

Date: September 1, 2020

## Lighting Discussion - Major Special Use Permit Amendment (SUP-18-05) - 7101 E Lincoln Drive - Smoke Tree Resort

### Lighting

The SOD identifies that the Planning Commission focus on exterior lighting along the perimeter of the site. Parking lot, landscape, pathway, water feature, and building lighting will be placed around the site for on-site visibility, wayfinding, aesthetics, and life safety requirements. The SUP Guidelines recommend that the light source of each fixture be hooded and shielded so that it is not visible from adjacent properties, identifies recommended height and setbacks for certain fixtures, and recommends a maximum output at the property line based upon the use (such as parking lot, entrance roadways, etc.). Article XXV of the Zoning Ordinance also recommends a maximum color temperature of 3000 Kelvins (K). Below is a summary of the resort light fixtures:

- *Pole Lights.* 23 pole lights will be placed in the parking lot and around the auto court/entrance (Fixture Type SA). This is a reduction of 3 lights since the original plan showed a total of 26 pole lights. These pole lights are 16' tall above the adjoining finished grade (height includes a 28" decorative base), have a color temperature of 2700 K, and vary in setback from 2' to 16' from the adjoining and post-dedicated property lines. The SUP Guidelines recommend that pole lights be limited to a maximum height of 16' tall, setback a distance equal to or greater than the height of the pole measured from the adjoining property line, and a maximum output of 1.6 foot candles for parking lot lights. The table below summarizes the setbacks of the parking lot light poles from each adjoining property lines:

Property Line	Minimum Setbacks
Lincoln Dr (North - Net/Post Dedication)	2'
Quail Run Rd (West - Net/Post Dedication)	16'
Andaz (South Property Line)	16'
Lincoln Plaza Medical Center (East Property Line)	2'
SUP Guidelines	16' Minimum (Height of the fixture determines the setback)

The pole lights have a ML660 Millenia Series hood (with the light source recessed into the hood of the fixture), will have shields on all the perimeter fixtures to help reduce the amount of light trespass onto the neighboring properties, and are proposed to be on from dusk until dawn. However, several pole lights deviate from the SUP Guidelines since approximately 12 pole lights encroach into the 16' recommended setback. The number of pole lights which encroach into the recommended setback has been reduced from 18 to 12 poles. Encroachment into the recommended setback is typically discouraged or limited.

- *Building Lights.* Five different fixtures will be placed on or around the exterior of the resort buildings. All building lights will turn on at dusk, be reduced to 50% intensity at 1:00 a.m., and turned off at dawn. A stipulation will be added to identify the duration and reduced intensity of the building lights. Below is a summary of the various building light fixtures:

Date: September 1, 2020

- 57 wall sconces (Fixture Type WP) will be placed on the buildings. The light source is shielded by an opaque cover, directed downward, and has a color temperature of 2700K. This is the same as the prior lighting plan.
- 30 sconces (Fixture Type WS) will be placed in the building patios. The light source is recessed in the hood of the fixture, directed downward, and has a color temperature of 3000K. This is the same as the prior lighting plan.
- 62 accent lights (Fixture Type LT) will be placed on the building trellises and on two free standing trellises located in the event lawn. The light source is recessed into the fixture, directed downward, and has a color temperature of 2700K. This is an increase of 6 fixtures from the prior lighting plan.
- An estimated 90 accent up-lights (Fixture Type LU) will be placed around five of buildings and will highlight the façade of the buildings. The light source is recessed within the fixture, will have a maximum of 250 lumens, and have a color temperature of 2700 K. Building accent lighting is typically discouraged or limited. This is an increase of 2 fixtures from the prior lighting plan.
- 17 carriage style lights will be placed on four of the buildings, predominately on the restaurant and event pavilion buildings. These are a new fixture type since the prior lighting plan. Some of these carriage lights replace proposed sconce fixtures. These fixtures have a color temperature of 3000K, will face Lincoln Drive and Quail Run Road, and do not meet all of the Town Code requirements. The Code requires the light source of each fixture to be screened or shielded so they are not visible from off the property. However, the light source on these fixtures are located behind semi-opaque or frosted glass panels, which does not properly shield the light bulb.

With the exception of the carriage style lights, the building fixtures are compliant with the SUP Guidelines.

- *Landscape and Path Lights.* One type of bollard, three types of landscape fixtures, and one type of handrail fixture will be used to illuminate the landscaping and pathways. All landscape lights will turn on at dusk, be reduced to 50% intensity at 1:00 a.m., and turned off at dawn:
  - 12 bollard lights (Fixture Type BL) will be placed next to the various walkways within the campus. The original plan had 8 bollards in the right-of-way. However, the applicant removed all lighting from the right-of-way in response to Commission and staff concerns. The bollards are approximately 4' tall, have the light source recessed in the top of the fixture, and have a color temperature of 3000K.
  - 24 ring lights (Fixture Type TR) will be placed on the palm trees. Each ring can hold up to four lights. The lights are directed downward and will illuminate from the bottom half of the trees, have a color temperature of 2700 K, and the light source is recessed in the hood of the fixture. These lights will be limited to a maximum mounted height of 16' tall. The majority

of the tree lights are located in the event lawn; however, four of these tree lights are located at the main entrance off of Quail Run Road. Palm tree light rings are typically discouraged or limited.

- 32 landscape up lights (Fixture Type GU) will be placed around the campus. 18 of these lights were originally going to be placed in the right-of-way. However, all light fixtures have been removed from the right-of-way in accordance with Planning Commission's direction. The color temperature is 2700 K.
  - An estimated 11 handrail fixtures (Fixture Type HR) will be placed under all the exterior handrails on campus. The light source is recessed inside the fixture, has a color temperature of 2700 K, and the light is directed downward on the walking surface.
  - 5 flush mounted up-lights (Fixtures LU) will be placed in the parking lot landscape islands adjoining Lincoln Drive in lieu of the bollard lights in the right-of-way. These lights will highlight the trees in the parking lot planters. The light source is recessed within the fixture, will have a maximum of 250 lumens, and have a color temperature of 2700 K. Building accent lighting is typically discouraged or limited.
- *Resort Identification Sign Illumination.* As noted in the previous meetings, a total of three sign types will be used at the resort: resort identification, retail signage, and directional signage. Resort identification includes three signs that will face Lincoln Drive and one sign that will face Quail Run Road (see Sheets A25 and A26). However, the sign illumination information and details were not included in original submittal. The applicant provided updated plans and a detail illustrating the illumination of resort identification signs. These are backlit signs, with the light source located behind opaque aluminum lettering, and a color temperature of 2700K.
  - *Water Feature Lights.* 19 water feature lights will be used in the seven water features shown on Sheet A12. Each fixture is 250 lumens.
  - *Output.* The applicant provided an updated photometric plan (Sheet AL5) which illustrates the combined output of the proposed exterior lighting. The updated plan accounts for the changes noted above and identifies the minimum, average, and maximum output levels which are summarized in the Calculation Summary Table. The SUP Guidelines recommend maximum output levels at the property line per use. Parking lots have a recommended output of 1.6 foot candles at the property line and roadway entrances, drop off areas, and driveways have a recommended output of 5.0 foot candles measured at the property line. Please reference Section 2 in the SUP Guidelines (Attachment D) for all the recommended outputs by use. It is also recommended that all other areas not outlined in the SUP Guidelines comply with the residential output of 0.75 foot candles at the property line.

Per the updated photometric plan, the output varies from 0.0 foot-candles to 0.5 foot-candles at the property lines. The Calculation Summary Table is broken down into three categories of the light trespass, interior drives, and pool deck area. The light trespass areas have an average output of 0.18 foot-candles and

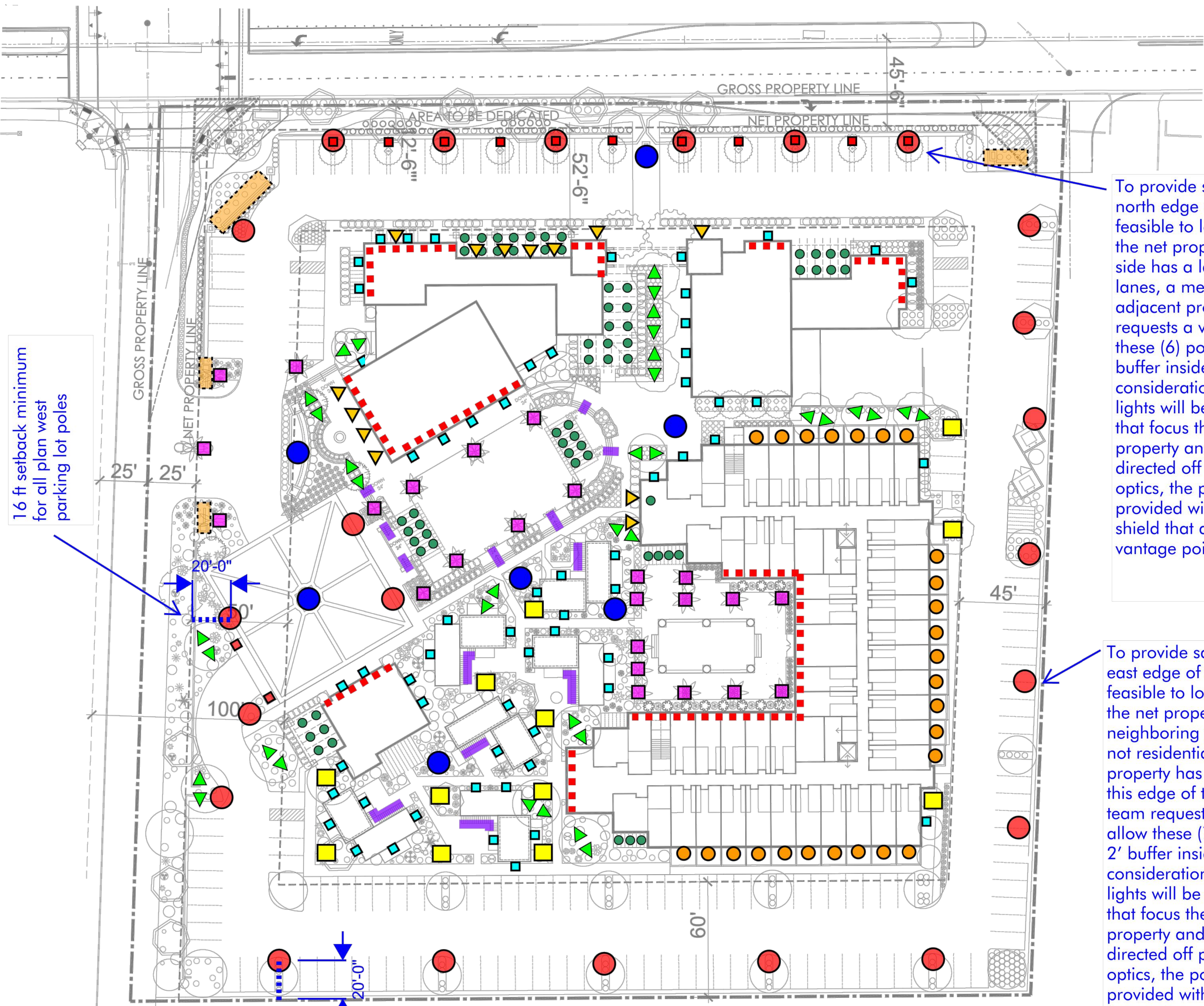
Date: September 1, 2020

maximum output of 0.5 foot-candles (which is compliant with the recommended output of 0.75 foot-candles at the property line). The interior drives have an average output of 1.08 foot-candles and a maximum output of 4.4 (which is compliant with the recommended output of 5 foot-candles for driveways and entrances). The pool deck area has an average output of 1.62 foot-candles and a maximum output of 4.9 (which is compliant with the recommended output of 5 foot-candles for pool decks and function areas).

