



Report of Test

LLIA001618-006A

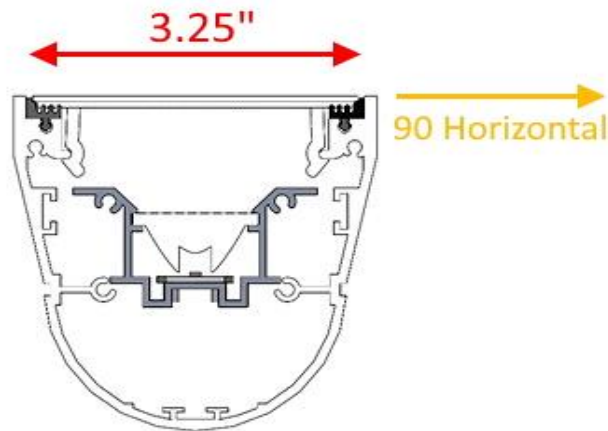
Indoor Distribution Photometry Test Report

Catalog Number: ACC-WL66-NB-MO-K40-80-4-XXX-XXX-UNV

Indirect pendant mount, aluminum housing and end caps, one-piece diffuse plastic lens above LEDs, white painted aluminum reflector, textured linear prismatic "polycarbonate" enclosure.

Osram PrevaLED - 144 white LEDs

One Osram Oti 50/120-277/2A3 DIM-1L LED driver labeled as 1020mA



Prepared For:

Precision Architectural Lighting
4830 Timber Creek Drive
Houston, TX 77017, USA

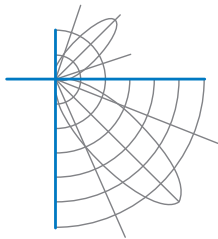
Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	2410.3 Lumens
Input Current	0.1826 A	Total Efficacy	118.2 Lm/W
Input Power	20.39 W	Downward Flux	0.0 Lumens
Frequency	60.00 Hz	Downward Flux	0.0 % of Total
Power Factor	0.930		
Current THD	17.6 %		

