

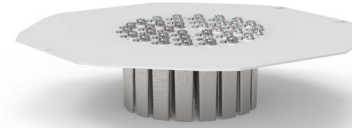
# RA17K2

LED UPGRADE KIT

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

**RA17K2**

LED UPGRADE KIT

**ORDERING GUIDE**

RA17K2											
Housing	Current	CCT/CRI	Distribution	Voltage	Fixture Finish	Shielding	Fuse Option				
RA17K2 RA17K2 LED Upgrade Kit	<b>36L - 350</b>	4,000lm	<b>AM</b> Amber-595nm Peak <sup>1</sup>	<b>1</b> Type I	<b>UNV</b> 120-277V <b>347</b> 347V <b>480</b> 480V	<b>BLS</b> Black Gloss Smooth <b>BLT</b> Black Matte Textured <b>DBS</b> Dark Bronze Gloss Smooth <b>DBT</b> Dark Bronze Matte Textured <b>GTT</b> Graphite Matte Textured <b>LGS</b> Light Grey Gloss Smooth <b>LGT</b> Light Grey Matte Textured <b>PSS</b> Platinum Silver Gloss Smooth <b>VGT</b> Verde Green Matte Textured <b>WHS</b> White Gloss Smooth <b>WHT</b> White Matte Textured	<b>BC</b> Back Light Control <sup>3</sup>	<b>SF</b> Single Fuse <b>DF</b> Double Fuse			
	<b>36L - 600</b>	6,600lm	<b>3K7</b> 3000K, 70 CRI	<b>2</b> Type II							
	<b>36L - 645</b>	7,500lm	<b>4K7</b> 4000K, 70 CRI <b>5K7</b> 5000K, 70 CRI	<b>3</b> Type III <b>4W</b> Type IV Wide <b>5QM</b> Type V Square Medium <b>5W</b> Type V Wide (Round)							

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

**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. <sup>1</sup>

**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.

**Color Option**

- CC** <sup>2</sup> Custom Color

Notes:

- 1 Available upon request

**RA17K2**

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**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	
36L	4,000	350	1	5338	1	0	1	126.6	5427	1	0	1	128.7	5625	1	0	1	133.4
			1-BC	2967	0	0	0	70.4	3016	0	0	0	71.5	3126	0	0	0	74.2
			2	5079	1	0	1	120.5	5164	1	0	1	122.5	5353	1	0	1	127.0
			2-BC	2254	0	0	0	53.5	2291	0	0	0	54.3	2375	0	0	0	56.3
			3	5052	1	0	1	119.8	5137	1	0	2	121.8	5324	1	0	2	126.3
			3-BC	2241	0	0	1	53.2	2279	0	0	1	54.0	2362	0	0	1	56.0
			4W	5074	1	0	2	120.4	5159	1	0	2	122.4	5347	1	0	2	126.8
			4W-BC	2220	0	0	1	52.6	2257	0	0	1	53.5	2339	0	0	1	55.5
			5Q	5214	2	0	1	123.7	5301	2	0	1	125.7	5494	2	0	1	130.3
	5W	5024	3	0	1	119.2	5108	3	0	1	121.2	5294	3	0	1	125.6		
	1	8503	1	0	1	122.7	8645	1	0	1	124.8	8961	1	0	1	129.3		
	1-BC	4726	0	0	0	68.2	4805	0	0	0	69.4	4980	0	0	0	71.9		
	2	8091	1	0	2	116.8	8226	1	0	2	118.7	8526	2	0	2	123.1		
	2-BC	3590	0	0	1	51.8	3650	0	0	1	52.7	3783	0	0	1	54.6		
	3	8048	1	0	2	116.2	8182	1	0	2	118.1	8481	1	0	2	122.4		
	3-BC	3570	0	0	1	51.5	3630	0	0	1	52.4	3762	0	0	1	54.3		
	4W	8083	1	0	2	116.7	8218	1	0	2	118.6	8518	1	0	2	122.9		
	4W-BC	3536	0	0	1	51.0	3595	0	0	1	51.9	3726	0	0	1	53.8		
	5Q	8305	3	0	1	119.9	8444	3	0	1	121.9	8752	3	0	1	126.3		
	5W	8003	3	0	2	115.5	8137	3	0	2	117.4	8434	3	0	2	121.7		
	1	8970	1	0	1	122.3	9120	1	0	1	124.3	9453	1	0	1	128.9		
	1-BC	4986	0	0	0	68.0	5069	0	0	1	69.1	5254	0	0	0	72.0		
	2	8536	2	0	2	116.4	8678	2	0	2	118.3	8995	2	0	2	122.0		
	2-BC	3787	0	0	1	51.6	3850	0	0	1	52.5	3991	0	0	1	54.2		
	3	8490	1	0	2	115.6	8632	1	0	2	118.4	8947	1	0	2	121.9		
	3-BC	3766	0	0	1	51.4	3829	0	0	1	52.2	3969	0	0	1	54.0		
	4W	8527	1	0	2	116.3	8670	1	0	2	118.2	8986	1	0	2	122.0		
	4W-BC	3730	0	0	1	50.9	3793	0	0	1	51.7	3931	0	0	1	53.6		
5Q	8761	3	0	1	119.5	8908	3	0	1	121.5	9233	3	0	1	126.5			
5W	8443	3	0	2	115.1	8584	3	0	2	117.0	8897	3	0	2	121.4			