Staff is seeking the Commission's input regarding the reduced setbacks for the parking lot light poles, use of palm tree lighting, and if there are any concerns regarding the timing of certain light fixtures. Refer to Attachment S for the updated lighting plans.



GROUND LEVEL LIGHTING



To provide safe levels of lighting on the north edge of the property, it may not be feasible to locate the pole lights 16' from the net property line. Note that the north side has a landscape buffer, 4 traffic lanes, a median, and wall between adjacent property. The design team requests a variance to the code to allow these (6) poles to be placed in the 2' buffer inside the property line. In consideration of this request, all pole lights will be provided with fixture optics that focus the light to aim onto our property and minimize light being directed off property. In addition to the optics, the pole fixtures will also be provided with a physical house-side shield that additionally block glare from vantage points off property.

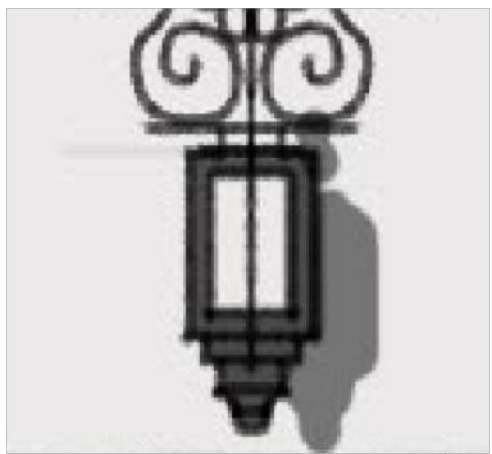
To provide safe levels of lighting on the east edge of the property, it may not be feasible to locate the pole lights 16' from the net property line. Note that the neighboring property on the east side is not residential and that this commercial property has parking and drive lanes at this edge of their property. The design team requests a variance to the code to allow these (7) poles to be placed in the 2' buffer inside the property line. In consideration of this request, all pole lights will be provided with fixture optics that focus the light to aim onto our property and minimize light being directed off property. In addition to the optics, the pole fixtures will also be provided with a physical house-side shield that additionally block glare from vantage points off property.

16 ft setback minimum for all plan west parking lot poles

16 ft setback minimum for all plan south parking lot poles



Custom backlit signage, light source completely shielded with no footcandle impact on ground, 2700K



Custom decorative fixture with semi-opaque glass panels to obscure light source, max 250 lumens



Submersible fixtures in water features by water feature consultant



TYPE BL  
Symmetric bollard  
fixture for way-finding



TYPE GU  
Ground mounted landscape  
fixture for accenting select  
trees



TYPE HR  
Handrail mounted puck  
LED lights for safe  
stair lighting



TYPE LU  
Flush-to-grade fixture to uplig  
landscape, pots, and key  
architecture, max 250 lumen



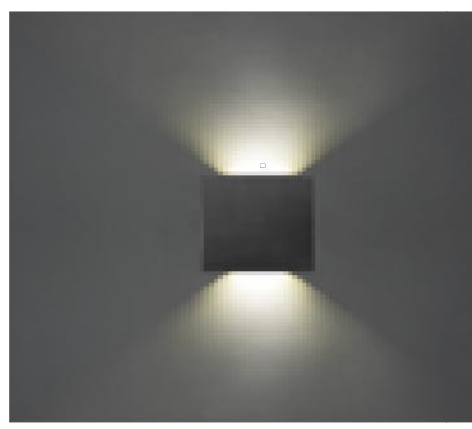
TYPE LT  
Adjustable accent light trellis  
mounted and concealed from  
most vantage points



TYPE SA  
Post-top thematic pole,  
16' max pole height  
(dark sky friendly with  
house-side shield & optics)



TYPE TR  
Palm tree ring for grazing  
down sides of textured tree,  
16' max mounting height



TYPE WP  
Thematic wall sconce  
for ambient illumination  
& way-finding



TYPE WS  
Decorative wall  
sconce for patios  
(dark sky friendly)



CREATIVE DESIGNS  
IN LIGHTING



15982 N. 78th St. Suite A  
Scottsdale, Arizona 85260

602.248.7822  
design@cdltg.com  
www.cdltg.com

1978 41 2019  
years of architectural  
lighting design

**SMOKE TREE RESORT**  
7101 E LINCOLN DR, PARADISE VALLEY, AZ 85253

REVISIONS		
△		
△		
△		
△		
△		
△		

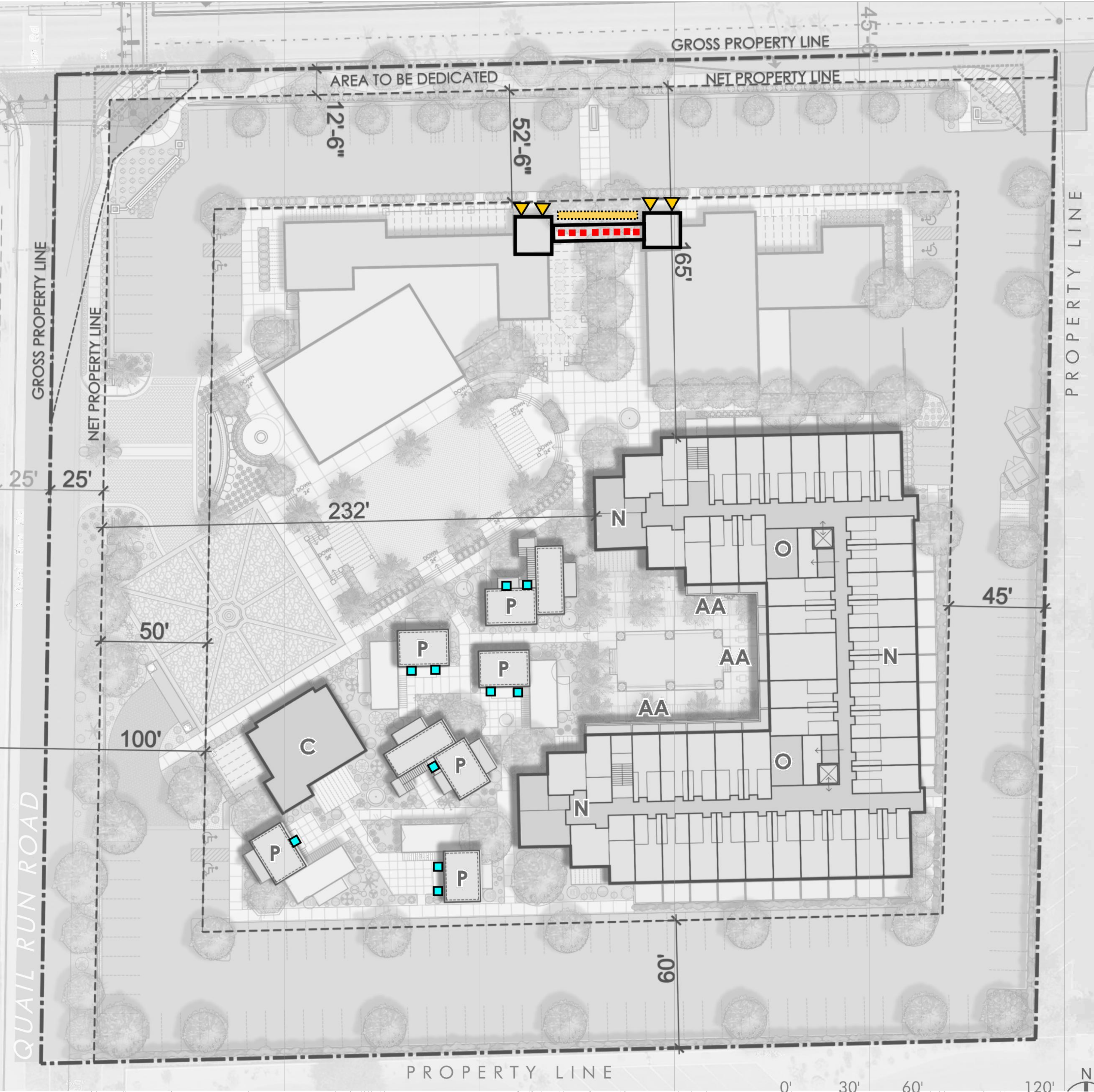
DATE	08-24-2020
SCALE	NTS
PROJECT NUMBER	116325-19
DRAWN BY	JG
CHECKED BY	MG
SHEET NAME	

GROUND LEVEL  
LIGHTING PLAN

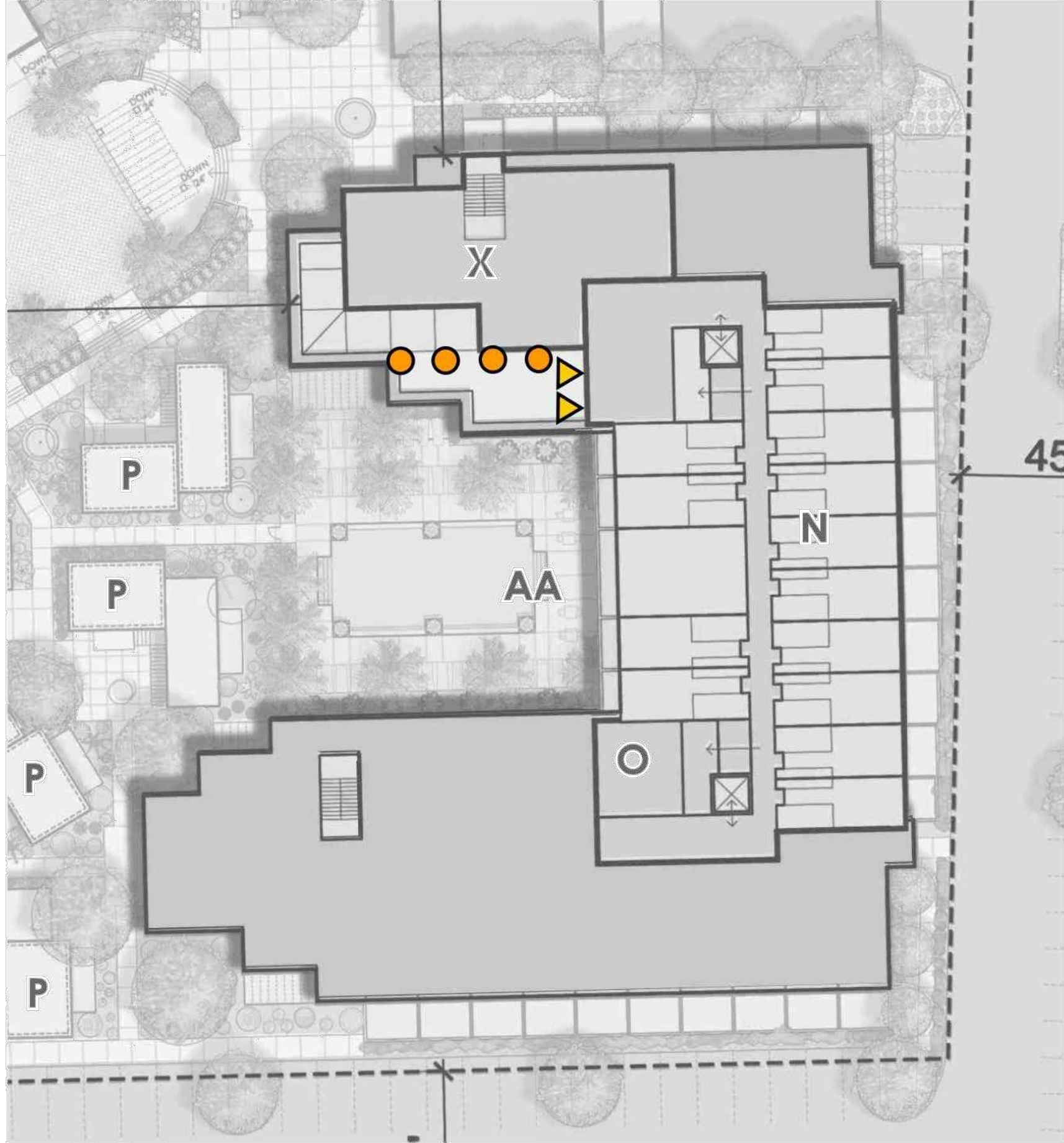
SHEET NUMBER  
**AL3**



SECOND LEVEL LIGHTING



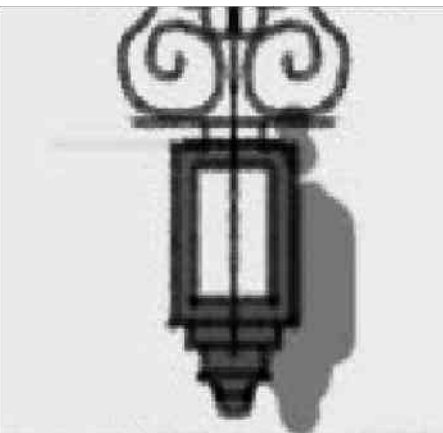
THIRD LEVEL LIGHTING



Custom backlit signage, light source completely shielded with no footcandle impact on ground, **2700K**



