

RA25K2

LED UPGRADE KIT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

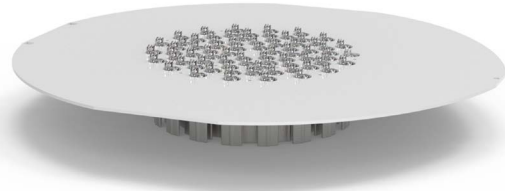
Era®

FEATURES

- TIR Optics
- Available in 580nm, 3000K, 4000K and 5000K standard CCT
- Type 1, 2, 3, 4W, 5Q, and 5W distributions
- 0 - 10V dimming drivers standard



3000K and warmer CCTs only



RELATED PRODUCTS

[Ouro](#)

[Pavilion](#)

[PGL8](#)

SPECIFICATIONS

CONSTRUCTION

- All hardware is stainless steel or electro-zinc plated steel

OPTICS

- Molded silicone gasket ensures a weather-proof seal around each individual LED
- Features revolutionary individual LED optical control based on high performance TIR optical designs
- Optional BackLight Control for complete control of unwanted backlight
- Type 1, 2, 3, 4W, 5Q, and 5W standard distributions Custom available

INSTALLATION

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury

ELECTRICAL

- Dimming range from 10% to 100% through the use of standard 0-10V interface on the programmable driver
- Modular wiring harness in the service area provides user access to the dimming circuitry
- Optional factory programmed dimming profile
- Surge protection: 10kV surge suppression

ELECTRICAL (CONTINUED)

- SF for 120, 277, 347 Line volts
DF for 208, 240, 480 Line volts
- Wiring: 14GA wires rated 150°C

CERTIFICATIONS AND LISTINGS

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations
- RoHS compliant
- IDA approved, 3000K and warmer CCTs only

WARRANTY

- 5 year warranty
- See [HLI Standard Warranty](#) for additional information

RA25K2

LED UPGRADE KIT

ORDERING GUIDE

RA25K2												
Housing	Current	CCT/CRI		Distribution		Voltage		Fixture Finish		Shielding	Fuse Option	
RA25K2 RA25K2 LED Upgrade Kit	72L - 415	9,000lm	AM	Amber-595nm Peak ¹		1	Type I	UNV 120-277V 347 347V 480 480V	BLS	Black Gloss Smooth	BC Back Light Control ³	SF Single Fuse DF Double Fuse
	72L - 615	12,800lm	3K7	3000K, 70 CRI		2	Type II		BLT	Black Matte Textured		
	72L - 700	15,000lm	4K7	4000K, 70 CRI		3	Type III		DBS	Dark Bronze Gloss Smooth		
			5K7	5000K, 70 CRI		4W	Type IV Wide	DBT	Dark Bronze Matte Textured			
						5QM	Type V Square Medium	GTT	Graphite Matte Textured			
						5W	Type V Wide (Round)	LGS	Light Grey Gloss Smooth			
								LGT	Light Grey Matte Textured			
								PSS	Platinum Silver Gloss Smooth			
								VGT	Verde Green Matte Textured			
								WHS	White Gloss Smooth			
								WHT	White Matte Textured			

- Notes:
- 1 Turtle friendly
 - 2 Consult factory for custom color, marine and corrosive finish options
 - 3 Back Light Control not available for Type 5Q and Type 5W

Color Option

CC ² Custom Color

PRODUCT EXCEPTIONS & DETAILS (CONTINUED)

CONTROLS

DIMMING:

- Dimming range from 100% to 10% through the use of the standard 0-10V interface on the programmable driver.
- Modular wiring harness in the service area provides user access to the dimming circuitry.
- Dimming circuitry compatible with 0-10V, user-defined control devices.
- Optional factory programmed dimming profile.

ASTRODIM

- AstroDIM provides multi-stage night-time power reduction based on an internal timer referenced to the power on/off time. There is no need for an external control infrastructure. The unit automatically performs a dimming profile based on the predefined scheduled reference to the midpoint, which is calculated based on the power on/off times. ¹

OPTIONAL FUSING:

- SF for 120, 277, and 347 Line volts
- DF for 208, 240, and 480 Line volts
- High temperature fuse holders factory installed inside the fixture housing.
- Fuse is included.

