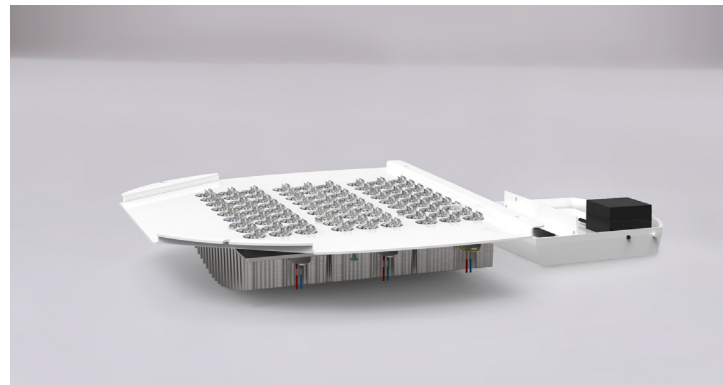


DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_  
 TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_  
 CATALOG #: \_\_\_\_\_

Warp9®



**FEATURES**

- TIR Strike Optics
- Available in Monochromatic Amber, 2700K, 3000K, 3500K, 4000K and 5000K
- Type 1, 2, 3, 4, 4W, 5Q, L, and R distributions
- 0 - 10V dimming drivers standard
- IP65 optical assembly



3000K and warmer CCTs only

**RELATED PRODUCTS**

[Ouro](#)

[Pavilion](#)

[PGL8](#)

**SPECIFICATIONS**

**CONSTRUCTION**

- One piece die-cast housing, low copper (<0.6% Cu) Aluminum Alloy with integral cooling ribs over the optical chamber and electrical compartment
- All hardware is stainless steel or electro-zinc plated steel
- Finish: fade and abrasion resistant, electrostatically applied, thermally cured, triglycidyl isocyanurate (TGIC) polyester powdercoat

**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

**OPTICS**

- Optical cartridge system consisting of a die cast heat sink, LED Total Internal Reflection (TIR) optics, gasket and bezel plate

**OPTICS (CONTINUED)**

- 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
- IP65 Optical assembly
- Type 1, 2, 3, 4, 4W, 5Q, L, and R standard distributions
- Available in Monochromatic Amber, 2700K, 3000K, 3500K, 4000K and 5000K
- Die-cast, low copper aluminum heat sink modules provide thermal transfer at PCB level
- Anodized aluminum heat sink modules

**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
- SF for 120, 277, 347 Line volts  
DF for 208, 240, 480 Line volts

**CERTIFICATIONS AND LISTINGS**

- Listed to UL1598 and CSA C22.2#250.0-24 for wet location and 40°C ambient temperatures
- RoHS compliant

**WARRANTY**

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

**WP9SK2**

ARCHITECTURAL AREA/SITE

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_

CATALOG #: \_\_\_\_\_

**ORDERING GUIDE**

WP9SK2									
Model	LED Engine	CCT/CRI <sup>3</sup>		Distribution		Voltage		Fixture Finish	
WP9SK2 Warp9 2.0 Small Kit	<b>27L-350</b>	27 LEDs - 3,000 Lumens		<b>AM<sup>1,4</sup></b>	Monochromatic Amber		<b>1</b>	Type I	
	<b>54L-405</b>	54 LEDs - 7,500 Lumens		<b>27K8<sup>2</sup></b>	2700K, 80CRI		<b>2</b>	Type II	
	<b>81L-450</b>	81 LEDs - 12,500 Lumens		<b>27K9<sup>2</sup></b>	2700K, 90CRI		<b>3</b>	Type III	
				<b>3K7</b>	3000K, 70CRI		<b>4</b>	Type IV Forward	
				<b>3K8<sup>2</sup></b>	3000K, 80CRI		<b>4W</b>	Type IV Wide	
				<b>3K9<sup>2</sup></b>	3000K, 90CRI		<b>5QM</b>	Type V Square Medium	
				<b>35K8<sup>2</sup></b>	3500K, 80CRI		<b>R</b>	Corner Right	
				<b>35K9<sup>2</sup></b>	3500K, 90CRI		<b>L</b>	Corner Left	
				<b>4K7</b>	4000K, 70CRI				
				<b>4K8<sup>2</sup></b>	4000K, 80CRI				
				<b>4K9<sup>2</sup></b>	4000K, 90CRI				
				<b>5K7</b>	5000K, 70CRI				
				<b>5K8<sup>2</sup></b>	5000K, 80CRI				
				<b>5K9<sup>2</sup></b>	5000K, 90CRI				
		<i>Equivalent</i> WP9S-P35 = 54L-405 WP9S-P70 = 81L-450 WP9S-E35 = 54L-405							
									<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 Smooth
									<b>VGT</b> Verde Green Matte Textured
									<b>WHS</b> White Gloss Smooth
									<b>WHT</b> White Matte Textured
									<b>Color Option</b>
									<b>CC</b> Custom Color

House Side Shield	Fuse Options
<b>BC<sup>1</sup></b> Backlight Control	<b>SF</b> 120, 277, 347 Line Volts <b>DF</b> 208, 240, 480 Line Volts

Notes:

- 1 Back Light Control not available for Type 5Q and Type 5W
- 2 See Lumen Multiplier chart on Page 11 for lumen scaling factor. Consult factory for additional details.
- 3 5-step MacAdam Ellipse Binning is standard. Consult factory for 3-step MacAdam Ellipse Binning
- 4 Turtle Friendly.

