



The Village of Oak Park
Village Hall
123 Madison Street
Oak Park, Illinois 60302-4272

708.383.6400
Fax 708.383.9584
TTY 708.383.0048
village@vil.oak-park.il.us

May 9, 2019

This work shall consist of replacing an existing low level light pole with a new high level light pole at 111 S. Maple Avenue in the Village of Oak Park.

Scope of Work:

This work shall consist of removing an existing thirteen foot high direct burial concrete light pole and delivering it to the Village of Oak Park, furnishing and installing an 11"x18"x12" Quazite box at the same location, furnishing and installing a new 22'-6" above grade direct burial concrete light pole with 6' mast arm and cobra head fixture approximately fourteen feet away, furnishing and installing new wiring in unit duct between the new light pole and the Quazite box, splicing the new wiring to the existing wiring inside the Quazite box using waterproof splices, restoring the sod parkway, and all other appurtenant work necessary to make the new light pole assembly fully operational.

See the attached PDF documents for additional information.

All material to be furnished on this project by the contractor shall be ordered within ten days from the award of contract.

The work shall be completed within two weeks after the last of the furnished material has been delivered to the contractor.

All work is to be done using local prevailing wage rates for construction work performed within the public right-of-way.

The contractor shall coordinate all proposed work with the Village and shall provide a complete installation that meets Village standards.

The contractor shall coordinate the power shutdown for the existing lighting with the Village.

The exact location of the existing and proposed items are to be field verified by the contractor.



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If the work is expected to take more than one working day, then the contractor shall maintain the lighting system in operation during construction.

The contractor shall locate and protect existing utilities in the construction area. Any utilities damaged by the contractor shall be immediately repaired at the contractor's expense. The exact location of the proposed light pole shall be coordinated with existing utilities and approved by the Village.

The contractor shall remove the existing thirteen foot high ornamental direct burial concrete light pole with King Arthur fixture and deliver the entire assembly to the Village of Oak Park's Public Works Center, located at 201 South Boulevard (approximately 1-1/4 miles east of the job site).

The hole resulting from the removed light pole shall be filled and compacted with gravel suitable for drainage purposes. The hole shall be filled with CA7 gravel to the level of the bottom of the Quazite box.

At the location of the removed light pole, the contractor shall furnish and install an 11"x18"x12" Quazite box meeting the following specifications.

The box shall be an 11" x 18" PG style polymer concrete Quazite box. The box shall be UL[®] approved, have a standard open bottom, be 12" in depth, be Tier 22, and be a gasketed box. The manufacturer part number is PG1118BG12.

The cover for the Quazite box shall be UL[®] approved, have 2 bolts, be Tier 15, be a gasketed cover, and have the logo STREET LIGHTING (logo code 41). The manufacturer part number is PG1118HG0041.

The purpose of the Quazite box is to provide a location for splicing the wiring from the new light pole to the wiring from the existing street lighting system that terminated at the now removed low level light pole.

The contractor shall furnish and install the new direct burial light pole approximately 14 feet north of the removed pole and approximately 4 feet behind the back of curb. The exact location is to be verified by the Village. The pole



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shall have an overall length of 27'-6" with 22'-6" above grade and 5'-0" below grade.

The contractor shall furnish and install a concrete light pole, 6 foot long mast arm, and luminaire meeting the following specifications.

The light pole shall be an Octagonal Class B - Medium Duty Pole with an Ash White polished finish as manufactured by StressCrete. The manufacturer part number is E-275-BPO-G-S35. A Village of Oak Park approved equal may be provided.

The 6 foot long mast arm shall be fully compatible with the light pole and luminaire. The StressCrete part number is KA150-O-T. A Village of Oak Park approved equal may be provided.

The luminaire shall be a midsize LED street light luminaire as manufactured by LEOTEK Electronics. The manufacturer part number is GCM2-40H-MV-WW-5-GY-700-SC with accessory SC Twist Lock Shorting Cap. The local distributor is Marla O'brien of Paramont-EO in Woodridge, Illinois. Her email address is marla.obrien@paramont-eo.com and her telephone number is 708-345-0000. A Village of Oak Park approved equal may be provided.

The contractor shall orient the 6 foot mast arm and cobra head fixture towards the center of the cul-de-sac and not perpendicular to the curb.

The contractor shall furnish and install two 1 conductor #8 XLP-type use cables in 1 inch diameter polyethylene unit duct between the new light pole and the Quazite box. The unit duct shall enter the Quazite box through its open bottom. The unit duct shall have enough slack in the new light pole and the Quazite box to prevent the infiltration of water inside the unit duct.

The contractor shall splice the wiring together using standard IDOT approved waterproof splices.



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The contractor shall furnish and install 24 square yards (8'x26') of sod to restore the parkway. The use of seeding or excelsior blankets shall not be allowed.

Basis of Payment

The work shall be paid for as a lump sum item whose price shall include all labor, materials, and equipment required to perform the work as described above to make the light pole assembly fully operational.

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Engineering Division
Village of Oak Park
Public Works Center
201 South Boulevard
Oak Park, Illinois 60302
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email: mkoperniak@oak-park.us
web: www.oak-park.us

Village of Oak Park
Installation of a new light pole at 111 S. Maple Avenue
designed by Michael Koperniak, VOP
designed on March 29, 2019
filename = New light pole installation at 111 S Maple Ave in 2019.pdf

See the accompanying written scope of work for
additional details and notes

Remove this light pole, install an
11"x18"x12" Quazite box at the
same location, and splice the
wiring from the new light pole to
the existing wiring inside the
Quazite box using waterproof
splices. Fill the resultant hole
under the Quazite box with CA7
gravel suitable for drainage
purposes.

