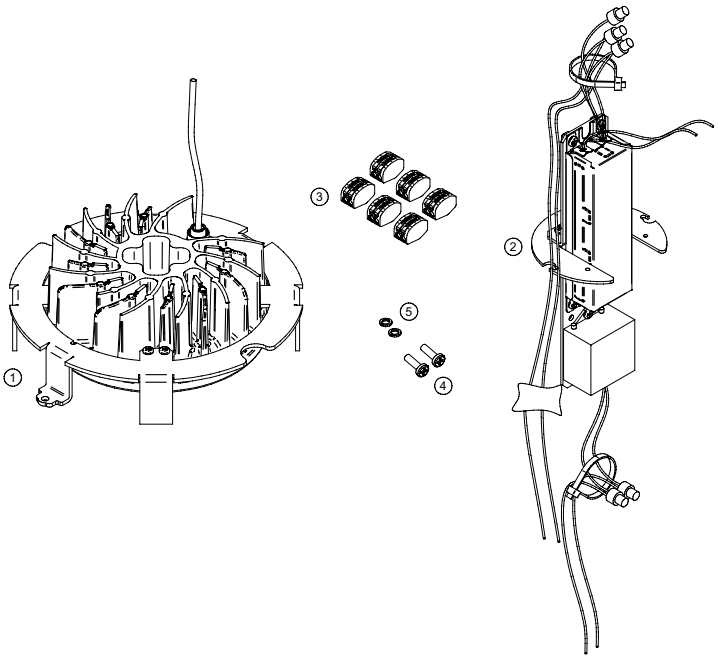
Providence® LED™ Bollard Upgrade Kits – PROB-LK

TYPE

FEATURES

- Reliable uniform illumination
- Types II, III, IV and V distributions
- 3000K, 4000K, 5000K CCT
- 0-10V dimmable
- 20kV/10kA surge suppression
- Thermal Protection
- Full Cutoff optical system

SPECIFICATIONS



ORDERING INFORMATION

1	2	3
PROB-LK		
Model	Distribution	Lumen Package

1. UPGRADE KITS

PROB-LK *Providence Bollard LED*

2. DISTRIBUTION

Y2	*Type 2*
Y3	*Type 3*
Y4	*Type 4*
Y5	*Type 5*

3. LUMEN PACKAGE

3050	*5000K CCT, 43 watts*
3040	*4000K CCT, 43 watts*
3030	*3000K CCT, 43 watts*
2050	*5000K CCT, 25 watts*
2040	*4000K CCT, 25 watts*
2030	*3000K CCT, 25 watts*

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LUMINAIRE PERFORMANCE

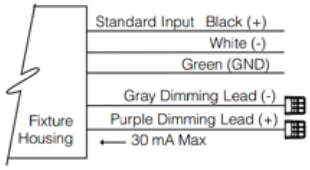
Light Engine	Lensing	Distribution	Ordering Code	5000K CCT					4000K CCT					3000K CCT					Average System Watts
				Delivered Lumens	Efficacy (Lm/W)	BUG Rating B	U	G	Delivered Lumens	Efficafcy (Lm/W)	BUG Rating B	U	G	Delivered Lumens	Efficafcy (Lm/W)	BUG Rating B	U	G	
				3050					3040					3030					
3000 Series	Clear Lens (Standard)	TYPE 2	**Y2**	3238	75	1	0	1	3247	76	1	0	1	2975	69	1	0	1	43
		TYPE 3	**Y3**	3261	75	1	0	1	3270	76	1	0	1	3038	70	1	1	1	
		TYPE 4	**Y4**	3253	75	1	0	1	3262	76	1	0	1	2988	69	1	0	1	
		TYPE 5	**Y5**	3148	73	2	0	1	3157	73	2	0	1	2892	67	2	0	1	
	Lightly Diffused Lens	TYPE 2	**Y2...LDL**	2386	56	1	1	1	2342	54	1	1	1	2092	49	1	1	1	
		TYPE 3	**Y3...LDL**	2385	57	1	1	1	2341	56	1	1	1	2091	50	1	1	1	
		TYPE 4	**Y4...LDL**	2295	53	1	2	1	2252	52	1	2	1	2012	47	1	2	1	
		TYPE 5	**Y5...LDL**	2234	52	1	1	1	2193	51	1	1	1	1959	46	1	1	1	
				2050					2040					2030					
2000 Series	Clear Lens (Standard)	TYPE 2	**Y2**	1951	78	1	0	1	1957	78	1	0	1	1792	71	1	0	1	25
		TYPE 3	**Y3**	1958	78	1	0	1	1970	78	1	0	1	1830	73	1	0	1	
		TYPE 4	**Y4**	1960	78	1	0	1	1957	78	1	0	1	1793	71	1	0	1	
		TYPE 5	**Y5**	1889	76	1	0	1	1894	76	1	0	1	1735	69	1	0	1	
	Lightly Diffused Lens	TYPE 2	**Y2...LDL**	1387	56	1	1	1	1361	54	1	1	1	1216	49	1	1	1	
		TYPE 3	**Y3...LDL**	1386	57	1	1	1	1361	56	1	1	1	1216	50	1	1	1	
		TYPE 4	**Y4...LDL**	1334	53	1	2	1	1309	52	1	2	1	1170	47	1	2	1	
		TYPE 5	**Y5...LDL**	1299	52	1	1	1	1275	51	1	1	1	1139	46	1	1	1	

ELECTRICAL CHARACTERISTICS

Configurationi		Driver								Inrush Current				Dimming	
Ordering Code		LED Drive mA	System Watts	Line Voltage VAC	HZ	Amps AC 120	277	Min. Power Factor	Max THD (%)	Operating Temp. Range	120V Ipeak (A)		277V Ipeak (A)		Dimming Range	Source/ Sink Current
3050	3000 series	400	42	120-277	50/60	0.35	0.15	≥.9	20	-40°C To +55°C	21	160 µS	49	160 µS	10% TO 100%	1mA
3040																
3020																
2050	2000 series	255	25			0.21	0.09									
2040																
2020																

WIRING LEADS

Luminaires shall be provided with 0-10 purple and gray dimming leads.



LED COLOR

	Ordering Code		
	3K	4K	5K
CCT Average	3000K	4000K	5000K
CRI Minimum	70	70	70
S/P Ratio	1.2	1.5	1.8

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

TM-21 LIFETIME CALCULATION

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

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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.

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.

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.

SERVICING

- The electrical assembly shall be mounted to a prewired internal service tray and accessed by loosening four captive bolts and lifting off the top of the luminaire.

CERTIFICATION

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

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:
http://www.hubbelllighting.com/resources/warranty/

AAL reserves the right to change product specifications without notice.

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