UL Verification Services Inc.
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Allentown, PA 18106
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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

XP75L43LU

Order Number
15025310
Test Number
15025310.02

Test Date

2023-11-10 - 2023-11-17

Prepared By

Dylan Fonner, Laboratory Technician

Approved By

Jesse Litchfield, Project Handler

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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

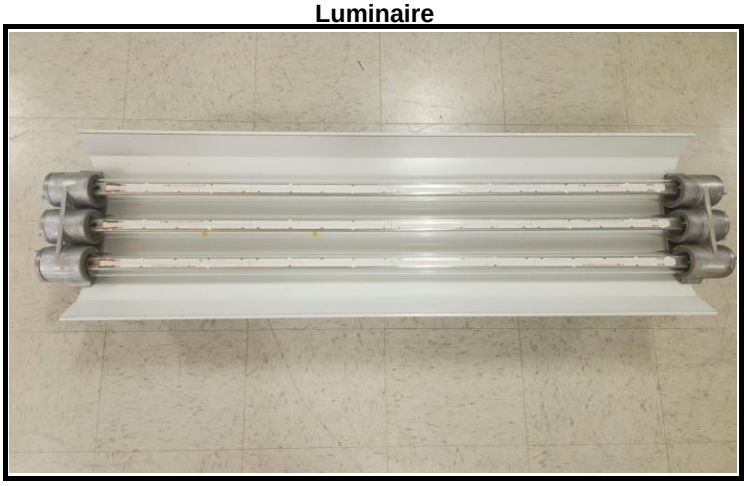
Laboratory results may not be representative of field performance
Ballast factors have not been applied

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

Absorption correction was employed for Sphere measurement

Luminaire Description:	White metal housing with 3 tubular lights and driver housing on top
Lamp:	504 LEDs across three LED boards (168 per LED board)
Mounting:	Pendant
Ballast/Driver:	Philips Advance Driver XIO55C180V054BSJ1

Luminaire



Luminaire Characteristics

Luminous Length:	46.00 in.
Luminous Width:	17.00 in.

Summary of Results

Integrating Sphere

Luminous Flux:	8771 Lumens
Efficacy:	156.09 lm/w
CCT:	3973 K
CRI (Ra):	83.8

Distribution

Total Luminaire Output:	8768 Lumens
Luminaire Efficacy:	155.3 lm/w
Maximum Candela:	3122 Candela

Electrical Data at 120 VAC

Test Temperature:	25.4 °C
Voltage:	120.0 VAC
Current:	0.4696 A
Power:	56.19 W
Power Factor:	0.997
Frequency:	60 Hz
Current THD:	3.68 %

In-Situ

LED Temperature:	43.5 °C
Driver Temperature:	42.3 °C
Measured LED Current:	0.1082 A