**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	
27	3,000	350	1	3806	1	0	0	120.5	3940	1	0	0	124.8	4091	1	0	0	129.5
			1-BC	2483	0	0	0	78.6	2570	0	0	0	81.4	2669	0	0	0	84.5
			2	3614	1	0	1	114.4	3741	1	0	1	118.5	3884	1	0	1	123.0
			2-BC	2322	0	0	0	73.5	2404	0	0	0	76.1	2496	0	0	1	79.0
			3	3604	1	0	1	114.1	3731	1	0	1	118.1	3874	1	0	1	122.7
			3-BC	2227	0	0	1	70.5	2305	0	0	1	73.0	2393	0	0	1	75.8
			4	3761	0	0	1	119.1	3892	0	0	1	123.2	4042	1	0	1	128.0
			4-BC	2753	0	0	1	87.2	2849	0	0	1	90.2	2959	0	0	1	93.7
			4W	3585	1	0	1	113.5	3711	1	0	1	117.5	3853	1	0	2	122.0
			4W-BC	2327	0	0	1	73.7	2409	0	0	1	76.3	2502	0	0	1	79.2
			5Q	3736	2	0	0	118.3	3868	2	0	0	122.5	4016	2	0	0	127.2
			R	3572	1	0	1	113.1	3697	1	0	1	117.1	3839	1	0	1	121.6
L	3572	1	0	1	113.1	3697	1	0	1	117.1	3839	1	0	1	121.6			
54	7,500	405	1	8633	1	0	1	125.0	8936	1	0	1	129.4	9279	1	0	1	134.4
			1-BC	5632	0	0	0	81.6	5830	0	0	1	84.4	6053	0	0	1	87.7
			2	8197	1	0	2	118.7	8485	1	0	2	122.9	8810	1	0	2	127.6
			2-BC	5267	0	0	1	76.3	5452	0	0	1	79.0	5662	0	0	1	82.0
			3	8175	1	0	2	118.4	8462	1	0	2	122.6	8787	1	0	2	127.3
			3-BC	5050	0	0	2	73.2	5228	0	0	2	75.7	5428	0	0	2	78.6
			4	8529	1	0	2	123.5	8828	1	0	2	127.9	9167	1	0	2	132.8
			4-BC	6244	0	0	2	90.4	6463	0	0	2	93.6	6711	0	0	2	97.2
			4W	8131	1	0	2	117.8	8417	1	0	2	121.9	8740	1	0	2	126.6
			4W-BC	5279	0	0	2	76.5	5464	0	0	2	79.1	5674	0	0	2	82.2
			5Q	8475	3	0	1	122.8	8773	3	0	1	127.1	9109	3	0	1	131.9
			R	8101	1	0	2	117.3	8386	1	0	2	121.5	8707	1	0	2	126.1
L	8101	1	0	2	117.3	8386	1	0	2	121.5	8707	1	0	2	126.1			
81	12,500	450	1	13885	1	0	1	119.2	14373	1	0	1	123.4	14924	1	0	1	127.5
			1-BC	9058	0	0	1	77.8	9376	0	0	1	80.5	9736	0	0	1	83.5
			2	13183	2	0	2	113.2	13647	2	0	2	117.1	14170	2	0	2	122.0
			2-BC	8472	0	0	2	72.7	8770	0	0	2	75.3	9106	0	0	2	78.1
			3	13149	2	0	2	112.9	13611	2	0	3	116.8	14133	2	0	3	121.7
			3-BC	8123	0	0	2	69.7	8409	0	0	2	72.2	8731	0	0	2	75.4
			4	13717	1	0	3	117.7	14199	1	0	3	121.9	14744	1	0	3	126.6
			4-BC	10042	0	0	2	86.2	10395	0	0	3	89.2	10794	0	0	3	92.7
			4W	13078	1	0	3	112.3	13538	2	0	3	116.2	14057	2	0	3	120.4
			4W-BC	8491	0	0	2	72.9	8789	0	0	2	75.4	9126	0	0	2	78.2
			5Q	13631	3	0	1	117.0	14110	3	0	1	121.1	14651	3	0	2	126.2
			R	13030	2	0	2	111.8	13488	2	0	2	115.8	14005	2	0	2	120.5
L	13030	2	0	2	111.8	13488	2	0	2	115.8	14005	2	0	2	120.5			

