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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

XP80L42LU

Order Number

15025310

Test Number

15025310.03

Test Date

2023-11-13 - 2023-11-17

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 4π geometry method.

Absorption correction was employed for Sphere measurement

Luminaire Description: White metal housing with 2 tubular lights and driver housing on top
Lamp: 336 LEDs across two LED boards (168 per LED board)
Mounting: Pendant
Ballast/Driver: Philips Advance Driver XIO55C180V054BSJ1

Luminaire



Luminaire Characteristics

Luminous Length: 46.00 in.
 Luminous Width: 11.00 in.

Summary of Results

Integrating Sphere

Luminous Flux: 7525 Lumens
 Efficacy: 149.08 lm/w
 CCT: 4086 K
 CRI (Ra): 83.4

Distribution

Total Luminaire Output: 7603 Lumens
 Luminaire Efficacy: 150.7 lm/w
 Maximum Candela: 2536 Candela

Electrical Data at 120 VAC

Test Temperature: 25.7 °C
 Voltage: 120.0 VAC
 Current: 0.4218 A
 Power: 50.48 W
 Power Factor: 0.998
 Frequency: 60 Hz
 Current THD: 5.66 %

In-Situ

LED Temperature: 47.1 °C
 Driver Temperature: 40.9 °C
 Measured LED Current: 0.09750 A

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

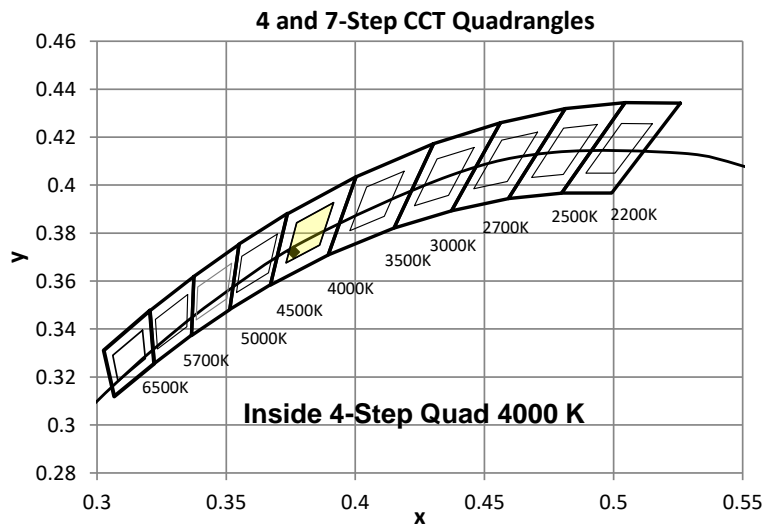
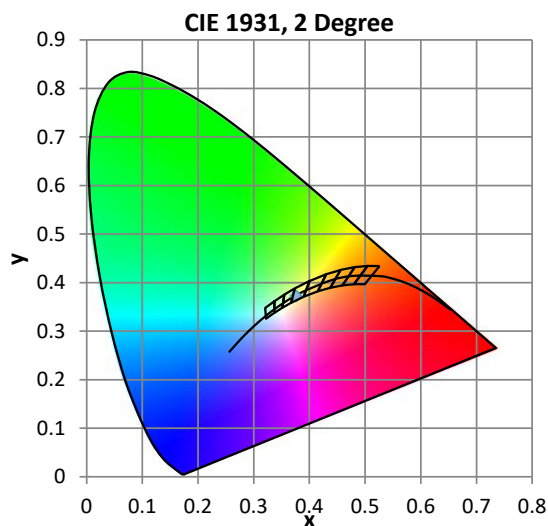
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.7 °C	120.0 VAC	0.4218 A	50.48 W	0.998	60 Hz	5.66 %