Proposed 2-1C #8
XLP type wire in 1"
unit duct between
new light pole and
the Quazite box.
Use 30" deep
trench.

install new proposed
direct burial light pole
with 6' mast arm and
cobra head fixture here.
22'-6" above grade, 5'-0"
below grade, and 4'-0"
behind back of curb. The
cobra head fixture is to
be oriented towards the
center of the cul-de-sac
and not perpendicular to
the curb.

Existing wiring in
conduit under the
street.

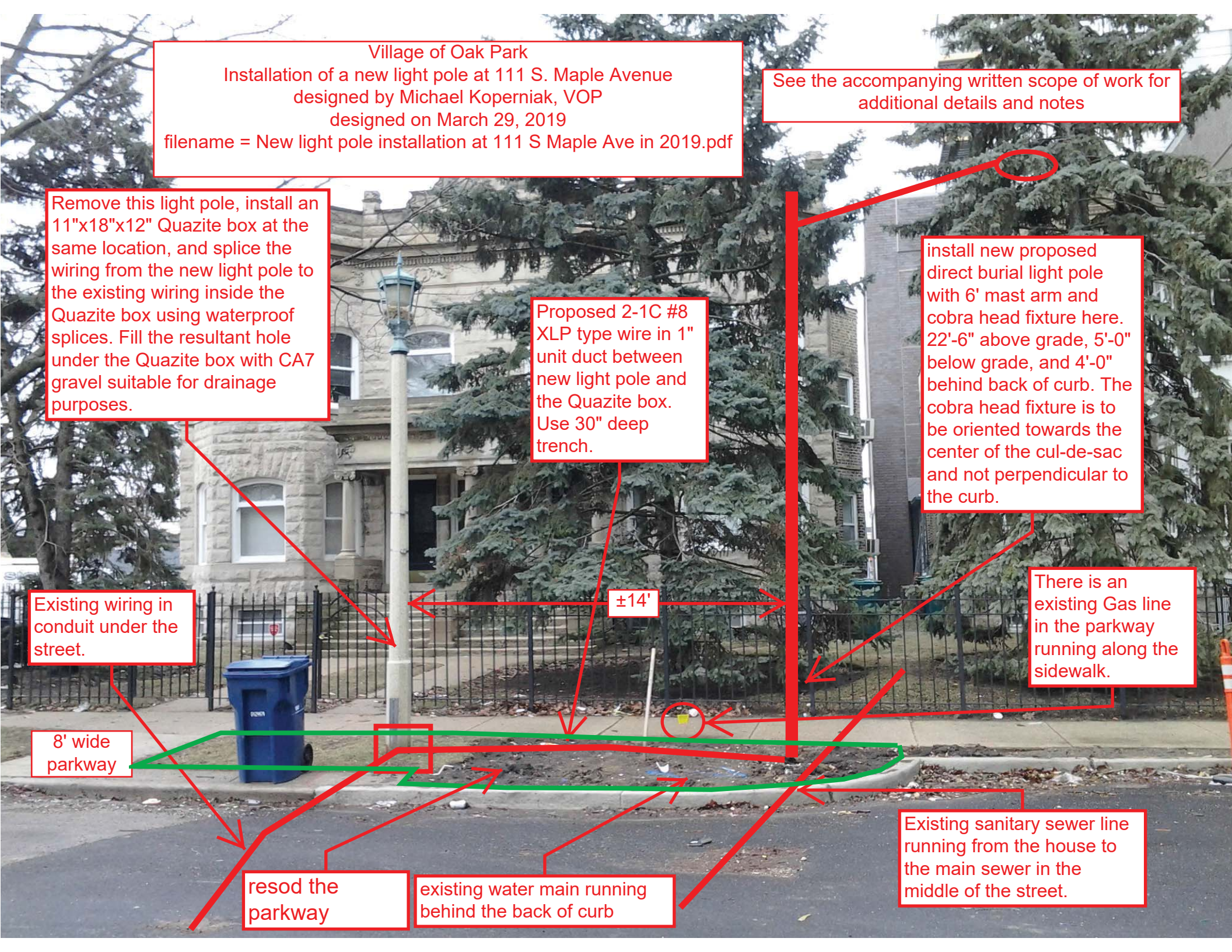
There is an
existing Gas line
in the parkway
running along the
sidewalk.

8' wide
parkway

resod the
parkway

existing water main running
behind the back of curb

Existing sanitary sewer line
running from the house to
the main sewer in the
middle of the street.





Oak Park

Village of Oak Park
Engineering Division

Subject LIGHT POLE INSTALLATION AT
111 S. MAPLE AVENUE

Project 6281
Date 04-04-19
By MJK
Page 1 of 1

OCTAGONAL
CONCRETE
LIGHT POLE

QUIZATE
BOX

SIDEWALK

SOD
PRELIM

MAPLE AVE.

