for use with LLCR accessory.

106L Wall sconce LED

Wall Mount

LED Wattage and Lumen Values

Ordering Code	LED Qty	LED Current (mA)	Color Temp.	Average System Watts ¹	Type 2			Type 3			Type 4		
					Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)	Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)	Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)
106L-16L-530-NW-G1	16	530	4000K	28	2944	B1-UO-G0	106	2687	B1-UO-G1	97	2747	B1-UO-G1	99
106L-16L-700-NW-G1	16	700	4000K	37	3789	B1-UO-G1	103	3458	B1-UO-G1	94	3535	B1-UO-G1	96
106L-16L-1000-NW-G1	16	1000	4000K	55	5050	B1-UO-G1	92	4609	B1-UO-G1	84	4712	B1-UO-G1	86
106L-16L-1200-NW-G1	16	1200	4000K	65	5744	B2-UO-G1	89	5242	B1-UO-G2	81	5359	B1-UO-G2	83
106L-32L-530-NW-G1	32	530	4000K	52	5698	B2-UO-G1	110	5200	B1-UO-G2	100	5316	B1-UO-G2	102
106L-32L-700-NW-G1	32	700	4000K	70	7242	B2-UO-G1	103	6609	B1-UO-G2	94	6757	B1-UO-G2	96
106L-32L-1000-NW-G1	32	1000	4000K	107	9797	B2-UO-G1	92	8941	B2-UO-G2	84	9140	B2-UO-G2	86

LED Wattage and Lumen Values (Emergency Mode)³

Ordering Code	LED Qty	LED Current (mA)	Color Temp.	Ave. System Watts (charging mode)	Type 2	Type 3	Type 4
106L-16L-NW-EBPC	16	N/A	4000K	14	1345	1228	1255
106L-32L-NW-EBPC	32	N/A	4000K	14	1754	1600	1636

- Wattage and lumen output may vary by +/- 8% due to LED manufacturer forward volt specification and ambient temperature.
- Wattage shown is average for 120V through 277V input. Actual wattage may vary by an additional +/- 10% due to actual input voltage
- Lumen values based on photometric tests performed in compliance with IESNA LM-79.
- For emergency EBPC option, published values are based on initial lumens.

Luminaire options

DD: 0-10V dimming driver with leads supplied through back of luminaire (for secondary dimming controls by others).

Dynadimmer Automatic Profile Dimming: Automatic dimming profiles (CS50/CM50/CE50) offer safety, median, or economy settings, for shorter or longer duration. Dimming profiles provide flexibility towards energy savings goals while optimizing light levels during specific dark hours. 50% dimming is standard. DA50 offers 50% instantaneous dimming all night (during all dark hours). 75% and 25% dimming is also available if different light levels are required (contact Technical Support for details).

Profile	Dimming		
	Schedule	Duration	Level
Economy	9 PM - 6 AM	9 hours	50%
Median	10 PM - 6 AM	8 hours	50%
Safety	11 PM - 6 AM	7 hours	50%
Reactive 50	all night	dynamic	50%

IMR12, IMR13: Infrared Motion Response Integral (IMRI). IMRI module is mounted integral to the luminaire door and is available with two different sensor lens types to accommodate various mounting heights and occupancy detection ranges (see charts for approximate detection patterns). Motion response for option IMRI is set/operates in the following fashion: The motion sensor is set to a constant 25%. When motion is detected by the PIR sensor, the luminaire returns to 100% light output. Dimming on low is factory set to 25% with 5 minute default in "full power" prior to dimming back to low. When no motion is detected for 5 minutes, the motion response system reduces the wattage by 75%, to 25% of the normal constant wattage reducing the light level. IMRI can also be specified with automatic profile dimming for the added benefit of a combined dimming profile with sensor detection, where the PIR sensor will override the dimming profile when occupancy is detected. Passive infrared (PIR) motion sensor, WattStopper FSP-211, equipped with lens choice specified. Available in 120V or 277V input only. Motion sensor off state power is 0.0 watts. The FSP-211 can also be reprogrammed with WattStopper's FS1R-100 remote programming tool accessory.