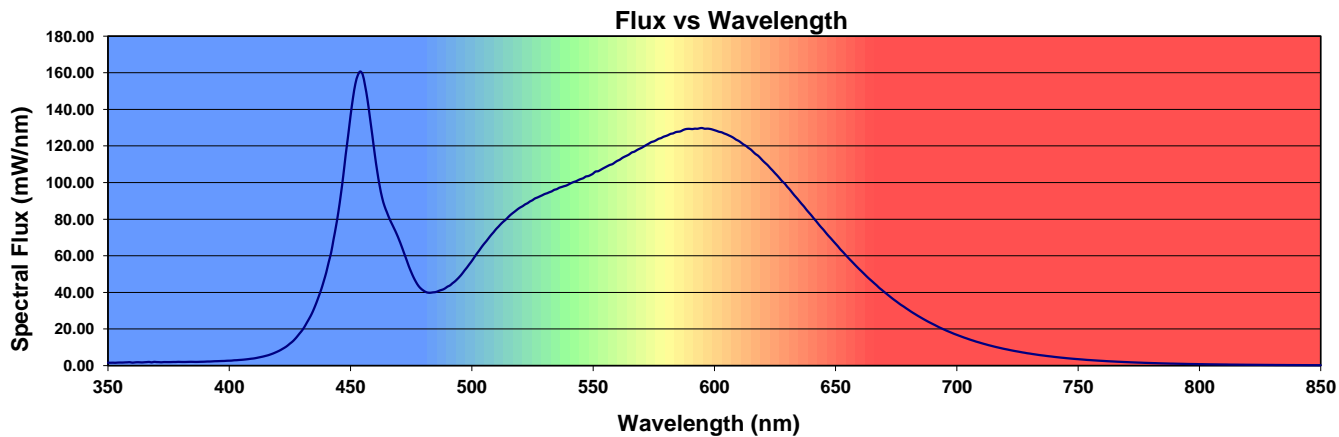
Summary of Results

Total Output:	7525 Lumens	Chromaticity (x):	0.3761
Efficacy:	149.1 lm/w	Chromaticity (y):	0.3722
CCT:	4086 K	Chromaticity (u'):	0.2240
CRI (Ra):	83.4	Chromaticity (v'):	0.4989
CRI (R9):	11.6	TM-30 Rf:	83
Peak Wavelength:	454 nm	TM-30 Rg:	95
Dominant Wavelength:	555 nm	TM-30 Rcs,h1:	-12%
S/P Ratio:	1.72	Duv:	-0.0008
M/P Ratio:	0.71	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
83.4	82.1	90.3	94.8	81.2	81.6	85.5	85.9	65.4	11.6	75.8	79.6	60.2	84.4	97.4	76.8



Distribution - Goniophotometer

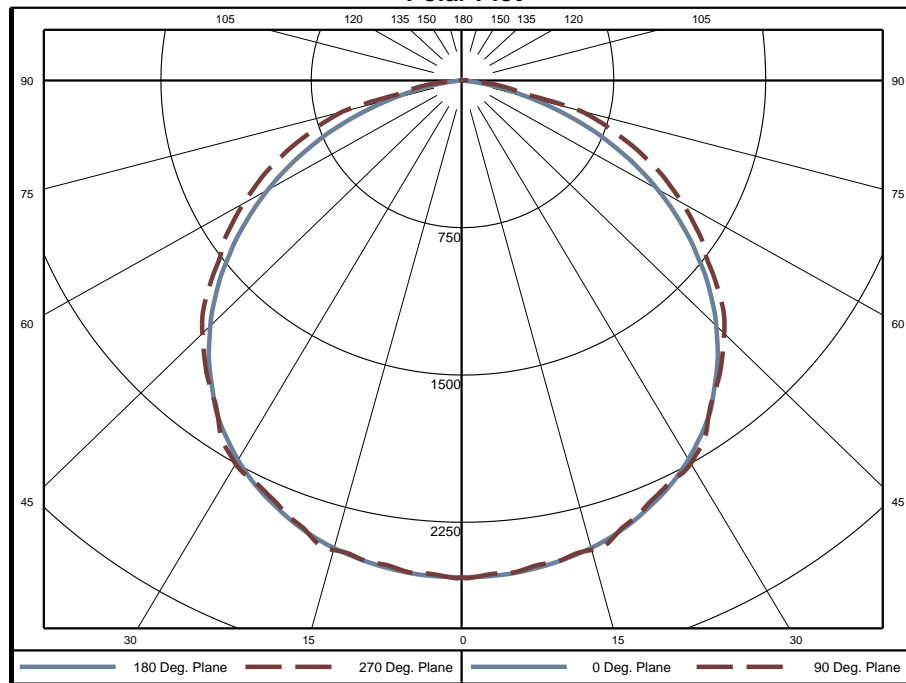
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.9 °C	120.0 VAC	0.4214 A	50.46 W	0.998	60 Hz	5.69 %