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

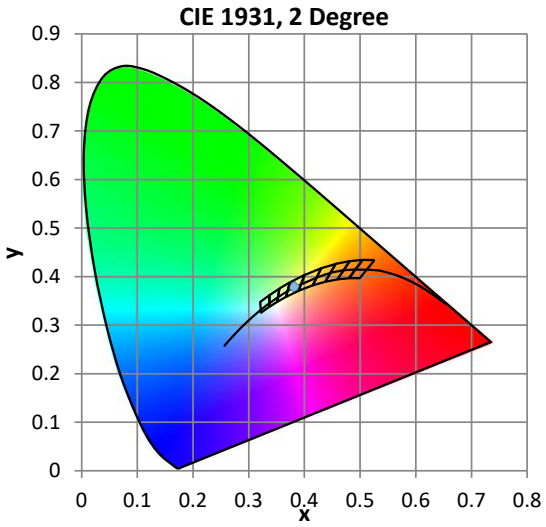
Color Quality - Integrating Sphere

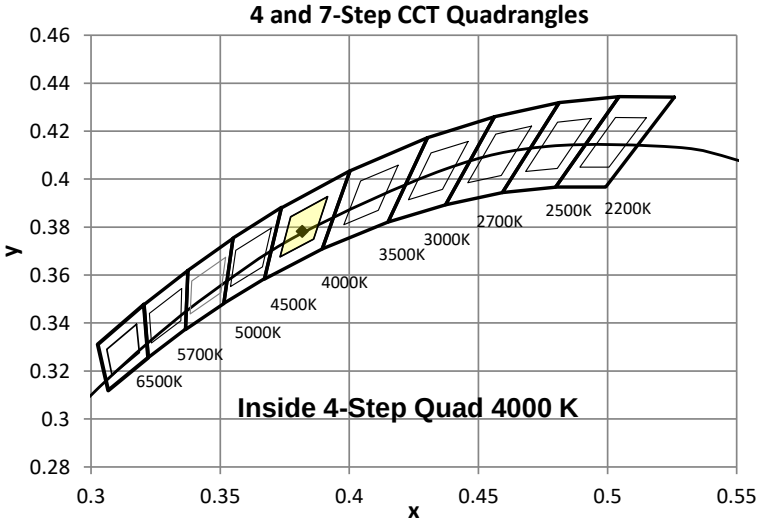
Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.4 °C	120.0 VAC	0.4696 A	56.19 W	0.997	60 Hz	3.68 %

Summary of Results

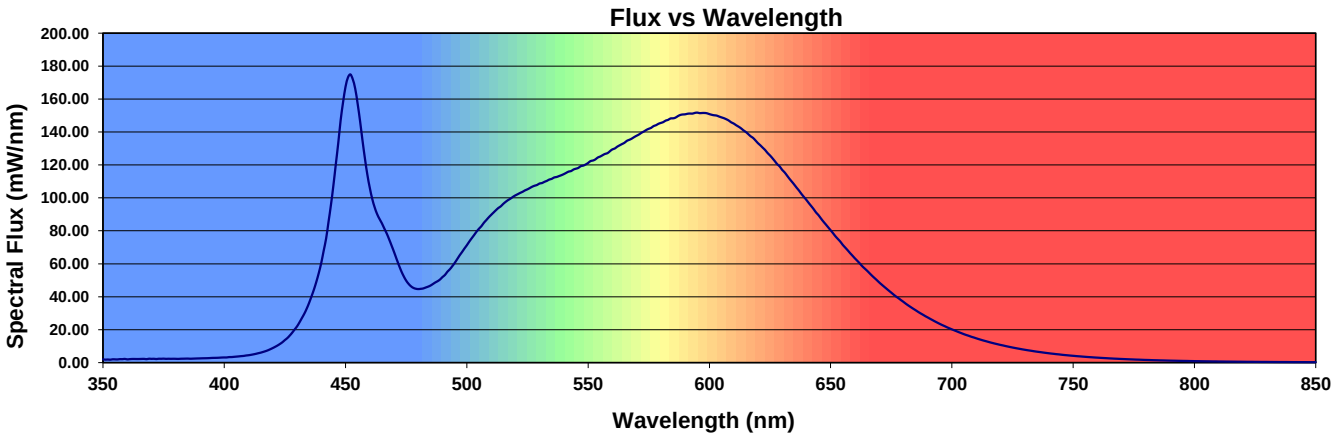
Total Output:	8771	Lumens	**Chromaticity (x):**	0.3818
Efficacy:	156.1	lm/w	**Chromaticity (y):**	0.3783
CCT:	3973	K	**Chromaticity (u'):**	0.2254
CRI (Ra):	83.8		**Chromaticity (v'):**	0.5025
CRI (R9):	12.8		**TM-30 Rf:**	85
Peak Wavelength:	452	nm	**TM-30 Rg:**	95
Dominant Wavelength:	555	nm	**TM-30 Rcs,h1:**	-11%
S/P Ratio:	1.69		**Duv:**	0.0003
M/P Ratio:	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
83.8	82.4	90.0	95.2	82.6	82.2	85.9	86.5	65.9	12.8	75.9	81.6	62.4	84.4	97.5	76.2



Distribution - Goniophotometer

Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	120.0 VAC	0.4715 A	56.44 W	0.997	60 Hz	3.64 %