DCC: Dual Circuit Control permits separate switching of 32L models only, where a quantity of (2) 16 LED modules are controlled independently by use of two sets of leads, one for each module.

Wireless Controls: Controller radio/sensor module attached to luminaire via WS accessory (included with LLC2 and LLC3 option) and includes radio, photocell and motion sensor. Also available with remote pod accessory where pod is mounted separate from luminaire to pole or wall (see accessories and Wireless Controls information page 4).

F1: Fusing Single (for 120, 277 or 347VAC)

F2: Fusing Double (for 208, 240 or 480VAC)

F3: Fusing Canadian Double Pull (for 208, 240 or 480VAC)

EBPC: Emergency battery pack is cold weather rated down to -20C (-4F) and integral to the luminaire, allowing for a consistent look between emergency and non-emergency sconces. A separate surface mount accessory box is not required. Dual light engines (32L) are wired in parallel, both operating in emergency mode to meet various redundancy lamp requirements. Also available with single light engine (16L). Secondary driver with relay immediately detects AC power loss and powers luminaire for a minimum of 90 minutes from the time power is lost.

106L Wall sconce LED

Wall Mount

Specifications

Housing

Main body cast housing and back plate made of a low copper die cast Aluminum alloy for a high resistance to corrosion, 0.100" (2.5mm) minimum thickness. Hinged door allows access to driver and LED compartment.

Mounting

Mounting is completed through integral back plate that features a separate recessed feature for hook and lock quick mount plate that secures with two set screws from bottom of luminaire. Mounting plate is located in the center of the luminaire width and 3.5" above the luminaire bottom (lens down position). Luminaire ships fully assembled, ready to install.

Light Engine

Composed of 4 main components: Heat Sink / LED Module / Optical System / Driver. Electrical components are RoHS compliant, IP66 sealed light engines. LEDs tested by ISO 17025-2005 accredited lab in accordance with IESNA LM-80 guidelines extrapolations in accordance with IESNA TM-21. Metal core board ensures greater heat transfer and longer lifespan.

Heat Sink

Integral door/heat sink design made of low copper die cast Aluminum alloy for a high resistance to corrosion.

LED Module

Composed of high performance white LEDs. Color temperature as per ANSI/NEMA bin Neutral White, 4000K nominal (+/- 275K), CRI 70 Min. Available in other color temperatures including Cool White, 5700K and Warm White, 3000K.

LED Performance

Predicted lumen depreciation data ¹				
Ambient Temperature (°C)	Driver mA	Calculated L ₇₀ hours ^{2,3}	L ₇₀ per TM-21 ³	Lumen Maintenance % @ 60,000 hours
25°C	up to 1200 mA	>100,000	>60,000	88%

- Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.
- L₇₀ is the predicted time when LED performance degrades to 70% of initial lumen output.
- Calculated per IESNA TM21-11. Published L₇₀ hours limited to 6 times actual LED test hours.

Hardware

All exposed screws shall be stainless and/or corrosion resistant and captive.

Optical System

The advanced LED optical systems provide IES Types 2, 3, 4. Composed of high performance UV stabilized optical grade polymer refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. System is rated IP66. Performance shall be tested per LM-63, LM-79 and TM-15 (IESNA) certifying its photometric performance. Dark sky compliant with 0% uplight and UO per IESNA TM-15.

Driver

High power factor of 90% min. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 VAC or 347 to 480 VAC rated for both application line to line or line to neutral, Class I, THD of 20% max. The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built in driver surge protection of 2.5kV (min).

Surge Protection

Each luminaire is provided as standard with surge protector (Philips designed SPI) tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario 1 Category C High Exposure 10kV/5kA waveforms for Line Ground, Line Neutral and Neutral Ground, and in accordance with U.S. DOE (Department of Energy) MSSLC (Municipal Solid State Street Lighting Consortium) Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High Test Level 10kV / 5kA.

Wiring (supplied by others)

Splices must be made in the junction box.