CAUTION:

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

Notes:
1 Available upon request

RA25K2

LED UPGRADE KIT

DELIVERED LUMENS

NO LENS

LED #	Nominal Lumen Package	Drive Current	Distribution	3000K 70CRI					4000K 70CRI					5000K 70CRI				
				Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w
					B	U	G			B	U	G			B	U	G	
72L	9,000	415	1	13041	1	0	1	137.3	13155	1	0	1	138.5	13364	1	0	1	140.7
			1-BC	7140	0	0	0	75.2	7202	0	0	0	75.8	7317	0	0	0	77.0
			2	12491	2	0	2	131.5	12600	2	0	2	132.6	12800	2	0	2	134.7
			2-BC	5714	0	0	1	60.2	5764	0	0	1	60.7	5856	0	0	1	61.6
			3	12156	2	0	3	128.0	12262	2	0	3	129.1	12457	2	0	3	131.1
			3-BC	5468	0	0	1	57.6	5516	0	0	1	58.1	5604	0	0	1	59.0
			4W	12516	2	0	3	131.7	12625	2	0	3	132.9	12826	2	0	3	135.0
			4W-BC	5361	0	0	1	56.4	5408	0	0	1	56.9	5494	0	0	1	57.8
			5Q	12895	3	0	2	135.7	13007	3	0	2	136.9	13214	3	0	2	139.1
	5W	12324	4	0	2	129.7	12431	4	0	2	130.9	12629	4	0	2	132.9		
	1	18184	2	0	1	129.3	18342	2	0	1	130.4	18634	2	0	1	132.5		
	1-BC	9956	0	0	1	70.8	10042	0	0	1	71.4	10202	0	0	1	72.6		
	2	17416	2	0	2	123.9	17568	2	0	2	124.9	17848	2	0	2	126.9		
	2-BC	7968	0	0	1	56.7	8037	0	0	1	57.2	8165	1	0	1	58.1		
	3	16949	2	0	3	120.5	17097	2	0	3	121.6	17369	2	0	3	123.5		
	3-BC	7625	0	0	2	54.2	7691	0	0	2	54.7	7813	0	0	2	55.6		
	4W	17452	2	0	4	124.1	17604	2	0	4	125.2	17884	2	0	4	127.2		
	4W-BC	7475	1	0	2	53.2	7540	1	0	2	53.6	7660	1	0	2	54.5		
	5Q	17979	4	0	2	127.9	18136	4	0	2	129.0	18425	4	0	2	131.0		
	5W	17183	4	0	2	122.2	17333	4	0	2	123.3	17609	4	0	2	125.2		
	1	19707	2	0	2	123.9	19879	2	0	2	124.9	20195	2	0	2	126.7		
	1-BC	10790	0	0	1	67.8	10884	0	0	1	68.4	11057	0	0	1	69.8		
	2	18875	3	0	3	118.6	19040	3	0	3	119.7	19343	3	0	3	121.0		
	2-BC	8635	1	0	3	54.3	8710	1	0	3	54.7	8849	1	0	3	55.8		
	3	18369	2	0	3	115.4	18529	2	0	3	117.1	18824	2	0	3	118.2		
	3-BC	8263	1	0	2	51.9	8335	1	0	2	52.4	8468	1	0	2	53.1		
	4W	18914	2	0	4	118.9	19078	2	0	4	119.9	19382	2	0	4	121.9		
	4W-BC	8101	1	0	2	50.9	8172	1	0	2	51.4	8302	1	0	2	52.6		
5Q	19485	4	0	2	122.5	19655	4	0	2	123.5	19968	4	0	2	124.8			
5W	18623	4	0	2	117.0	18785	4	0	2	118.1	19084	4	0	2	119.3			

CRI Lumen Multiplier		
CCT	80 CRI	90 CRI
3000K	0.9119	0.7033
4000K	0.8941	N/A

Amber	
CCT	Multiplier
5000K	1
AM	0.1727

2700K Multiplier	
CCT	Multiplier
5000K	1
2700K	0.897

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LED UPGRADE KIT

DELIVERED LUMENS (CONTINUED)