CUL-DE-SAC

ALLEY

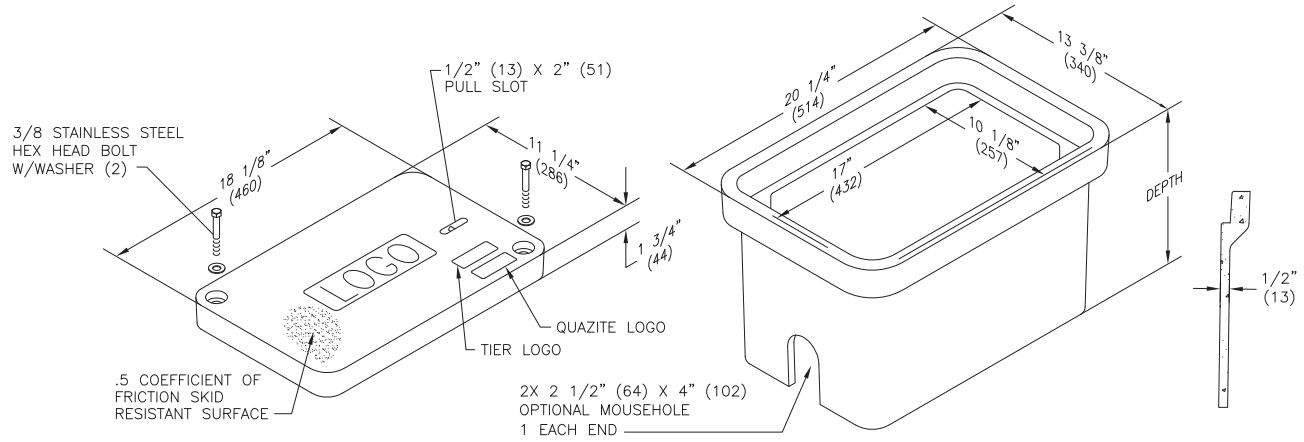
6 FOOT ARM AND COBRA
HEAD LUMINAIRE TO BE
ORIENTED TOWARDS THE
CENTER OF THE CUL-DE-SAC
AND NOT PERPENDICULAR
TO THE CURB LINE



Dimensions / Data

11" x 18" PG Style Polymer Concrete (Stackable) Assembly

Hex Head Bolts are Standard



Covers

	DESCRIPTION	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL	W/ 2 Bolts	8	8,000 / 12,000	27	40	PG1118CA00**
UL	W/ 2 Bolts	15	15,000 / 22,500	27	40	PG1118HA00**
UL	No Bolts	8	8,000 / 12,000	27	40	PG1118WA00**
UL	W/ 2 Bolts	22	22,500 / 33,750	27	40	PG1118HH00**

To order gasketed covers, replace the letter "A" with the letter "G".

Replace ** with a logo code found on page 60. See page 65 for meter and touch/radio read cover options.

NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Boxes

	DESCRIPTION	DEPTH	TIER	DESIGN / TEST LOAD #	WEIGHT #	PALLET QTY	PART NO.
UL	Standard Open Bottom	12"	22	22,500 / 33,750	40	30	PG1118BA12
UL		18"		22,500 / 33,750	53	24	PG1118BA18
UL	Solid Bottom	12 1/2"	22	22,500 / 33,750	43	30	PG1118DA12
UL		18 1/2"		22,500 / 33,750	60	24	PG1118DA18
UL	Footed Box	12 1/2"	22	22,500 / 33,750	41	30	PG1118JA12
UL		18 1/2"		22,500 / 33,750	55	24	PG1118JA18

To order boxes with 2 standard mouseholes, replace the letter "A" with the letter "B".

To order gasketed boxes, replace the letter "A" with the letter "G".

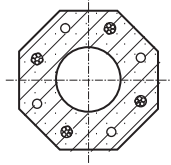
NOTE: Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

Octagonal Class B - Medium Duty Pole

Octagonal Class B - Medium Duty Pole

Physical Details:

- Octagonal symmetrically tapered shaft.
- 5.375" flat to flat pole tip.
- 0.125" per linear ft. taper increase.
- 900 lb. transverse bending strength (2 ft. from tip).
- Mold finish is standard but optional etched or polished finish and Decor colors are available.
- For various luminaire mounting details, please reference arms and accessories.



Direct Embedment

Pole Catalog Number	Pole Height Above Grade	Assumed Embedment Depth*	Overall Pole Length	Pole Butt Flat to Flat (Inches)	Ultimate Ground-Line Moment (ft. lbs.**)	Nominal Weight (lbs.)
E-250-BPO-G	20' 0"	5' 0"	25' 0"	8.50	16200	1010
E-275-BPO-G	22' 6"	5' 0"	27' 6"	8.81	18450	1150
E-300-BPO-G	25' 0"	5' 0"	30' 0"	9.13	20700	1300
E-325-BPO-G	27' 0"	5' 6"	32' 6"	9.44	22500	1450
E-350-BPO-G	29' 6"	5' 6"	35' 0"	9.75	24750	1610
E-375-BPO-G	32' 0"	5' 6"	37' 6"	10.06	27000	1780
E-400-BPO-G	34' 0"	6' 0"	40' 0"	10.38	28800	2035
E-425-BPO-G	36' 6"	6' 0"	42' 6"	10.69	31050	2235
E-450-BPO-G	39' 6"	6' 0"	45' 0"	11.00	33300	2455

Base Plate

Pole Catalog Number	Pole Height Above Grade	Pole Butt Flat to Flat (Inches)	Base Plate Size (Inches)	Bolt Circle*** (Inches)	Ultimate Ground-Line Moment (ft. lbs.**)	Nominal Weight (lbs.)
P-250-BPO-G	25' 0"	8.50	11.5 x 11.5	11.5	20700	1090
P-275-BPO-G	27' 0"	8.81	11.5 x 11.5	11.5	22950	1230
P-300-BPO-G	30' 0"	9.13	11.5 x 11.5	11.5	25200	1375
P-325-BPO-G	32' 6"	9.44	14.5 x 14.5	17	27450	1530
P-350-BPO-G	35' 0"	9.75	14.5 x 14.5	17	29700	1690
P-375-BPO-G	37' 6"	10.06	14.5 x 14.5	17	31950	1860
P-400-BPO-G	40' 0"	10.38	14.5 x 14.5	17	34200	2125

* Recommended burial depth for normal soils. Where large imbalanced loads are applied or soil strength is questionable, deeper burial may be necessary.