Finish

Five standard colors offered in textured black, white, bronze, dark gray and medium gray. Color in accordance with the AAMA 2604 standard. Application of polyester powder coat paint 2.5 mils minimum. The thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard. RAL and custom color matching available.

LED Products Manufacturing Standard

The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with EC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

LED Useful Life

Luminaire Useful Life accounts for LED lumen maintenance. Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in situ thermal testing in accordance with UL1598 and UL8750, LED LM-80/TM-21, expected to reach 100,000 + hours with >L70 lumen maintenance @ 25°C.

Certifications and Compliance

cULUS Listed for Canada and USA suitable for wet locations when mounted downward facing. cULUS Listed for Canada and USA suitable for damp locations when inverted upward facing when mounted in covered ceiling application. Emergency Battery Pack option is tested and listed to UL924 and CSA C22.2 No. 141-10 DesignLights Consortium qualified on models as listed on DLC QPL. Luminaire is rated for operation in ambient temperature of -40°C (-40°F) up to +40°C (+104°F).

Limited Warranty

5-year limited warranty. See philips.com/warranties for details and restrictions. Visit our eCatalog or contact your local sales representative for more information.

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Philips Lighting North America Corporation
200 Franklin Square Drive, Somerset, NJ 08873
Tel. 855-486-2216

Philips Lighting Canada Ltd.
281 Hillmount Rd, Markham, ON, Canada L6C 2S3
Tel. 800-668-9008

BEGA LED system bollard - luminaire head
with shielded light - 360°

Enclosure: Housing constructed of die-cast aluminum. Die-castings are marine grade, copper free (≤ 0.3% copper content) A360.0 aluminum alloy. Glass diffuser, inside white. Fully gasketed for weather tight operation using molded silicone gasket.

Installation: BEGA LED system bollards are designed for easy attachment to system bollard tubes using an interlocking stainless steel mechanism and stainless steel set screw threaded into stainless steel insert. An accompanying bollard tube must be selected for proper installation, see below chart for compatible tube options.

Electrical: 24.3W LED luminaire, 28.6 total system watts, -30°C start temperature. Integral 120V through 277V electronic LED driver, 0-10V dimming. LED module(s) are available from factory for easy replacement. Standard LED color temperature is 3000K with a >80 CRI. Available in 4000K (>80 CRI); add suffix K4 to order.

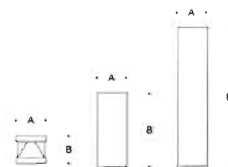
Note: LEDs supplied with luminaire. Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

CSA certified to U.S. and Canadian standards, suitable for wet locations. Protection class IP65

Weight: 10.2 lbs

Luminaire Lumens: 1671



Bollard heads - shielded with reflector - 180°

Lamp	A	B
99 856 24.3W LED	7 1/2"	7 1/4"

Bollard tubes for luminaire heights 19 1/2" - 21 1/4"

	A	B	Arch. Unit
99 615	7 1/2"	14 1/2"	79 818

Bollard tubes for luminaire heights 31 1/2" - 39 1/4"

Integrated components	Door	A	B	Arch. Unit
99 622	✓	7 1/2"	32"	79 818
99 644 1 LED floodlight 19.3W	✓	7 1/2"	32"	79 818
99 626 GFCI outlet	✓	7 1/2"	32"	79 818
99 658 Passive infrared motion sensor	✓	7 1/2"	32"	79 818
99 635 Emergency lighting battery 10W	✓	7 1/2"	32"	79 818

Type:
BEGA Product:
Project:
Voltage:
Color:
Options:
Modified:



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Date: _____
 Type: _____
 Firm Name: _____
 Project: _____



eW Burst Compact Powercore

4000 K, 23° Spread Lens, Black Housing, UL/cUL/CE, Landscape

Compact landscape LED spotlight with solid white light

eW Burst Compact Powercore is a high-output, exterior LED spotlight designed for accent and site lighting. Landscape version delivers high-quality white light in a warm 2700 K and a neutral 4000 K to support a range of uplighting, floodlighting, and decorative lighting applications.

