



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
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

XP50L42LU

Order Number

15025310

Test Number

15025310.01

Test Date

2023-11-10 - 2023-11-17

Prepared By

Dylan Fonner, Laboratory Technician

Approved By

Jesse Litchfield, Project Handler

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: 5074 Lumens
 Efficacy: 151.74 lm/w
 CCT: 4083 K
 CRI (Ra): 83.6

Distribution

Total Luminaire Output: 5136 Lumens
 Luminaire Efficacy: 153.2 lm/w
 Maximum Candela: 1706 Candela

Electrical Data at 119 VAC

Test Temperature: 24.8 °C
 Voltage: 119.9 VAC
 Current: 0.2806 A
 Power: 33.44 W
 Power Factor: 0.994
 Frequency: 60 Hz
 Current THD: 9.40 %

In-Situ

LED Temperature: 40.6 °C
 Driver Temperature: 42.6 °C
 Measured LED Current: 0.03133 A

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

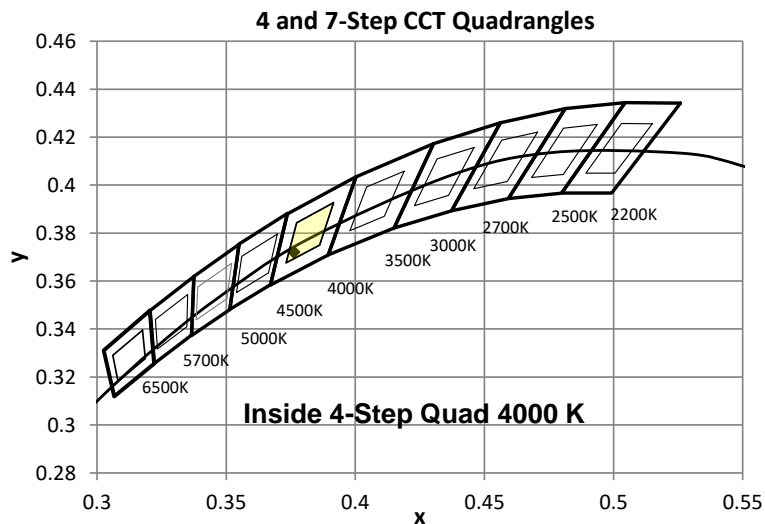
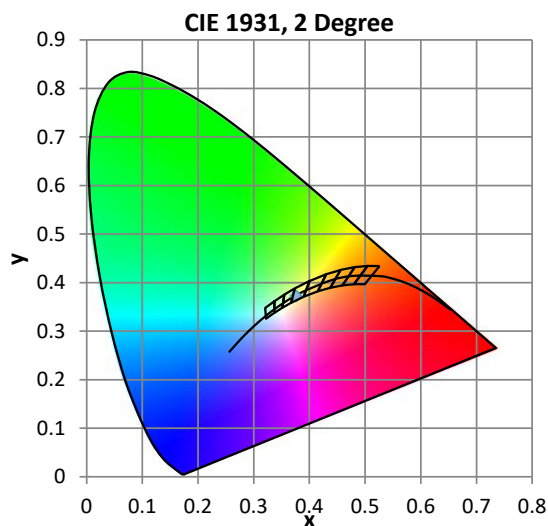
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	119.9 VAC	0.2806 A	33.44 W	0.994	60 Hz	9.40 %