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

**RA17K2**

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	
36L	4,000	350	1	4887	1	0	1	115.9	4968	1	0	1	117.8	5150	1	0	1	122.1
			1-BC	2716	0	0	0	64.4	2761	0	0	0	65.5	2862	0	0	0	67.9
			2	4650	1	0	1	110.3	4728	1	0	1	112.1	4900	1	0	1	116.2
			2-BC	2063	0	0	0	48.9	2098	0	0	0	49.8	2174	0	0	0	51.6
			3	4625	1	0	1	109.7	4703	1	0	1	111.5	4874	1	0	1	115.6
			3-BC	2052	0	0	1	48.7	2086	0	0	1	49.5	2162	0	0	1	51.3
			4W	4645	1	0	2	110.2	4723	1	0	2	112.0	4895	1	0	2	116.1
			4W-BC	2032	0	0	1	48.2	2066	0	0	1	49.0	2142	0	0	1	50.8
			5Q	4773	2	0	1	113.2	4853	2	0	1	115.1	5030	2	0	1	119.3
	5W	4599	3	0	1	109.1	4676	3	0	1	110.9	4847	3	0	1	115.0		
	1	7784	1	0	1	112.4	7915	1	0	1	114.2	8203	1	0	1	118.4		
	1-BC	4327	0	0	0	62.5	4399	0	0	0	63.5	4560	0	0	0	65.8		
	2	7407	1	0	2	106.9	7531	1	0	2	108.7	7806	1	0	2	112.7		
	2-BC	3287	0	0	0	47.4	3342	0	0	0	48.2	3463	0	0	1	50.0		
	3	7368	1	0	2	106.3	7491	1	0	2	108.1	7764	1	0	2	112.1		
	3-BC	3268	0	0	1	47.2	3323	0	0	1	48.0	3444	0	0	1	49.7		
	4W	7400	1	0	2	106.8	7524	1	0	2	108.6	7798	1	0	2	112.6		
	4W-BC	3237	0	0	1	46.7	3291	0	0	1	47.5	3411	0	0	1	49.2		
	5Q	7603	3	0	1	109.7	7730	3	0	1	111.6	8013	3	0	1	115.7		
	5W	7327	3	0	1	105.8	7449	3	0	1	107.5	7721	3	0	2	111.4		
	1	8212	1	0	1	112.0	8350	1	0	1	113.8	8654	1	0	1	118.0		
	1-BC	4564	0	0	0	62.2	4641	0	0	0	63.3	4810	0	0	0	65.6		
	2	7814	1	0	2	106.5	7945	1	0	2	108.3	8235	1	0	2	112.3		
	2-BC	3467	0	0	1	47.3	3525	0	0	1	48.1	3654	0	0	1	49.8		
	3	7773	1	0	2	106.0	7903	1	0	2	107.7	8191	1	0	2	111.3		
	3-BC	3448	0	0	1	47.0	3506	0	0	1	47.8	3634	0	0	1	49.5		
	4W	7806	1	0	2	106.4	7937	1	0	2	108.2	8227	1	0	2	112.2		
	4W-BC	3415	0	0	1	46.6	3472	0	0	1	47.3	3599	0	0	1	49.1		
5Q	8021	3	0	1	109.4	8155	3	0	1	111.2	8453	3	0	1	115.2			
5W	7729	3	0	2	105.4	7858	3	0	2	107.1	8145	3	0	2	111.1			