** Ultimate Ground Line Moment = Height above grade minus 2 ft x transverse bending strength.

*** Anchor bolt information - 11.5" BC uses 3/4" x 27" anchor bolts. 17" BC uses 1" x 36" anchor bolts.

Class - EPA Loading

	Pole Height Above Grade	Post Top & Bal. Loads	Imbalanced Loads		
			4' arm	6' arm	8' arm
90 mph	20	23 3/4	22	20 3/4	19 1/4
	25	21	19 3/4	18 3/4	17 1/2
	30	18 1/4	17 1/4	16 1/2	15 1/2
	35	15 1/2	14 1/2	13 3/4	13
	40	12 1/2	11 3/4	11 1/4	10 1/2
100 mph	20	18	16 3/4	15 3/4	14 1/4
	25	15 1/2	14 1/4	13 1/2	12 1/2
	30	12 3/4	12	11 1/4	10 1/2
	35	10	9 1/4	8 3/4	8 1/4
	40	7 1/4	6 1/2	6 1/4	5 3/4
110 mph	20	13 3/4	12 1/2	11 3/4	10 3/4
	25	11 1/4	10 1/2	9 3/4	9
	30	8 3/4	8	7 1/2	6 3/4
	35	6 1/4	5 1/2	5	4 1/2
	40	3 1/2	3	2 1/2	2
120 mph	20	10 1/2	9 1/2	9	8
	25	8 1/4	7 1/2	6 3/4	6 1/4
	30	5 3/4	5	4 3/4	4
	35	3 1/4	2 1/2	2 1/4	1 3/4
	40	1/2	---	---	---
130 mph	20	8	7 1/4	6 1/2	5 3/4
	25	5 3/4	5	4 1/2	4
	30	3 1/4	2 3/4	2 1/2	2
	35	3/4	1/4	---	---
	40	---	---	---	---
140 mph	20	6	5 1/4	3/4	4 1/4
	25	3 3/4	3 1/4	2 3/4	2 1/4
	30	1 1/2	1	1/2	1/4
	35	---	---	---	---
	40	---	---	---	---
150 mph	20	4 1/2	3 3/4	3 1/4	2 3/4
	25	2 1/4	1 3/4	1 1/4	1
	30	---	---	---	---
	35	---	---	---	---
	40	---	---	---	---

Decor Colors & Finishes

Color	Eclipse (Black)	Ash White	Pearl Gray	Dusty Rose	Aztec Jade (Green)	Desert Sand (Buff)	Saluki Bronze (Brown)
Finish							
Etched Finish	E11	E35	E40	E41	E51	E70	E90
Polished Finish	S11	S35	S40	S41	S51	S70	S90

Mold finish, catalog #M00, is standard on all poles. Decor colors and finishes must be specified. A clear acrylic coating is standard on all Decor poles.

When selecting a pole strength class, care must be taken to ensure it will carry the desired EPA loading of arm and luminaire for the wind conditions at your location. If you are unsure of your location's wind condition, please reference Isotach Map in General and Technical section.



Streetlighting Arms and Accessories

Spun concrete poles can be adapted to fit most arms or accessories. Our standards are detailed in the "Arms and Accessories" section of this catalog. If a specific item is not shown, please call your local representative or our sales office.

When requesting StressCrete to supply arms, please ensure compatability with luminaire.

Finishes

Mold finish is standard on all poles. If a Decor or custom finish is desired it must be specified in the pole catalog number. Please see lower right front page for information, or turn to Decor section.

Standard Openings and Handholes

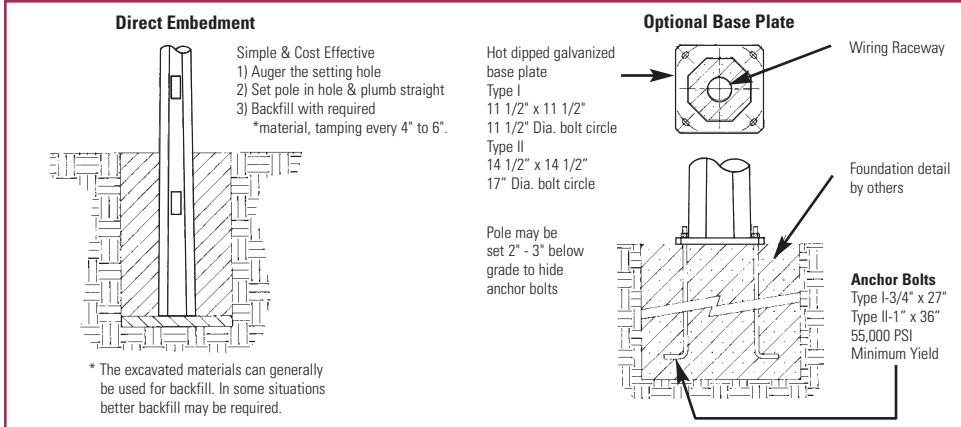
(For more detailed information, please reference General and Technical section.)