Summary of Results

Spacing Criteria	Total Lumen Output:	7603 Lumens
0-180: 1.30	Luminaire Efficacy:	150.7 lm/w
90-270: 1.32	Maximum Candela:	2536 Candela
Corrected UGR (Room Dimension: X=4H, Y=8H, Reflectances: 70/50/20%, S/H: 1)		
Crosswise: 22.7	Endwise: 23.8	

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	60.2	0.8%	60-65	529.8	7.0%	120-125	0	0.0%
5-10	179.0	2.4%	65-70	440.8	5.8%	125-130	0	0.0%
10-15	293.4	3.9%	70-75	334.7	4.4%	130-135	0	0.0%
15-20	400.9	5.3%	75-80	207.2	2.7%	135-140	0	0.0%
20-25	494.7	6.5%	80-85	93.0	1.2%	140-145	0	0.0%
25-30	574.5	7.6%	85-90	25.4	0.3%	145-150	0	0.0%
30-35	639.5	8.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	680.6	9.0%	95-100	0	0.0%	155-160	0	0.0%
40-45	696.2	9.2%	100-105	0	0.0%	160-165	0	0.0%
45-50	688.8	9.1%	105-110	0	0.0%	165-170	0	0.0%
50-55	656.7	8.6%	110-115	0	0.0%	170-175	0	0.0%
55-60	607.4	8.0%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	3323	43.7%
0-60	5972	78.5%
0-90	7603	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	2530	2530	2530	2530	2530	2530	2530	2530	2530	2530	2530	2530	2530	2530	2530
	5	2524	2520	2505	2512	2520	2512	2505	2520	2524	2520	2505	2512	2520	2512	2505
	10	2501	2489	2486	2486	2495	2486	2486	2489	2501	2489	2486	2486	2495	2486	2489
	15	2464	2460	2450	2456	2475	2456	2450	2460	2464	2460	2450	2456	2475	2456	2460
	20	2406	2394	2400	2395	2396	2395	2400	2394	2406	2394	2400	2395	2396	2395	2400
	25	2327	2320	2316	2304	2310	2304	2316	2320	2327	2320	2316	2304	2310	2304	2316
	30	2227	2217	2214	2237	2251	2237	2214	2217	2227	2217	2214	2237	2251	2237	2214
	35	2105	2119	2100	2128	2107	2128	2100	2119	2105	2119	2100	2128	2107	2128	2100
	40	1945	1964	1984	1954	1966	1954	1984	1964	1945	1964	1984	1954	1966	1954	1984
	45	1768	1785	1793	1810	1821	1810	1793	1785	1768	1785	1793	1810	1821	1810	1793
	50	1568	1584	1616	1646	1636	1646	1616	1584	1568	1584	1616	1646	1636	1646	1616
	55	1345	1402	1434	1426	1445	1426	1434	1402	1345	1402	1434	1426	1445	1426	1434
	60	1111	1181	1212	1248	1251	1248	1212	1181	1111	1181	1212	1248	1251	1248	1212
	65	865	920	1015	1047	1048	1047	1015	920	865	920	1015	1047	1048	1047	1015
	70	611	706	787	819	823	819	787	706	611	706	787	819	823	819	787
	75	359	457	566	599	613	599	566	457	359	457	566	599	613	599	566
	80	154	281	311	245	246	245	311	281	154	281	311	245	246	245	311
	85	32	108	112	98	81	98	112	108	32	108	112	98	81	98	112
	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/m²)