**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	
27	3,000	350	1	3354	0	0	0	106.2	3472	0	0	0	109.9	3605	1	0	0	114.2
			1-BC	2188	0	0	0	69.3	2265	0	0	0	71.7	2352	0	0	0	74.5
			2	3185	1	0	1	100.8	3297	1	0	1	104.4	3423	1	0	1	108.4
			2-BC	2047	0	0	0	64.8	2118	0	0	0	67.1	2200	0	0	0	69.7
			3	3176	1	0	1	100.6	3288	1	0	1	104.1	3414	1	0	1	108.1
			3-BC	1962	0	0	1	62.1	2031	0	0	1	64.3	2109	0	0	1	66.8
			4	3314	1	0	1	104.9	3430	1	0	1	108.6	3562	0	0	1	112.8
			4-BC	2426	0	0	1	76.8	2511	0	0	1	79.5	2607	0	0	1	82.6
			4W	3159	1	0	1	100.0	3270	1	0	1	103.6	3396	1	0	1	107.5
			4W-BC	2051	0	0	1	64.9	2123	0	0	1	67.2	2205	0	0	1	69.8
			5Q	3293	2	0	0	104.3	3408	2	0	0	107.9	3539	2	0	0	112.1
			R	3148	1	0	1	99.7	3258	1	0	1	103.2	3383	1	0	1	107.1
L	3148	1	0	1	99.7	3258	1	0	1	103.2	3383	1	0	1	107.1			
54	7,500	405	1	7608	1	0	1	110.2	7875	1	0	1	114.1	8177	1	0	1	118.4
			1-BC	4963	0	0	0	71.9	5138	0	0	0	74.4	5335	0	0	0	77.3
			2	7223	1	0	2	104.6	7477	1	0	2	108.3	7764	1	0	2	112.5
			2-BC	4642	0	0	1	67.2	4805	0	0	1	69.6	4989	0	0	1	72.3
			3	7205	1	0	2	104.4	7458	1	0	2	108.0	7744	1	0	2	112.2
			3-BC	4451	0	0	1	64.5	4607	0	0	2	66.7	4784	0	0	2	69.3
			4	7516	1	0	2	108.9	7780	1	0	2	112.7	8079	1	0	2	117.0
			4-BC	5502	0	0	2	79.7	5696	0	0	2	82.5	5914	0	0	2	85.7
			4W	7166	1	0	2	103.8	7418	1	0	2	107.4	7702	1	0	2	111.6
			4W-BC	4652	0	0	2	67.4	4816	0	0	2	69.8	5000	0	0	2	72.4
			5Q	7469	2	0	1	108.2	7731	3	0	1	112.0	8028	3	0	1	116.3
			R	7139	1	0	2	103.4	7390	1	0	2	107.0	7674	1	0	2	111.1
L	7139	1	0	2	103.4	7390	1	0	2	107.0	7674	1	0	2	111.1			
81	12,500	450	1	12236	1	0	1	105.0	12666	1	0	1	108.7	13152	1	0	1	112.9
			1-BC	7983	0	0	1	68.5	8263	0	0	1	70.9	8580	0	0	1	73.6
			2	11618	2	0	2	99.7	12026	2	0	2	103.2	12488	2	0	2	107.2
			2-BC	7466	0	0	2	64.1	7728	0	0	2	66.3	8025	0	0	2	68.9
			3	11588	1	0	2	99.5	11995	1	0	2	103.0	12455	1	0	2	106.9
			3-BC	7159	0	0	2	61.4	7410	0	0	2	63.6	7694	0	0	2	66.0
			4	12089	1	0	3	103.8	12514	1	0	3	107.4	12993	1	0	3	111.5
			4-BC	8850	0	0	2	76.0	9161	0	0	2	78.6	9512	0	0	2	81.7
			4W	11526	1	0	3	98.9	11930	1	0	3	102.4	12388	1	0	3	106.3
			4W-BC	7483	0	0	2	64.2	7745	0	0	2	66.5	8042	0	0	2	69.0
			5Q	12013	3	0	1	103.1	12435	3	0	1	106.7	12911	3	0	1	110.8
			R	11483	2	0	2	98.6	11886	2	0	2	102.0	12342	2	0	2	105.9
L	11483	2	0	2	98.6	11886	2	0	2	102.0	12342	2	0	2	105.9			