This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

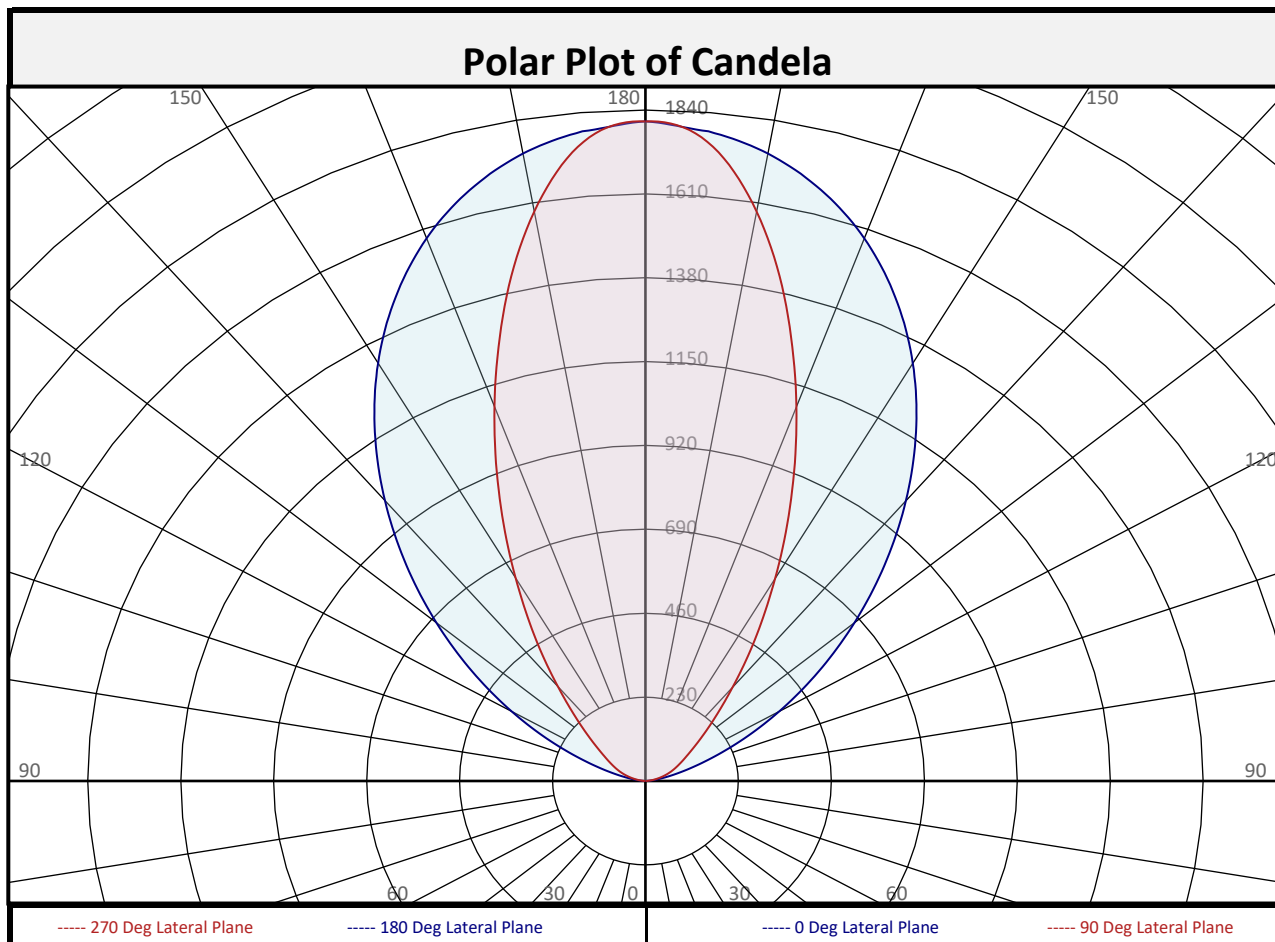
Test date: 12/30/2021

Report date: 01/05/2022

Signed: _____

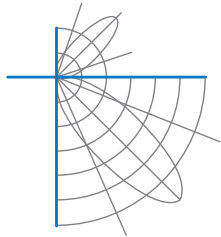


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Zonal Flux Summary

Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	0.0	0.0%	90-100	11.9	0.5%	0-20	0.0	0.0%
10-20	0.0	0.0%	100-110	61.2	2.5%	0-30	0.0	0.0%
20-30	0.0	0.0%	110-120	140.2	5.8%	0-40	0.0	0.0%
30-40	0.0	0.0%	120-130	246.1	10.2%	0-60	0.0	0.0%
40-50	0.0	0.0%	130-140	369.4	15.3%	0-80	0.0	0.0%
50-60	0.0	0.0%	140-150	479.2	19.9%	10-90	0.0	0.0%
60-70	0.0	0.0%	150-160	516.8	21.4%	20-50	0.0	0.0%
70-80	0.0	0.0%	160-170	419.9	17.4%	40-90	0.0	0.0%
80-90	0.0	0.0%	170-180	165.7	6.9%	60-90	0.0	0.0%
0-90	0.0	0.0%	90-180	2410	100.0%	0-180	2410	100.0%