**TYPE WP**  
Thematic wall sconce for ambient illumination & way-finding



Custom decorative fixture with semi-opaque glass panels to obscure the light source, max 250 lumens



**TYPE LU**  
Flush-to-grade fixture to uplight pots and key architecture, max 250 lumens



**TYPE WS**  
Decorative wall sconce for patios (dark sky friendly)



CREATIVE DESIGNS  
IN LIGHTING



15982 N. 78th St. Suite A  
Scottsdale, Arizona 85260

602.248.7822  
design@cdltg.com  
www.cdltg.com

1978 **41** 2019  
years of architectural  
lighting design

**SMOKE TREE RESORT**  
7101 E LINCOLN DR, PARADISE VALLEY, AZ 85253

REVISIONS		
△		
△		
△		
△		
△		
△		

DATE	08.24.2020
SCALE	NTS
PROJECT NUMBER	116325-19
DRAWN BY	JG
CHECKED BY	MG
SHEET NAME	

2ND & 3RD LEVEL  
LIGHTING PLAN

SHEET NUMBER  
**AL4**





CREATIVE DESIGNS  
IN LIGHTING



15982 N. 78th St. Suite A  
Scottsdale, Arizona 85260

602.248.7822  
design@cdltg.com  
www.cdltg.com

1978 **41** 2019  
years of architectural  
lighting design

**SMOKE TREE RESORT**  
7101 E LINCOLN DR, PARADISE VALLEY, AZ 85253

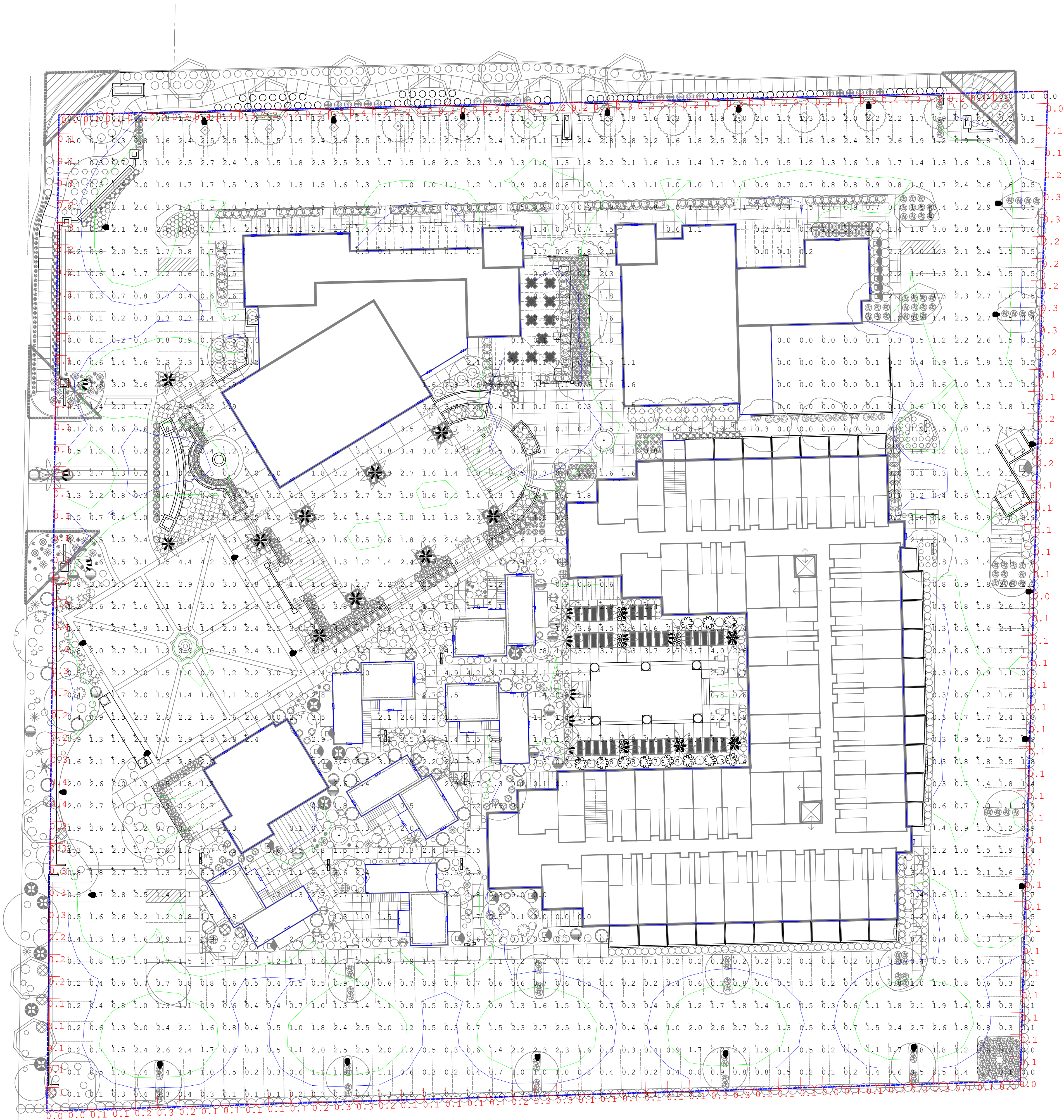
REVISIONS		
△		
△		
△		
△		
△		

DATE	08.24.2020
SCALE	NTS
PROJECT NUMBER	116325-19
DRAWN BY	JG
CHECKED BY	MG
SHEET NAME	

GROUND LEVEL  
PHOTOMETRY PLAN

SHEET NUMBER

**AL5**



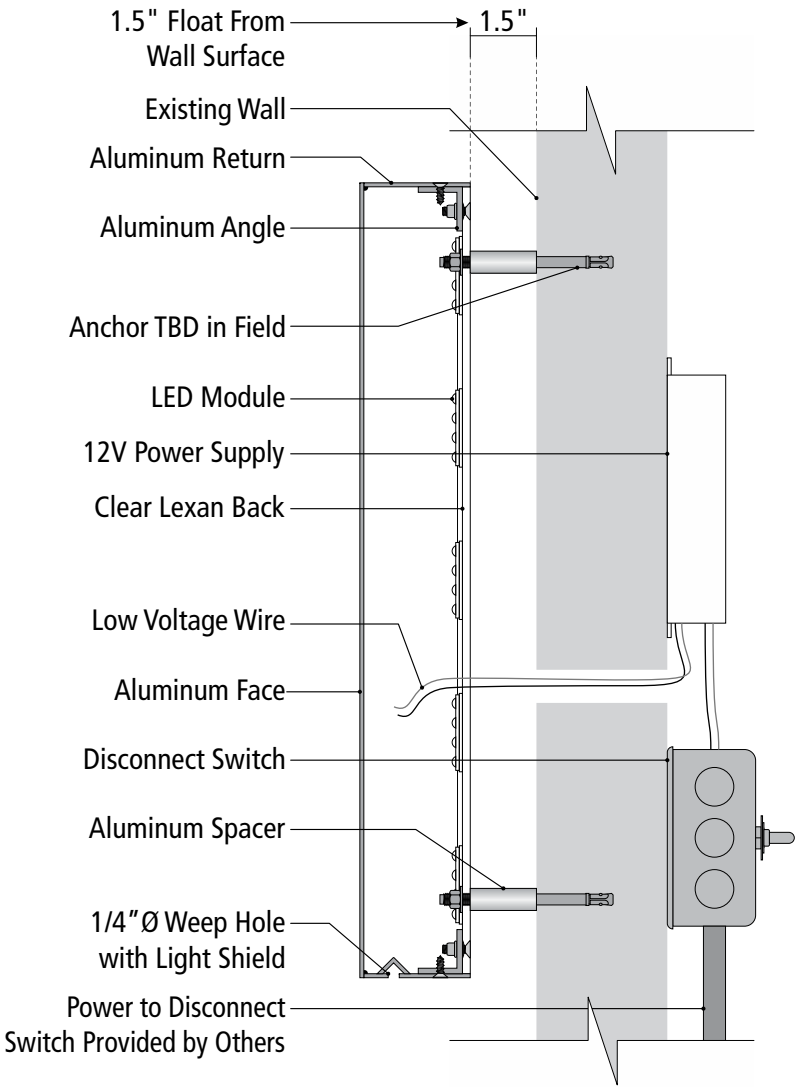
Calculation Summary						
Label	CalcType	Units	Avg	Max	Min	
Light Trespass Calc	Illuminance	Fc	0.18	0.5	0.0	
Entrance Rd Interior Drives	Illuminance	Fc	1.08	4.4	0.0	
Pool Deck Function Areas	Illuminance	Fc	1.62	4.9	0.0	

DESIGN DEVELOPMENT SET - NOT FOR CONSTRUCTION





Custom backlit signage,  
light source completely  
shielded with no footcandle  
impact on ground, **2700K**



This sign is intended to be installed in accordance with the requirements of article 600 of the national electrical code and/or other applicable local codes. This includes proper grounding and bonding of the sign. The location of the disconnect switch after installation shall comply with Article 600.6(A)(1) of the National Electrical Code. All signs fabricated as per 2008 N.E.C. Standards.

TYP. HALO ILLUMINATED LETTER SECTION

scale: nts



Gretchen Wilde, owner / designer  
1205 N. Miller Road  
Tempe, AZ 85281  
480.966.6565 / 480.966.5668 (f)  
signs@airparksigns.com

Address

NOTES:

Approved By:

Date:

trc  
th

Phoenix Architecture

08.24.20

Letter Section

1  
PAGE





CREATIVE DESIGNS  
IN LIGHTING



15982 N. 78th St. Suite A  
Scottsdale, Arizona 85260

602.248.7822

design@cdltg.com  
www.cdltg.com







1978 **41** 2019

years of architectural  
lighting design

**SMOKE TREE RESORT**  
7101 E LINCOLN DR, PARADISE VALLEY, AZ 85253

7101 E LINCOLN DR, PARADISE VALLEY, AZ 85253

## REVISIONS

DATE \_\_\_\_\_

08.24.2020

---

SCALE

PROJECT NUMBER

116325-19  
 DRAWING

JG

CHECKED BY  
MG

LEFT NAME

SHEET NAME

HTIN

SHEET NUMBER

# AL1

# TYPE "BL"

## VCBA

### LED

# VOLTAIRE CONCRETE BOLLARD – ARCHILINEAR

CATALOG #

TYPE

PROJECT:

NOTES:

EXAMPLE

VCBA - L9/830 - NC - AB - OPTIONS - 120

SIZES LUMEN PACKAGE COLOR CCT FINISH ANCHOR BOLTS OPTIONS MODUL

## CROSS SECTIONS

## ORDERING INFORMATION

### SERIES

VCBA Voltaire Concrete Bollard – Archilinear

### LED PACKAGE

Normal lumens based on 120V input. See back for fixture performance data.