**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	
27	3,000	350	1	3048	0	0	0	96.5	3155	0	0	0	99.9	3276	0	0	0	103.7
			1-BC	1989	0	0	0	63.0	2058	0	0	0	65.2	2137	0	0	0	67.7
			2	2894	1	0	1	91.6	2996	1	0	1	94.9	3111	1	0	1	98.5
			2-BC	1860	0	0	0	58.9	1925	0	0	0	61.0	1999	0	0	0	63.3
			3	2887	1	0	1	91.4	2988	1	0	1	94.6	3103	1	0	1	98.2
			3-BC	1783	0	0	1	56.5	1846	0	0	1	58.5	1917	0	0	0	60.7
			4	3012	0	0	1	95.4	3117	0	0	1	98.7	3237	0	0	1	102.5
			4-BC	2205	0	0	1	69.8	2282	0	0	1	72.3	2370	0	0	1	75.0
			4W	2871	0	0	1	90.9	2972	1	0	1	94.1	3086	1	0	1	97.7
			4W-BC	1864	0	0	1	59.0	1929	0	0	1	61.1	2003	0	0	1	63.4
			5Q	2992	1	0	0	94.8	3098	2	0	0	98.1	3216	2	0	0	101.8
			R	2860	1	0	1	90.6	2961	1	0	1	93.8	3075	1	0	1	97.4
			L	2860	1	0	1	90.6	2961	1	0	1	93.8	3075	1	0	1	97.4
54	7,500	405	1	6914	1	0	0	100.1	7157	1	0	1	103.7	7431	1	0	1	107.6
			1-BC	4510	0	0	0	65.3	4669	0	0	0	67.6	4848	0	0	0	70.2
			2	6565	1	0	1	95.1	6795	1	0	1	98.4	7056	1	0	1	102.2
			2-BC	4219	0	0	1	61.1	4367	0	0	1	63.3	4534	0	0	1	65.7
			3	6547	1	0	2	94.8	6778	1	0	2	98.2	7037	1	0	2	101.9
			3-BC	4045	0	0	1	58.6	4187	0	0	1	60.6	4348	0	0	1	63.0
			4	6831	1	0	2	98.9	7071	1	0	2	102.4	7342	1	0	2	106.3
			4-BC	5001	0	0	2	72.4	5176	0	0	2	75.0	5375	0	0	2	77.9
			4W	6512	1	0	2	94.3	6741	1	0	2	97.6	7000	1	0	2	101.4
			4W-BC	4228	0	0	2	61.2	4376	0	0	2	63.4	4544	0	0	2	65.8
			5Q	6787	2	0	1	98.3	7026	2	0	1	101.8	7295	2	0	1	105.7
			R	6488	1	0	2	94.0	6716	1	0	2	97.3	6974	1	0	2	101.0
			L	6488	1	0	2	94.0	6716	1	0	2	97.3	6974	1	0	2	101.0
81	12,500	450	1	11120	1	0	1	95.5	11511	1	0	1	98.8	11953	1	0	1	102.6
			1-BC	7255	0	0	1	62.3	7509	0	0	1	64.5	7797	0	0	1	66.9
			2	10558	2	0	2	90.6	10929	2	0	2	93.8	11349	2	0	2	97.4
			2-BC	6785	0	0	2	58.2	7024	0	0	2	60.3	7293	0	0	2	62.6
			3	10531	1	0	2	90.4	10901	1	0	2	93.6	11319	1	0	2	97.3
			3-BC	6506	0	0	2	55.8	6734	0	0	2	57.8	6993	0	0	2	60.0
			4	10986	1	0	2	94.3	11372	1	0	3	97.6	11808	1	0	3	101.4
			4-BC	8043	0	0	2	69.0	8326	0	0	2	71.5	8645	0	0	2	74.2
			4W	10474	1	0	3	89.9	10842	1	0	3	93.1	11258	1	0	3	96.6
			4W-BC	6800	0	0	2	58.4	7039	0	0	2	60.4	7309	0	0	2	62.7
			5Q	10917	3	0	1	93.7	11300	3	0	1	97.0	11734	3	0	1	100.7
			R	10436	1	0	2	89.6	10802	2	0	2	92.7	11216	2	0	2	96.3
			L	10436	1	0	2	89.6	10802	2	0	2	92.7	11216	2	0	2	96.3

# WP9SK2

ARCHITECTURAL AREA/SITE

## PHOTOMETRY

WP9S-54L-405-4K7-1

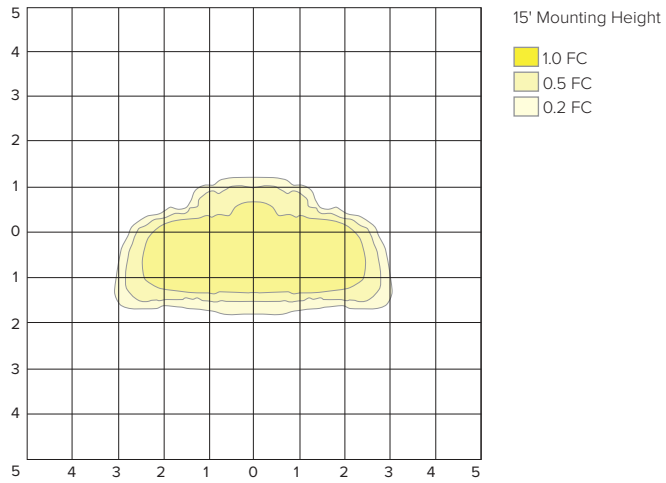
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8936
Watts	69
Efficacy	129.5
IES Type	I
BUG Rating	B1-U0-G1
Mounting Height	15 ft
Grid Scale	10 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	7988	89.3%
Downward House Side	949	10.7%
Downward Total	8936	100.0%
Upward Street Side	0	0.0%
Upward House Side	0	0.0%
Upward Total	0	0.0%
Total Flux	8936	100%

### ISOFOOT CANDLE PLOT



WP9S-54L-405-4K7-1-BC

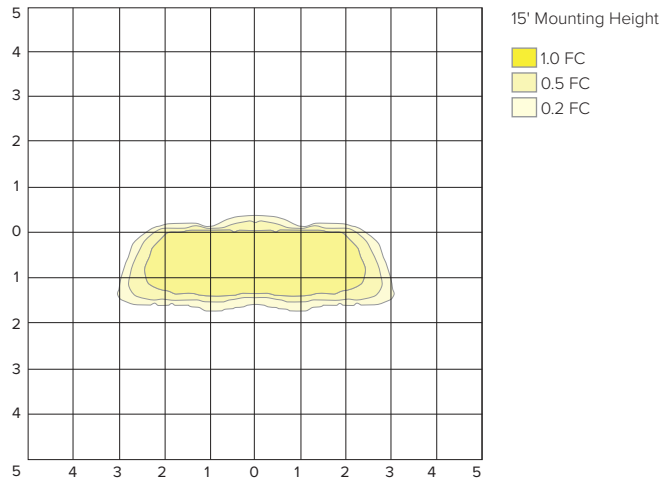
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	5830
Watts	69
Efficacy	84.5
IES Type	II
BUG Rating	B0-U0-G2
Mounting Height	15 ft
Grid Scale	15 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	5687	97.5%
Downward House Side	143	2.5%
Downward Total	5830	100.0%
Upward Street Side	0	0.0%
Upward House Side	0	0.0%
Upward Total	0	0.0%
Total Flux	5830	100%