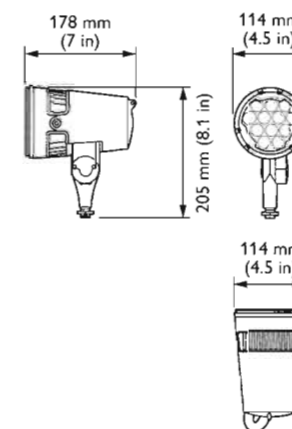
eW Burst Compact Powercore

Compact landscape LED spotlight with solid white light

- Integrates patented Powercore technology—Powercore rapidly, efficiently, and accurately controls power output to fixtures directly from line voltage, eliminating the need for an external power supply. Contractor-friendly installation dramatically simplifies installation and lowers total system cost.
- Support for a wide range of landscape applications—Landscape fixtures feature a 0.5 in NPT threaded post for mounting to standard junction boxes and third-party mounting accessories such as stanchion mounts, posts, and stakes for use in softscape and hardscape applications.
- Exchangeable optics and accessories—Available 14°, 23°, 41°, and asymmetric 10° x 41° spread lenses project a soft-edge beam to support a wide range of lighting applications. Native 8° beam angle offers extended light projection. Available glare shields block spill light, while honeycomb louvers limit the spread of light for a more focused and intense beam.
- Versatile light positioning—Fixtures can tilt through a full 180°. Architectural fixtures can also rotate through a full 360° for precise aiming. Locking screws accept standard hex wrenches to secure fixtures firmly in position.
- Universal power input range—Accepts a universal power input range of 100 to 277 VAC, allowing the installation of multiple units in a continuous run.
- Dimming capability—Patented DIMand technology offers smooth dimming capability with selected commercially available reverse-phase ELV-type dimmers.
- Outdoor rated—With a rugged, die-cast aluminium housing fully sealed for maximum fixture life and IP66-rated for outdoor applications, eW Burst Compact Powercore is ideal for use in damp or wet locations.
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For detailed product information, please refer to the eW Burst Compact Powercore Product Guide at www.philipscolorkinetics.com/ls/essentialwhite/ewburstcompactpc/

Dimensions





Luminaire Type:
Catalog Number
(autopopulated):

Gotham Architectural Downlighting
LED Downlights

6" Evo®
Lensed Wallwash

Solid-State Lighting



FEATURES

OPTICAL SYSTEM

- Self-flanged semi-specular, matte-diffuse or specular lower reflector
- Proprietary mixing chamber delivers a uniform distribution of light to the wall
- Top-down flash characteristic
- For optimal uniformity, the recommended luminaire spacing is 3' from the wall and 3' centers

MECHANICAL SYSTEM

- 16-gauge galvanized steel construction; maximum 1-1/2" ceiling thickness
- Telescopic mounting bars maximum of 32" and minimum of 15", preinstalled, 4" vertical adjustment
- Toolless adjustments post installation
- Junction box capacity: 8 (4 in, 4 out) 12AWG rated for 90°C
- Light engine and driver accessible through aperture

ELECTRICAL SYSTEM

- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours based on IESNA LM-79-2008
- Tested according to LM-79 and LM-80 standards

- Overload and short circuit protected
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional

LISTINGS

- Fixtures are CSA certified to meet US and Canadian standards; wet location, covered ceiling

WARRANTY

- 5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end user environment and application. All values are design or typical values, measured under laboratory conditions at 25° C.



EXAMPLE: EVO LW 35/10 6AR LSS MVOLT EZ1

Series	Type	Color temperature	Nominal lumen values	Aperture/Trim color	Finish	Voltage
EVO	LW	27/ 2700 K	10 1000 lumens	30 3000 lumens	6AR Clear	LSS Semi-specular
		30/ 3000 K	15 1500 lumens	35 3500 lumens	6PR Pewter	LD Matte diffuse
		35/ 3500 K	20 2000 lumens	40 4000 lumens	6WTR Wheat	LS Specular
		40/ 4000 K	25 2500 lumens	45 4500 lumens	6GR Cold	
				6WR ¹ White		
				6BR ¹ Black		

