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610-774-1300



## Photometric Test Report

Relevant Standards  
IES LM-79-2019, ANSI C82.77-10-2014, UL 1598-2008  
CIE 13.3-1995, CIE 15-2004, ANSI C78.377-2017  
IES TM-30-2018

Prepared For  
**RIG-A-LITE PARTNERSHIP LTD**  
8500 HANSEN RD  
HOUSTON, TX 77075-1006  
United States

### Catalog Number

**XP100L44LU**

Order Number

**15075616**

Test Number

**15075616.01**

Test Date

2023-11-30 - 2023-12-04

Prepared By

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Approved By

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The results contained in this report pertain only to the tested sample.  
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The device under test emits no detectable uplight, as defined by ANSI/IES LM-75-19.  
For the purpose of this report, certain non-zero uplight readings have been assigned a zero value, in accordance with the requirements of ANSI/IES LM-75-19

Laboratory results may not be representative of field performance  
Ballast factors have not been applied

Testing was performed in a 3-meter integrating sphere using the  $4\pi$  geometry method.

Absorption correction was employed for Sphere measurement



**Luminaire Description:** White metal housing with 4 tubular lights and driver housing on top  
**Lamp:** 672 LEDs across four LED boards (168 per LED board)  
**Mounting:** Pendant  
**Ballast/Driver:** Two Philips Advance Driver XI095C275V054BSS2

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 46.00 in.  
Luminous Width: 23.00 in.

**Summary of Results**

**Integrating Sphere**

Luminous Flux: 11410 Lumens  
Efficacy: 157.07 lm/w  
CCT: 3965 K  
CRI (Ra): 83.7

**Distribution**

Total Luminaire Output: 11270 Lumens  
Luminaire Efficacy: 155.1 lm/w  
Maximum Candela: 4011 Candela

**Electrical Data at 120 VAC**

Test Temperature: 25.4 °C  
Voltage: 120.0 VAC  
Current: 0.6087 A  
Power: 72.64 W  
Power Factor: 0.995  
Frequency: 60 Hz  
Current THD: 3.19 %

**In-Situ**

LED Temperature: 39.3 °C  
Driver Temperature: 43.4 °C  
Measured LED Current: 0.03166 A

Temperature is offset to an ambient temperature of 25°C as described in UL1598-2008.

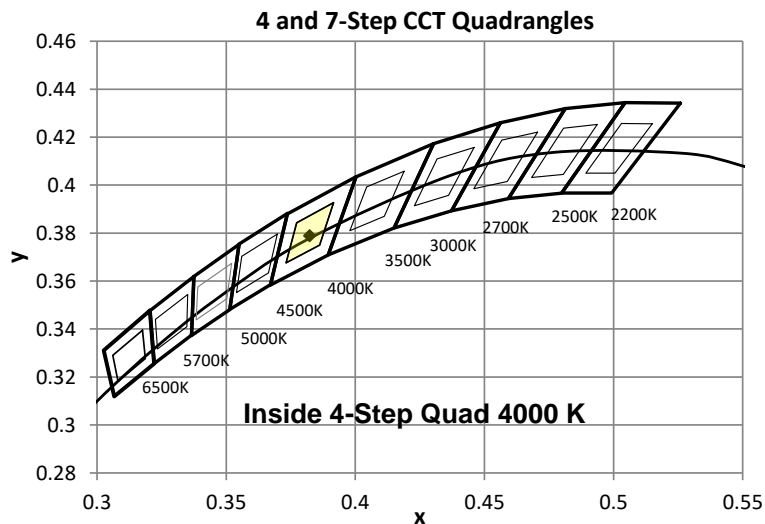
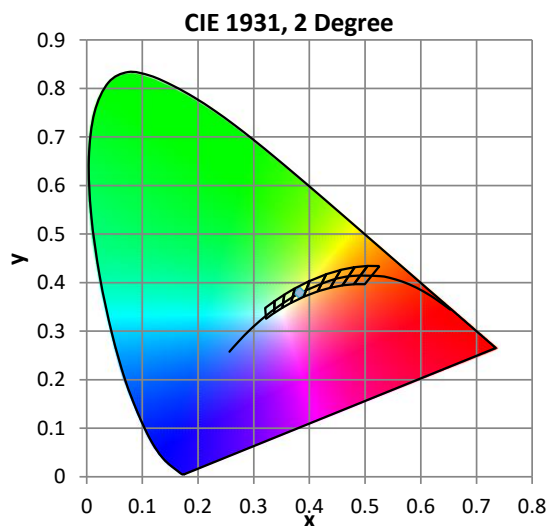
## Color Quality - Integrating Sphere

### Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.4 °C	120.0 VAC	0.6087 A	72.64 W	0.995	60 Hz	3.19 %

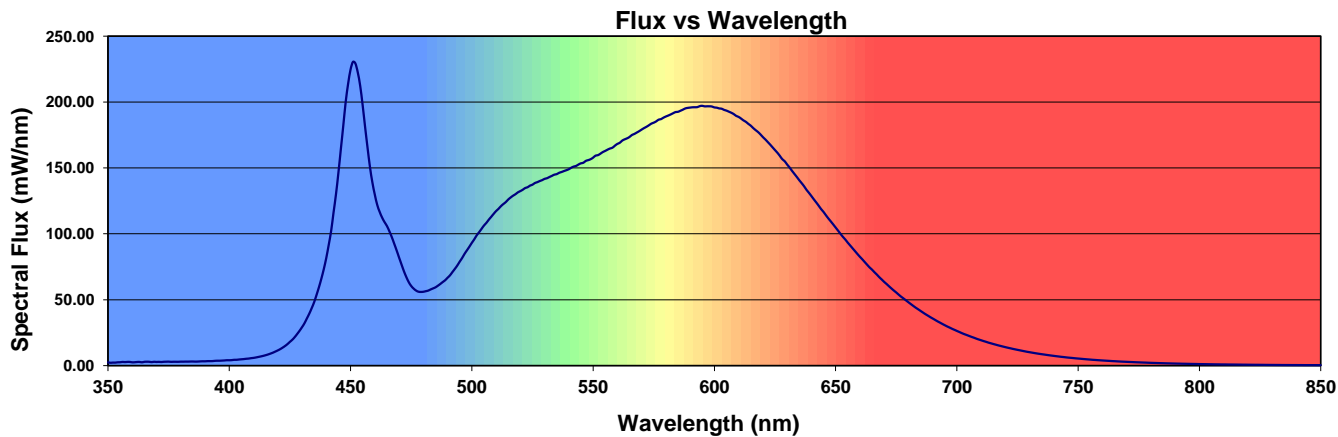
### Summary of Results

<b>Total Output:</b>	11410 Lumens	<b>Chromaticity (x):</b>	0.3823
<b>Efficacy:</b>	157.1 lm/w	<b>Chromaticity (y):</b>	0.3790
<b>CCT:</b>	3965 K	<b>Chromaticity (u'):</b>	0.2254
<b>CRI (Ra):</b>	83.7	<b>Chromaticity (v'):</b>	0.5028
<b>CRI (R9):</b>	12.6	<b>TM-30 Rf:</b>	85
<b>Peak Wavelength:</b>	451 nm	<b>TM-30 Rg:</b>	96
<b>Dominant Wavelength:</b>	555 nm	<b>TM-30 Rcs,h1:</b>	-11%
<b>S/P Ratio:</b>	1.68	<b>Duv:</b>	0.0005
<b>M/P Ratio:</b>	0.68	WELL Building Standard v2	



### Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
83.7	82.2	89.6	94.9	82.8	82.1	85.5	86.7	66.0	12.6	75.2	81.9	62.2	84.1	97.3	76.1



## Distribution - Goniophotometer

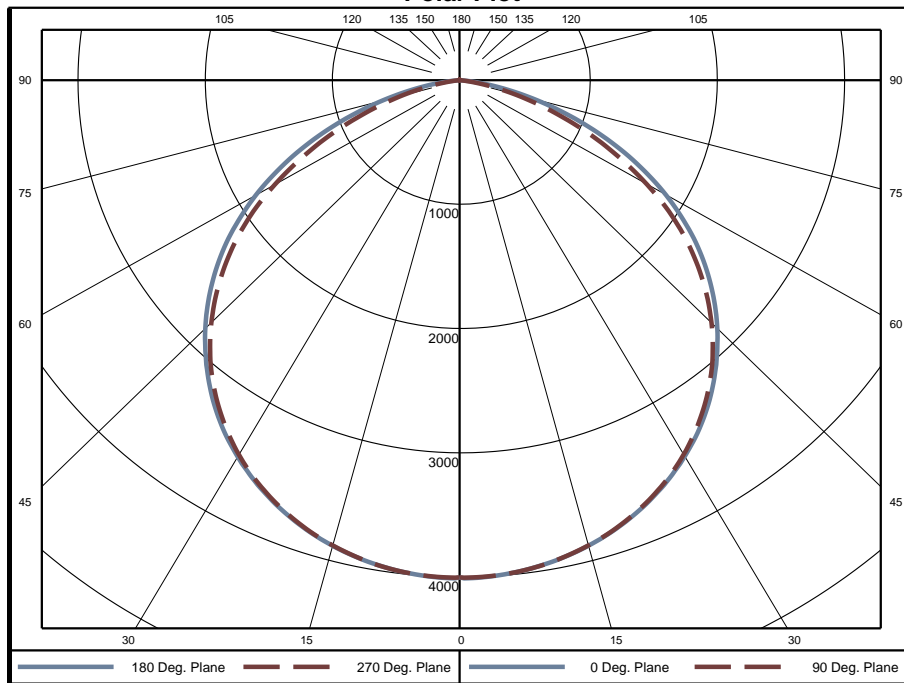
### Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.5 °C	120.0 VAC	0.6088 A	72.67 W	0.995	60 Hz	3.30 %