EXAMPLE LUMENS	NOMINAL LUMENS	MINIMUM CH & CCT	ANSI/IES WATTAGE
L9	930	130 - RD C9000 140 - RD C9, R2000 850 - RD C9, 5000K	17

### CONCRETE FINISH

#### SANDBLAST FINISH

NC Natural  
BF Buff  
BN Brown  
CP Copper

#### GLAZED SANDBLAST FINISH

L-NC Natural with glazed protective sealant  
BNG Brown with glazed protective sealant  
BFG Buff with glazed protective sealant  
CPG Copper with glazed protective sealant

### ANCHOR BOLTS

AB<sup>1</sup> Anchor bolts (4 each, shipped with fixture)<sup>2</sup>  
LAB Less anchor bolts  
PAB<sup>3</sup> Pre-shipped anchor bolts (4 each)

### OPTIONS

SFW Single fase, wet location (120V, 277V, or 347V only; must specify voltage)  
DFW Double fase, wet location (208V, 240V, or 480V only; must specify voltage)

### VOLTAGE

120	120V
208	208V
240	240V
277	277V (integral stepdown transformer)
347	347V (integral stepdown transformer)
480	480V (integral stepdown transformer)

## FEATURES

- Concrete housing complements gardens, pathways, and pedestrian-area applications
- Aesthetically designed to blend seamlessly with a variety of architectural styles
- Provides accent and security lighting
- Symmetric distribution
- Available in four concrete colors with light sandblast or glazed protective finish
- Engineered with the highest quality materials to ensure reliability and performance
- Rated >60,000 hours at 70% lumen maintenance (L70)
- ANSI 8000K, 4000K, or 5000K CCT
- Minimum 80 CR
- Ingress protection provides optimal passive thermal management
- Rated for -20° to 40° C ambient operating temperature
- Direct line driven LED module
- This fixture is proudly made in the USA

H.E. Williams, Inc. • Carthage, Missouri • [www.hew.com](http://www.hew.com) • 417-358-4085

**Williams**  
H.E. WILLIAMS, INC.

<sup>1</sup> Four 3/8" x 12" cast-in galvanized steel anchor J-bolts. Mounting templates included.

10/2015  
Page 1 of 2

# ALPHA<sup>®</sup> BRAND

LED<sup>®</sup> HANDLIS

Alpha Brand by Leda Brands

1574 Gateway Circle  
Tustin, CA 92780

PH: 714.259.9959  
FAX: 714.259.9951

www.alpha-brand.com

TYPE 'H'

Job Name:	Contact:
Ordering Code:	Fixture Type:

## ZETA750

### Description

The ZETA750 Series Puck is the most flexible and vandal resistant LED handrail lighting module on the market, offering unrivaled uniformity and photometric performance. Designed with the specifier in mind, it accommodates a wide range of options of beam distribution for a clean design.

The pucks can be installed in new handrail or retrofit into existing handrail, flat or oval metallic structures and surfaces. Powerful yet small and unobtrusive, make the Handrail Puck ideal for incorporation into street sculptures, illuminating artwork or to wash walls with clean, white LED light.

The ZETA750 is engineered of electroplated 316 stainless steel. Other custom materials are available including aluminum, brass, and super-cold stainless steel (which offers exceptional corrosion resistance), as well as custom painted finishes. Please consult factory for these custom options.

At standard handrail height the pucks provide 11 foot-candles at the surface below. They are offered with wide, narrow, and asymmetric beam patterns. ETL wet rated for outdoor applications. For round handrail, the LED pucks are field installed with the use of ZETA750 series Drill Tool Kit. For flat surface the installer may use their own drill bits and threading tape. Please refer to the installation instructions.

### Housing

Extremely durable 316 stainless steel marine grade housing, with 3.5" (90mm) 20AWG wire leads. Choice of Thin Wall (recommended for ease of installation), or Heavy Wall. Curved face or flat face options available in three different beam patterns: 60°, 80°, asymmetric, and 120°.

### Mounting

Type of Surface- Install in metallic surface only for proper thermal dissipation. Luminaires are fixed in non-insulated recessed surfaces.

Fits Railing (a/c) - Ø38.0mm, 1/4" (66mm) to 70.0mm, 3/4" (33mm).

Thin Wall Puck minimum wall thickness - 1.5mm, 0.058in.

Heavy Wall Puck minimum wall thickness - 2.5mm, 0.098in.

Minimum distance between lights - 101.6mm, 4.000inches (center to center). Max 16 lights may be connected in series.

### Electrical / LED Driver

- 30VDC, 500mA, 1.5W (Remote Driver Required)

### Listings

- ETL Listed to UL2108 (suitable for wet locations)

- e-List Listed to C2A2 2202.0

- Impact tested to IK10 (EN62262)

- IP65 rated

- ADA Compliant when using handrail diameter 31.75mm (1.25") to 38.1mm (1.5") O.D.

### LED Performance

LED:	One 3W3	Lumens:	CCT
UVIN:	.001	194 lm	2700K
CRI:	2700K, 3000K, 4000K, 5000K	111 lm	3000K
CR:	>80	119 lm	4000K
Life:	90% at 51k hrs based on LM-80 testing	127 lm	5000K
Warranty:	5 year limited warranty		
*At 5000K CRI >70			

Follow the steps to specify your fixture, example: 750 - 4 - 2 - 1 - 1

Part Number	CCT	Beam	Face Type	Wall Thickness
750 Rail Puck	2 2700K 3 3000K 4 4000K 5 5000K	1 Standard 60° 2 Symmetric 120° 3 Asymmetric 90°	1 Curved 2 Flat	1 Heavy 2 Thin
<div> <div> <p><b>Heavy Wall Curved Face</b> Mounts to pipe size: Ø108mm - Ø100mm Wall thickness &gt; 2.5mm Mounting thread: M16x1mm Requires countersinks Ø16mm x 1.8mm <math>\nabla</math></p> </div> <div> <p><b>Thin Wall Curved Face</b> Mounts to pipe size: Ø108mm - Ø100mm Wall thickness &gt; 1.5mm Mounting thread: M16x1mm</p> </div> <div> <p><b>Heavy Wall Flat Face</b> Mounts to flat surfaces Wall thickness &gt; 2.5mm Mounting thread: M16x1mm Requires countersinks Ø16mm x 1.8mm <math>\nabla</math></p> </div> <div> <p><b>Thin Wall Flat Face</b> Mounts to flat surfaces Wall thickness &gt; 1.5mm Mounting thread: M16x1mm</p> </div> </div>				

LM-79

In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product. #1520.17 ZETA750 Page 1 of 4

TYPE 'L'  
Lumière

DESCRIPTION

Cambrisa 203 is a small, low voltage dimmable LED and halogen MR16 luminaire. It is available with a fully adjustable side-wired stem (203, 203-FL), an adjustable center rear-wired (203-CRS) or a stationary rear flush mount (203-FL). Side-wired models 203 and 203-FL provide 340° tilt and 360° rotation. Center rear-wired model CRS provides 200° tilt and 360° rotation. Various lenses, louvers and color or dichroic filters can be combined - up to three at once - to create multiple lighting effects. The Lumière exclusive Siphon Protection System (S.P.S.) prevents water from siphoning into the fixture through its own lead wires.

SPECIFICATION FEATURES

Material

Housing, hood and mounting stem are precision-machined from corrosion-resistant steel 6061-T3 aluminum, C300 brass, C032 bronze, C110 copper or 303/304 stainless steel.

Finish

Fixtures constructed from 6061-T3 aluminum are double painted with an RHQMS compliant chemical paint. C300 brass, C032 bronze and polymer powdercoat paint finish, surpassing the rigorous demands of the outdoor environment. A variety of standard colors are available.

Brass, Bronze Copper or Stainless Steel

Fixtures constructed from lens, brass, bronze or stainless steel are left unpainted to reveal the natural beauty of the material. Brass, bronze and copper will patina naturally over time.

Hood

Hood is removable for easy relamping and accepts up to three internal accessories at once. Lenses, louvers, filters to achieve multiple lighting effects. Model 203, 203-CRS & 203-FL: Wets holes prevent water and mineral salts from entering the lens, even in the straight-up position. Model 203-FL: The flush lens design reduces future leakage, minimizes debris collection and prevents water and mineral salts from collecting on the lens.

Gasket

Housing and hood are sealed with a high temperature silicone o-ring gasket to prevent water intrusion.

Lens

Tempered glass lens, fixture sealed with high temperature adhesive to prevent water intrusion and breakage due to thermal shock.

Catalog #	Type
Project	Date
Comments	
Prepared by	

Mounting Stem

Model 203 and 203-FL include fully adjustable side-wired stem, providing 340° tilt and 360° rotation for easy aiming. Center rear-wired (203-CRS) or stationary rear flush mount (203-FL) models are also available. All models include 12" NPS threaded male fitting. Stainless steel air-locking mechanisms are standard (not available on 203-FL). Lumière's exclusive Siphon Protection System (S.P.S.) prevents water from siphoning into the fixture through its own lead wires.

Hardware

Stainless steel hardware is standard to provide maximum corrosion-resistance.

Socket

Ceramic socket with 260°C (500°F) contact lead wires and G5.3 pin base.

Electrical

Requires 12V transformer required (not included). Note: initial power draw of LED equipped fixtures is 15 watts. When using transformer use 15 watts per LED fixture. Nominal power draw after start up is 6-8 watts or 10 watts accordingly. Also, LEDs are more voltage sensitive than standard halogen MR16 lamps. The LED module is designed to operate between 10 and 15 volts. Any less or more voltage can cause premature failures.

Lamp

Halogen lamp not included. LED modules are included and are available in four color temperatures (2700, 3000, 4000, and 5700) and three distributions (spot, narrow, and flood). Both color temperature and distribution must be specified when ordering. Soral lamp compatible (10W Max).

203  
CAMBRISA  
LED  
HALOGEN

APPLICATIONS:  
ACCENT / FLOOD

Source  
(for LED, select from each column and combined)

5000K-10W LED, Halogen MR16 (lamp not included) 12-15V

8000K-10W LED 20-2700K 12-12" Spot

9000K-10W LED 20-3000K 21-21" Narrow

9000K-10W LED 20-4000K 21-21" Wide

9000K-10W LED 20-5700K

8000K-4W LED 20-4000K

8000K-4W LED 20-5700K

8000K-4W LED 20-5700K

8000K-4W LED 20-5700K

8000K-4W LED 20-5700K

8000K-4W LED 20-5700K

8000K-4W LED 20-5700K

8000K-4W LED 20-5700K

CERTIFICATION DATA  
UL and ULX Location Listed  
LAP791 LMV-CEC  
RoHS Compliant  
PHI-ISO 9001:2015 Certified  
RoHS Compliant

TECHNICAL DATA  
LED Input: 12V/600,000 hours at 20°C  
LED Output: 12V/600,000 hours at 20°C  
Low Voltage: 10V/600,000 hours at 20°C

ORDERING INFORMATION

Sample Number: 203-FL50MR16-12-10GS

Series	Construction	Source	Voltage	Finish
203-LED-10W Cambrisa Accent Fixture	Standard Side-Swivel Stem, 12" NPS PM-Flare Flush Mount, 12" NPS PM-Flare Lens, Side-Swivel Stem, 12" NPS	5000K-10W LED, Halogen MR16 (lamp not included) 8000K-10W LED 9000K-10W LED 20-2700K 20-3000K 20-4000K 20-5700K 20-4000K 20-5700K 20-5700K	12-15V 12-12" Spot 21-21" Narrow 21-21" Wide 21-21" Wide 21-21" Wide 21-21" Wide 21-21" Wide 21-21" Wide 21-21" Wide 21-21" Wide	Painted BK-Black BL-Brass BR-Bronze CU-Copper V-Venice WH-White Premium Finish NPS-Natural Brass NPS-Natural Copper NPS-Natural Steel NPS-Natural Stainless Steel

Eaton  
Power Quality Solutions

ADJ2382  
July 22, 2019  
1 of 9

VCBA

LED

VOLTAIRE CONCRETE BOLLARD –

TYPE “BL”

Catalog # VCBA-19/840-NC

SPECIFICATIONS

**Housing** – Steel reinforced precast concrete with a light and blasted finish.

**Thermal Management** – Integral aluminum heat sink and LED housing provide passive thermal management. Rated -30°C to 40°C ambient operating temperature.