- 2 1/2" x 8" is the standard handhole box located 18" above grade. Both it and the tight fitting coverplate are available in non-metallic, non-conductive injection molded material or a rugged high density cast zinc.
- Standard coverplate fasteners are 1/4" stainless steel with either Allen (hex) head for the United States or black Robertson #3 (square) head in Canada. Tamperproof and non-standard fasteners are available but must be specified.
- Standard above grade wiring apertures vary with arm selection but are generally 1 1/4" diameter holes or 1 1/2" x 3" openings. Below grade apertures are 2 1/2" x 5" double openings 18" below grade in line with handhole.
- Non-standard sizes can be made available on request; please contact our sales office.
- Galvanized steel or zinc inserts are available in 1/8" increments from 1/4" through 3/4".
- Through holes are nominal 1/2", 3/4", or 1".

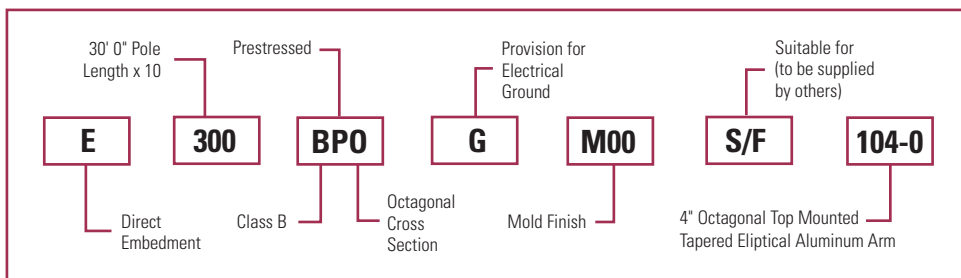
Electrical Grounding

The last letter of our pole catalog number "G" specifies that the pole will be supplied complete with a #6 stranded copper ground wire. When properly connected, this will electrically ground the pole. If the pole is not to be electrically grounded, simply delete the letter "G" from the catalog number.