Driver ³	Options
EZ10 eldoLED 0-10V ECOdrive. Linear dimming to 10% min.	SF Single fuse. Specify 120V or 277V.
EZB eldoLED 0-10V ECOdrive. Linear dimming to 1% min.	TRW⁶ White painted flange
EDAB eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.	TRBL⁷ Black painted flange
EDXB eldoLED SOLOdrive DALL Logarithmic dimming to <1%.	EL⁸ Emergency battery pack with integral test switch
EXA1 eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Includes termination resistor. Refer to DMXR Manual .	ELR⁸ Emergency battery pack with remote test switch
EXAB XPoint Wireless, eldoLED 0-10V ECOdrive. Linear dimming to 1%. Refer to XPoint tech sheet.	NPS80EZ⁵ nLight [®] dimming pack controls D-10V eldoLED drivers.
EXAB XPoint Wireless, eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%. Refer to XPoint tech sheet.	NPS80EZER^{5,8} nLight [®] dimming pack controls D-10V eldoLED drivers. ER controls fixtures on emergency circuit.
ECOS2^{4,5} Lutron [®] Hi-Lume [®] 2-wire forward-phase driver. Minimum dimming level 1%. Minimum lumen 1000/Maximum lumen 3000.	
ECOS3^{4,5} Lutron [®] Hi-Lume [®] 3-wire or EcoSystem [®] dimming driver. Minimum dimming level 1%. Minimum lumen 1000/Maximum lumen 4500.	

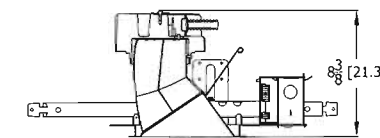
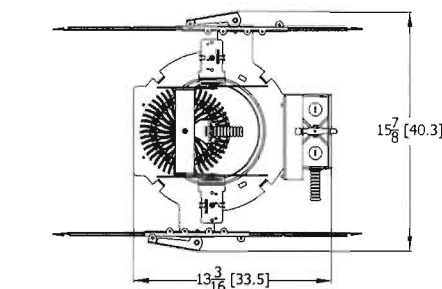
ACCESSORIES order as separate catalog numbers (shipped separately)	
ISO BC	0-10V wallbox dimmer. Refer to ISO-BC.

6" EVO
Lensed Wallwash
Solid-State Lighting

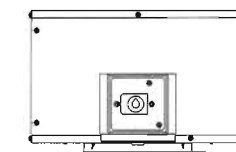
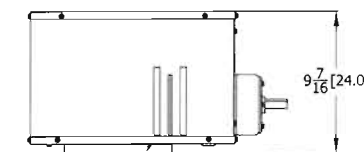
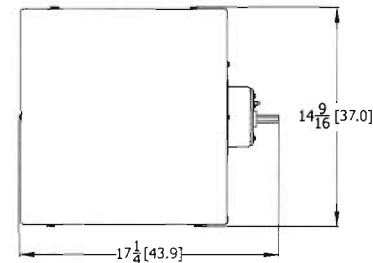


All dimensions are inches (centimeters) unless otherwise noted.

DIMENSIONAL DATA



DIMENSIONS FOR CHICAGO PLENUM



ELECTRICAL

WATTAGE CONSUMPTION MATRIX			
LUMENS	LM ACTUAL	WATTAGE	LUMENS per WATT
1000	741	11.9	62.3
1500	1090	18.6	58.6
2000	1508	24.5	61.6
2500	1926	30.3	63.6
3000	2247	37.9	59.3
3500	2403	40.5	59.3
4000	2959	48.1	61.5
4500	3457	51.3	67.4

nLight [®] Control Accessories: Order as separate catalog number. Visit www.sensorswitch.com/nLight/ for complete listing of nLight controls.			
WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODM [color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 / nCM PDT 9
On/Off & Raise/Lower	nPODM DX [color]	Large motion 360°, ceiling (PIR / dual tech)	nCM 10 / nCM PDT 10
Graphic Touchscreen	nPOD GFX [color]	Wide view (PIR / dual tech)	nWV 16 / nWV PDT 16
Photocell controls	Model number	Wall Switch w/ Raise/Lower (PIR / dual tech)	nWSX LV DX / nWSX PDT LV DX
On/Off & Dimming	nCM ADCX	Cat-5 cables (plenium rated)	Model number
		10', CAT5 10FT	CAT5 10FT J1
		15', CAT5 15FT	CAT5 15FT J1