**LED Housing** – High grade cast aluminum with superior corrosion resistance. Silver polyester powder coat finish bonded to phosphoric-free, multi-stage pretreated metal, meets and exceeds AAMA 2604 specifications for outdoor durability.

**LED Module** – High quality mid power LED board, 120-50,000 hours.

**Electrical** – 10kA/100V surge protection standard.

**Mounting** – Minimum 4” recessed in ground with four point hot dip galvanized 1/4” A307 steel brackets. For accurate installation a falsecall mounting template is provided with each bollard and anchor bolt only. Fixture weight: 20 lbs.

**Handhole Cover** – Grounded stainless steel plate with precast concrete secured with vertical stainless toe flanges.

**Labels** – (CSA) certified as luminaires for the most locations.

**Certifications & Qualifications**

- Calculated 20 lumens maintenance will exceed 50,000 hours per IES TM-21.
- 9A-30 approved.
- Tested to IES LM-79-08 standards.
- RoHS compliant.

**Warranty** – 5 year limited warranty, see [www.vcwa.com/warranty](http://www.vcwa.com/warranty).

PHOTOMETRY INFORMATION

FOOTCANDLE DISTRIBUTION

FIXTURE PERFORMANCE DATA

LED Package	Voltage	Flux (lm)	CRI	Wattage
<b>LR330</b>	120	888	83	17
<b>LR340</b>	120	889	81	17
<b>LR350</b>	120	868	82	17
<b>LR360</b>	208	818	80	16
<b>LR380</b>	208	838	81	16
<b>LR390</b>	208	856	82	16
<b>LR390</b>	240	927	82	19
<b>LR340</b>	240	944	81	19
<b>LR350</b>	240	955	82	19
<b>LR370</b>	277	920	80	20
<b>LR380</b>	277	949	81	20
<b>LR390</b>	277	970	82	20
<b>LR390</b>	347	954	80	19
<b>LR360</b>	347	984	81	19
<b>LR390</b>	347	994	82	19
<b>LR370</b>	480	922	80	19
<b>LR380</b>	480	944	81	19
<b>LR390</b>	480	955	82	19

MOUNTING DETAILS

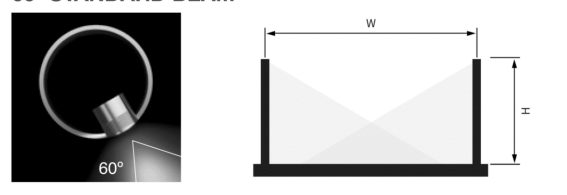
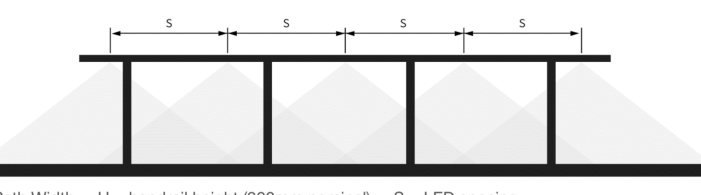
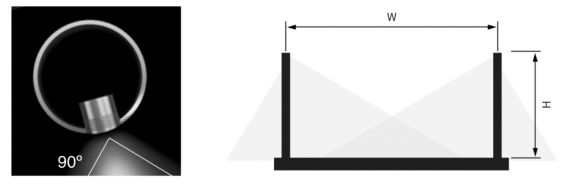
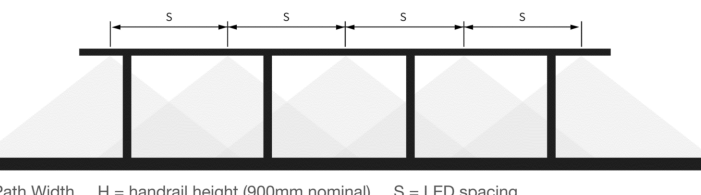
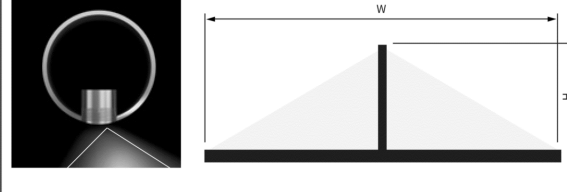
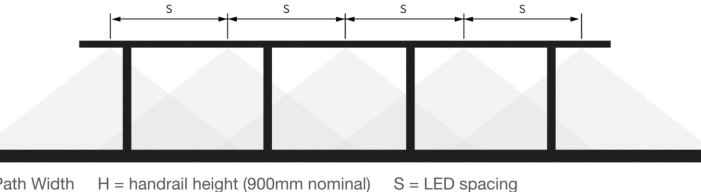
MOUNTING TEMPLATE

Mounting template is provided with each order. A pull file (not to scale) of the mounting template is available at [www.vcwa.com](http://www.vcwa.com).

Bollards  
Page 2 of 2

H.E. Williams, Inc. • Carthage, Missouri  
Information contained herein is subject to change without notice.

• [www.vcwa.com](http://www.vcwa.com) • 417.359.4805  
REV006068, REV007070

<b>ALPHABET</b> LED lights	Alphabet by Ledra Brands   15774 Gateway Circle Tustin, CA 92780   PH: 714.259.9999 www.alphabetlighting.com <b>TYPE 'H'</b>																																																																										
<b>Job Name:</b>	<b>Contact:</b>																																																																										
<b>Ordering Code:</b>	<b>Fixture Type:</b>																																																																										
<b>60° STANDARD BEAM</b>  <p>W = Path Width    H = handrail height (900mm nominal)    S = LED spacing</p> <p>STANDARD BEAM - LIGHT FROM ONE SIDE</p> <table border="1"> <thead> <tr> <th>path width</th><th>1.2m</th><th>2.0m</th><th>3.0m</th><th>4.0m</th></tr> </thead> <tbody> <tr> <td>LED Spacing</td><td>lx</td><td>lx</td><td>lx</td><td>lx</td></tr> <tr> <td>0.5m</td><td>107</td><td>0.67</td><td>82</td><td>0.51</td><td>61</td><td>0.31</td><td>47</td><td>0.19</td></tr> <tr> <td>1.0m</td><td>55</td><td>0.76</td><td>41</td><td>0.58</td><td>31</td><td>0.34</td><td>24</td><td>0.21</td></tr> <tr> <td>2.0m</td><td>27</td><td>0.78</td><td>21</td><td>0.59</td><td>15</td><td>0.34</td><td>12</td><td>0.21</td></tr> </tbody> </table> <p>lx = average lux    u = uniformity    color temp = 3000K</p>	path width	1.2m	2.0m	3.0m	4.0m	LED Spacing	lx	lx	lx	lx	0.5m	107	0.67	82	0.51	61	0.31	47	0.19	1.0m	55	0.76	41	0.58	31	0.34	24	0.21	2.0m	27	0.78	21	0.59	15	0.34	12	0.21	 <p>STANDARD BEAM - LIGHT FROM BOTH SIDES</p> <table border="1"> <thead> <tr> <th>path width</th><th>1.2m</th><th>2.0m</th><th>3.0m</th><th>4.0m</th></tr> </thead> <tbody> <tr> <td>LED Spacing</td><td>lx</td><td>lx</td><td>lx</td><td>lx</td></tr> <tr> <td>0.5m</td><td>216</td><td>0.76</td><td>164</td><td>0.68</td><td>121</td><td>0.66</td><td>95</td><td>0.66</td></tr> <tr> <td>1.0m</td><td>109</td><td>0.82</td><td>83</td><td>0.72</td><td>61</td><td>0.72</td><td>48</td><td>0.72</td></tr> <tr> <td>2.0m</td><td>55</td><td>0.84</td><td>41</td><td>0.72</td><td>31</td><td>0.71</td><td>24</td><td>0.72</td></tr> </tbody> </table> <p>lx = average lux    u = uniformity    color temp = 3000K</p>	path width	1.2m	2.0m	3.0m	4.0m	LED Spacing	lx	lx	lx	lx	0.5m	216	0.76	164	0.68	121	0.66	95	0.66	1.0m	109	0.82	83	0.72	61	0.72	48	0.72	2.0m	55	0.84	41	0.72	31	0.71	24	0.72
path width	1.2m	2.0m	3.0m	4.0m																																																																							
LED Spacing	lx	lx	lx	lx																																																																							
0.5m	107	0.67	82	0.51	61	0.31	47	0.19																																																																			
1.0m	55	0.76	41	0.58	31	0.34	24	0.21																																																																			
2.0m	27	0.78	21	0.59	15	0.34	12	0.21																																																																			
path width	1.2m	2.0m	3.0m	4.0m																																																																							
LED Spacing	lx	lx	lx	lx																																																																							
0.5m	216	0.76	164	0.68	121	0.66	95	0.66																																																																			
1.0m	109	0.82	83	0.72	61	0.72	48	0.72																																																																			
2.0m	55	0.84	41	0.72	31	0.71	24	0.72																																																																			
<b>90° VERTICAL ASYMMETRIC</b>  <p>W = Path Width    H = handrail height (900mm nominal)    S = LED spacing</p> <p>STANDARD BEAM - LIGHT FROM ONE SIDE</p> <table border="1"> <thead> <tr> <th>path width</th><th>1.2m</th><th>2.0m</th><th>3.0m</th><th>4.0m</th></tr> </thead> <tbody> <tr> <td>LED Spacing</td><td>lx</td><td>lx</td><td>lx</td><td>lx</td></tr> <tr> <td>0.5m</td><td>99</td><td>0.8</td><td>73</td><td>0.45</td><td>52</td><td>0.21</td><td>40</td><td>0.15</td></tr> <tr> <td>1.0m</td><td>48</td><td>0.88</td><td>37</td><td>0.51</td><td>27</td><td>0.23</td><td>20</td><td>0.18</td></tr> <tr> <td>2.0m</td><td>23</td><td>0.89</td><td>18</td><td>0.51</td><td>13</td><td>0.23</td><td>10</td><td>0.16</td></tr> </tbody> </table> <p>lx = average lux    u = uniformity    color temp = 3000K</p>	path width	1.2m	2.0m	3.0m	4.0m	LED Spacing	lx	lx	lx	lx	0.5m	99	0.8	73	0.45	52	0.21	40	0.15	1.0m	48	0.88	37	0.51	27	0.23	20	0.18	2.0m	23	0.89	18	0.51	13	0.23	10	0.16	 <p>STANDARD BEAM - LIGHT FROM BOTH SIDES</p> <table border="1"> <thead> <tr> <th>path width</th><th>1.2m</th><th>2.0m</th><th>3.0m</th><th>4.0m</th></tr> </thead> <tbody> <tr> <td>LED Spacing</td><td>lx</td><td>lx</td><td>lx</td><td>lx</td></tr> <tr> <td>0.5m</td><td>193</td><td>0.89</td><td>148</td><td>0.8</td><td>105</td><td>0.77</td><td>81</td><td>0.62</td></tr> <tr> <td>1.0m</td><td>97</td><td>0.9</td><td>74</td><td>0.8</td><td>53</td><td>0.86</td><td>41</td><td>0.68</td></tr> <tr> <td>2.0m</td><td>48</td><td>0.84</td><td>37</td><td>0.8</td><td>27</td><td>0.84</td><td>20</td><td>0.68</td></tr> </tbody> </table> <p>lx = average lux    u = uniformity    color temp = 3000K</p>	path width	1.2m	2.0m	3.0m	4.0m	LED Spacing	lx	lx	lx	lx	0.5m	193	0.89	148	0.8	105	0.77	81	0.62	1.0m	97	0.9	74	0.8	53	0.86	41	0.68	2.0m	48	0.84	37	0.8	27	0.84	20	0.68
path width	1.2m	2.0m	3.0m	4.0m																																																																							
LED Spacing	lx	lx	lx	lx																																																																							
0.5m	99	0.8	73	0.45	52	0.21	40	0.15																																																																			
1.0m	48	0.88	37	0.51	27	0.23	20	0.18																																																																			
2.0m	23	0.89	18	0.51	13	0.23	10	0.16																																																																			
path width	1.2m	2.0m	3.0m	4.0m																																																																							
LED Spacing	lx	lx	lx	lx																																																																							
0.5m	193	0.89	148	0.8	105	0.77	81	0.62																																																																			
1.0m	97	0.9	74	0.8	53	0.86	41	0.68																																																																			
2.0m	48	0.84	37	0.8	27	0.84	20	0.68																																																																			
<b>120° VERTICAL SYMMETRIC</b>  <p>W = Path Width    H = handrail height (900mm nominal)    S = LED spacing</p> <p>STANDARD BEAM - LIGHT FROM ONE SIDE</p> <table border="1"> <thead> <tr> <th>path width</th><th>1.2m</th><th>2.0m</th><th>3.0m</th><th>4.0m</th></tr> </thead> <tbody> <tr> <td>LED Spacing</td><td>lx</td><td>lx</td><td>lx</td><td>lx</td></tr> <tr> <td>0.5m</td><td>147</td><td>0.7</td><td>113</td><td>0.4</td><td>79</td><td>0.12</td><td>58</td><td>0.02</td></tr> <tr> <td>1.0m</td><td>74</td><td>0.71</td><td>57</td><td>0.44</td><td>40</td><td>0.12</td><td>29</td><td>0.02</td></tr> <tr> <td>2.0m</td><td>36</td><td>0.22</td><td>28</td><td>0.11</td><td>19</td><td>0.03</td><td>14</td><td>0.01</td></tr> </tbody> </table> <p>lx = average lux    u = uniformity    color temp = 3000K</p>	path width	1.2m	2.0m	3.0m	4.0m	LED Spacing	lx	lx	lx	lx	0.5m	147	0.7	113	0.4	79	0.12	58	0.02	1.0m	74	0.71	57	0.44	40	0.12	29	0.02	2.0m	36	0.22	28	0.11	19	0.03	14	0.01	 <p>STANDARD BEAM - LIGHT FROM BOTH SIDES</p> <table border="1"> <thead> <tr> <th>path width</th><th>1.2m</th><th>2.0m</th><th>3.0m</th><th>4.0m</th></tr> </thead> <tbody> <tr> <td>LED Spacing</td><td>lx</td><td>lx</td><td>lx</td><td>lx</td></tr> <tr> <td>0.5m</td><td>195</td><td>0.87</td><td>103</td><td>0.56</td><td>61</td><td>0.12</td><td>46</td><td>0.02</td></tr> <tr> <td>1.0m</td><td>95</td><td>0.88</td><td>52</td><td>0.62</td><td>30</td><td>0.11</td><td>24</td><td>0.02</td></tr> <tr> <td>2.0m</td><td>43</td><td>0.25</td><td>25</td><td>0.15</td><td>15</td><td>0.05</td><td>11</td><td>0.01</td></tr> </tbody> </table> <p>lx = average lux    u = uniformity    color temp = 3000K</p>	path width	1.2m	2.0m	3.0m	4.0m	LED Spacing	lx	lx	lx	lx	0.5m	195	0.87	103	0.56	61	0.12	46	0.02	1.0m	95	0.88	52	0.62	30	0.11	24	0.02	2.0m	43	0.25	25	0.15	15	0.05	11	0.01
path width	1.2m	2.0m	3.0m	4.0m																																																																							
LED Spacing	lx	lx	lx	lx																																																																							
0.5m	147	0.7	113	0.4	79	0.12	58	0.02																																																																			
1.0m	74	0.71	57	0.44	40	0.12	29	0.02																																																																			
2.0m	36	0.22	28	0.11	19	0.03	14	0.01																																																																			
path width	1.2m	2.0m	3.0m	4.0m																																																																							
LED Spacing	lx	lx	lx	lx																																																																							
0.5m	195	0.87	103	0.56	61	0.12	46	0.02																																																																			
1.0m	95	0.88	52	0.62	30	0.11	24	0.02																																																																			
2.0m	43	0.25	25	0.15	15	0.05	11	0.01																																																																			
<b>FULLY SHIELDED LIGHTING</b>																																																																											