### ISOFOOT CANDLE PLOT



WP9S-54L-405-4K7-2

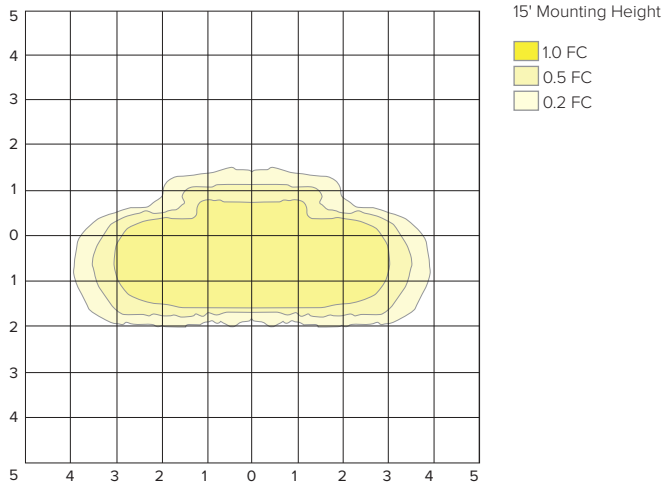
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8484
Watts	69
Efficacy	123.0
IES Type	II
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	10 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	7083	83.5%
Downward House Side	1401	16.5%
Downward Total	8484	100.0%
Upward Street Side	0	0.0%
Upward House Side	0	0.0%
Upward Total	0	0.0%
Total Flux	8484	100%

### ISOFOOT CANDLE PLOT



# WP9SK2

ARCHITECTURAL AREA/SITE

## PHOTOMETRY

WP9S-54L-405-4K7-2-BC

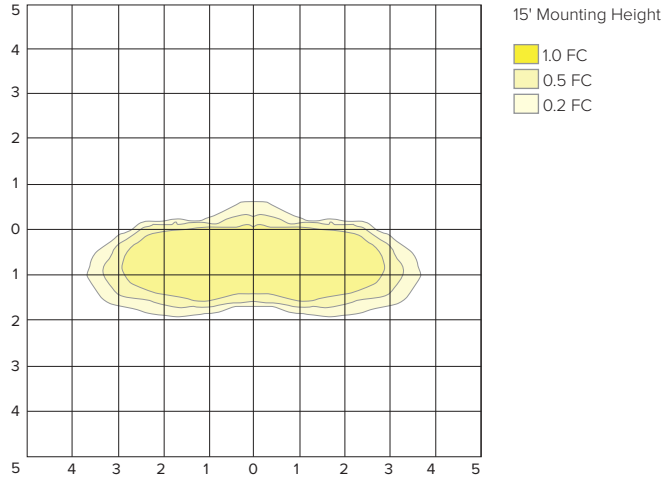
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	5452
Watts	69
Efficacy	79.0
IES Type	II
BUG Rating	B0-U0-G1
Mounting Height	15 ft
Grid Scale	10 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	5277	96.8%
Downward House Side	175	3.2%
Downward Total	5452	100.0%
Upward Street Side	0	0.0%
Upward House Side	0	0.0%
Upward Total	0	0.0%
Total Flux	5452	100%

### ISOFOOT CANDLE PLOT



WP9S-54L-405-4K7-3

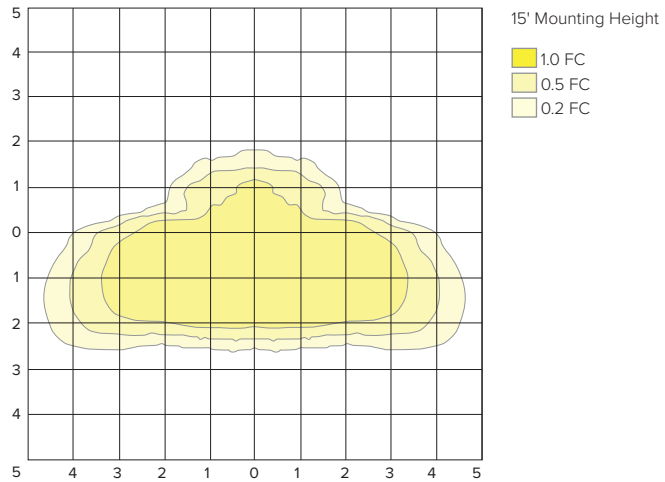
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8462
Watts	69
Efficacy	122.6
IES Type	III
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	10 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	7316	86.5%
Downward House Side	1146	13.5%
Downward Total	8462	100.0%
Upward Street Side	0	0.0%
Upward House Side	0	0.0%
Upward Total	0	0.0%
Total Flux	8462	100%