NOTES

ORDERING NOTES	
1. Not available with finishes.	7. Not available with black reflector.
2. Not available with EL or ELR options.	8. For dimensional changes, refer to TECH-140 . Not available with 347V.
3. Refer to TECH-240 for compatible dimmers.	9. For use with generator supply EM power. Will require an emergency hot feed and normal hot feed.
4. Not available with nLight [®] and XPoint options.	10. ELR not available. CP & ECOS2 - 3000 lumen max. CP & ECOS3 - 4000 lumen max. CP, ECOS2/ECOS3 & EL - 2000 lumen max.
5. Specify voltage. ECOS2 not available in 277V.	
6. Not available with white reflector.	

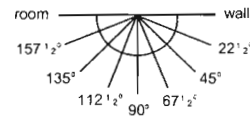


6" EVO Lensed Wallwash Solid-State Lighting

PHOTOMETRY

TECHNICAL INFORMATION

Footcandle values are initial and tables are based on minimum of six units. For fixture-to-wall distance other than those shown, use maximum of one-to-one spacing (distance between fixtures not more than distance to wall) for best results.



Candlepower Data Footcandle values

EVO LW 35/25 4AR LS INPUT WATTS: 30.31, DELIVERED LUMENS: 2022.3, LMW = 66.72, TEST NO. ISF 31499P34

CP Summary	0°	90°	Coefficients of Utilization						Zonal Lumen Summary							
			0°	30°	60°	90°	120°	150°	Zone	Lumens	% Lamp	% Fixture				
0°	1035	1035	0	119	119	119	116	116	116	111	111	111	0° - 30°	773	38.2	38.2
5°	1161	1031	1	111	107	104	105	102	99	101	98	96	0° - 40°	1212	59.9	59.9
15°	1492	844	2	103	96	90	94	89	85	91	86	83	0° - 60°	1842	91.1	91.1
25°	1660	786	3	95	86	79	85	78	73	82	76	72	0° - 90°	2017	99.7	99.7
35°	1454	618	4	88	78	70	76	69	64	74	68	63	90° - 120°	2	0.1	0.1
45°	1072	428	5	82	70	63	69	62	56	67	61	56	90° - 130°	3	0.2	0.2
55°	602	231	6	76	64	56	63	56	50	61	55	50	90° - 150°	5	0.2	0.2
65°	272	77	7	71	59	51	58	50	45	56	50	45	90° - 180°	6	0.3	0.3
75°	112	7	8	66	54	46	53	46	41	52	45	41	0° - 180°	2022	100.0	100.0
85°	13	1	9	62	50	42	49	42	37	48	42	37				
90°	0	1	10	58	46	39	46	39	34	45	38	34				

EVO LW 35/35 4AR LS INPUT WATTS: 40.45, DELIVERED LUMENS: 2523.1, LMW = 62.37, TEST NO. ISF 31499P40

CP Summary	0°	90°	Coefficients of Utilization						Zonal Lumen Summary							
			0°	30°	60°	90°	120°	150°	Zone	Lumens	% Lamp	% Fixture				
0°	1292	1292	0	119	119	119	116	116	116	111	111	111	0° - 30°	964	38.2	38.2
5°	1449	1286	1	111	107	104	105	102	99	101	98	96	0° - 40°	1512	59.9	59.9
15°	1849	1178	2	103	96	90	94	89	85	91	86	83	0° - 60°	2298	91.1	91.1
25°	2072	981	3	95	86	79	85	78	73	82	76	72	0° - 90°	2516	99.7	99.7
35°	1814	771	4	88	78	70	76	69	64	74	68	63	90° - 120°	3	0.1	0.1
45°	1338	533	5	82	70	63	69	62	56	67	61	56	90° - 130°	4	0.2	0.2
55°	751	289	6	76	64	56	63	56	50	61	55	50	90° - 150°	6	0.2	0.2
65°	339	96	7	71	59	51	58	50	45	56	50	45	90° - 180°	7	0.3	0.3
75°	140	8	8	66	54	46	53	46	41	52	45	41	0° - 180°	2523	100.0	100.0
85°	17	2	9	62	50	42	49	42	37	48	42	37				
90°	0	2	10	58	46	39	46	39	34	45	38	34				