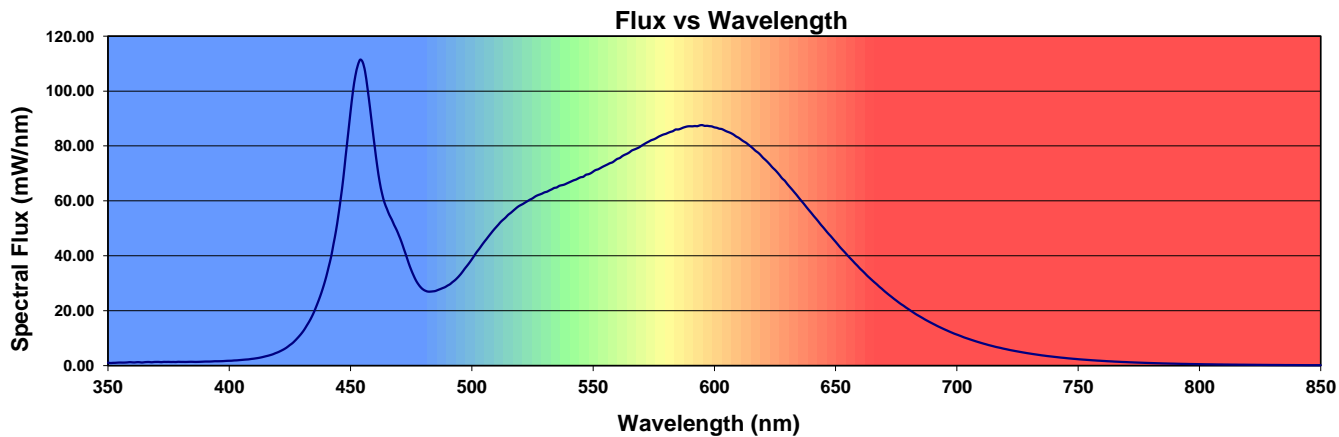
Summary of Results

Total Output:	5074 Lumens	Chromaticity (x):	0.3762
Efficacy:	151.7 lm/w	Chromaticity (y):	0.3721
CCT:	4083 K	Chromaticity (u'):	0.2241
CRI (Ra):	83.6	Chromaticity (v'):	0.4989
CRI (R9):	12.6	TM-30 Rf:	83
Peak Wavelength:	454 nm	TM-30 Rg:	95
Dominant Wavelength:	555 nm	TM-30 Rcs,h1:	-12%
S/P Ratio:	1.73	Duv:	-0.0009
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
83.6	82.4	90.6	95.0	81.3	81.9	85.9	85.9	65.7	12.6	76.6	79.9	60.1	84.8	97.5	77.1



Distribution - Goniophotometer

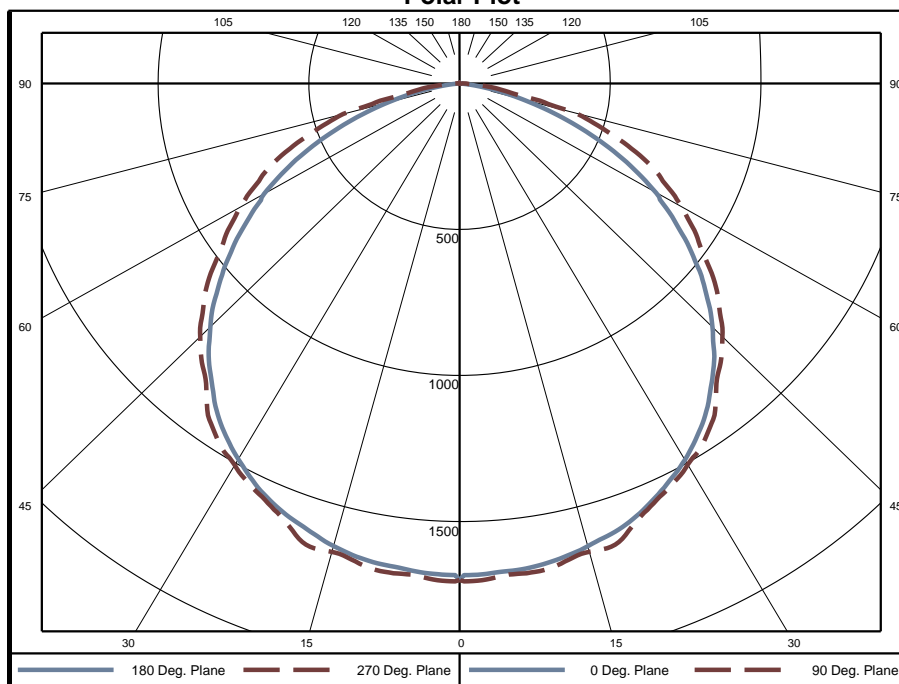
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	120.0 VAC	0.2812 A	33.53 W	0.994	60 Hz	9.36 %

Summary of Results

Spacing Criteria	Total Lumen Output:	5136 Lumens
0-180: 1.30	Luminaire Efficacy:	153.2 lm/w
90-270: 1.32	Maximum Candela:	1706 Candela
Corrected UGR (Room Dimension: X=4H, Y=8H, Reflectances: 70/50/20%, S/H: 1)		
Crosswise: 21.2	Endwise: 22.4	