Footings

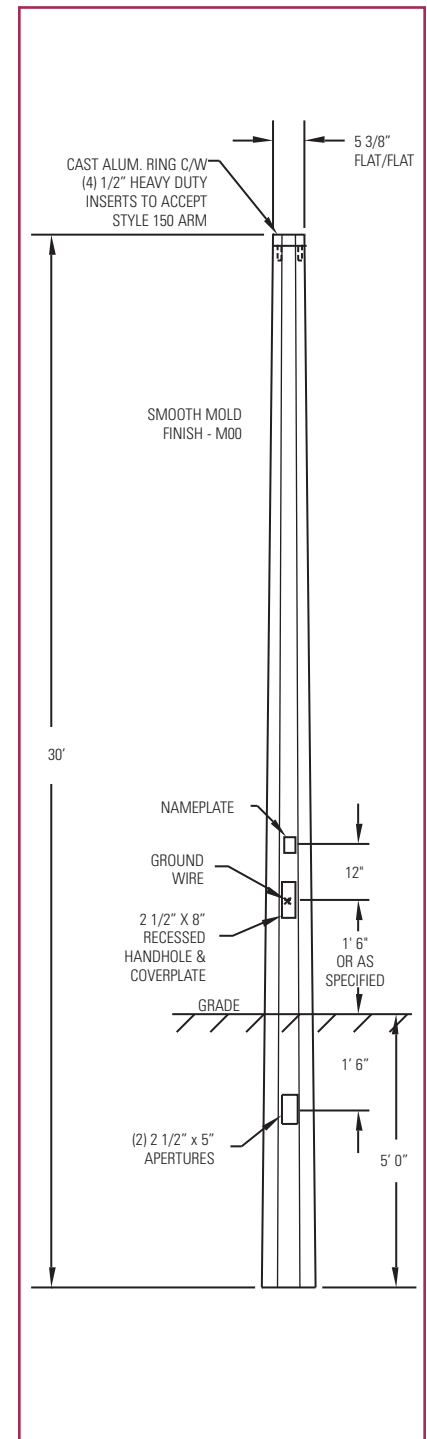


Typical Catalog Numbers



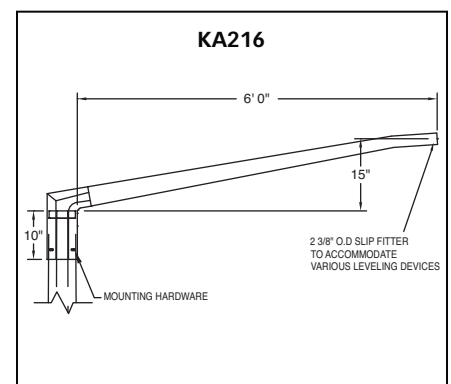
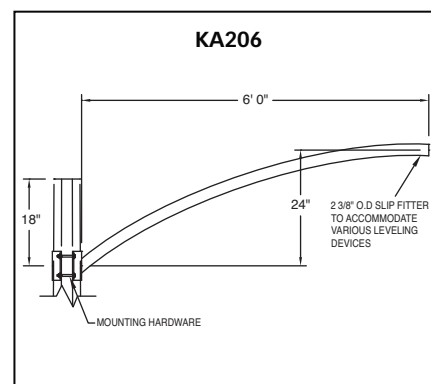
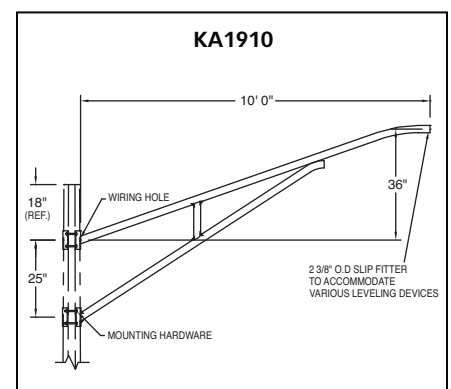
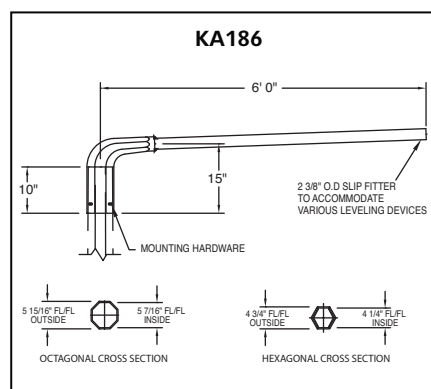
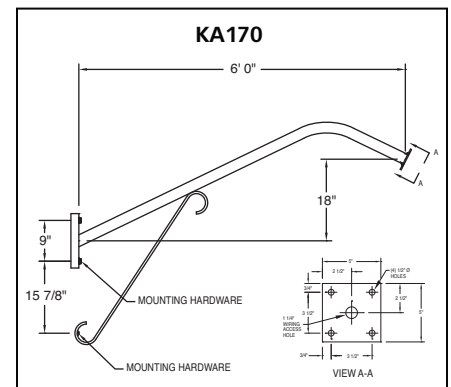
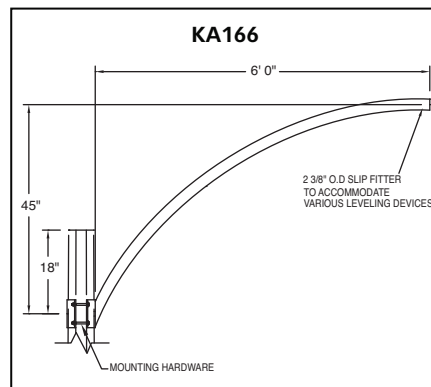
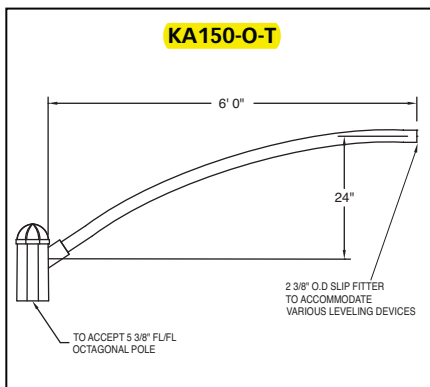
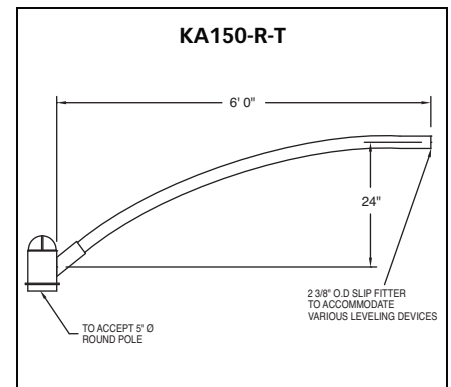
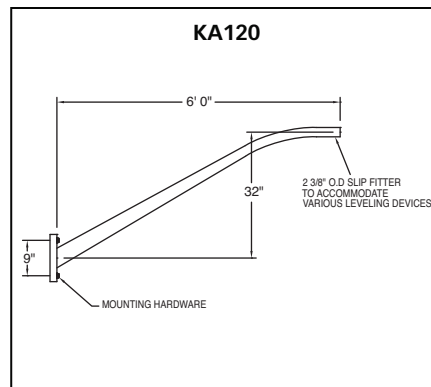
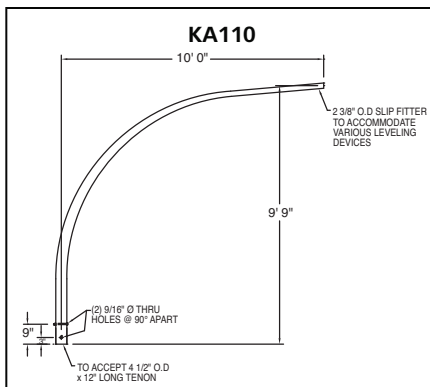
Typical for all types:

1. Select footing type - direct embedment or base plate.
2. Select pole length - if direct embedded allow for embedment length.
3. Select shape and strength of pole.
4. If required, select provision for electrical grounding of pole.
5. If desired, select Decor color and finish.
6. Select luminaire mounting style - see arms and accessories.