EVO LW 35/45 4AR LS INPUT WATTS: 51.27, DELIVERED LUMENS: 3629.8, LMW = 70.79, TEST NO. ISF 31499P46

CP Summary	0°	90°	Coefficients of Utilization						Zonal Lumen Summary							
			0°	30°	60°	90°	120°	150°	Zone	Lumens	% Lamp	% Fixture				
0°	1858	1858	0	119	119	119	116	116	116	111	111	111	0° - 30°	1387	38.2	38.2
5°	2085	1850	1	111	107	104	105	102	99	101	98	96	0° - 40°	2175	59.9	59.9
15°	2661	1695	2	103	96	90	94	89	85	91	86	83	0° - 60°	3307	91.1	91.1
25°	2980	1411	3	95	86	79	85	78	73	82	76	72	0° - 90°	3620	99.7	99.7
35°	2610	1109	4	88	78	70	76	69	64	74	68	63	90° - 120°	4	0.1	0.1
45°	1925	767	5	82	70	63	69	62	56	67	61	56	90° - 130°	6	0.2	0.2
55°	1080	415	6	76	64	56	63	56	50	61	55	50	90° - 150°	8	0.2	0.2
65°	488	138	7	71	59	51	58	50	45	56	50	45	90° - 180°	10	0.3	0.3
75°	201	12	8	66	54	46	53	46	41	52	45	41	0° - 180°	3630	100.0	100.0
85°	24	2	9	62	50	42	49	42	37	48	42	37				
90°	0	2	10	58	46	39	46	39	34	45	38	34				



6" EVO Lensed Wallwash Solid-State Lighting



CONTROLS

Choose Wall Controls. nLIGHT offers multiple styles of wall controls – each with varying features and user experience.



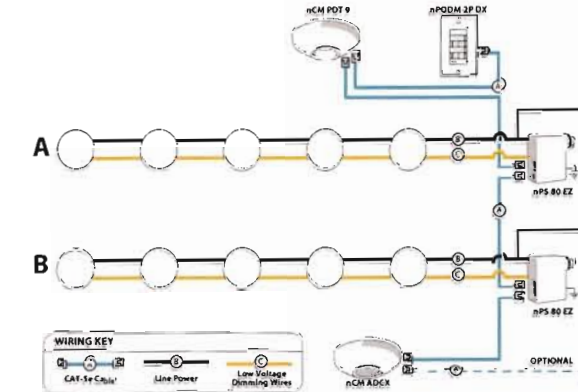
Push-Button WallPod Traditional tactile buttons and LED user feedback



Touch WallPod Contemporary capacitive touch style buttons with audible clicker for user feedback



Graphic WallPod Full color touch screen provides a sophisticated look and feel



- EXAMPLE Group Fixture Control*
 *Application diagram applies for fixtures with eldoLED drivers only.
- nPS 80 EZ Dimming/Control Pack (qty 2 required)
 - nPDM 2P DX Dual On/Off/Dim Push-Button WallPod
 - nCM ADCX Daylight Sensor with Automatic Dimming Control
 - nCM PDT 9 Dual Technology Occupancy Sensor

Description: This design provides a dual on/off/dim wall station that enables manual control of the fixtures in Row A and Row B separately. Additionally, a daylight harvesting sensor is provided so the lights in row B can be configured to dim automatically when daylight is available. An occupancy sensor turns off all lights when the space is vacant.

Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