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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	
36L	4,000	350	1	4643	1	0	1	110.1	4721	1	0	1	112.0	4893	1	0	1	116.1
			1-BC	2581	0	0	0	61.2	2624	0	0	0	62.2	2720	0	0	0	64.5
			2	4418	1	0	1	104.8	4492	1	0	1	106.6	4656	1	0	1	110.4
			2-BC	1960	0	0	0	46.5	1993	0	0	0	47.3	2066	0	0	0	49.0
			3	4395	1	0	1	104.2	4468	1	0	1	106.0	4631	1	0	1	109.9
			3-BC	1950	0	0	1	46.2	1982	0	0	1	47.0	2055	0	0	1	48.7
			4W	4414	1	0	2	104.7	4488	1	0	2	106.4	4652	1	0	2	110.3
			4W-BC	1931	0	0	1	45.8	1963	0	0	1	46.6	2035	0	0	1	48.3
			5Q	4535	2	0	1	107.6	4611	2	0	1	109.4	4779	2	0	1	113.4
	5W	4370	3	0		103.7	4443	3	0	1	105.4	4605	3	0	1	109.2		
	1	7397	1	0	1	106.8	7520	1	0	1	108.6	7795	1	0	1	112.5		
	1-BC	4111	0	0	0	59.3	4180	0	0	0	60.3	4332	0	0	0	62.5		
	2	7038	1	0	1	101.6	7156	1	0	1	103.3	7417	1	0	2	107.1		
	2-BC	3123	0	0	0	45.1	3175	0	0	0	45.8	3291	0	0	0	47.5		
	3	7001	1	0	2	101.1	7118	1	0	2	102.7	7378	1	0	2	106.5		
	3-BC	3106	0	0	1	44.8	3158	0	0	1	45.6	3273	0	0	1	47.2		
	4W	7031	1	0	2	101.5	7149	1	0	2	103.2	7410	1	0	2	107.0		
	4W-BC	3076	0	0	1	44.4	3127	0	0	1	45.1	3241	0	0	1	46.8		
	5Q	7225	2	0	1	104.3	7345	2	0	1	106.0	7613	3	0	1	109.9		
	5W	6962	3	0	1	100.5	7078	3	0	1	102.2	7336	3	0	1	105.9		
	1	7803	1	0	1	106.4	7934	1	0	1	108.2	8223	1	0	1	112.1		
	1-BC	4337	0	0	0	59.1	4410	0	0	0	60.1	4570	0	0	0	62.3		
	2	7425	1	0	2	101.2	7549	1	0	2	102.9	7825	1	0	2	106.7		
	2-BC	3294	0	0	0	44.9	3350	0	0	1	45.7	3472	0	0	1	47.3		
	3	7385	1	0	2	100.7	7509	1	0	2	102.4	7783	1	0	2	106.5		
	3-BC	3276	0	0	1	44.7	3331	0	0	1	45.4	3453	0	0	1	47.1		
	4W	7418	1	0	2	101.1	7542	1	0	2	102.8	7817	1	0	2	106.6		
4W-BC	3245	0	0	1	44.2	3299	0	0	1	45.0	3420	0	0	1	46.6			
5Q	7622	3	0	1	103.9	7749	3	0	1	105.7	8032	3	0	1	109.5			
5W	7344	3	0	1	100.1	7467	3	0	1	101.8	7740	3	0	2	105.5			