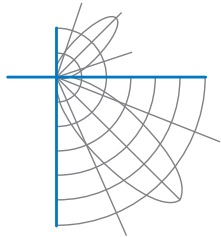


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Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles								
		0	22.5	45	67.5	90	112.5	135	157.5	180
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	0	0	0	0	0	0	0	0	0	0
	2.5	0	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0	0
	7.5	0	0	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0	0	0
	12.5	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0
	17.5	0	0	0	0	0	0	0	0	0
	20	0	0	0	0	0	0	0	0	0
	22.5	0	0	0	0	0	0	0	0	0
	25	0	0	0	0	0	0	0	0	0
	27.5	0	0	0	0	0	0	0	0	0
	30	0	0	0	0	0	0	0	0	0
	32.5	0	0	0	0	0	0	0	0	0
	35	0	0	0	0	0	0	0	0	0
	37.5	0	0	0	0	0	0	0	0	0
	40	0	0	0	0	0	0	0	0	0
	42.5	0	0	0	0	0	0	0	0	0
	45	0	0	0	0	0	0	0	0	0
	47.5	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	
52.5	0	0	0	0	0	0	0	0	0	
55	0	0	0	0	0	0	0	0	0	
57.5	0	0	0	0	0	0	0	0	0	
60	0	0	0	0	0	0	0	0	0	
62.5	0	0	0	0	0	0	0	0	0	
65	0	0	0	0	0	0	0	0	0	
67.5	0	0	0	0	0	0	0	0	0	
70	0	0	0	0	0	0	0	0	0	
72.5	0	0	0	0	0	0	0	0	0	
75	0	0	0	0	0	0	0	0	0	
77.5	0	0	0	0	0	0	0	0	0	
80	0	0	0	0	0	0	0	0	0	
82.5	0	0	0	0	0	0	0	0	0	
85	0	0	0	0	0	0	0	0	0	
87.5	0	0	0	0	0	0	0	0	0	
90	0	0	0	0	0	0	0	0	0	

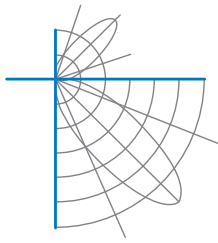


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Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles								
		0	22.5	45	67.5	90	112.5	135	157.5	180
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	0	0	0	0	0	0	0	0	0
	92.5	3	4	3	3	3	3	3	4	3
	95	11	12	8	8	8	8	8	12	11
	97.5	22	23	16	14	14	14	16	23	22
	100	38	38	25	22	22	22	25	38	38
	102.5	58	55	35	31	30	31	35	55	58
	105	84	76	47	41	40	41	47	76	84
	107.5	117	100	61	51	50	51	61	100	117
	110	157	127	76	61	60	61	76	127	157
	112.5	205	159	92	72	70	72	92	159	205
	115	259	196	111	83	80	83	111	196	259
	117.5	319	238	133	96	90	96	133	238	319
	120	383	285	158	109	102	109	158	285	383
	122.5	451	338	188	126	115	126	188	338	451
	125	523	396	223	146	131	146	223	396	523
	127.5	597	459	263	171	151	171	263	459	597
	130	675	527	310	200	175	200	310	527	675
	132.5	755	598	361	235	205	235	361	598	755
	135	836	673	418	277	241	277	418	673	836
	137.5	919	751	482	327	284	327	482	751	919
140	1002	833	553	386	336	386	553	833	1002	
142.5	1085	917	632	454	400	454	632	917	1085	
145	1167	1004	716	528	472	528	716	1004	1167	
147.5	1246	1090	804	612	552	612	804	1090	1246	
150	1323	1176	899	705	643	705	899	1176	1323	
152.5	1395	1260	996	806	745	806	996	1260	1395	
155	1463	1342	1095	914	854	914	1095	1342	1463	
157.5	1526	1420	1197	1028	971	1028	1197	1420	1526	
160	1583	1494	1301	1145	1093	1145	1301	1494	1583	
162.5	1634	1562	1402	1265	1219	1265	1402	1562	1634	
165	1678	1623	1497	1387	1348	1387	1497	1623	1678	
167.5	1716	1676	1584	1501	1472	1501	1584	1676	1716	
170	1747	1719	1662	1606	1586	1606	1662	1719	1747	
172.5	1770	1753	1724	1695	1684	1695	1724	1753	1770	
175	1788	1779	1769	1761	1759	1761	1769	1779	1788	
177.5	1798	1797	1797	1799	1800	1799	1797	1797	1798	
180	1809	1809	1809	1809	1809	1809	1809	1809	1809	

