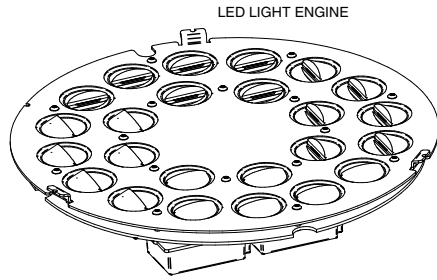


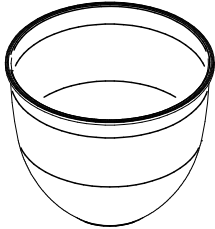
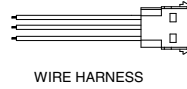
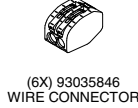
FEATURES

- Reliable, uniform, glare free illumination
- Types II, III, IV, V and custom distributions
- 3000K, 4200K, 5100K CCT
- 0-10V dimming capable drivers
- Integral surge suppression
- LifeShield™ thermal protection
- 13 standard powder coat finishes

CONTENTS



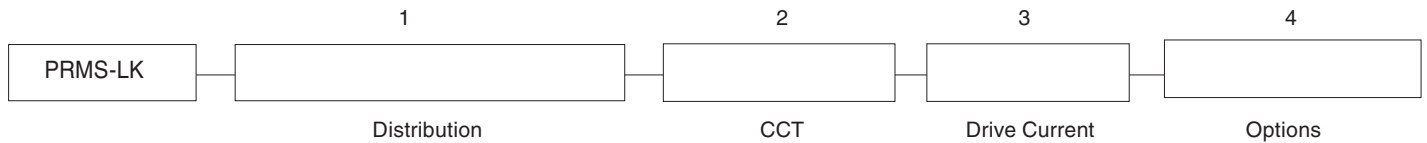
(3X) A84024: 8-32 x 3/4" SCREW



93018081 (OPTIONAL)
93018081-LDL (OPTIONAL)

ITEM #	QTY	DESCRIPTION	
A84134	3	8-32 X 1/2" SCREW	
80111-24A	1	WIRE-14GA WHITE 24 IN	
80114-24A	1	WIRE-14GA GREEN 24 IN	
80110-24A	1	WIRE-14GA BLACK 24 IN	
93035846	6	WIRE CONNECTORS	
93049807	1	INSTALLATION INSTRUCTIONS	
93018081	1	LENS - CLEAR	OPTIONAL
93018081-LDL	1	LENS - LIGHTLY DIFFUSED	OPTIONAL

ORDERING INFORMATION



1. DISTRIBUTION

MicroCore Upgrade Kit *Precision aimed optics*

- T2-48LED
- T3-48LED
- T4-48LED
- T5-48LED
- TL-48LED
- TR-48LED

2. COLOR TEMPERATURE

- 3K 4K 5K

3. DRIVE CURRENT

- 700 450

4. OPTIONS

HSS (*House Side shield for Type 4*)



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JOB _____
TYPE _____
NOTES _____