# RA17K2

LED UPGRADE KIT

## PHOTOMETRY

RA172-36L-645-4K7-1

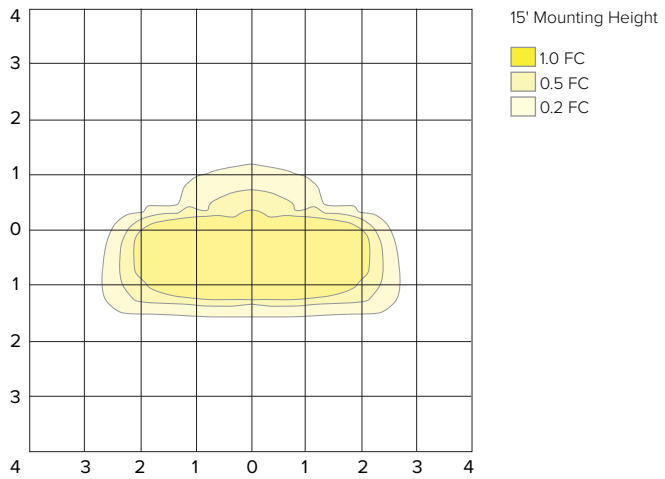
### LUMINAIRE DATA

Description	<b>4000K, 70CRI</b>
Delivered Lumens	<b>9120</b>
Watts	<b>73.4</b>
Efficacy	<b>124.3</b>
IES Type	<b>I</b>
BUG Rating	<b>B1-U0-G1</b>
Mounting Height	<b>15 ft</b>
Grid Scale	<b>15 ft</b>

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	8036	88.1%
Downward House Side	1084	11.9%
Downward Total	9120	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	9120	100%

### ISOFOOT CANDLE PLOT



RA172-36L-645-4K7-2

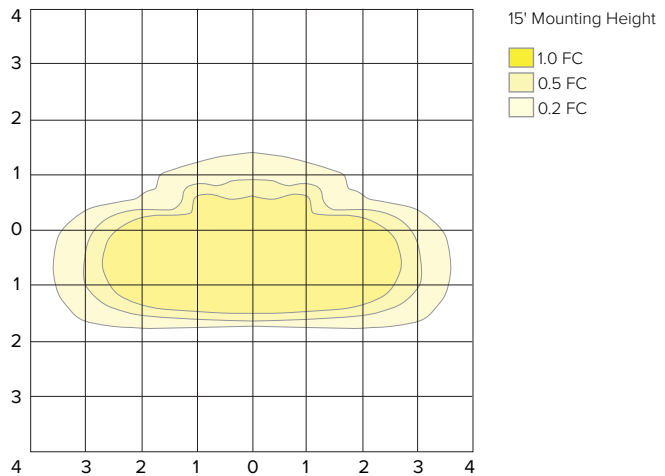
### LUMINAIRE DATA

Description	<b>4000K, 70CRI</b>
Delivered Lumens	<b>8678</b>
Watts	<b>73.4</b>
Efficacy	<b>118.3</b>
IES Type	<b>II</b>
BUG Rating	<b>B2-U0-G2</b>
Mounting Height	<b>15 ft</b>
Grid Scale	<b>15 ft</b>

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	7023	80.9%
Downward House Side	1655	19.1%
Downward Total	8678	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	8678	100%