StressCrete

STREETLIGHTING ARMS

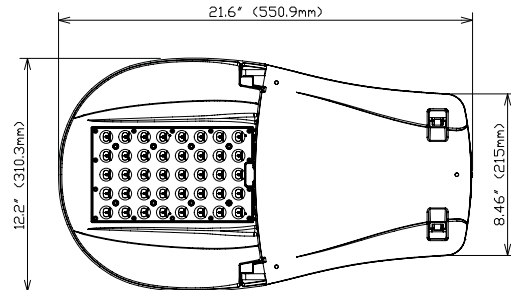
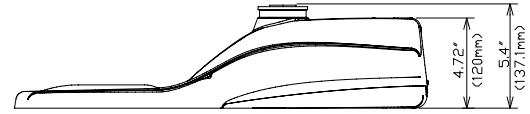
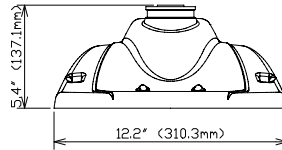


GreenCobra™ Midsize LED Street Light

GCM H-Series Specification Data Sheet

Luminaire Data

Weight 10 lbs [4.6 kg]
EPA 0.44 ft²



Ordering Information

Sample Catalog No. GCM2-30H-MV-NW-2R-GY-700-PCR7-WL

Product	LED Code	Voltage	Color Temperature	Distribution	Finish ¹	30H Drive Current Code ²	Options
GCM2	30H	MV 120-277V HV 347-480V	WW 3000K NW 4000K CW 5000K	2S Type 2 Short 2R Type 2 Medium 3R Type 3 Medium 4 Type 4 5 Type 5	GY Gray DB Dark Bronze BK Black	530 610 700 850 1A	FDC ³ Fixed Drive Current LPCR Less Photocontrol Receptacle PCR7 ⁴ ANSI 7-wire Photocontrol Receptacle PCR7-CR ⁵ Control Ready 7-wire PC Receptacle
GCM2	40H					40H Drive Current Code ² 575 700 850 950 1A	WL Utility Wattage Label 4B 4-Bolt Mounting Bracket RWG Rubber Wildlife Guard SWTB Straight Wire Terminal Block BBL Bubble Level CF ⁶ Coastal Paint Finish

Notes:

- 1 Gray, Black, and Dark Bronze standard. Consult factory for other finishes.
- 2 Specified drive current code is the factory set drive current. Field adjustable current selector enables fixture to be changed in the field to adjust light output for local conditions (not available with Fixed Drive Current (FDC) or PCR7-CR option). Consult factory if wattage limits require a special drive current.
- 3 Non-field adjustable, fixed drive current. Specify required drive current. Not available with PCR7-CR option.
- 4 Includes current selector that enables field adjustability of light levels. Includes connectors to allow easy upgrade of wireless dimming via PCR7. Wireless node by others.
- 5 Control-ready wired at factory for wireless none dimming (node by others). Current selector not included in the fixture.
- 6 Specify the CF Option for coastal installation. See warranty for details.
- 7 Flush mounted house side shield. Shield cuts light off at 1/2 mounting height behind luminaire.
- 8 Flush mounted cul-de-sac shield. Shield cuts light off at 1/2 mounting height behind luminaire and 1-1/2 mounting height on either side of luminaire.
- 9 Flush mounted front side shield cuts light off at approximately one mounting height in front of luminaire (street side).
- 10 Specify Color (GY, DB, BK)
- 11 Specify MV (120-277V) or HV (347V-480V)

Accessories*

HSSGCM ⁷	House Side Shield, Snap-On*
CSSGCM ⁸	Cul-De-Sac Side Shield, Snap-On*
FSSGCM ⁹	Front Side Shield, Snap-On*
SPB ¹⁰	Square Pole Horizontal Arm Bracket
RPB ¹⁰	Round Pole Horizontal Arm Bracket
PTB ¹⁰	Pole Top Tenon Horizontal Arm Bracket
PTB2 ¹⁰	Pole Top Tenon Horizontal Arm Bracket (2@180°)
WB ¹⁰	Wall Horizontal Arm Bracket
BSK	Bird Deterrent Spider Kit
LLPC ¹¹	Long-Life Twist Lock Photocontrol
SC	Twist Lock Shorting Cap

*Accessories are ordered separately and not to be included in the catalog number. For factory installed HSS, CSS, and FSS consult factory.

Luminaire Specifications

Housing

Die cast aluminum housing with universal two-bolt slip fitter mounts to 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter mast arm. One-piece aluminum housing provides passive heat-sinking of the LEDs and has upper surfaces that shed precipitation. Four-bolt mounting bracket is available. Mounting provisions meet 3G vibration per ANSI C136.31-2010 Normal Application, Bridge & Overpass. Mounting has leveling adjustment from $\pm 5^\circ$ in 2.5° steps. Electrical components are accessed without tools via a high-strength, non-conductive polycarbonate door with quick-release latches. Polycarbonate material meets UL 746C for outdoor usage. Available rubber wildlife guard (RWG option) conforms to mast arm with no gaps.

Light Emitting Diodes

High-flux/High-power white LEDs produce a minimum of 90% of initial intensity over 75,000 hours of life based on IES TM-21 (L90 \geq 75k hours). LEDs are tested in accordance with IES LM-80 testing procedures. LEDs have correlated color temperature of 3000K (WW), 4000K (NW), or 5000K (CW) and 70 CRI minimum. LEDs are 100% mercury and lead free.

Field Adjustability

LED drive current can be changed in the field to adjust light output for local conditions (not available with Fixed Drive Current (FDC) or PCR7-CR option). The specified drive current code will be the factory set drive current. Field adjustments can be made with the current selector included in the fixture. Field adjustable range shown in performance data table.