Horizontal Angle (Degrees)

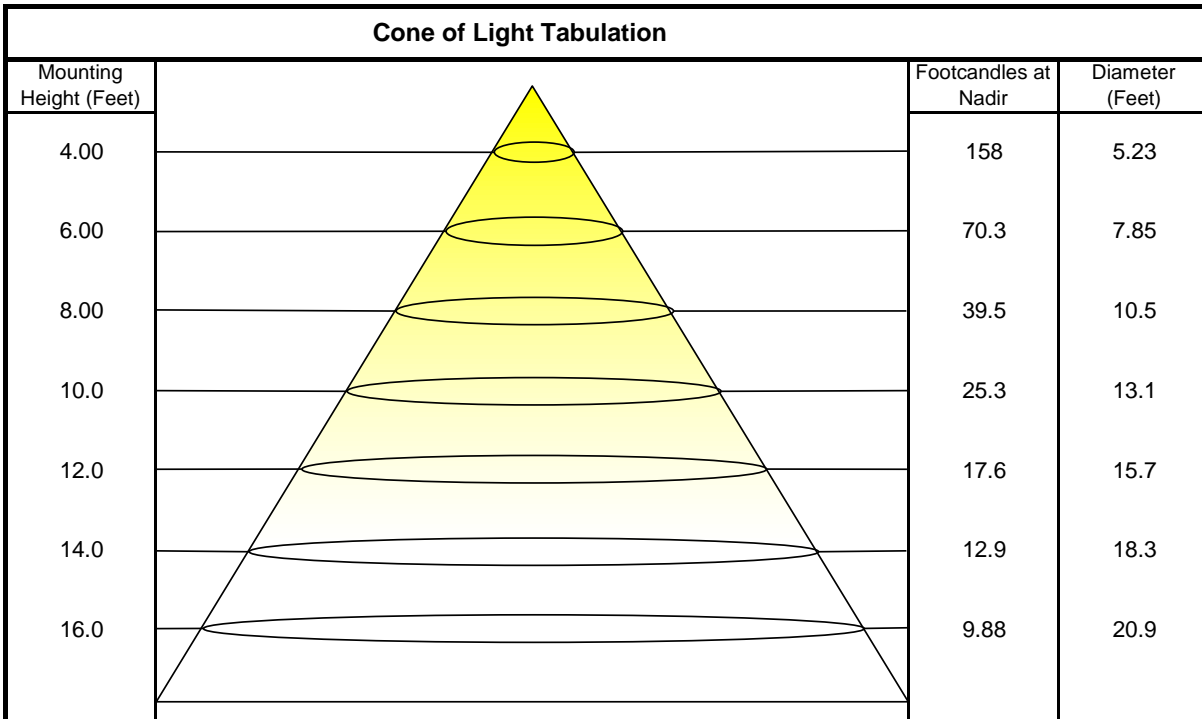
Vertical Angle (Degrees)	0	45	90
	0	7749	7749
	45	7657	7888
	55	7184	7719
	65	6269	7593
	75	4244	7251
	85	1128	2855