### ISOFOOT CANDLE PLOT



WP9S-54L-405-4K7-3-BC

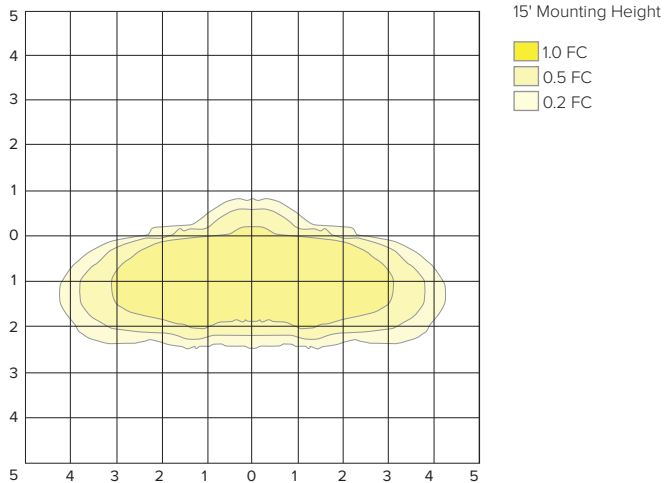
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	5228
Watts	69
Efficacy	75.8
IES Type	III
BUG Rating	B0-U0-G2
Mounting Height	15 ft
Grid Scale	15 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	5030	96.2%
Downward House Side	199	3.8%
Downward Total	5228	100.0%
Upward Street Side	0	0.0%
Upward House Side	0	0.0%
Upward Total	0	0.0%
Total Flux	5228	100%

### ISOFOOT CANDLE PLOT



# WP9SK2

ARCHITECTURAL AREA/SITE

## PHOTOMETRY

WP9S-54L-405-4K7-4

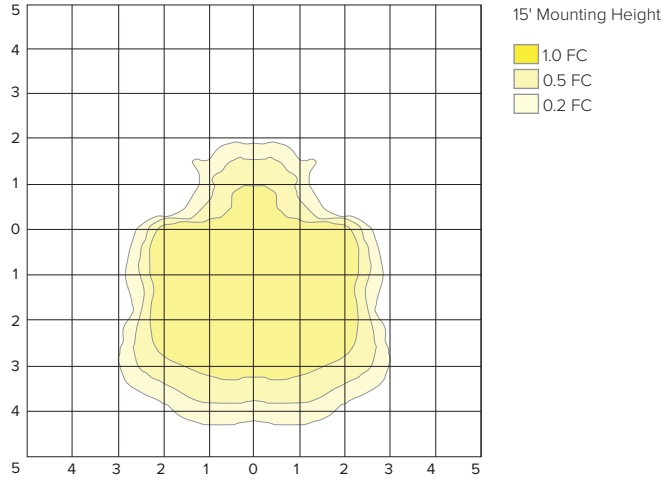
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8829
Watts	69
Efficacy	128.0
IES Type	IV
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	10 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	7904	89.5%
Downward House Side	926	10.5%
Downward Total	8830	100.0%
Upward Street Side	0	0.0%
Upward House Side	0	0.0%
Upward Total	0	0.0%
Total Flux	8830	100%

### ISOFOOT CANDLE PLOT



WP9S-54L-405-4K7-4-BC

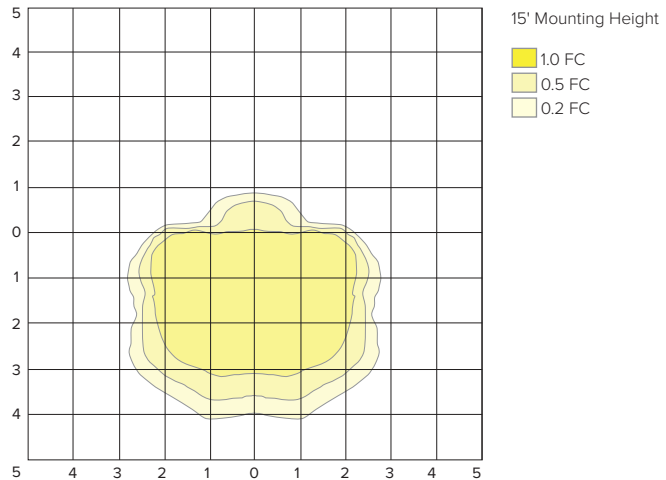
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	6463
Watts	69
Efficacy	93.7
IES Type	IV
BUG Rating	B0-U0-G2
Mounting Height	15 ft
Grid Scale	10 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	6187	95.7%
Downward House Side	277	4.3%
Downward Total	6464	100.0%
Upward Street Side	0	0.0%
Upward House Side	0	0.0%
Upward Total	0	0.0%
Total Flux	6464	100%

### ISOFOOT CANDLE PLOT



WP9S-54L-405-4K7-4W

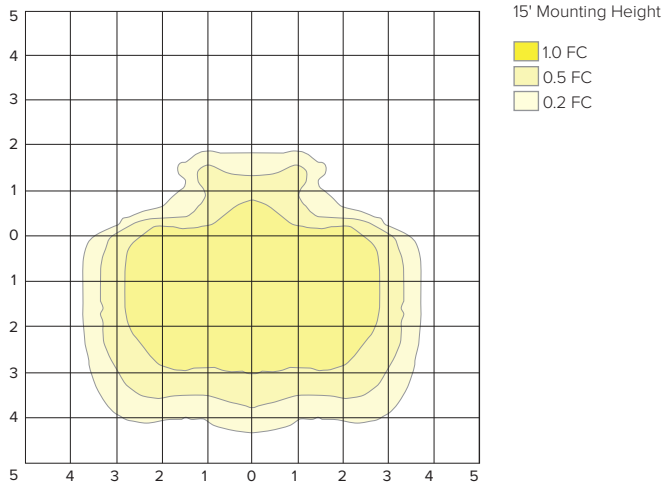
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8417
Watts	69
Efficacy	122.0
IES Type	IV
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	10 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	7533	89.5%
Downward House Side	884	10.5%
Downward Total	8417	100.0%
Upward Street Side	0	0.0%
Upward House Side	0	0.0%
Upward Total	0	0.0%
Total Flux	8417	100%