TYPE 'L'

OPTICAL ACCESSORIES - ORDER SEPARATELY

Filter (2" Diameter)	Optical Lenses (2" Diameter)	Optical Lenses (3.6" Diameter)
<b>F11</b> - Frosted Diffuser	<b>LED-Linear Spread Lens</b> (elongates standard beam angle)	<b>LED-High Gain Collimator</b> (includes glass)
<b>F12</b> - Amber Diffuser	<b>DMF-Diffused Lens</b> (includes even illumination)	
<b>F13</b> - Green Diffuser	<b>DMF-DMF Lens</b> (includes even illumination)	
<b>F14</b> - Medium Blue		
<b>F15</b> - Yellow Diffuser		
<b>F16</b> - Light Blue Diffuser		
<b>F17</b> - Dark Blue Diffuser		
<b>F18</b> - Light Blue Diffuser		
<b>F19</b> - Neutral Density Diffuser		
<b>F20</b> - Magenta Diffuser		
<b>F21</b> - Red Color		
<b>F22</b> - Red Color		
<b>F23</b> - Blue Color		
<b>F24</b> - Green Color		
<b>F25</b> - Yellow Color		
<b>F26</b> - Magenta Color		

LAMP OR LED MODULE PLACEMENT

LED LOCATION

MR16 LOCATION

MOUNTING ACCESSORIES - ORDER SEPARATELY

Ground Mounting
<b>S501</b> - 1.5" x 3.5" (38mm x 89mm) cast zinc ground spike.
<b>S502</b> - 3" x 3" x 6.5" (80mm x 80mm x 160mm) aluminum ground spike with integral 12V wiring connector. Includes ground plate (BK-82,CS,VL,W).
<b>S503</b> - 1.5" x 3" x 6.5" (38mm x 76mm x 160mm) aluminum ground spike with integral 12V wiring connector. Includes ground plate (BK-82,CS,VL,W).
<b>S504</b> - 1.5" x 3" x 6.5" (38mm x 76mm x 160mm) aluminum ground spike with integral 12V wiring connector. Includes ground plate (BK-82,CS,VL,W).
<b>S505</b> - 1" x 1.6" x 12" (16mm x 40mm x 300mm) black polycarbonate ground spike with 2" x 1/2" height adjustment. Includes square flange with standard dim.
<b>S506</b> - 2" x 1.6" x 12" (51mm x 40mm x 300mm) plate stainless spiral ground spike.
<b>S507</b> - 1.5" x 3" x 6.5" (38mm x 76mm x 160mm) aluminum ground spike with integral 12V wiring connector. Includes ground plate (BK-82,CS,VL,W).
<b>S510</b> - 3.34" x 4.12" (86mm x 104mm) stainless steel 2 prong ground spike.
Surface / Wall Mounting - specify cover plate finish (BK,82,CS,VL,W)
<b>F51</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate or box cover with single 12V NPS mounting hole.
<b>F52</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate or box cover with dual 1/2 NPS mounting holes.
<b>F53</b> - 1.12" x 1.12" (14mm) machined aluminum standard round wall plate with single 1/2 NPS mounting hole.
<b>F54</b> - 1.12" x 1.12" (14mm) machined aluminum standard round wall plate with single 1/2 NPS mounting hole.
<b>F55</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F56</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F57</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F58</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F59</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F60</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F61</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F62</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F63</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F64</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F65</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F66</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F67</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F68</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F69</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F70</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F71</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F72</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F73</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F74</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F75</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F76</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F77</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F78</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F79</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F80</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F81</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F82</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F83</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F84</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F85</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F86</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F87</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F88</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F89</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F90</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate for installation on trees with other equipment with 12 NPS mounting hole.
<b>F91</b> - 2.18" x 4.58" (55mm x 117mm) rectangular wall plate





CREATIVE DESIGNS  
IN LIGHTING



15982 N. 78th St. Suite A  
Scottsdale, Arizona 85260

602.248.7822  
design@cdltg.com  
www.cdltg.com

1978 **41** 2019  
years of architectural  
lighting design

**SMOKE TREE RESORT**  
7101 E LINCOLN DR, PARADISE VALLEY, AZ 85253

TYPE 'LU'

# 3" INGROUND 120V

5032

## WAC LANDSCAPE LIGHTING

Fixture Type:

Catalog Number:

**MAXIMUM LUMEN  
OUTPUT SET TO  
250 LUMENS**

### PRODUCT DESCRIPTION

Landscape Wall Wash Luminaire

### FEATURES

- Adjustable beam angle
- Integral dimmer
- IP67 rated, protected from temporary immersion under water
- Drive over up to 4500lbs
- Solid diecast brass or corrosion resistant aluminum
- Available concrete pour kit
- 0' lead wire and wire nuts included
- Maintains constant lumen output against voltage drop
- UL 1598 listed
- Not suitable to use with external dimmers

### SPECIFICATIONS

**Input:** 110V - 120VAC  
**Power:** 3W to 11.5W  
**Brightness:** 65 lm to 515 lm  
**Beam Angle:** 15° to 60°  
**CRI:** 85  
**Rated Life:** 45,000 hours

### IEC safety Standard

	Walk over	Drive over
Resistance to static load test	Yes (1125lbs)	Yes (4496lbs)
Resistance to torque and shear loads test	N/A	Yes

### ORDERING NUMBER

	Color Temp	Finish
<input type="text" value="5032"/>	<input 120v<="" 3"="" inground="" td="" type="text" value="3"/> <td><input type="text" value="BZ BBR"/> BZ Bronze on Aluminum BBR Bronze on Brass</td>	<input type="text" value="BZ BBR"/> BZ Bronze on Aluminum BBR Bronze on Brass

### Module Replacement

3000K

5032-30

Example: 5032-30B8B

wacighting.com

Phone (800) 536-2588

Fax (800) 536-2585

Headquarters/Eastern Distribution Center

44 Harbor Park Drive

Port Washington, NY 11050

Central Distribution Center

1600 Distribution Ct

Lithia Springs, GA 30122

Western Distribution Center

17550 Archibald Avenue

Ontario, CA 91760

WAC Lighting retains the right to modify the design of our products at any time as part of the company's continuous improvement program. AUG 2017

TYPE 'A' SERIES

# ML660 POLE LUMINA SERIES

LED

EPA  
1.5 T/1  
35 LBS

7 YEAR  
WARRANTY

LUMEN  
RANGE  
7,820

LIFE SPAN  
100,000  
HOURS

UL  
LISTED

CLICK FOR  
EPA/IES  
DATA

JOB NAME

FUTURE TYPE

POLE HEIGHT 16' MAXIMUM

## BUILD A PART NUMBER

ORDERING EXAMPLE: PT-ML660-12L40T3-MDL018-SVI-FHD-BL02-125JGCM

Mounting Config.	Fixture	LED	CCT	Distribution Type	Driver	Lens	Optics Case	Optics Case Size/Shape	Arm	Pole Finish	Finish
PT	16L	16L	27	TS	MDL018			BL02	125JGCM	SVI	SVI

### Mounting Configuration

(Click here to link to mounting configuration page)

-IW	-2A	-A4	-3A90	-1AM
-1PT	-2A90	-3A90	-2AM	
-1A	-2A9T	-4A		
-1PT	-3A	-4APT		

W-Wall Mount A-Arm Mount AM-Arm Mount M-Mount

### Fixture

ML660

### LED

-2AL -16L -12L

### CCT - Color Temperature

-2700K -3000K -4000K -5000K

### Distribution Type

-12 -13 -14 -15

### Driver

- MDL018 (120V-270V, 180mA)
- MDL018 (347V-480V, 180mA)
- MDL018 (347V-480V, 180mA)
- MDH04A (347V-480V, 180mA)
- MDL008 (347V-480V, 180mA)
- MDH008 (347V-480V, 180mA)
- 1AL, or 2A, system only
- 1PT, or 3A, system only
- 12, system only

### Lens

- CA (Clear Acrylic)
- HPS Double Face Lens Diffused Acrylic)
- SV2 (Flat Soft Vue Moderate Diffused Acrylic)

### Options (Click here to view accessories sheet)

- HPS Double Face Lens Diffused Acrylic)
- HPS Double Face Lens Diffused Acrylic)
- HPS Double Face Lens Diffused Acrylic)

### Notes (Click here to view accessories sheet)

- SV1 (Flat Soft Vue Lens Diffused Acrylic)
- SV2 (Flat Soft Vue Moderate Diffused Acrylic)

### Arms (Click here to view arms website page)

See Arms & Wall Brackets specification sheets.