Coefficients of Utilization - Zonal Cavity Method

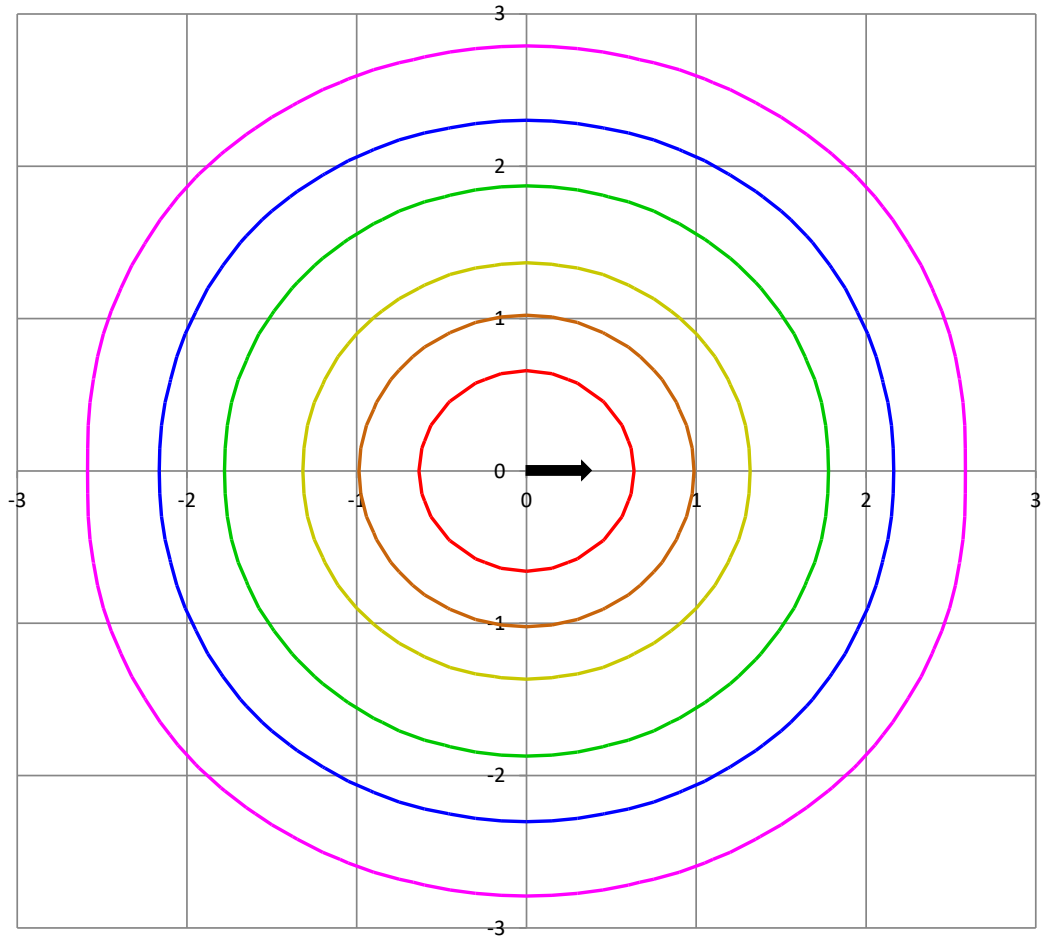
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as percent of total lumen output delivered to the task surface **																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	80	75	82	77	73	79	75	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	62	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	50	45	55	49	45	43
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	2530 Candela
Central Cone Intensity:	2522 Candela
Beam Flux:	5824.0 Lumens
Beam Angle (0-180):	113.5 Degrees
Beam Angle (90-270):	119.3 Degrees
Field Angle (0-180):	154.7 Degrees
Field Angle (90-270):	159.5 Degrees