### ISOFOOT CANDLE PLOT





# WP9SK2

ARCHITECTURAL AREA/SITE

## PHOTOMETRY

WP9S-54L-405-4K7-4W-BC

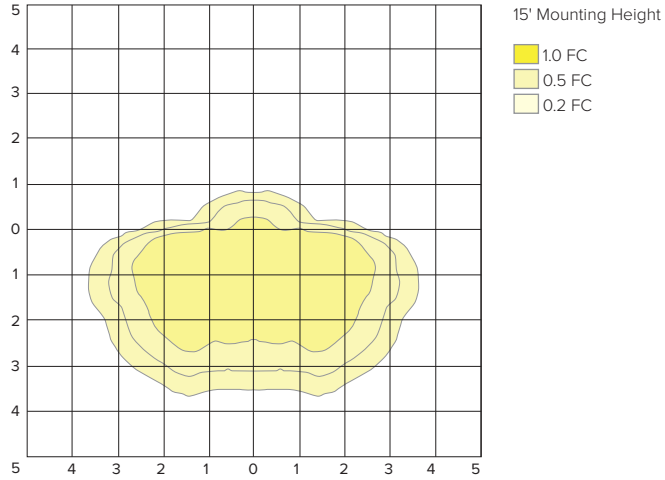
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	5464
Watts	69
Efficacy	79.2
IES Type	III
BUG Rating	B0-U0-G2
Mounting Height	15 ft
Grid Scale	10 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	5229	95.7%
Downward House Side	235	4.3%
Downward Total	5464	100.0%
Upward Street Side	0	0.0%
Upward House Side	0	0.0%
Upward Total	0	0.0%
Total Flux	5464	100%

### ISOFOOT CANDLE PLOT



WP9S-54L-405-4K7-5Q

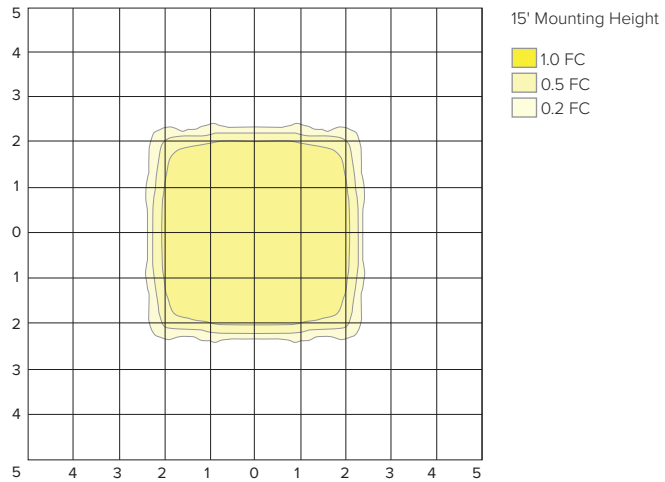
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8773
Watts	69
Efficacy	127.1
IES Type	VS
BUG Rating	B3-U0-G1
Mounting Height	15 ft
Grid Scale	10 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4387	50.0%
Downward House Side	4387	50.0%
Downward Total	8773	100.0%
Upward Street Side	0	0.0%
Upward House Side	0	0.0%
Upward Total	0	0.0%
Total Flux	8773	100%

### ISOFOOT CANDLE PLOT



WP9S-54L-405-4K7-L

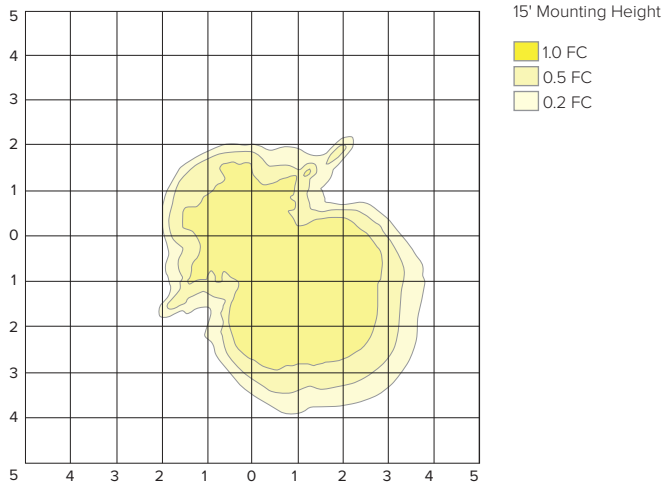
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8386
Watts	69
Efficacy	121.5
IES Type	I
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	10 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	1299	15.5%
Downward House Side	7087	84.5%
Downward Total	8386	100.0%
Upward Street Side	0	0.0%
Upward House Side	0	0.0%
Upward Total	0	0.0%
Total Flux	8386	100%