Quality Control

Every luminaire is performance tested before and after a 2-hour burn-in period. Assembled in the USA.

Optical Systems

Micro-lens optical systems produce IESNA Type 2, Type 3, Type 4, or Type 5 distributions and are fully sealed to maintain an IP66 rating. Luminaire produces 0% total lumens above 90° (BUG Rating, U=0). Optional house side shield cuts light off at 1/2 mounting height behind luminaire. Front side shield cuts light off at approximately one mounting height in front of the luminaire (street side). Cul-de-sac shield provides back and side light control for end of cul-de-sac applications. All shields are field installable without tools.

Electrical

Rated life of electrical components is 100,000 hours. Uses isolated power supply that is 1-10V dimmable. Power supply is wired with quick-disconnect terminals. Power supply features a minimum power factor of .90 and <20% Total Harmonic Distortion (THD). EMC meets or exceeds FCC CFR Part 15. Terminal block accommodates 6 to 14 gauge wire. Surge protection complies with IEEE/ANSI C62.41 Category C High, 20kV/10kA and ANSI C136.2-2015, 20kV/10kA.

Controls

3-Wire photocontrol receptacle is standard. ANSI C136.41 7-wire (PCR7) photocontrol receptacle is available. All photocontrol receptacles have tool-less rotatable bases. Wireless control module is provided by others.

Finish

Housing receives a durable, fade-resistant polyester powder coat finish with 3.0 mil nominal thickness. Standard finish tested to withstand 5000 hours in salt spray exposure per ASTM B117 and Coastal Finish per ASTM G85. Finish meets scribe creepage rating 8 per ASTM D1654. Finish tested 500 hours in UV exposure per ASTM G154 and meets ASTM D523 gloss retention.

Listings/Ratings/Labels

Luminaires are UL listed for use in wet locations in the United States and Canada. DesignLights Consortium™ qualified product. Consult DLC QPL for Standard and Premium Classification Listings. International Dark Sky Association listed. Luminaire is qualified to operate at ambient temperatures of -40°C to 40°C.

Photometry

Luminaire photometrics are tested by certified independent testing laboratories in accordance with IES LM-79 testing procedures.

Warranty

10-year limited warranty is standard on luminaire and components.

Vandal Resistance

Housing and optics rated to IK10

Standards

Luminaire complies with:
ANSI: C136.2, C136.3, C136.10, C136.13, C136.15, C136.22, C136.31, C136.35, C136.37, C136.41, C62.41, C78.377, C82.77
Other: FCC 47 CFR, IEC 60598, ROHS II, UL 1449, UL 1598

Performance Data: 3000K (WW)

All data nominal. IES files for all CCTs available at leotek.com.

Product	LED Code	Drive Current Code	System Wattage (W)	Delivered Lumens (Lm) ¹	Efficacy (Lm/W)	Field Adjustable Output Range
GCM2	30H	530	48	5770	120	↑ ↓
		610	58	6700	116	
		700	68	7620	112	
		850	82	8800	107	
		1A	101	10480	104	
	40H	575	73	8780	120	↑ ↓
		700	88	10230	116	
		850	107	11960	112	
		950	121	13040	108	
		1A	135	14080	104	

Notes:

1 Nominal lumens. Normal tolerance $\pm 10\%$ due to factors including distribution type, LED bin variance, and ambient temperatures.

Performance Data: 4000K (NW) and 5000K (CW)

All data nominal. IES files for all CCTs available at leotek.com.

Product	LED Code	Drive Current Code	System Wattage (W)	Delivered Lumens (Lm) ¹	Efficacy (Lm/W)	Field Adjustable Output Range
GCM2	30H	530	48	6330	132	↑ ↓
		610	58	7440	128	
		700	68	8550	126	
		850	82	9830	120	
		1A	101	11720	116	
	40H	575	73	9590	131	↑ ↓
		700	88	11260	128	
		850	107	13270	124	
		950	121	14390	119	
		1A	135	15430	114	

Notes:

1 Nominal lumens. Normal tolerance $\pm 10\%$ due to factors including distribution type, LED bin variance, and ambient temperatures.

BUG Ratings

3000K (WW)

			Type 2S	Type 2R	Type 3R	Type 4	Type 5
Product	LED Code	Drive Current Code	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
GCM2	30H	530	B2 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G1	B3 U0 G1
		610	B2 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G2	B3 U0 G1
		700	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G1
		850	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		1A	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
	40H	575	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		700	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		850	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B3 U0 G2
		950	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		1A	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2

4000K (NW)

			Type 2S	Type 2R	Type 3R	Type 4	Type 5
Product	LED Code	Drive Current Code	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
GCM2	30H	530	B2 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G1	B3 U0 G1
		610	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G1
		700	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		850	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		1A	B3 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2	B3 U0 G2
	40H	575	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		700	B2 U0 G2	B2 U0 G2	B3 U0 G3	B2 U0 G2	B3 U0 G2
		850	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		950	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		1A	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2

5000K (CW)

			Type 2S	Type 2R	Type 3R	Type 4	Type 5
Product	LED Code	Drive Current Code	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
GCM2	30H	530	B2 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G1	B3 U0 G1
		610	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G1
		700	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		850	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		1A	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B3 U0 G2
	40H	575	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		700	B2 U0 G2	B2 U0 G2	B3 U0 G3	B2 U0 G2	B3 U0 G2
		850	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		950	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		1A	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2