### Also

(Click here to link to pole specification page)

### See Pole Specifications

### Finish

Standard Uniform Finish (Click here to view paint finish sheet)

- UGMT Gun Metal Textured
- UGMT Gun Metal Matte
- UBLT Urban Bronze Matte
- UBLT Urban Bronze Matte
- UBLT Urban Light Bronze Matte
- UBLT Urban Light Bronze Matte
- USLT Urban Silver Textured
- USLT Urban Silver Matte
- WST White Satin Textured
- WST White Satin Matte
- WST White Matte
- UCBS Urban Champagne Satin Smooth
- BWT Black Textured
- Custom Urban Finishes\*
- CM Custom Match

\*Smooth finishes are available upon request.

## Specifications

### Fixture

The medium scale ML660 Milenia® in modern age lighting technology. Is new world urban design transcends traditional lighting convention by seamlessly intertwining form and function to yet another level. Our convective AAD™ "Advanced AAD for long-life" maximizes heat sink expulsion to deliver unsurpassed thermal management for dynamic LED performance and energy efficiency. Available with a myriad of options, the Milenia is perfect for commercial, institutional and municipal markets. The cast aluminum slipfitter slips a 3" OD x 3" tall tenon. The luminaire shall be UL listed in US and Canada.

### LEDs

The luminaire shall use high output, high brightness LEDs. They shall be mounted in groups, on printed circuit boards designed to maximize heat transfer to the heat sink surface. The arrays shall be roof mounted to minimize up light. The LED and printed circuit boards shall be 100% recyclable, they

shall also be protected from moisture and corrosion by a conformal coating. They shall not contain lead, mercury or any other hazardous substances. The LED array shall be RoHS compliant. The LED life rating data shall be determined in accordance with IESNA LM-80. The High Performance white LEDs will have a life expectancy of approximately 100,000 hours with less than 70% of original brightness (lumen maintenance) rated at 25°C. The High Brightness, High Output LEDs shall be 4000K (3000K, 3000K or 5000K option) color temperature with a minimum CRI of 70. Consult factory for color custom CCT. The luminaire shall have a minimum \_\_\_\_\_ (see table) delivered initial lumen rating when operated at steady state with an average ambient temperature of 25°C (77°F).

### Optics

The luminaire shall be provided with refractor type optics applied to each LED array. The luminaire shall provide type \_\_\_\_\_ (2, 3 or 4) light distribution per the IESNA classifications. Testing shall be done in accordance with IESNA LM-79.

**BL02 Optic:** An optional "Back Light Optical Control" shield can be provided at the factory. This is an internal optic design "Haze Side Shield" offering significantly reduced background and white light while maintaining the original design aesthetics of the luminaire.

### Electronic Drivers

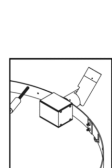
The LED driver shall be UL Recognized. It shall be securely mounted inside the fixture, for power connections and fixture installation. It shall have overload, overcurrent and short circuit protection, and have a DC voltage output constant current design, 50/60Hz AC input supplied with line-ground, line-neutral and ground-ground electrical surge protection in accordance with IEEE/ANSI C62.41 2 guide level surge with high efficiency. The driver THD less than 20% and a power factor greater than .9. It shall be dimming capable down to 10%.

**Sternberg Lighting**


ESTABLISHED 1923 • EMPLOYEES OWNED

800-621-3376  
555 Lawrence Ave., Roselle, IL 60012  
info@sternberglighting.com  
www.sternberglighting.com

© 2018 STERNBERG LIGHTING, ALL RIGHTS RESERVED. PRINTED IN THE USA.



THE POWER OF



Q-Lume® TECHNOLOGY

TYPE 'TR'

PALM TREE RING INTEGRAL ARTISTART®

CATALOG NUMBER LOGIC

Example

PTR

3

21

AR

LED

TR

e65

SP

A9

BZP

12

11

A

TR=20

MT

Series

PTR - Palm Tree Ring

Fixture Quantity

2 - 2 @ 180

3 - 3 @ 120

4 - 4 @ 90

6 - 6 @ 60

Strap Size

Based on tree DIAMETER:

16 - 16" min to 21" max

21 - 21" min to 27" max

28 - 28" min to 33" max

31 - 31" min to 38" max

Verify

Fixture

AR - ArtistART™

Source

LED - "e" Technology with Integral Driver

Housing

TR - Integral Transformer

LED Type

e64 - 7WLED/2.7K

e65 - 7WLED/3K

e66 - 7WLED/4K

e74 - 7WLED/Ambier

Optics

NRP - Narrow Spot (Red Indicator)

SP - Spot (Green Indicator)

MLF - Medium Flood (Yellow indicator)

WFL - Wide Flood (Blue Indicator)

Adjustable Luminaire

eLume - [Standard, AR, A7, A6, A5, A3, A2, A1]

Adjustable Internally. \*No external eye, e65, e66, e74

Finish

Standard Finish

Premium Finish

<b>Powder Coat Color</b>	<b>Setin</b>	<b>Wrinkle</b>	<b>ASP</b> Antique Peach Powder	<b>CMC</b> Cascade Mountain Granite	<b>RMG</b> Rocky Mountain Granite
Bronze	<b>BZP</b> BZW	<b>AMG</b> Aluection Mountain Granite	<b>CRI</b> Cracked Ice	<b>S04</b> Sonoran Desert Sandstone	
Black	<b>BLP</b> BLW	<b>AQW</b> Antique White	<b>CRM</b> Cream	<b>SMG</b> Sierra Mountain Granite	
White (Gloss)	<b>WHP</b> WHW	<b>BCM</b> Black Chrome	<b>HGS</b> Hunter Green	<b>TXP</b> Textured Forest	
Aluminum	<b>SAP</b> —	<b>BGE</b> Beige	<b>MDS</b> Mojave Desert Sandstone	<b>WCP</b> Weathered Copper	
Vende	<b>VER</b> —	<b>BPP</b> Brown Patina Powder	<b>NBP</b> Natural Brass Powder	<b>WIR</b> Weathered Iron	
		<b>CAP</b> Clear Anodized Powder	<b>OCF</b> Old Copper	<i>Also available in RFL Powder See submittal SJB-1429/01</i>	

Lens Type

12 - Soft Focus Lens

13 - Rectilinear Lens

Shielding

11 - Honeycomb Baffle

Cap Style

A - 45°

B - 90°

C - Flush

F - 90° cutoff with Flush Lens

Power Supply

TR=20

20-20 Electronic Transformer \*1105-360VAC, 50/60 Hz Non-Dimming

Input Voltage

MT

120-277VAC Input

B-K LIGHTING

40429 Bridgeway Drive • Malibu, CA 91036 • USA  
554-838-3500 • 1-818-354-9900  
www.bklighting.com • info@bklighting.com

RELEASED

6-30-2019

DRAWING NUMBER

SUB2801-00

NEVER INSTALL OR OPERATE ANY LIGHTING PRODUCT WITHOUT SPECIFIC WRITTEN AUTHORIZATION OF B-K LIGHTING, INC. IT IS STRICTLY FORBIDDEN TO REPRODUCE, DISSEMINATE OR USE ANY PARTS TO REPRODUCE, DISCLOSE ITS CONTENTS, OR TO MANUFACTURE, USE OR SELL ANYTHING IN THIS MANNER.

TYPE 'WP'

Cypher™ – CY1 Accent Scale

TYPE

FEATURES

- Integral Battery Backup Option
- Light Distribution
- RGBW or Static White Luminous Front Option
- IE5 Type I, II, III & IV Distributions
- Wall Graze, Spot and Panel Distributions
- Multiple Fascia Options and Finishes
- 0-10V dimming
- IP-66 Housing & Optical System

- 120-277V
- 3000K, 4000K & 5000K CCT
- 10kA Surge Protection
- Fascia Form F, I and T are ADA compliant for use in low mounting height applications (80 inches or less)
- IDA approved, downright only, 3000K and warmer CCTs

Downlight only, 3000K and warmer CCTs

ORDERING CODE

1	2	3	4	5	6	7	8	9	10	11	12
Series-Output	CCT/CRI	Model	Main Distribution	Secondary Distribution	Voltage	Housing Finish	Fascia Form	Luminous Front	Fascia Panel	Control Options	Options

SERIES-OUTPUT (Base)

- CY1-15 15W 1500 nominal lumens
- CY1-25 25W 2500 nominal lumens

CCT-CRI	THICKNESS
2700K	2700K, 80CRI
3000K	3000K, 70CRI
3000K	4000K, 70CRI
4000K	4000K, 70CRI
4000K	4000K, 80CRI
5000K	5000K, 70CRI

MODEL (Light Engine)

- 1 Downlight Only
- 2 50/50 DownUp, Down/Up distributions must match
- 3 50/50/50 Split, Down/Up distributions must match
- 4 25/25/25/25 Split, Down/Up distributions must match
- 5 70/10/10/10 Split, Top-Side distributions must match

Contact factory for custom distributions.  
See Distribution Matrix on page 2 for restrictions.

MAIN DISTRIBUTION (Down)

- 1 IE5 Type I
- 2 IE5 Type II
- 3 IE5 Type III
- 4 IE5 Type IV
- SP 15° Spot/Culmin
- WG 60° Wall Graze
- 1D Type 1 Diffused
- 2D Type 2 Diffused
- 3D Type 3 Diffused
- 4D Type 4 Diffused

SECONDARY DISTRIBUTION (Up, Sides)

- 1 IE5 Type I
- 2 IE5 Type II
- 3 IE5 Type III
- 4 IE5 Type IV
- SP 15° Spot/Culmin
- WG 60° Wall Graze
- 1D 1° Pencil Beam
- 1D Type 1 Diffused
- 2D Type 2 Diffused
- 3D Type 3 Diffused
- 4D Type 4 Diffused

\*IE5 Distribution is available for 90/10 and 120/10/10/10 models only. Not all combinations are recommended. See Distribution Matrix on page 2 for restrictions.