### Summary of Results

<b>Spacing Criteria</b>	<b>Total Lumen Output:</b>	11270 Lumens
0-180: 1.30	<b>Luminaire Efficacy:</b>	155.1 lm/w
90-270: 1.29	<b>Maximum Candela:</b>	4011 Candela
<b>Corrected UGR (Room Dimension: X=4H, Y=8H, Reflectances: 70/50/20%, S/H: 1)</b>		
<b>Crosswise:</b> 21.5	<b>Endwise:</b> 20.5	

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	96	0.9%	60-65	760	6.7%	120-125	0	0.0%
5-10	284	2.5%	65-70	573	5.1%	125-130	0	0.0%
10-15	464	4.1%	70-75	373	3.3%	130-135	0	0.0%
15-20	630	5.6%	75-80	192	1.7%	135-140	0	0.0%
20-25	778	6.9%	80-85	61	0.5%	140-145	0	0.0%
25-30	903	8.0%	85-90	10	0.1%	145-150	0	0.0%
30-35	999	8.9%	90-95	0	0.0%	150-155	0	0.0%
35-40	1061	9.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	1087	9.6%	100-105	0	0.0%	160-165	0	0.0%
45-50	1073	9.5%	105-110	0	0.0%	165-170	0	0.0%
50-55	1015	9.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	911	8.1%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	5215	46.3%
0-60	9301	82.5%
0-90	11270	100.0%
90-180	0	0.0%

**Candela Tabulation**  
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	4002	4002	4002	4002	4002	4002	4002	4002	4002	4002	4002	4002	4002	4002	4002
	5	3994	3990	3986	3988	3993	3988	3986	3990	3994	3990	3986	3988	3993	3988	3986
	10	3949	3947	3944	3944	3949	3944	3944	3947	3949	3947	3944	3944	3949	3944	3947
	15	3877	3877	3872	3871	3875	3871	3872	3877	3877	3877	3872	3871	3875	3871	3872
	20	3779	3778	3773	3772	3774	3772	3773	3778	3779	3778	3773	3772	3774	3772	3773
	25	3651	3650	3647	3642	3642	3642	3647	3650	3651	3650	3647	3642	3642	3647	3650
	30	3496	3492	3489	3480	3478	3480	3489	3492	3496	3492	3489	3480	3478	3480	3489
	35	3308	3302	3298	3283	3278	3283	3298	3302	3308	3302	3298	3283	3278	3283	3298
	40	3083	3082	3070	3051	3043	3051	3070	3082	3083	3082	3070	3051	3043	3051	3070
	45	2828	2829	2807	2780	2765	2780	2807	2829	2828	2829	2807	2780	2765	2780	2807
	50	2540	2543	2505	2465	2448	2465	2505	2543	2540	2543	2505	2465	2448	2465	2505
	55	2219	2218	2160	2111	2093	2111	2160	2218	2219	2218	2160	2111	2093	2111	2160
	60	1851	1848	1772	1710	1681	1710	1772	1848	1851	1848	1772	1710	1681	1710	1772
	65	1449	1435	1354	1270	1248	1270	1354	1435	1449	1435	1354	1270	1248	1270	1354
	70	1026	998	901	842	823	842	901	998	1026	998	901	842	823	842	901
	75	623	580	503	469	457	469	503	580	623	580	503	469	457	469	503
	80	285	240	203	183	172	183	203	240	285	240	203	183	172	183	203
	85	65	51	38	34	32	34	38	51	65	51	38	34	32	34	38
	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Average Luminance (cd/m<sup>2</sup>)**  
Horizontal Angle (Degrees)