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	40.6	0.8%	60-65	362.1	7.1%	120-125	0	0.0%
5-10	120.4	2.3%	65-70	300.4	5.8%	125-130	0	0.0%
10-15	197.5	3.8%	70-75	225.6	4.4%	130-135	0	0.0%
15-20	270.0	5.3%	75-80	139.1	2.7%	135-140	0	0.0%
20-25	334.3	6.5%	80-85	61.6	1.2%	140-145	0	0.0%
25-30	388.0	7.6%	85-90	17.8	0.3%	145-150	0	0.0%
30-35	430.1	8.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	460.1	9.0%	95-100	0	0.0%	155-160	0	0.0%
40-45	471.0	9.2%	100-105	0	0.0%	160-165	0	0.0%
45-50	465.7	9.1%	105-110	0	0.0%	165-170	0	0.0%
50-55	443.8	8.6%	110-115	0	0.0%	170-175	0	0.0%
55-60	408.1	7.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	2241	43.6%
0-60	4030	78.5%
0-90	5136	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	1701	1701	1701	1701	1701	1701	1701	1701	1701	1701	1701	1701	1701	1701	1701
	5	1678	1697	1691	1691	1691	1690	1689	1697	1677	1697	1689	1690	1691	1691	1697
	10	1667	1679	1671	1682	1688	1687	1677	1677	1665	1677	1677	1687	1688	1682	1671
	15	1640	1649	1654	1652	1660	1653	1653	1651	1639	1651	1653	1653	1660	1652	1654
	20	1607	1617	1610	1639	1630	1639	1609	1618	1598	1618	1609	1639	1630	1639	1610
	25	1552	1567	1580	1558	1561	1564	1585	1572	1551	1572	1585	1564	1561	1558	1580
	30	1488	1492	1494	1503	1506	1506	1500	1499	1484	1499	1500	1506	1506	1503	1494
	35	1406	1414	1417	1436	1439	1438	1421	1422	1403	1422	1421	1438	1439	1436	1417
	40	1301	1342	1325	1332	1320	1335	1332	1345	1297	1345	1332	1335	1320	1332	1325
	45	1181	1210	1226	1218	1226	1226	1236	1209	1180	1209	1236	1226	1226	1218	1226
	50	1048	1072	1081	1103	1108	1110	1090	1076	1045	1076	1090	1110	1108	1103	1081
	55	896	935	963	968	968	976	972	943	899	943	972	976	968	968	963
	60	750	801	823	838	847	842	831	802	756	802	831	842	847	838	823
	65	576	627	684	709	716	715	692	633	588	633	692	715	716	709	684
	70	396	474	534	555	560	561	541	480	412	480	541	561	560	555	534
	75	227	308	377	393	403	398	382	313	245	313	382	398	403	393	377
	80	96	185	198	159	162	161	202	192	106	192	202	161	162	159	198
	85	18	69	72	70	69	72	73	74	23	74	73	72	69	70	72
	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)