CLR LENS

LED #	Nominal Lumen Package	Drive Current	Distribution	3000K 70CRI				4000K 70CRI				5000K 70CRI						
				Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w
					B	U	G			B	U	G			B	U	G	
72L	9,000	415	1	11956	1	0	1	125.9	12060	1	0	1	127.0	12252	1	0	1	129.0
			1-BC	6546	0	0	0	68.9	6603	0	0	0	69.5	6708	0	0	0	70.6
			2	11452	2	0	2	120.5	11552	2	0	2	121.6	11736	2	0	2	123.5
			2-BC	5239	0	0	1	55.1	5285	0	0	1	55.6	5369	0	0	1	56.5
			3	11145	2	0	2	117.3	11242	2	0	2	118.3	11421	2	0	2	120.2
			3-BC	5013	0	0	1	52.8	5057	0	0	1	53.2	5138	0	0	1	54.1
			4W	11475	2	0	3	120.8	11575	2	0	3	121.8	11759	2	0	3	123.8
			4W-BC	4915	0	0	1	51.7	4958	0	0	1	52.2	5037	0	0	1	53.0
			5Q	11822	3	0	1	124.4	11925	3	0	1	125.5	12115	3	0	1	127.5
	5W	11299	4	0	2	118.9	11397	4	0	2	120.0	11578	4	0	2	121.9		
	1	16671	2	0	1	118.6	16816	2	0	1	119.6	17084	2	0	1	121.5		
	1-BC	9128	0	0	0	64.9	9207	0	0	0	65.5	9354	0	0	0	66.5		
	2	15968	2	0	2	113.6	16107	2	0	2	114.5	16363	2	0	2	116.4		
	2-BC	7305	0	0	1	51.9	7368	0	0	1	52.4	7486	0	0	1	53.2		
	3	15539	2	0	2	110.5	15674	2	0	2	111.5	15924	2	0	2	113.2		
	3-BC	6990	0	0	2	49.7	7051	0	0	2	50.1	7163	0	0	2	50.9		
	4W	16000	2	0	4	113.8	16139	2	0	4	114.8	16396	2	0	4	116.6		
	4W-BC	6853	1	0	2	48.7	6913	1	0	2	49.2	7023	1	0	2	49.9		
	5Q	16484	4	0	2	117.2	16627	4	0	2	118.2	16892	4	0	2	120.1		
	5W	15754	4	0	2	112.0	15891	4	0	2	113.0	16144	4	0	2	114.8		
	1	18067	2	0	1	113.6	18225	2	0	1	114.5	18515	2	0	1	116.4		
	1-BC	9892	0	0	1	62.2	9978	0	0	1	62.7	10137	0	0	1	63.7		
	2	17305	2	0	2	108.8	17456	2	0	2	109.7	17734	2	0	2	111.5		
	2-BC	7917	0	0	1	49.8	7986	0	0	1	50.2	8113	1	0	1	51.0		
	3	16841	2	0	3	105.8	16988	2	0	3	106.8	17258	2	0	3	108.6		
	3-BC	7576	0	0	2	47.6	7642	0	0	2	48.0	7764	0	0	2	48.8		
	4W	17340	2	0	4	109.0	17491	2	0	4	109.9	17770	2	0	4	111.7		
	4W-BC	7427	1	0	2	46.7	7492	1	0	2	47.1	7611	1	0	2	47.8		
5Q	17864	4	0	2	112.3	18020	4	0	2	113.3	18307	4	0	2	115.1			
5W	17073	4	0	2	107.3	17222	4	0	2	108.2	17496	4	0	2	110.0			

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LED UPGRADE KIT

DELIVERED LUMENS (CONTINUED)