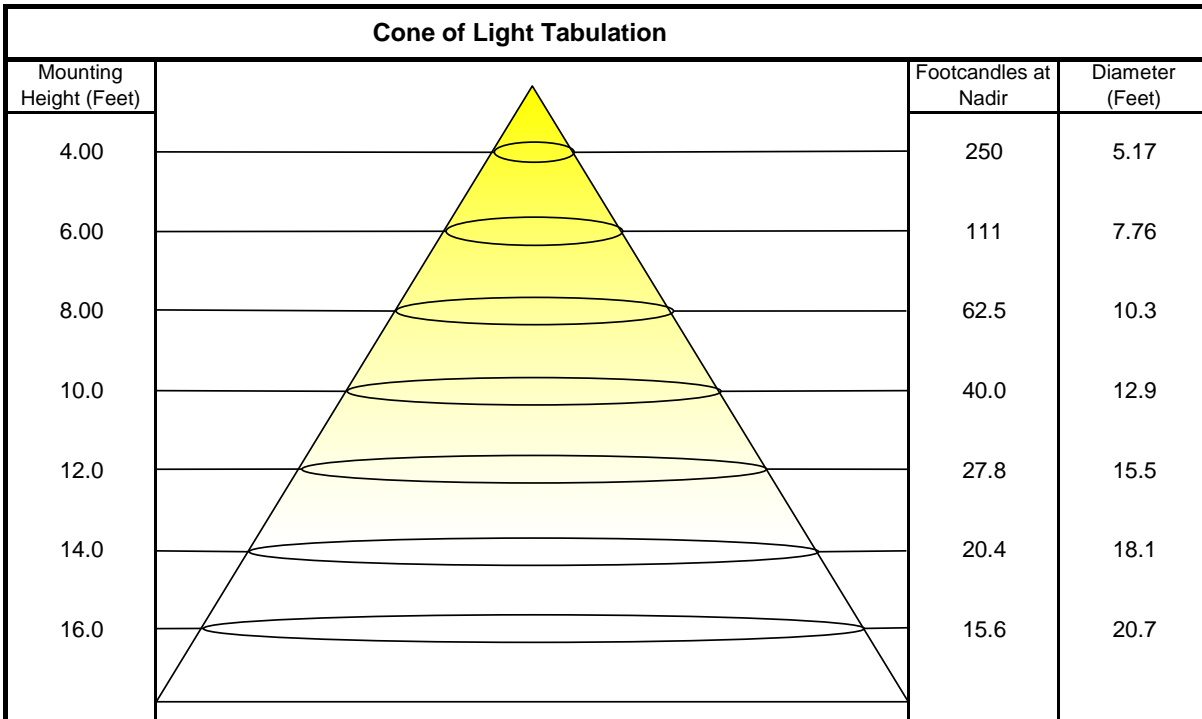
Vertical Angle (Degrees)	0	45	90
	0	5864	5864
	45	5860	5729
	55	5667	5345
	65	5023	4327
	75	3527	2589
	85	1096	535