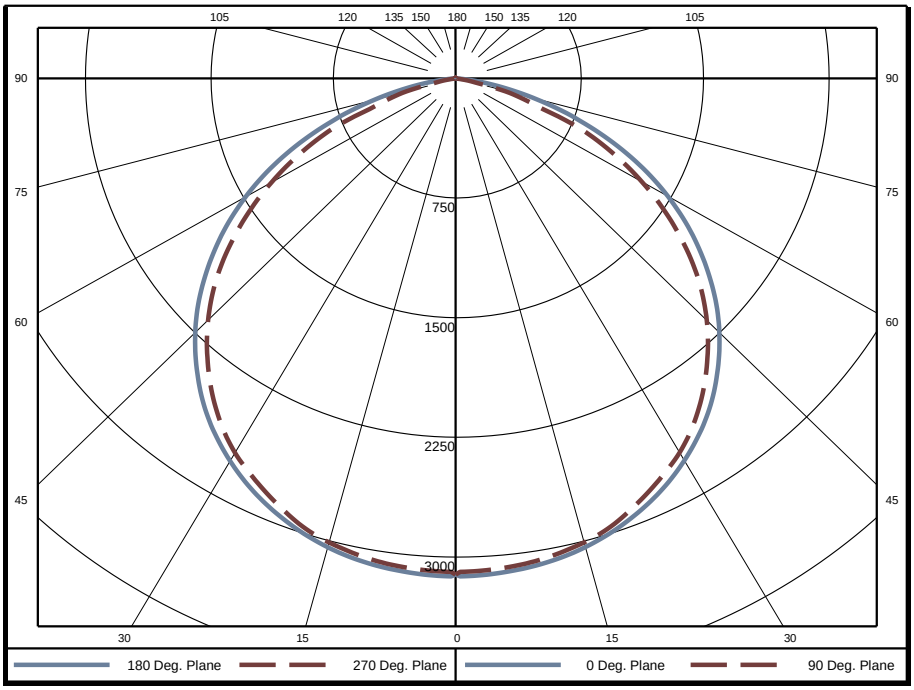
Summary of Results

Spacing Criteria
0-180: 1.32
90-270: 1.29

Total Lumen Output: 8768 Lumens
Luminaire Efficacy: 155.3 lm/w
Maximum Candela: 3122 Candela

Corrected UGR (Room Dimension: X=4H, Y=8H, Reflectances: 70/50/20%, S/H: 1)
Crosswise: 21.8 **Endwise:** 20.4

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	74.2	0.8%	60-65	594.9	6.8%	120-125	0	0.0%
5-10	220.8	2.5%	65-70	449.9	5.1%	125-130	0	0.0%
10-15	361.8	4.1%	70-75	283.5	3.2%	130-135	0	0.0%
15-20	493.0	5.6%	75-80	134.5	1.5%	135-140	0	0.0%
20-25	609.0	6.9%	80-85	35.4	0.4%	140-145	0	0.0%
25-30	707.0	8.1%	85-90	4.1	0.0%	145-150	0	0.0%
30-35	783.5	8.9%	90-95	0	0.0%	150-155	0	0.0%
35-40	831.8	9.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	850.2	9.7%	100-105	0	0.0%	160-165	0	0.0%
45-50	837.8	9.6%	105-110	0	0.0%	165-170	0	0.0%
50-55	789.3	9.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	707.7	8.1%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	4081	46.5%
0-60	7266	82.9%
0-90	8768	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	3110	3110	3110	3110	3110	3110	3110	3110	3110	3110	3110	3110	3110	3110	3110	3110
5	3111	3108	3095	3099	3083	3099	3095	3108	3111	3108	3095	3099	3083	3099	3095	3108
10	3086	3081	3067	3071	3057	3071	3067	3081	3086	3081	3067	3071	3057	3071	3067	3081
15	3040	3036	3021	3022	3010	3022	3021	3036	3040	3036	3021	3022	3010	3022	3021	3036
20	2970	2969	2949	2945	2932	2945	2949	2969	2970	2969	2949	2945	2932	2945	2949	2969
25	2880	2876	2849	2836	2824	2836	2849	2876	2880	2876	2849	2836	2824	2836	2849	2876
30	2764	2756	2728	2715	2708	2715	2728	2756	2764	2756	2728	2715	2708	2715	2728	2756
35	2623	2612	2577	2559	2551	2559	2577	2612	2623	2612	2577	2559	2551	2559	2577	2612
40	2451	2432	2391	2369	2361	2369	2391	2432	2451	2432	2391	2369	2361	2369	2391	2432
45	2251	2230	2182	2154	2147	2154	2182	2230	2251	2230	2182	2154	2147	2154	2182	2230
50	2021	1995	1941	1909	1900	1909	1941	1995	2021	1995	1941	1909	1900	1909	1941	1995
55	1764	1727	1668	1626	1613	1626	1668	1727	1764	1727	1668	1626	1613	1626	1668	1727
60	1481	1439	1374	1322	1304	1322	1374	1439	1481	1439	1374	1322	1304	1322	1374	1439
65	1169	1118	1059	999	979	999	1059	1118	1169	1118	1059	999	979	999	1059	1118
70	832	782	715	637	561	637	715	782	832	782	715	637	561	637	715	782
75	510	456	374	326	310	326	374	456	510	456	374	326	310	326	374	456
80	233	189	127	81	77	81	127	189	233	189	127	81	77	81	127	189
85	55	25	12	8	7	8	12	25	55	25	12	8	7	8	12	25
90	0	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	0
100	0	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	0
110	0	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	0
120	0	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	0
130	0	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	0
140	0	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	0
150	0	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	0
160	0	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	0
170	0	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	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Average Luminance (cd/m^2)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
0	6165	6165	6165
45	6309	6117	6017
55	6097	5763	5574
65	5482	4966	4591
75	3902	2862	2375
85	1244	264	156