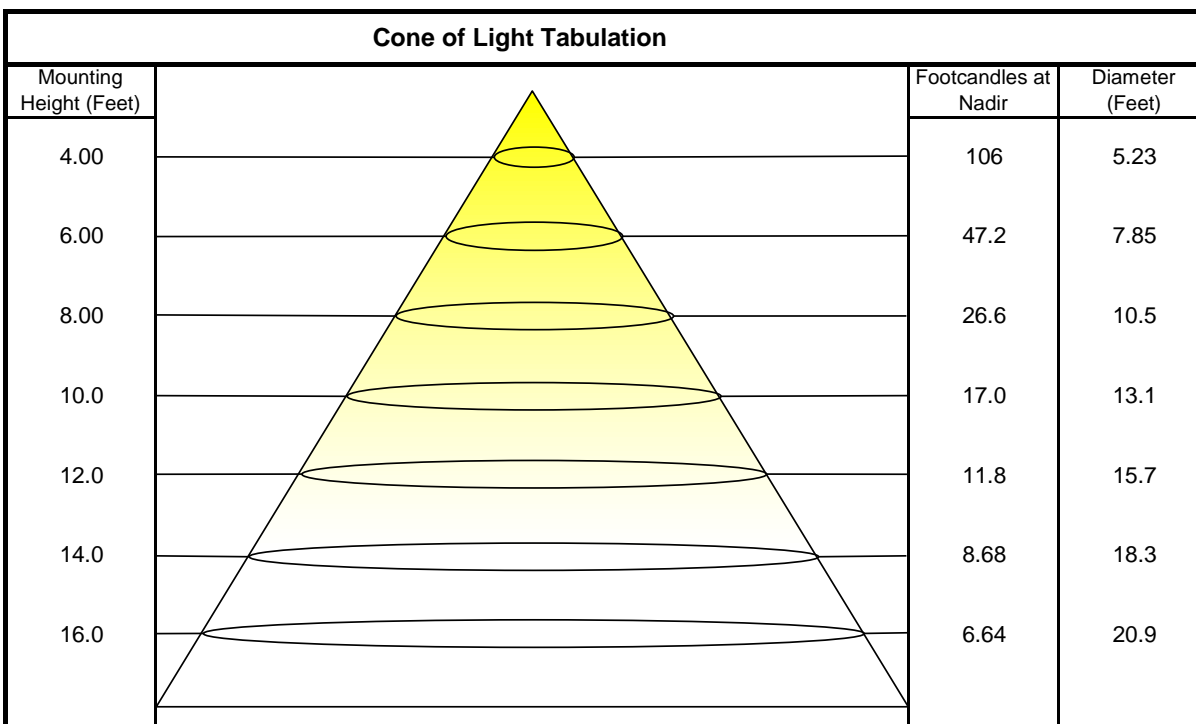
Vertical Angle (Degrees)	0	45	90
	0	5209	5209
	45	5117	5309
	55	4786	5167
	65	4177	5191
	75	2687	4765
	85	645	2539



Coefficients of Utilization - Zonal Cavity Method

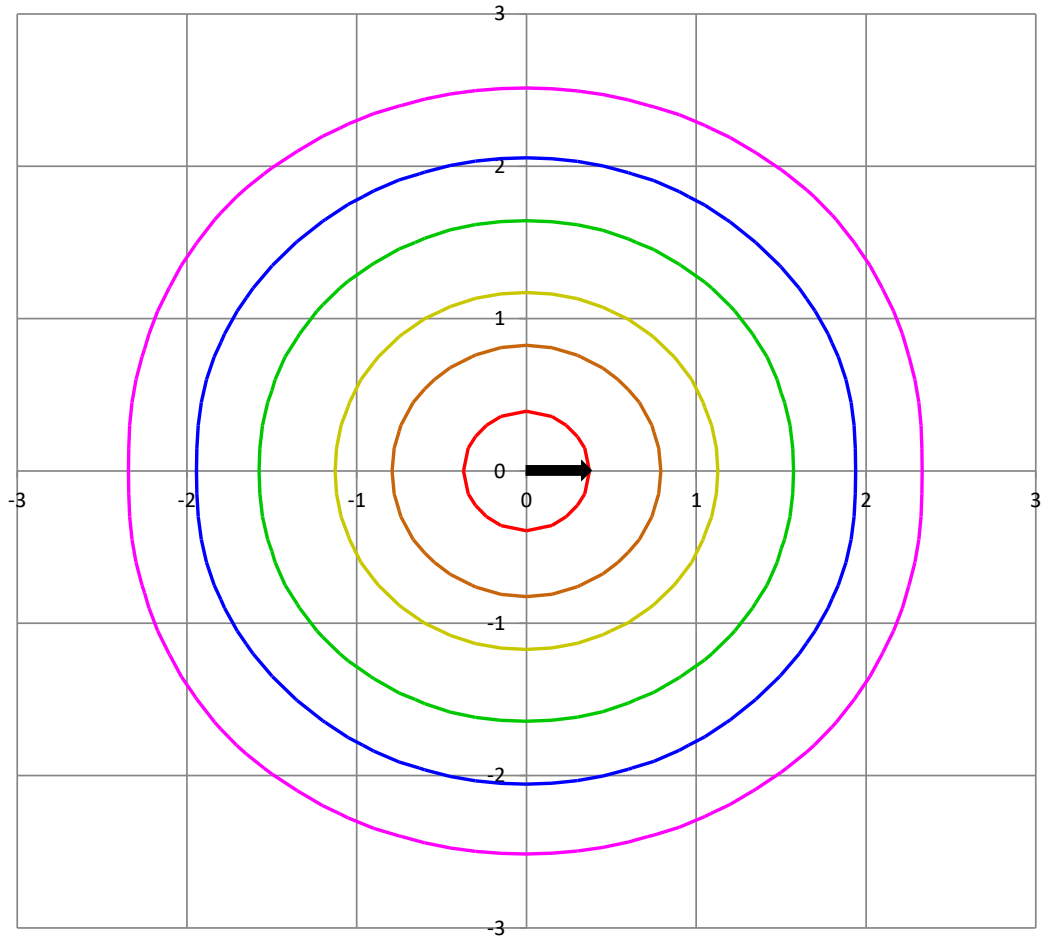
Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as percent of total lumen output delivered to the task surface **																	
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	61	56	52	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	40	68	55	46	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	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1701 Candela
Central Cone Intensity:	1698 Candela
Beam Flux:	3935.1 Lumens
Beam Angle (0-180):	113.1 Degrees
Beam Angle (90-270):	119.7 Degrees
Field Angle (0-180):	154.6 Degrees
Field Angle (90-270):	159.1 Degrees