PL LENS

LED #	Nominal Lumen Package	Drive Current	Distribution	3000K 70CRI					4000K 70CRI					5000K 70CRI				
				Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w	Lumen	BUG Rating			lm/w
					B	U	G			B	U	G			B	U	G	
72L	9,000	415	1	11712	1	0	1	123.3	11814	1	0	1	124.4	12003	1	0	1	126.3
			1-BC	6413	0	0	0	67.5	6469	0	0	0	68.1	6572	0	0	0	69.2
			2	11218	2	0	2	118.1	11316	2	0	2	119.1	11496	2	0	2	121.0
			2-BC	5132	0	0	1	54.0	5177	0	0	1	54.5	5259	0	0	1	55.4
			3	10917	2	0	2	114.9	11012	2	0	2	115.9	11188	2	0	2	117.8
			3-BC	4911	0	0	1	51.7	4954	0	0	1	52.1	5033	0	0	1	53.0
			4W	11241	2	0	3	118.3	11339	2	0	3	119.4	11519	2	0	3	121.3
			4W-BC	4815	0	0	1	50.7	4857	0	0	1	51.1	4934	0	0	1	51.9
			5Q	11581	3	0	1	121.9	11682	3	0	1	123.0	11868	3	0	1	124.9
	5W	11068	4	0	2	116.5	11165	4	0	2	117.5	11342	4	0	2	119.4		
	1	16331	2	0	1	116.1	16473	2	0	1	117.1	16735	2	0	1	119.0		
	1-BC	8941	0	0	0	63.6	9019	0	0	0	64.1	9163	0	0	0	65.2		
	2	15642	2	0	2	111.2	15778	2	0	2	112.2	16029	2	0	2	114.0		
	2-BC	7156	0	0	1	50.9	7218	0	0	1	51.3	7333	0	0	1	52.1		
	3	15222	2	0	2	108.3	15355	2	0	2	109.2	15599	2	0	2	110.9		
	3-BC	6848	0	0	2	48.7	6907	0	0	2	49.1	7017	0	0	2	49.9		
	4W	15673	2	0	4	111.5	15810	2	0	4	112.4	16062	2	0	4	114.2		
	4W-BC	6713	1	0	2	47.7	6772	1	0	2	48.2	6880	1	0	2	48.9		
	5Q	16147	4	0	2	114.8	16288	4	0	2	115.8	16547	4	0	2	117.7		
	5W	15432	4	0	2	109.7	15567	4	0	2	110.7	15815	4	0	2	112.5		
	1	17699	2	0	1	111.2	17853	2	0	1	112.2	18137	2	0	1	114.0		
	1-BC	9690	0	0	0	60.9	9775	0	0	0	61.4	9930	0	0	0	62.4		
	2	16952	2	0	2	106.5	17100	2	0	2	107.5	17372	2	0	2	109.2		
	2-BC	7755	0	0	1	48.7	7823	0	0	1	49.2	7947	0	0	1	49.9		
	3	16497	2	0	2	103.7	16641	2	0	2	104.6	16906	2	0	2	106.4		
	3-BC	7421	0	0	2	46.6	7486	0	0	2	47.0	7605	0	0	2	47.8		
	4W	16986	2	0	4	106.8	17134	2	0	4	107.7	17407	2	0	4	109.4		
	4W-BC	7276	1	0	2	45.7	7339	1	0	2	46.1	7456	1	0	2	46.9		
5Q	17500	4	0	2	110.0	17652	4	0	2	110.9	17933	4	0	2	112.7			
5W	16725	4	0	2	105.1	16871	4	0	2	106.0	17140	4	0	2	107.7			

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LED UPGRADE KIT

PHOTOMETRY

RA252-72L-700-4K7-1

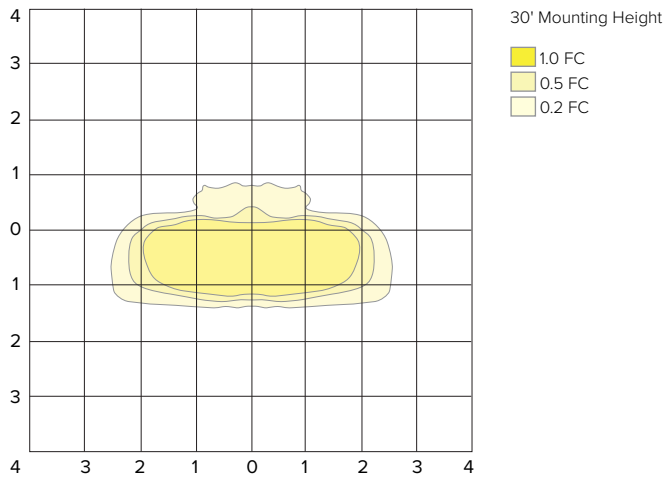
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	19879
Watts	159.1
Efficacy	124.9
IES Type	I
BUG Rating	B2-U0-G2
Mounting Height	30 ft
Grid Scale	30 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	17577	88.4%
Downward House Side	2302	11.6%
Downward Total	19879	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	19879	100%

ISOFOOT CANDLE PLOT



RA252-72L-700-4K7-2

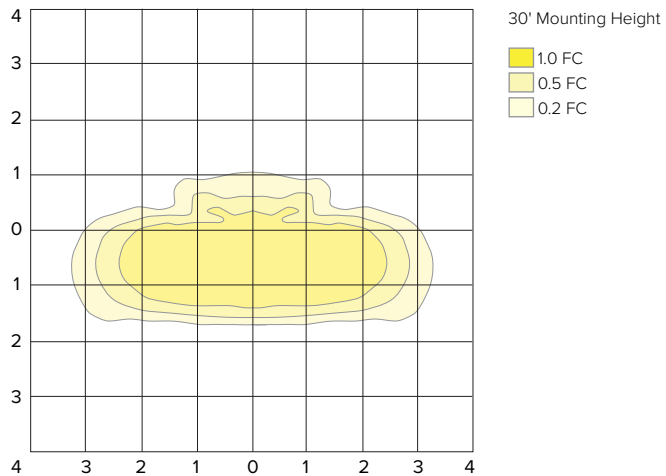
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	19040
Watts	159.1
Efficacy	119.7
IES Type	II
BUG Rating	B3-U0-G3
Mounting Height	30 ft
Grid Scale	30 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	15646	82.2%
Downward House Side	3394	17.8%
Downward Total	19040	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	19040	100%