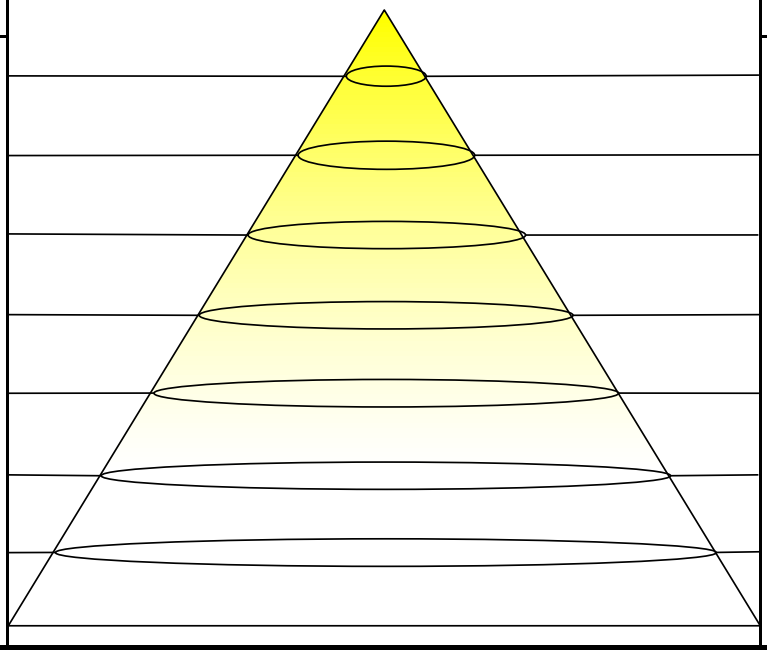
Coefficients of Utilization - Zonal Cavity Method

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	98	107	103	99	96	99	96	93	95	92	90	91	89	88	86
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	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:	3110 Candela
Central Cone Intensity:	3106 Candela
Beam Flux:	6877.4 Lumens
Beam Angle (0-180):	117.5 Degrees
Beam Angle (90-270):	111.9 Degrees
Field Angle (0-180):	156.9 Degrees
Field Angle (90-270):	150.0 Degrees