### ISOFOOT CANDLE PLOT



RA172-36L-645-4K7-3

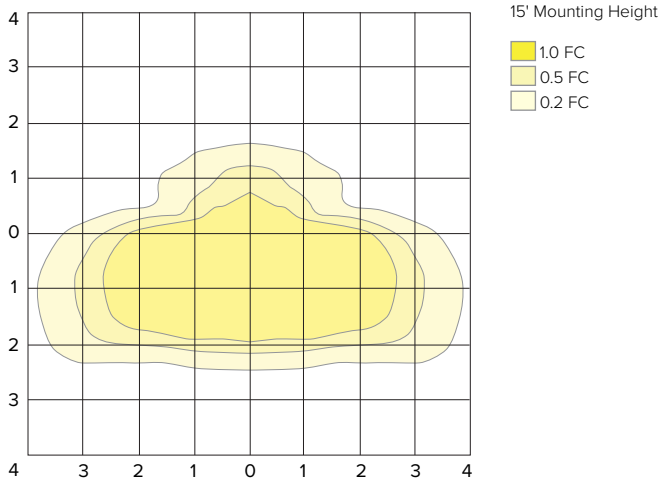
### LUMINAIRE DATA

Description	<b>4000K, 70CRI</b>
Delivered Lumens	<b>8632</b>
Watts	<b>72.9</b>
Efficacy	<b>118.4</b>
IES Type	<b>III</b>
BUG Rating	<b>B1-U0-G2</b>
Mounting Height	<b>15 ft</b>
Grid Scale	<b>15 ft</b>

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	7135	82.7%
Downward House Side	1497	17.3%
Downward Total	8632	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	8632	100%

### ISOFOOT CANDLE PLOT



# RA17K2

LED UPGRADE KIT

## PHOTOMETRY

RA172-36L-645-4K7-4W

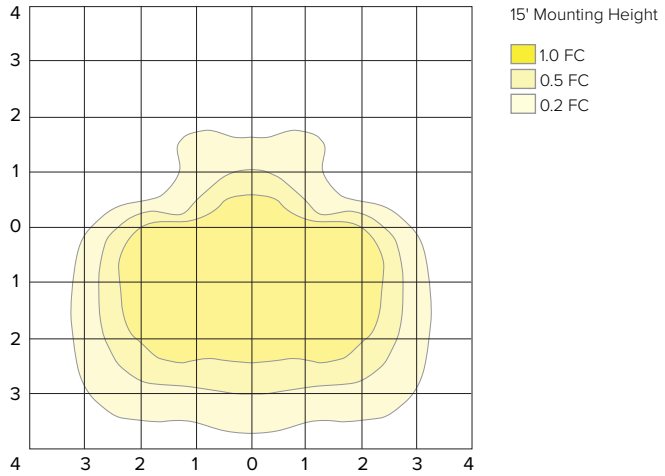
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8670
Watts	73.4
Efficacy	118.2
IES Type	IV
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	15 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	7456	86.0%
Downward House Side	1214	14.0%
Downward Total	8670	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	8670	100%

### ISOFOOT CANDLE PLOT



RA172-36L-645-4K7-5Q

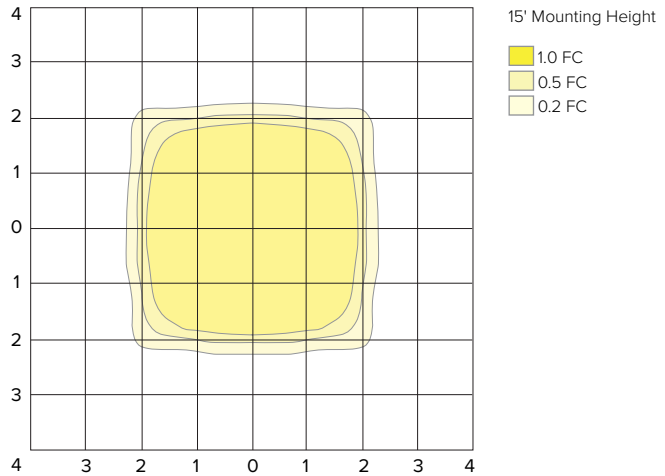
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8908
Watts	73.4
Efficacy	121.4
IES Type	V
BUG Rating	B3-U0-G1
Mounting Height	15 ft
Grid Scale	15 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4454	50.0%
Downward House Side	4454	50.0%
Downward Total	8908	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	8908	100%