LUMINAIRE PERFORMANCE

Optical System	Secondary Lens or Shield	Distribution	Light Engine	Ordering Code												Drive Current (ma)	System Watts					
				3K			4K			5K												
				Delivered Lumens	Efficacy (lm/w)	Bug Rating	Delivered Lumens	Efficacy (lm/w)	Bug Rating	Delivered Lumens	Efficacy (lm/w)	Bug Rating										
MicroCore	Global Lens (Standard)	TYPE 2	T2-48LED	5963	53	2	3	2	7665	69	2	3	2	8302	74	2	3	2	700	112		
		TYPE 3	T3-48LED	5770	52	2	2	2	7417	66	2	3	2	8033	72	2	3	2				
		TYPE 4	T4-48LED	5705	51	1	3	2	7333	66	1	3	2	7942	71	1	3	2				
		TYPE 5	T5-48LED	6028	54	3	3	2	7748	69	3	3	2	8392	75	3	3	2				
	House Side Shield	TYPE 4	T4-48LED...-HSS	4044	36	1	0	2	5197	47	1	0	2	5630	50	1	0	2				
	Diffuse Lens (Standard)	TYPE 2	T2-48LED...-LDL	5963	53	2	4	3	6636	59	2	4	3	7104	64	2	4	3				
		TYPE 3	T3-48LED...-LDL	5078	45	1	3	3	6505	58	2	4	3	6964	62	2	4	3				
		TYPE 4	T4-48LED...-LDL	4980	45	1	3	3	6381	57	1	4	3	6830	61	1	4	3				
		TYPE 5	T5-48LED...-LDL	5379	48	2	3	3	6891	62	3	4	3	7377	66	3	4	3				
	House Side Shield	TYPE 4	T4-48LED...-HSS-LDL	3610	32	1	3	3	4625	41	1	3	3	4951	44	1	3	3				
	Global Lens (Standard)	TYPE 2	T2-48LED	3816	53	1	3	3	4905	69	2	2	2	5313	74	2	3	2			450	72
		TYPE 3	T3-48LED	3250	45	1	3	2	4747	66	2	2	2	5141	72	2	2	2				
		TYPE 4	T4-48LED	3187	45	1	3	2	4693	66	1	3	1	5083	71	1	3	2				
		TYPE 5	T5-48LED	3443	48	2	3	2	4959	69	3	2	2	5371	75	3	3	2				
	House Side Shield	TYPE 4	T4-48LED...-HSS	2311	32	1	3	2	3326	47	1	0	1	3603	50	1	0	1				
	Diffuse Lens (Standard)	TYPE 2	T2-48LED...-LDL	3816	53	1	2	1	4247	59	1	3	3	4547	64	1	3	3				
		TYPE 3	T3-48LED...-LDL	3693	52	1	2	1	4163	58	1	3	3	4457	62	1	3	3				
		TYPE 4	T4-48LED...-LDL	3651	51	1	2	1	4084	57	1	3	3	4371	61	1	3	3				
		TYPE 5	T5-48LED...-LDL	5749	51	2	3	3	7172	64	3	4	3	7908	71	3	4	3				
	House Side Shield	TYPE 4	T4-48LED...-HSS-LDL	3873	35	1	3	3	4832	43	1	3	3	5328	48	1	3	3				

ELECTRICAL CHARACTERISTICS

Optical System	Ordering Code	Driver									Dimming						
		LED Drive mA	System Watts	Line Voltage		Amps AC		Min. Power Factor	Max THD (%)	Operating Temp. Range	Dimming Range	Source current out of 0-10V purple wire			Absolute voltage range on 0-10V (+) purple wire		
				VAC	HZ	120	277					Min	Typical	Max	Min	Typical	Max
MicroCore	48LED	700	112	120-277	50/60	0.93	0.4	≥.9	20	-30°C TO +40°C	10% TO 100%	0 MA	-	8 mA	-2.0 V	-	+15 V
		450	72			0.6	0.26										

LED COLOR

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

	Ordering Code		
	3K	4K	5K
CCT Average	3000K	4200K	5100K
CCT Range	2800K - 3175K	3800K - 4600K	4600K - 5600K
CRI Minimum	≥ 80	≥ 70	≥ 70
S/P Ratio	1.33	1.66	1.78

TM-21 LIFETIME CALCULATION

Optical System	Ordering Code	Ambient Environment °C	Projected Lumen Maintenance (% vs. Khrs)					Reported L70
			15	25	50	60	100	
MicroCore	48LED	15	98	98	97	97	95	>60Khrs
		25	98	98	97	96	94	
		40	98	97	95	94	92	



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JOB	_____
TYPE	_____
NOTES	_____

SPECIFICATIONS

UPGRADE KIT CONSTRUCTION

- Optical components shall be, sealed with continuous silicone rubber gaskets.
- All hardware shall be stainless steel.
- Optical bezel finish shall match the luminaire housing.

OPTICAL

- Patent pending MicroCore™ LED modules shall independently aim each light emitting diode (LED) in both horizontal rotation and vertical tilt angle.
- LEDs shall be mounted to a metal printed circuit board assembly (PCBA) with a uniform conformal coating over the panel surface and electrical features.
- LED optics shall be clear injection molded PMMA acrylic.
- MicroCore™ PCBA and optic shall be sealed to a die-cast anodized aluminum heat sink with an injection molded silicone rubber gasket. IP66.

ELECTRICAL

- Upgrade kits 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.
- 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.
- LifeShield™ shall be provided with all configurations for added protection in the event of abnormally excessive high ambient temperature conditions.

SERVICING

- Upgrade kit shall have the driver and surge suppressor mounted to a prewired tray with quick disconnects.

FINISH

- Bezel finish shall consist of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish.
- Bezel finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

CERTIFICATION

- Upgrade kit 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.hubbellighting.com/resources/warranty/>