VOLTAGE

UNV 120-277V

BASE/SHOULDER FINISH

Standard Colors

- AGN Antique Green
- BL Black
- BLT Matte Black
- CRT Corten
- DB Dark Bronze
- DGN Dark Green
- GT Graphite
- LG Light Grey
- MAL Matte Aluminum
- MDB Metallic Bronze
- MC Medium Grey
- TT Titanium
- VBU Verde Blue
- WGB Weathered Bronze
- WH Arctic White

PREMIUM COLORS

- SFM Seafoam
- SHK Shamrock
- SP Salt and Pepper
- WCP Weathered Copper
- RAL Provide a RAL 4 digit color number
- CUSTOM Please provide color chip for matching
- COLOR

FASCIA FORM

- F Flat
- R Radius/Curved
- T Triangle/Wedge
- E Rounded Edge
- C Circle/Curved
- CB Cylinder Balanced
- CT Cylinder Tall
- CBM Custom Building Material Mount
- GH Ghost Fascia

LUMINOUS FRONT

- BLANK Standard None
- RGBW RGBW Luminous Front
- LSW Static White Luminous Front

RGBW and LSW luminous fronts are only available with glass, clear square and perforated fascia panels

FASCIA PANEL

- FP Full Panel Painted
- FPS Full Panel Stainless Steel
- FPF Full Panel Copper
- OP Open Panel Painted
- OPS Open Panel Stainless Steel
- OPC Open Panel Copper
- 4P 4-Square Panel Painted
- 4PS 4-Square Panel Stainless Steel
- 4PC 4-Square Panel Copper
- PP Perforated Panel Painted
- PPS Perforated Panel Stainless Steel
- PPC Perforated Panel Copper

Flat and Rafter fascia forms only. Painted panels by default match base finishing finish/color. Consult factory for custom panel finishes.

CONTROL OPTIONS

- PCU Universal Bottom Photocell (120-277V)

OPTIONS

- EM Battery Backup Unit -20°C
- ST Single Fascia (120, 277)
- DF Double Fascia (120, 240)

Battery Backup not available with Triangle and Rounded Edge Fascia Forms.

architectural  
arealighting

ARCHITECTURAL AREA LIGHTING  
17760 Rowland Street | City of Industry, CA 91748  
P 626.968.5656 | F 626.968.3955 | www.aal.net  
Copyright © 2017 | September 2, 2018 11:56 AM

JOB  
TYPE  
NOTES

| 1 |

TYPE 'LU'

3" INGROUND 120V

5032


WAC

LANDSCAPE LIGHTING

---

Rock Guard

Protects the fixture face



5030-GRD-BZ


Bronze on Aluminum

5030-GRD-BRR

Bronze on Brass

Optics

Enhances saturation of florals and foliage



LENS-25-AMB

Amber

LENS-25-RED

Red

LENS-25-FR

Frosted

LENS-25-GRN

Green

LENS-25-BLU

Blue

LENS-25-HCL

Honeycomb/Louver

Reduces glare

---


Concrete Pour Kit

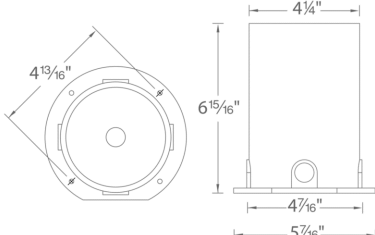
For installation in concrete

Five 1/2" NPT threaded holes, PC

5030-PIP-PVC

Shown with temporary dense foam cap





---

wacighting.com

Phone (800) 526-2588

Fax (800) 526-2588

Headquarters/Eastern Distribution Center

44 Harbor Park Drive

Port Washington, NY 11050

Central Distribution Center

1600 Distribution Ct

Lithia Springs, GA 30122

Western Distribution Center

1750 Archibald Avenue

Ontario, CA 91760

WAC Lighting retains the right to modify the design of our products at any time as part of the company's continuous improvement program. AUG 2017

TYPE 'WS'

MODERN FORMS

URBAN – model: WS-W11

LED Outdoor Sconce Luminaire

Fixture Type:

Catalog Number:

Project:

Location:

10 1/2"

7"

2 1/2"

10"

7"

2 1/2"

8"

2 1/2"

22"

PRODUCT DESCRIPTION

Like urban renewal, the Urban sconce gives new life to the conventional step baffle. Form follows function in this simplified indirect wall sconce. Color styling and robust LED performance are combined in this modern dark sky luminaire.

FEATURES

- ETL & cETL listed for wet locations, IP65
- Interior light and down light
- Low profile design
- Replaceable LED module
- 27V option available (special order)
- 50,000 hour useful life
- Color Temp: 3000K
- CRI: 85

SPECIFICATIONS

Construction: Aluminum.

Power: No driver or transformer required.

Light Source: High output LED.

Dimming: Dimm to 10% with an electronic low voltage (ELV) dimmer.

Mounting: Mounts directly to junction box.

Finish: Black (BK), Bronze (BZ), Graphite (GH), White (WT).

Standards: ETL & cETL listed, ADA compliant. Dark Sky friendly. IP65, Wet location.

ORDER NUMBER

Model	Height	Watt	# of LEDs	LED Lumens		Photometric Lumens		Finish	
				LMK	LMH	LMK	LMH	BK	BZ
WS-W11	10	10"	12W	3	720	570			
	16	16"	16W	4	960	490			
	22	22"	20W	5	1200	610			

REPLACEMENT GLASS

Part	Fixture
RPL-GLA-1122-02	WS-W1122
RPL-GLA-1122-01	
RPL-GLA-1116-02	WS-W116
RPL-GLA-1116-01	
RPL-GLA-1110-02	WS-W110
RPL-GLA-1110-01	

WS-W11

Example: WS-W116-GH

For 27V special order, add an "F" before the finish: WS-W116F-GH

modernforms.com

Phone (800) 526-2588

Fax (800) 526-2585

Headquarters/Eastern Distribution Center

44 Harbor Park Drive

Port Washington, NY 11050

Central Distribution Center

1600 Distribution Ct

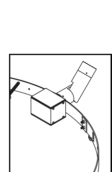
Lithia Springs, GA 30122

Western Distribution Center


1750 Archibald Avenue

Ontario, CA 91760


WAC Lighting retains the right to modify the design of our products at any time as part of the company's continuous improvement program. AUG 2018



**B-K LIGHTING**  
Solid State Lighting



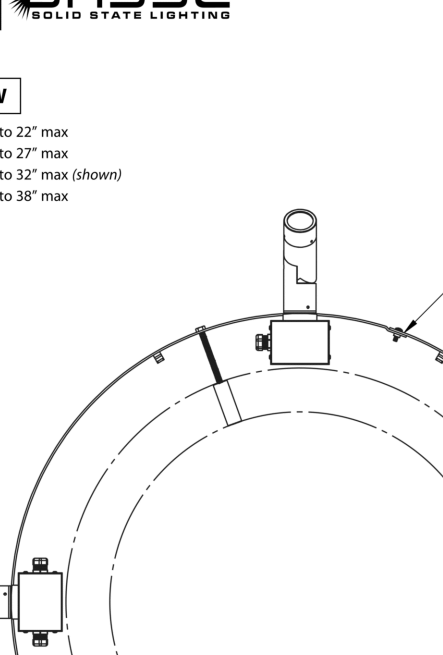
the house of illumination



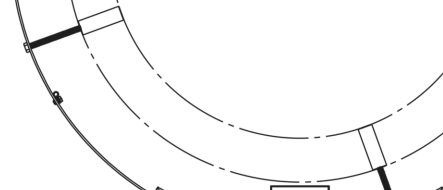
**ARTISTAR™**

**TOP VIEW**

16 - 16" min to 22" max  
21 - 21" min to 27" max  
26 - 26" min to 32" max (shown)  
31 - 31" min to 38" max




**SIDE VIEW**



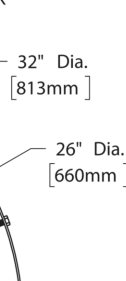
**PALM TREE RING INTEGRAL ARTISTAR™**

<b>PROJECT:</b>	
<b>TYPE:</b>	


**FIXTURE QUANTITY**




2 FIXTURES



3 FIXTURES



4 FIXTURES



6 FIXTURES

All dimensions indicated on this submittal are nominal. Contact Technical Sales if you require more stringent specifications.

**B-K LIGHTING**

40429 Backyard Drive • Modesto, CA 95306 • USA  
508-838-3500 • Fax 508-838-5900  
[www.bekighting.com](http://www.bekighting.com) • [info@bekighting.com](mailto:info@bekighting.com)

RELEASED  
6-30-2019

DRAWING NUMBER  
SUB:2001-001

Cypher™ – CY1 Accent Scale

TYPE

LUMINAIRE PERFORMANCE

Nominal Output (lm)	Average System Wattage	Distribution	Configuration											
			Bright White (5000K)				Neutral White (4000K)				Warm White (3000K)			
			Delivered Lumens	Efficiency (lm/W)	BUS-Rating	BUS-Rating	Delivered Lumens	Efficiency (lm/W)	BUS-Rating	BUS-Rating	Delivered Lumens	Efficiency (lm/W)	BUS-Rating	BUS-Rating
			5000K 70 CRI				4000K 70 CRI				3000K 70 CRI			
1,500	17	Type 1	2517	95	0	1	2524	97	0	0	2390	92	0	0
		Type 2	1726	102	0	0	1730	103	0	0	1638	96	0	0
		Type 3	1750	100	0	0	1750	103	0	0	1661	98	0	1
		Type 4	1757	101	0	0	1762	104	0	0	1668	98	0	0
		Wall Grate	1971	114	1	0	1976	116	1	0	1871	110	1	0
		Spot/Column	1750	103	2	0	1757	106	2	0	1701	100	2	0
		Type 1 Diffused	1629	96	1	0	1634	96	1	0	1547	91	1	0
		Type 2 Diffused	1573	93	1	0	1577	93	1	0	1493	88	1	0
		Type 3 Diffused	1425	84	1	0	1429	84	1	0	1353	80	1	0
		Type 4 Diffused	1602	94	1	0	1607	95	1	0	1521	86	0	0
2,500	26	Type 1	2517	95	0	0	2524	97	0	0	2390	92	0	0
		Type 2	2233	85	1	0	2239	86	1	0	2102	82	1	0
		Type 3	2220	85	1	0	2226	85	1	0	2117	86	1	0
		Type 4	2319	88	1	0	2325	89	1	0	2201	85	1	0
		Wall Grate	2344	104	2	0	2352	106	2	0	2265	100	2	0
		Spot/Column	2471	94	2	0	2478	95	2	0	2346	90	2	0
		Type 1 Diffused	2344	86	1	0	2350	86	1	0	2223	86	1	0
		Type 2 Diffused	2082	79	1	0	2088	80	1	0	1958	75	1	0
		Type 3 Diffused	2052	78	1	0	2056	79	1	0	1946	75	1	0
		Type 4 Diffused	2323	80	1	0	2329	82	1	0	2216	78	1	0

ISOLINE TEMPLATES 10° Mounting Height, 10° Grid Spacing








Isoline templates for CY1-25-1, CY1-25-2, CY1-25-3, CY1-25-4, CY1-25-1D, CY1-25-2D, CY1-25-3D, and CY1-25-4D. The templates show the light distribution pattern for each fixture. The legend indicates the beam spread options: 0.25 FC, 5 FC, 2 FC, and 4 FC.

architectural  
arealighting

ARCHITECTURAL AREA LIGHTING  
17700 Rowland Street | City of Industry | CA 91748  
P 626.968.5566 | F 626.969.2895 | www.aal.net  
Copyright © 2017 | September 7, 2018 11:56 AM

JOB  
TYPE  
NOTES

14 |

REVISIONS		
		
		
		
		
		
		
		

DATE \_\_\_\_\_

08.24.2020

SCALE

PROJECT NUMBER

116325-19

DRAWN BY

JG

CHECKED BY \_\_\_\_\_

MG

---

SHEET NAME

## LIGHTNING

## LIGHTING CUTSHEETS

SHEET NUMBER

# AL2