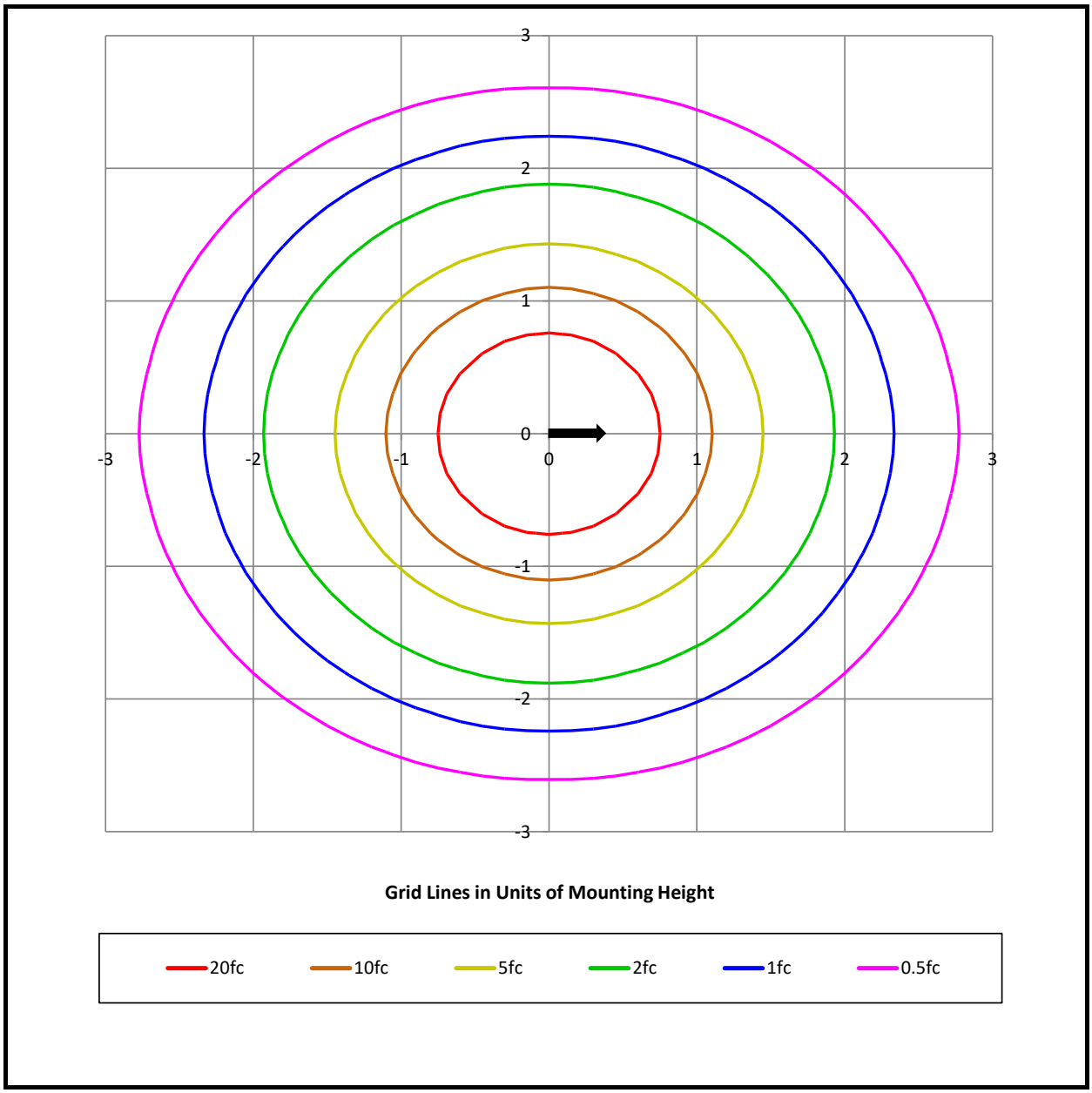
Cone of Light Tabulation

Mounting Height (Feet)	Footcandles at Nadir	Diameter (Feet)
4.00	194	5.21
6.00	86.4	7.82
8.00	48.6	10.4
10.0	31.1	13.0
12.0	21.6	15.6
14.0	15.9	18.3
16.0	12.1	20.9



ISOFootcandle Plot

Mounting Height - 8 Feet



In-Situ Test

In-Situ Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	121.1 VAC	N/A	N/A	N/A	60 Hz	N/A

Summary of Results

LED Temperature:	43.5	°C
Driver Temperature:	42.3	°C
Measured LED Current:	0.1082	A