ISOFOOT CANDLE PLOT



RA252-72L-700-4K7-3

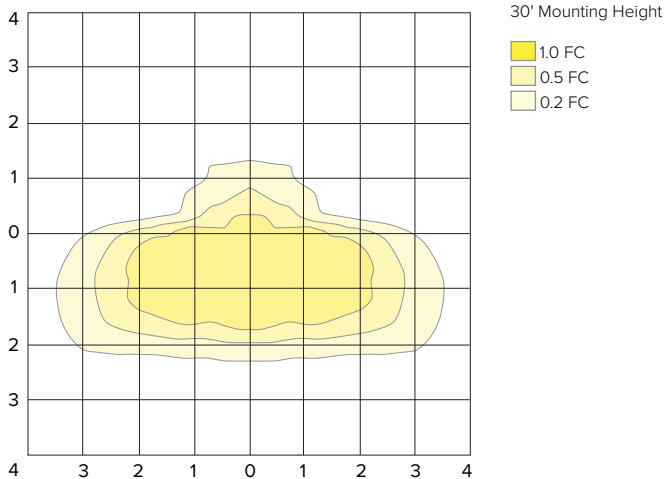
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	18530
Watts	159.1
Efficacy	116.5
IES Type	III
BUG Rating	B2-U0-G3
Mounting Height	30 ft
Grid Scale	30 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	15560	84.0%
Downward House Side	2970	16.0%
Downward Total	18530	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	18530	100%

ISOFOOT CANDLE PLOT



RA25K2

LED UPGRADE KIT

PHOTOMETRY

RA252-72L-700-4K7-4W

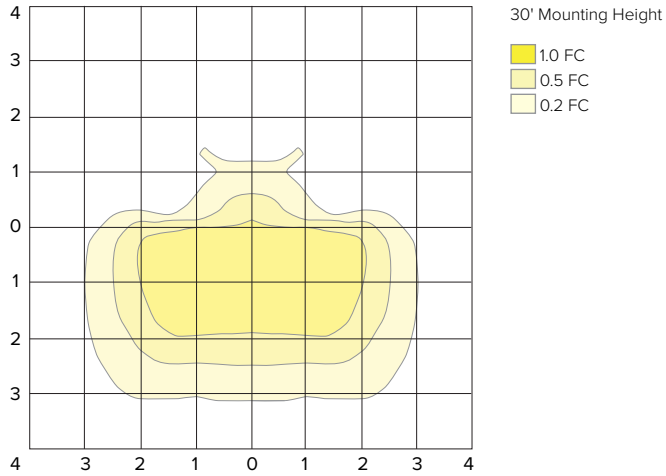
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	19079
Watts	159.1
Efficacy	119.9
IES Type	IV
BUG Rating	B2-U0-G4
Mounting Height	30 ft
Grid Scale	30 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	16649	87.3%
Downward House Side	2430	12.7%
Downward Total	19079	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	19079	100%

ISOFOOT CANDLE PLOT



RA252-72L-700-4K7-5Q

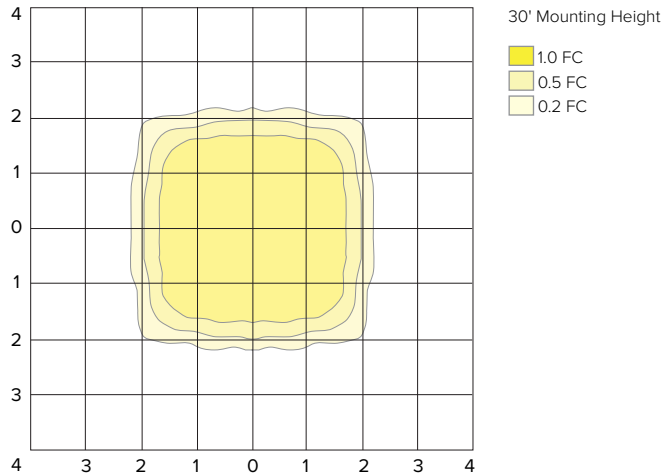
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	19655
Watts	159.1
Efficacy	123.5
IES Type	V
BUG Rating	B4-U0-G2
Mounting Height	30 ft
Grid Scale	30 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	9828	50.0%
Downward House Side	9828	50.0%
Downward Total	19655	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	19655	100%