### ISOFOOT CANDLE PLOT



# WP9SK2

ARCHITECTURAL AREA/SITE

## PHOTOMETRY

WP9S-54L-405-4K7-R

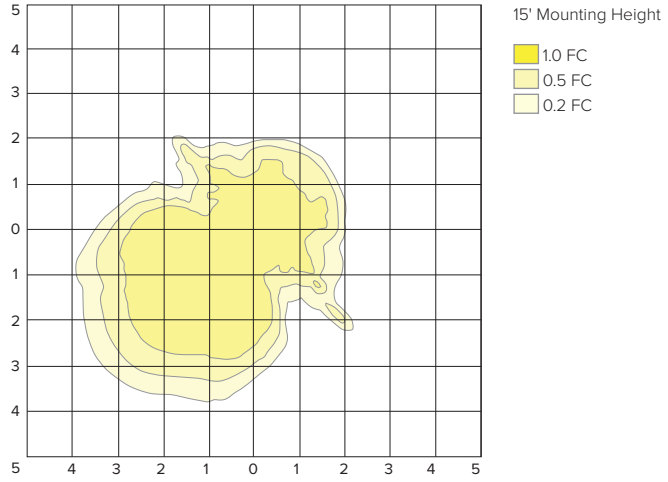
### LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8386
Watts	69
Efficacy	121.5
IES Type	NA
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	10 ft

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	6975	83.2%
Downward House Side	1411	16.8%
Downward Total	8386	100.0%
Upward Street Side	0	0.0%
Upward House Side	0	0.0%
Upward Total	0	0.0%
Total Flux	8386	100%

### ISOFOOT CANDLE PLOT

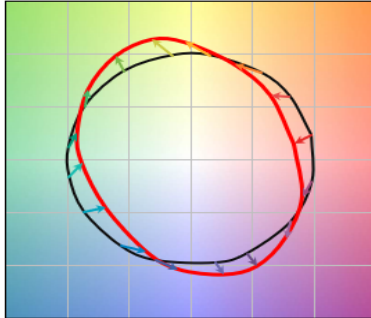


**WP9SK2**

ARCHITECTURAL AREA/SITE

**TM-30 DATA**

**COLOR VECTOR GRAPHIC**

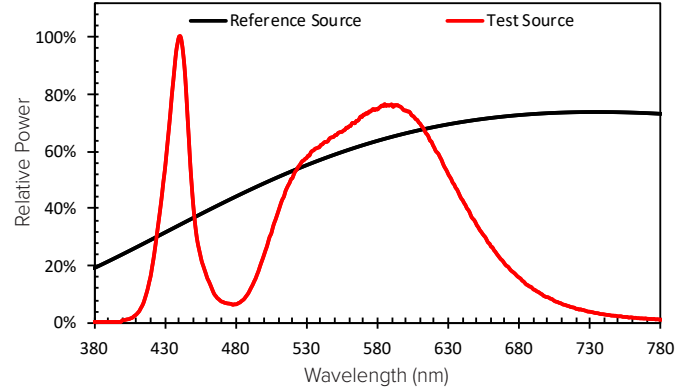


— Reference Illuminant — Test Source

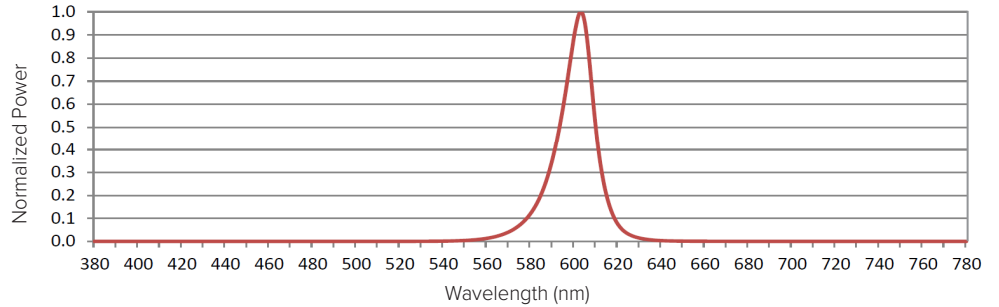
**TEST SOURCE**

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**



**AMBER SPECTRAL POWER DISTRIBUTION**



**ELECTRICAL DATA**

LED Count	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
27 LEDs	31.6	350 mA	120-480	50/60	0.26	0.15	0.13	0.11	0.09	0.07	>0.9	20	10% to 100%	0mA	1mA	0V	10V
54 LEDs	69.0	405 mA			0.58	0.33	0.29	0.25	0.20	0.14							
81 LEDs	116.5	450 mA			0.97	0.56	0.49	0.42	0.34	0.24							

TM-21 Lifetime Calculation - Projected Lumen Maintenance (25°C / 77°C)						
Ambient Temp.	0	25,000	36,000	50,000	100,000	Reported L70
25°C / 77°F	100%	96.14%	94.99%	93.54%	88.55%	>60khrs

CRI Lumen Multiplier for 80 and 90 CRI		
CCT	80 CRI	90 CRI
2700K	0.859	0.655
3000K	0.919	.7033
3500K	0.906	0.732
4000K	0.8941	.734
5000K	0.879	.7712
Scaling factor of 5000K 70CRI lumen packages		