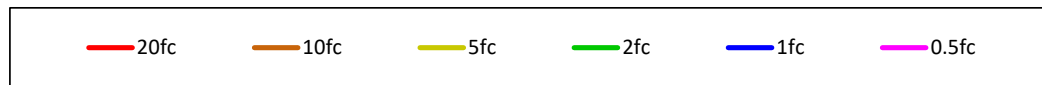


ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height



In-Situ Test

In-Situ Test Conditions

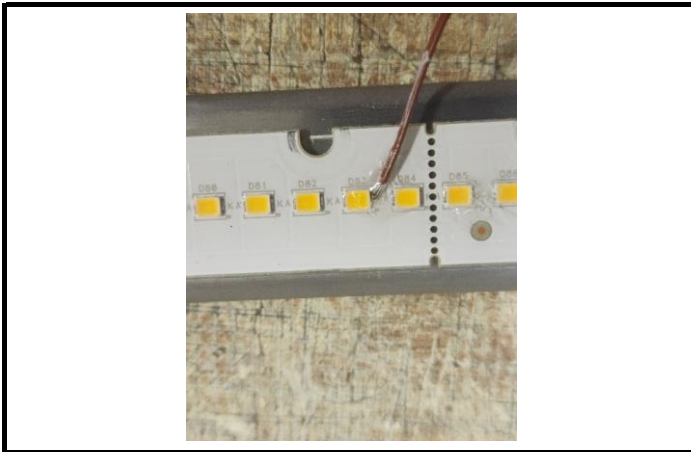
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.4 °C	124.1 VAC	N/A	N/A	N/A	60 Hz	N/A

Summary of Results

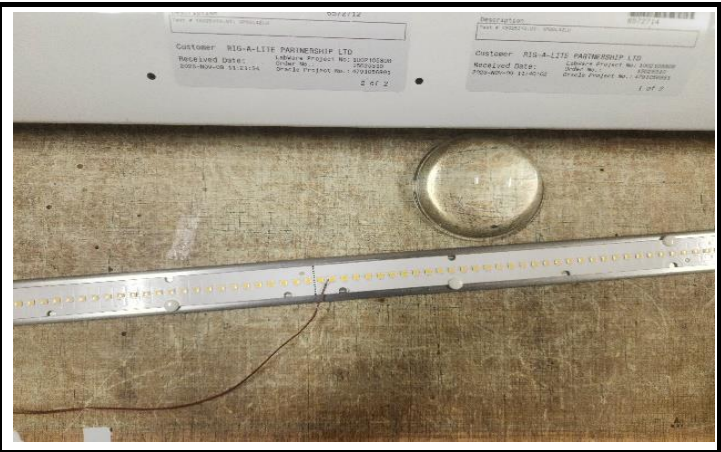
LED Temperature: 47.1 °C
 Driver Temperature: 40.9 °C
 Measured LED Current: 0.09750 A