### Coefficients of Utilization - Zonal Cavity Method

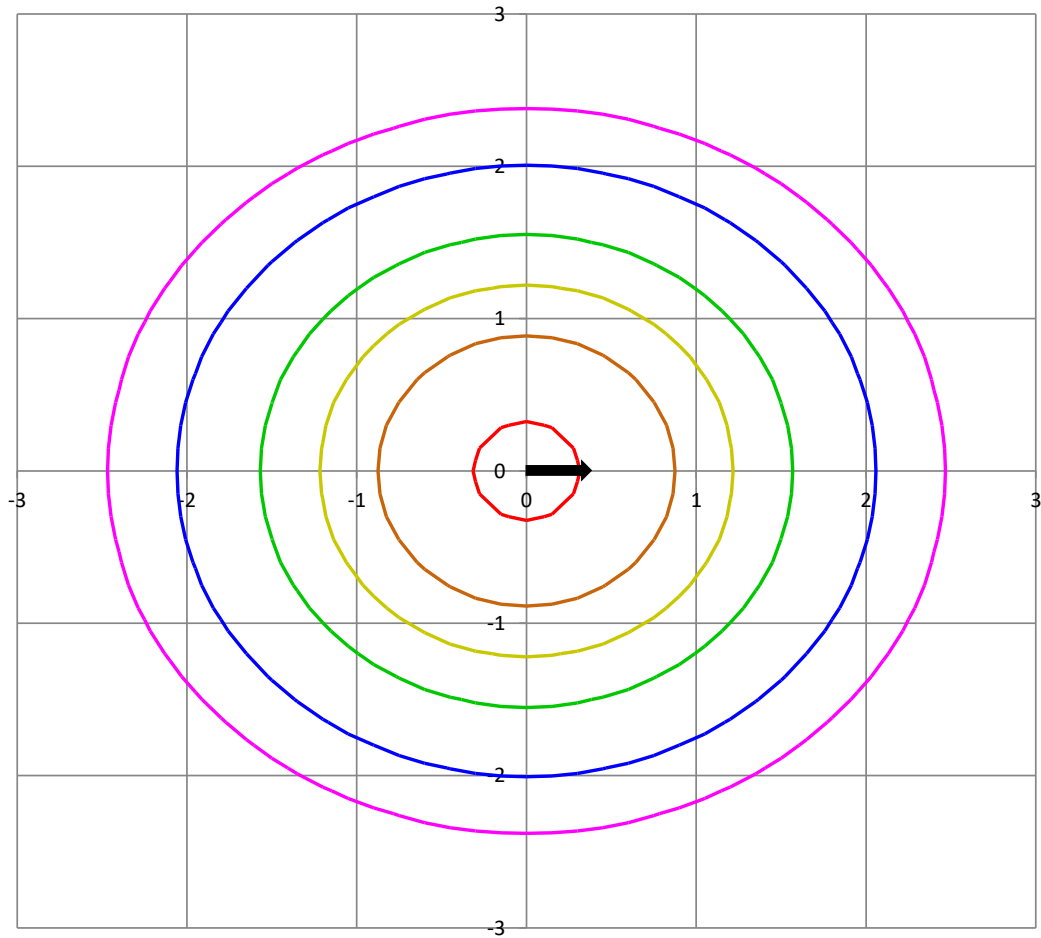
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as percent of total lumen output delivered to the task surface **																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	87	82	77	83	79	75	80	77	74	72
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	42	52	46	41	39
7	66	52	44	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	4002 Candela
Central Cone Intensity:	3998 Candela
Beam Flux:	8803.3 Lumens
Beam Angle (0-180):	116.0 Degrees
Beam Angle (90-270):	112.3 Degrees
Field Angle (0-180):	156.2 Degrees
Field Angle (90-270):	151.7 Degrees

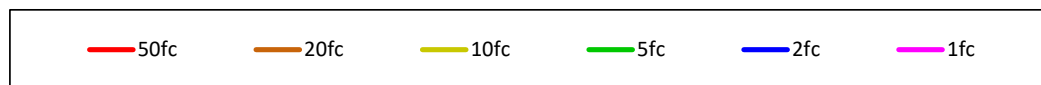


# ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height





## In-Situ Test

### In-Situ Test Conditions

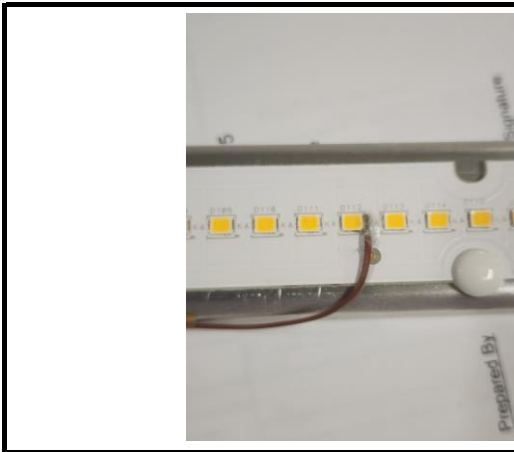
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
23.3 °C	120.1 VAC	N/A	N/A	N/A	60 Hz	N/A

### Summary of Results

LED Temperature: 39.3 °C  
 Driver Temperature: 43.4 °C  
 Measured LED Current: 0.03166 A

Temperatures are offset to an ambient temperature of 25°C as described in UL1598-2008