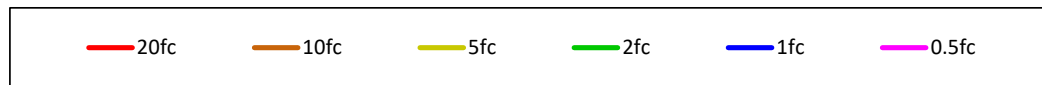


ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height



In-Situ Test

In-Situ Test Conditions

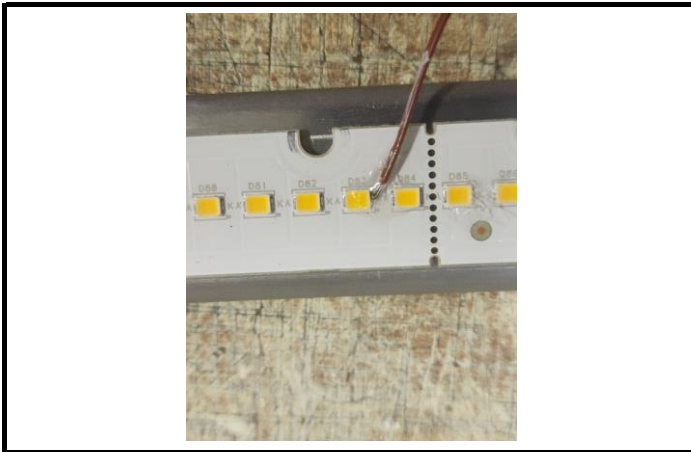
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
23.8 °C	124.1 VAC	N/A	N/A	N/A	60 Hz	N/A

Summary of Results

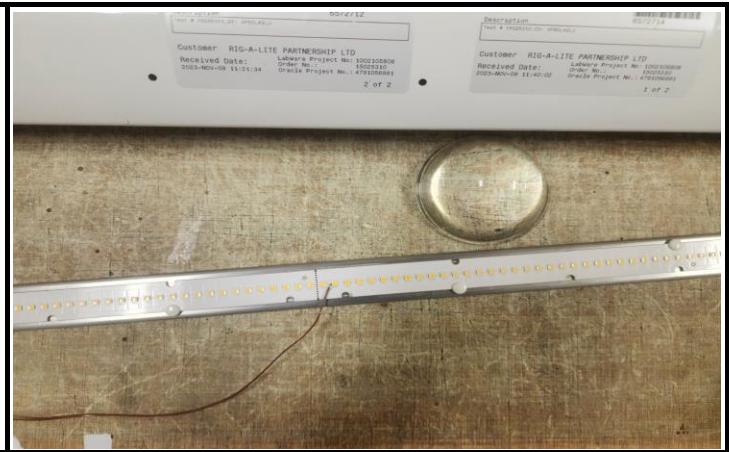
LED Temperature: 40.6 °C
 Driver Temperature: 42.6 °C
 Measured LED Current: 0.03133 A

