architectural arealighting

PROB-LK

LED UPGRADE KIT

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

Providence® Bollard

FEATURES

- Reliable uniform illumination
- True IES Type 2, 3, 4, and 5 distributions
- 3000K , 4000K, 5000K CCT
- 0-10V dimmable
- 20kV/10kA surge suppression
- Thermal protection

SPECIFICATIONS

OPTICAL MODULE

- Light emitting diode (LED) assembly shall be sealed to a die-cast anodized aluminum heat sink with an injection molded silicone rubber gasket and stainless steel bezel, IP66
- •LED optics shall be injection molded PMMA acrylic and be mounted to a metal printed circuit board with a uniform conformal coating over the panel surface and electrical features

INSTALLATION

- Existing luminaires shall be required to be taken down for disassembly of pre-existing optical and electrical components
- •Estimated time for installation of the upgrade kit into an existing luminaire is 25 minutes

ELECTRICAL

- Upgrade kit shall have integral surge protection that shall be U.L. recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J
- •Drivers shall be U.L recognized with an inrush current maximum of <20.0 Amps maximum at 230VAC
- •Existing luminaires may not have 0-10V control leads in place prior to the upgrade kit, consult factory for dimming and control solutions
- •Drivers shall not be compatible with current sourcing dimmers, consult factory for current list of known compatible dimming systems, approved dimmers include Lutron Diva AVTV, Lutron Nova NFTV and NTFTV

CERTIFICATIONS

- Upgrade kits shall be listed with ETL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250

WARRANTY

- 5 year warranty

ORDERING GUIDE

Example: PROB-LK-Y2-2040

CATALOG #

Upgrade Kit		Distribution		Lumen Package	
PROB-LK	Providence Bollard LED Upgrade Kit	**Y2**	Type 2	**2030**	3000K CCT, 25 watts
		Y3	Type 3	**2040**	4000K CCT, 25 watts
		Y4	Type 4	**2050**	5000K CCT, 25 watts
		Y5	Type 5	**30AM**	595 Amber, 43 watts [1]
				3030	3000K CCT, 43 watts
				3040	4000K CCT, 43 watts
				3050	5000K CCT, 43 watts

architectural arealighting

PROB-LK

LED UPGRADE KIT

DATE: LOCATION:

TYPE: PROJECT:

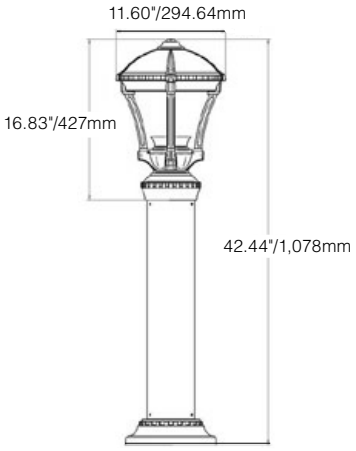
CATALOG #:

DELIVERED LUMENS

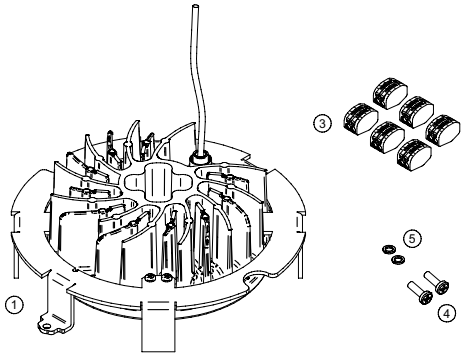
Light Engine	Lensing	Distribution	Ordering Code	Average System Watts	3000K 70CRI					4000K 70CRI					5000K 70CRI				
					Lumen	Bug Rating			Efficancy (Lm/W)	Lumen	Bug Rating			Efficancy (Lm/W)	Lumen	Bug Rating			Efficancy (Lm/W)
						B	U	G			B	U	G			B	U	G	
					2030					2040					2050				
2000 Series	Clear Lens (Standard)	Type 2	Y2	25	1792	1	0	1	71	1957	1	0	1	78	1951	1	0	1	78
		Type 3	Y3		1830	1	0	1	73	1970	1	0	1	78	1958	1	0	1	78
		Type 4	Y4		1793	1	0	1	71	1957	1	0	1	78	1960	1	0	1	78
		Type 5	Y5		1735	1	0	1	65	1894	1	0	1	76	1989	1	0	1	76
	Lightly Diffused Lens	Type 2	Y2 LDL		1216	1	1	1	49	1361	1	1	1	54	1387	0	1	1	56
		Type 3	Y3 LDL		1216	1	1	1	50	1361	1	1	1	56	1386	1	1	1	57
		Type 4	Y4 LDL		1170	1	2	1	47	1309	1	2	1	52	1334	1	2	1	53
		Type 5	Y5 LDL		1139	1	1	1	46	1275	1	1	1	51	1299	1	1	1	52
					3030					3040					3050				
3000 Series	Clear Lens (Standard)	Type 2	Y2	43	2975	1	0	1	69	3247	1	0	1	76	3238	1	0	1	75
		Type 3	Y3		3038	1	1	1	70	3270	1	0	1	76	3261	1	0	1	75
		Type 4	Y4		2988	1	0	1	69	3262	1	0	1	76	3253	1	0	1	75
		Type 5	Y5		2892	2	0	1	67	3157	2	0	1	73	3148	2	0	1	73
	Lightly Diffused Lens	Type 2	Y2 LDL		2092	1	1	1	49	2342	1	1	1	54	2386	1	1	1	56
		Type 3	Y3 LDL		2091	1	1	1	50	2341	1	1	1	56	2385	1	1	1	57
		Type 4	Y4 LDL		2012	1	2	1	47	2252	1	2	1	52	2295	1	2	1	53
		Type 5	Y5 LDL		1959	1	1	1	46	2193	1	1	1	51	2234	1	1	1	52

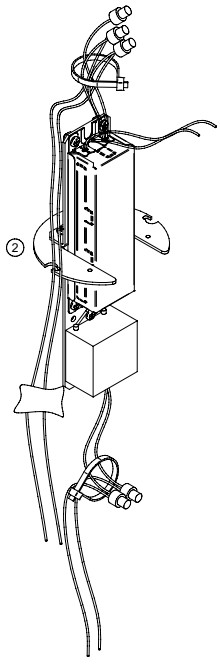
DIMENSIONS

ONS



BOTTOM VIEW





architectural arealighting

PROB-LK

LED UPGRADE KIT

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LED COLOR

Value	Ordering Code		
	XX30	XX40	XX50
CCT Average	3000K	4000K	5000K
CRI Minimum	70	70	70
S/P Ratio	1.22	1.5	1.8

ELECTRICAL CHARACTERISTICS

Configuration	Driver									Inrush Current Peak				Dimming	
Ordering Code	LED Current (mA)	System Wattage (W)	Line Voltage		Amps AC		Min. Power Factor	Max THD (%)	Operating Temp. Range	120V		277V		Dimming Range (V)	Source/ Sink Current (mA)
			VAC	HZ	120	277				Ipeak (A)		Ipeak (A)			
20XX	255	25	120-277	50/60	0.21	0.09	>0.9	20	-40°C To +55°C	21	160 uS	49	160 uS	10% TO 10)%	1mA
30XX	400	42			0.35	0.15									

TM-21 LIFETIME CALCULATION (500MA)

Optical System	Ordering Code	Ambient Environment °C		Projected Lumen Maintenance (Khrs)				Reported L70
			15	25	50	60 (TM-21)	100	
MicroCore	32LED	15	100%	99%	99%	98%	97%	>96Khrs.
		25	99%	99%	98%	97%	95%	
		40	98%	97%	94%	93%	89%	

Consult factory for Amber, Turtle Friendly, Gulf Coast and Observatory applications.