ISOFOOT CANDLE PLOT



RA252-72L-700-4K7-5W

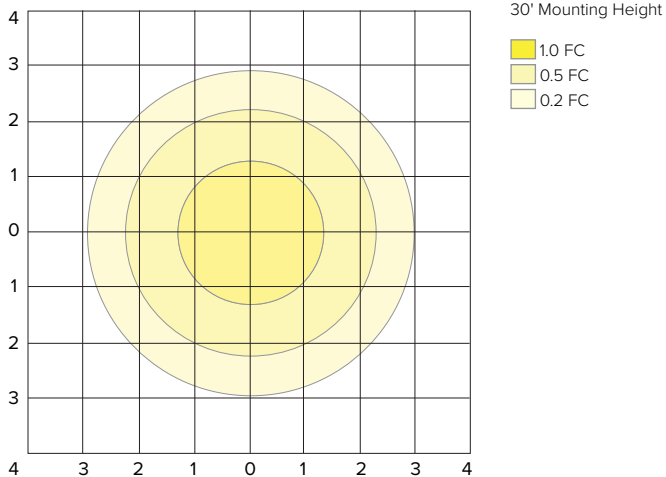
LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	18785
Watts	159.1
Efficacy	118.1
IES Type	V
BUG Rating	B3-U0-G2
Mounting Height	30 ft
Grid Scale	30 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	9393	50.0%
Downward House Side	9393	50.0%
Downward Total	18785	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	18785	100%

ISOFOOT CANDLE PLOT

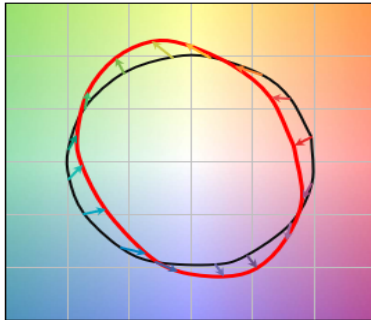


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LED UPGRADE KIT

TM-30 DATA

COLOR VECTOR GRAPHIC

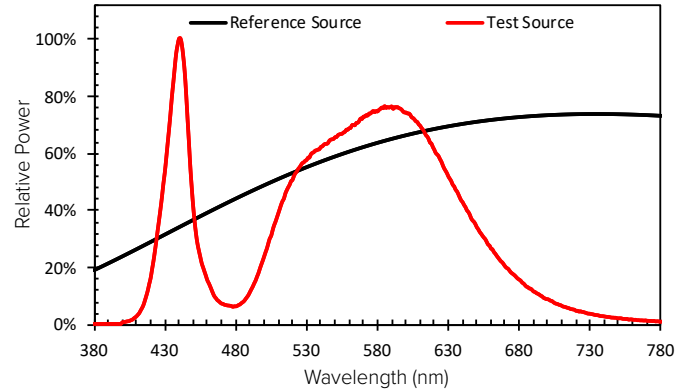


— Reference Illuminant — Test Source

TEST SOURCE

R _f	68
R _g	99
CCT(K)	3947
D _{uv}	0.0004
x	0.3831
y	0.3793
CIE R _a	72

SPECTRAL POWER DISTRIBUTION COMPARISON



ELECTRICAL DATA

LED #	System Watts	Current	Line Voltage		Amps AC						Min Power Factor	Max. THD (%)	Dimming				
			VAC	Hz	120	208	240	277	347	480			Dimming Range	Source Current Out		Absolute Voltage	
														Min	Max	Min	Max
72L	95.0	415 mA	120-480	50/60	0.79	0.46	0.40	0.34	0.27	0.20	>0.9	20	10% to 100%	0mA	1mA	0V	10V
	140.6	615 mA			1.17	0.68	0.59	0.51	0.41	0.29							
	159.1	700 mA			1.33	0.76	0.66	0.57	0.46	0.33							

TM-21 Lifetime Calculation - Projected Lumen Maintenance (25°C / 77°C)

Hours	0	25,000	36,000	50,000	100,000	Reported L70
Projected Lumen Maintenance	100%	93.5%	91.7%	89.4%	81.9%	> 60,000