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

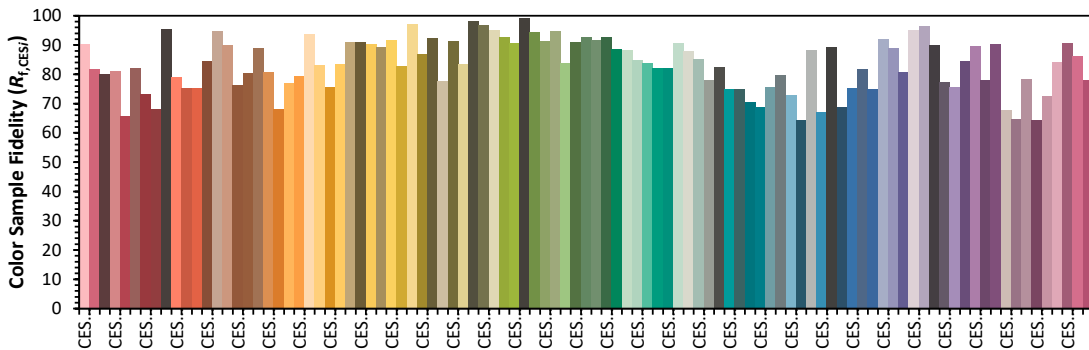
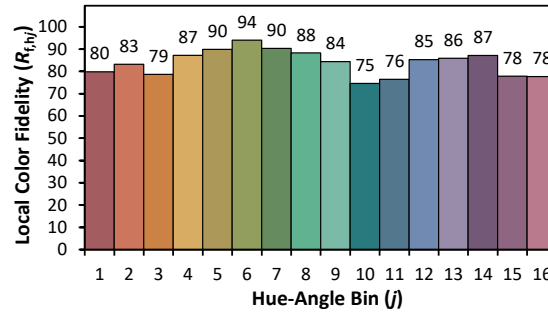
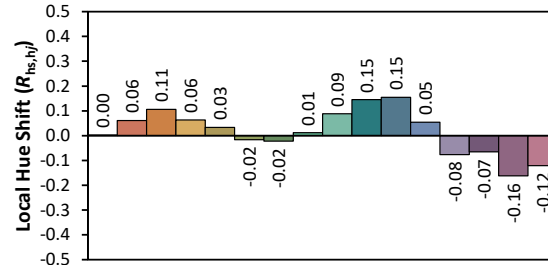
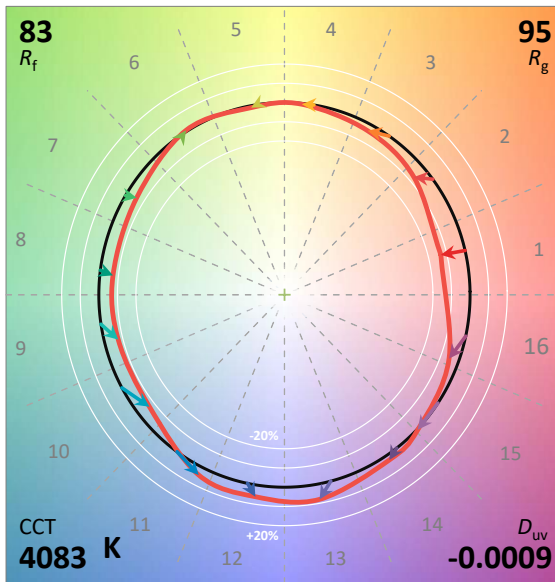
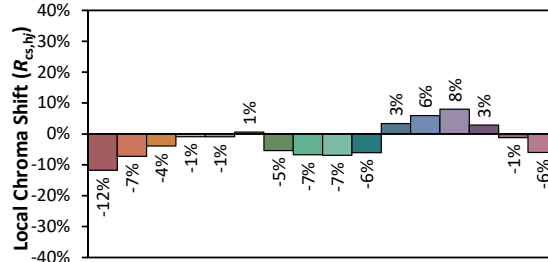
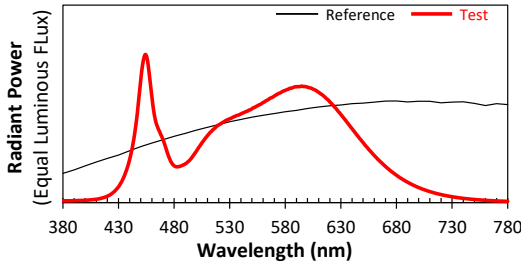
Date: 2023-11-13

Manufacturer:

RIG-A-LITE PARTNERSHIP LTD

Model:

XP50L42LU



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

x 0.3762
y 0.3721
u' 0.2241
v' 0.4989

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.