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

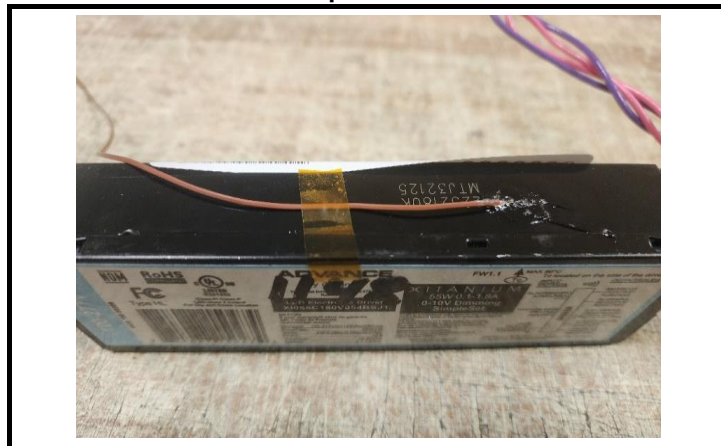
LED Temperature Location



Thermocouple Reference



Driver Temperature Location



ANSI/IES TM-30-18 Color Rendition Report

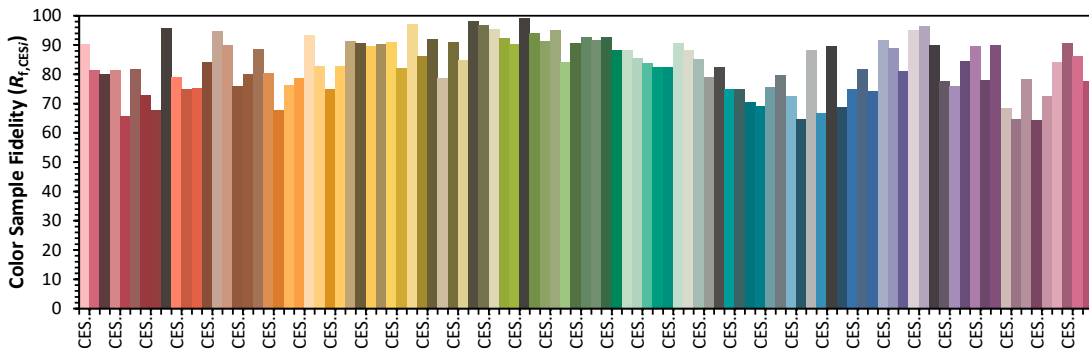
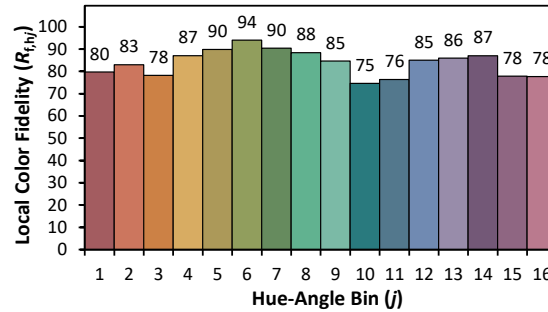
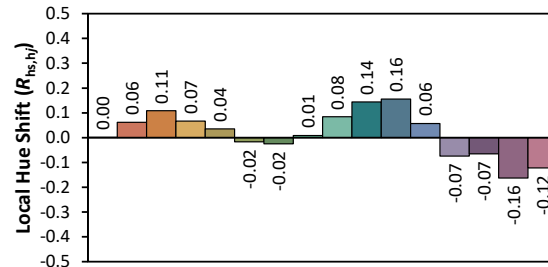
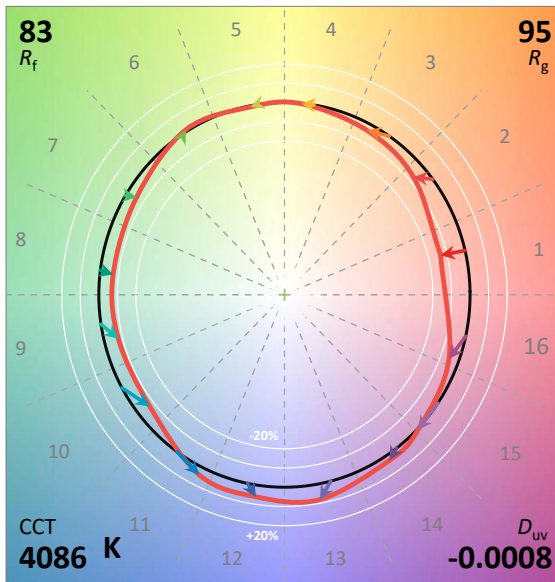
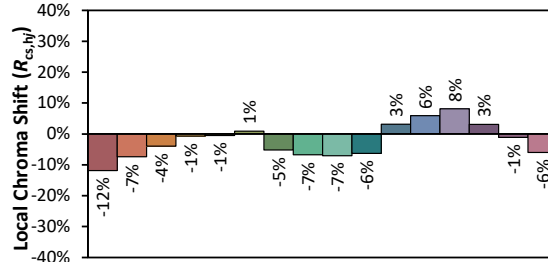
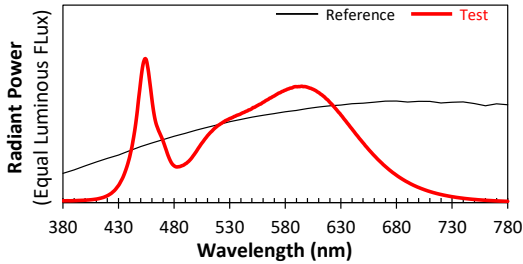
Date: 2023-11-15

Manufacturer:

RIG-A-LITE PARTNERSHIP LTD

Model:

XP80L42LU



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

x 0.3761

y 0.3722

u' 0.2240

v' 0.4989

CIE 13.3-1995
(CRI)

R_a 83

R_g 12

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