### ISOFOOT CANDLE PLOT



RA172-36L-645-4K7-5W

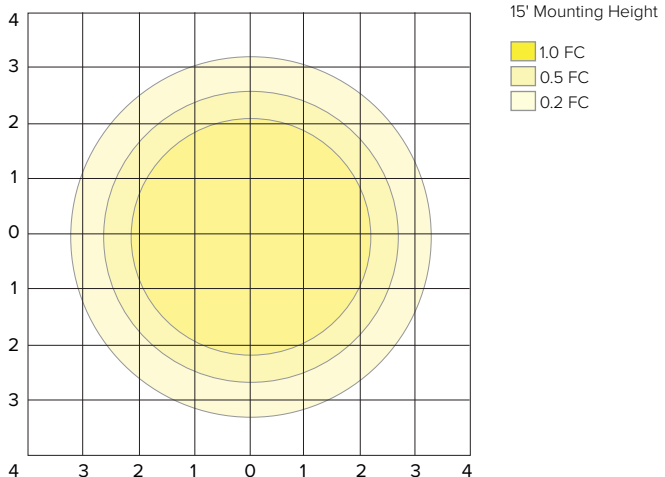
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8584
Watts	73.35
Efficacy	117.0
IES Type	V
BUG Rating	B3-U0-G2
Mounting Height	15 ft
Grid Scale	15 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4292	50.0%
Downward House Side	4292	50.0%
Downward Total	8584	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	8584	100%

### ISOFOOT CANDLE PLOT

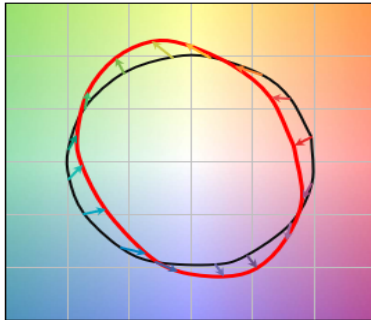


**RA17K2**

LED UPGRADE KIT

**TM-30 DATA**

**COLOR VECTOR GRAPHIC**

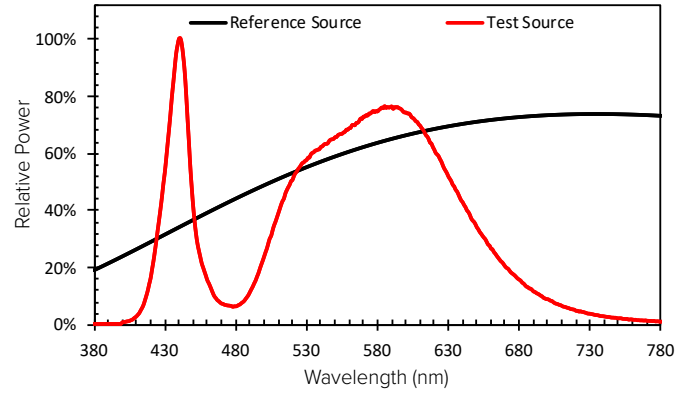


— Reference Illuminant — Test Source

**TEST SOURCE**

R <sub>f</sub>	68
R <sub>g</sub>	99
CCT(K)	3947
D <sub>uv</sub>	0.0004
x	0.3831
y	0.3793
CIE R <sub>a</sub>	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
36L	42.2	350 mA	120-480	50/60	0.35	0.20	0.18	0.15	0.12	0.09	>0.9	20	10% to 100%	0mA	1mA	0V	10V
	69.3	600 mA			0.58	0.33	0.29	0.25	0.20	0.14							
	73.3	645 mA			0.61	0.35	0.31	0.26	0.21	0.15							

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%	97.0%	95.5%	93.6%	87.0%	> 60,000