#### LED Temperature Location



#### Thermocouple Reference



#### Driver Temperature Location



# ANSI/IES TM-30-18 Color Rendition Report

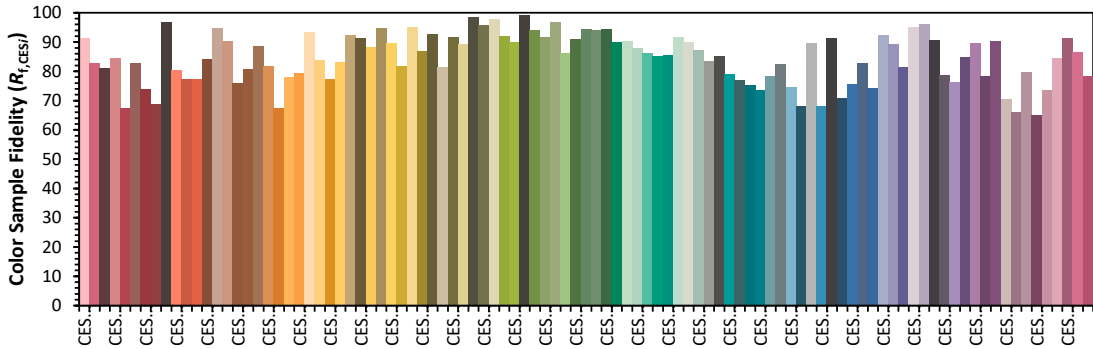
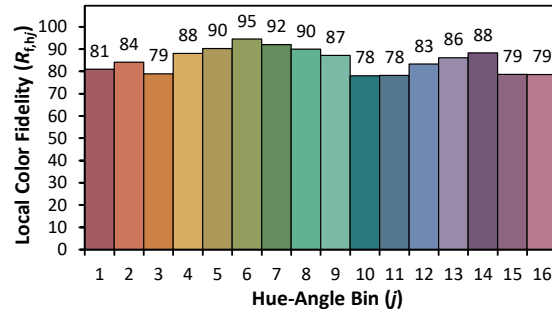
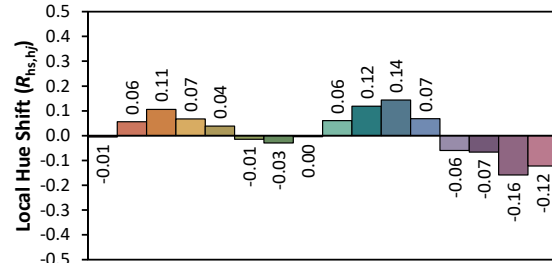
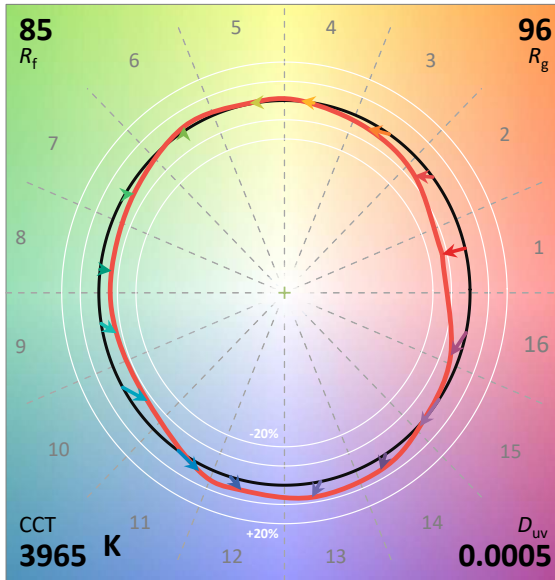
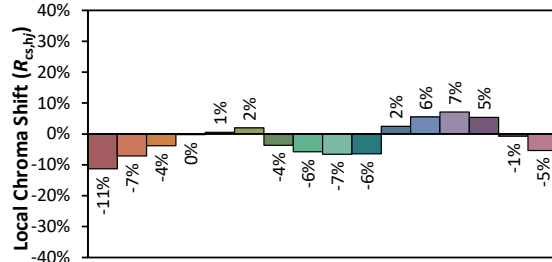
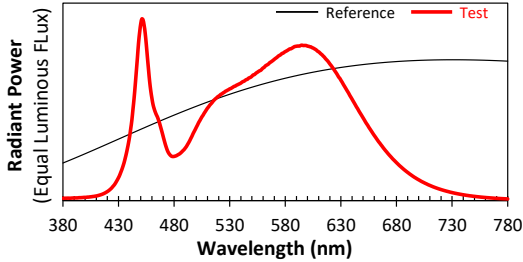
Date: 2023-11-30

Manufacturer:

RIG-A-LITE PARTNERSHIP LTD

Model:

XP100L44LU



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.3823  
y 0.3790  
u' 0.2254  
v' 0.5028

CIE 13.3-1995  
(CRI)

$R_a$  84  
 $R_g$  13

Colors are for visual orientation purposes only. Created with the IES TM-30-18 Calculator Version 2.00.