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

LED Temperature Location

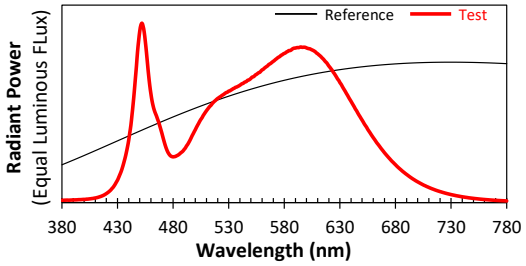
Thermocouple Reference

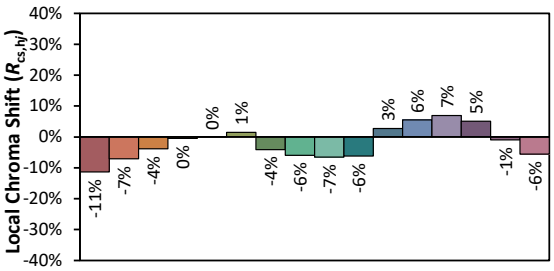
Driver Temperature Location

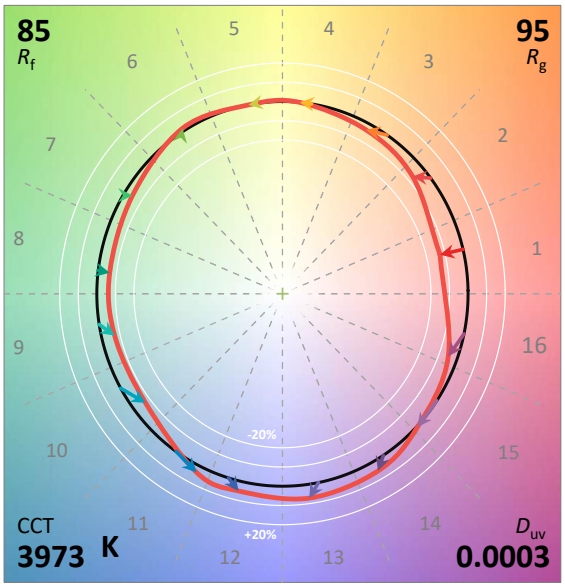
ANSI/IES TM-30-18 Color Rendition Report

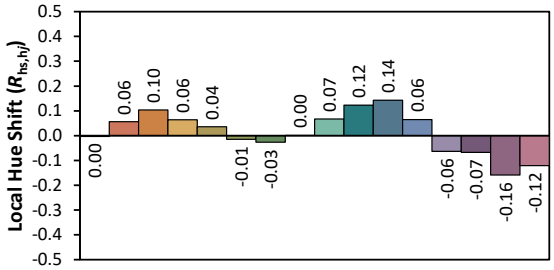
Date: 2023-11-15 Manufacturer: RIG-A-LITE PARTNERSHIP LTD

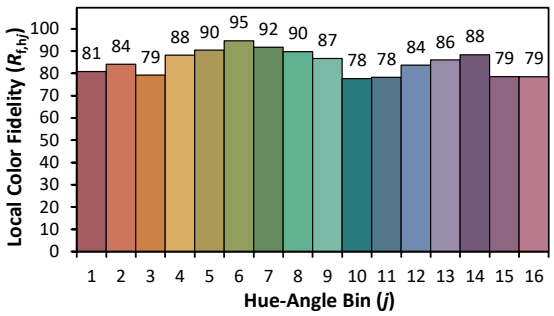
Model: XP75L43LU

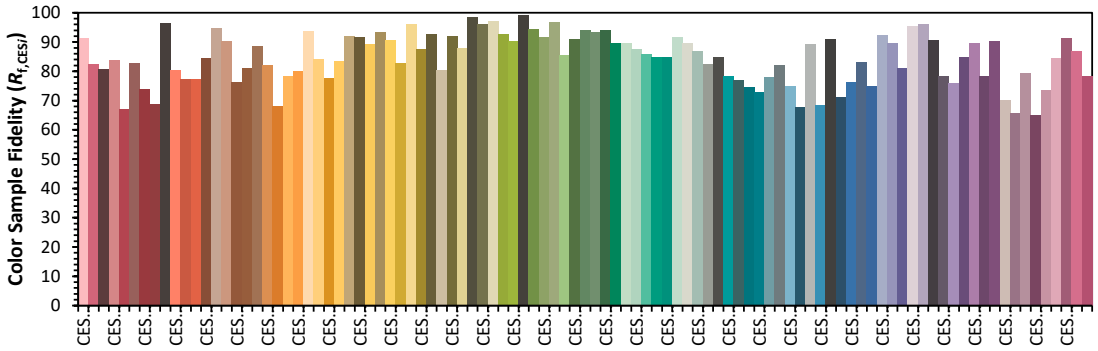












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	**0.3818**
y	**0.3783**
u'	**0.2254**
v'	**0.5025**

CIE 13.3-1995 (CRI)

R_a	84
R_9	13

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