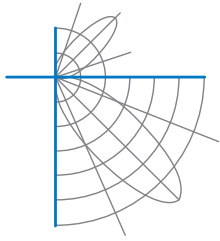


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Coefficients of Utilization/Room Utilization - Zonal Cavity Method																						
Effective Floor Cavity Reflectance 0.20																						
RC	80					70					50				30				10			0
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50	30	10	0
RCR																						
0	95	95	95	95		81	81	81	81		56	56	56		32	32	32		10	10	10	0
1	87	83	79	76		74	71	68	65		48	47	45		28	27	26		9	9	8	0
2	79	72	66	62		67	62	57	53		42	40	37		24	23	22		8	7	7	0
3	72	63	57	51		61	54	49	44		37	34	31		21	20	18		7	6	6	0
4	65	56	48	43		56	48	42	37		33	29	26		19	17	16		6	6	5	0
5	60	49	42	36		51	42	36	32		29	25	22		17	15	13		5	5	4	0
6	55	44	36	31		47	38	32	27		26	22	19		15	13	11		5	4	4	0
7	50	39	32	27		43	34	28	23		23	19	17		14	11	10		4	4	3	0
8	47	35	28	23		40	30	24	20		21	17	14		12	10	9		4	3	3	0
9	43	32	25	20		37	27	22	18		19	15	13		11	9	8		4	3	3	0
10	40	29	22	18		34	25	19	16		17	14	11		10	8	7		3	3	2	0

For absolute test reports, RUs are expressed as a percentage of total lumen output. For relative test reports, CUs are expressed as a percentage of total lamp output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are lambertian reflectors. 2) Incident flux on each surface is uniformly distributed. 3) The room is spectrally neutral. When luminaires are not evenly distributed throughout the room, or do not exhibit lateral symmetry, CU values may differ from actual performance.



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Additional Pictures of Test Subject





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Test Distance 9.5 m
Ambient Temperature 24.9 °C

Notes

The laboratory has not participated in the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Tested in accordance with the applicable sections of IES LM-79-19. Format of reports and angular increments based on IES LM-41-20 and LM-46-20.

The luminous intensity values, and other derived quantities, contained in this report are based on the absolute data, as measured.

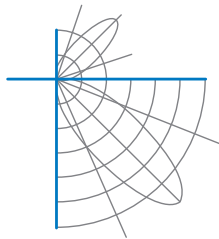
Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the CIE C-Gamma coordinate system as defined in CIE publication number 121.

This report may contain data that are not covered by the NVLAP accreditation. Quantities marked with ‡ are not covered.

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the Federal Government.



Report of Test

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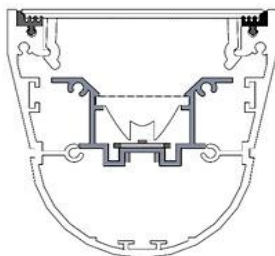
Integrating Sphere Report

Catalog Number: ACC-WL66-NB-MO-K40-80-4-XXX-XXX-UNV

Indirect pendant mount, aluminum housing and end caps, one-piece diffuse plastic lens above LEDs, white painted aluminum reflector, textured linear prismatic "polycarbonate" enclosure.

Osram PrevaLED - 144 white LEDs

One Osram Oti 50/120-277/2A3 DIM-1L LED driver labeled as 1020mA



Performance Summary

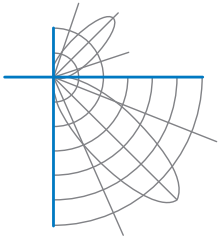
Voltage	120.0 Vac
Current	0.1823 A
Power	20.46 W
Frequency	59.99 Hz
Power Factor	0.935
Current THD	17.2 %
Total Luminous Flux	2470.0 lm
Efficacy	120.7 lm/W
Chromaticity (x,y)	(0.3831, 0.3817)
(u',v')	(0.2249, 0.5042)
Duv	0.0015
CCT	3965 K
CRI (Ra)	83
R9	4
TM-30: Rf	82
TM-30: Rg	96
TM-30: Rcs,h1	-12

Prepared For:

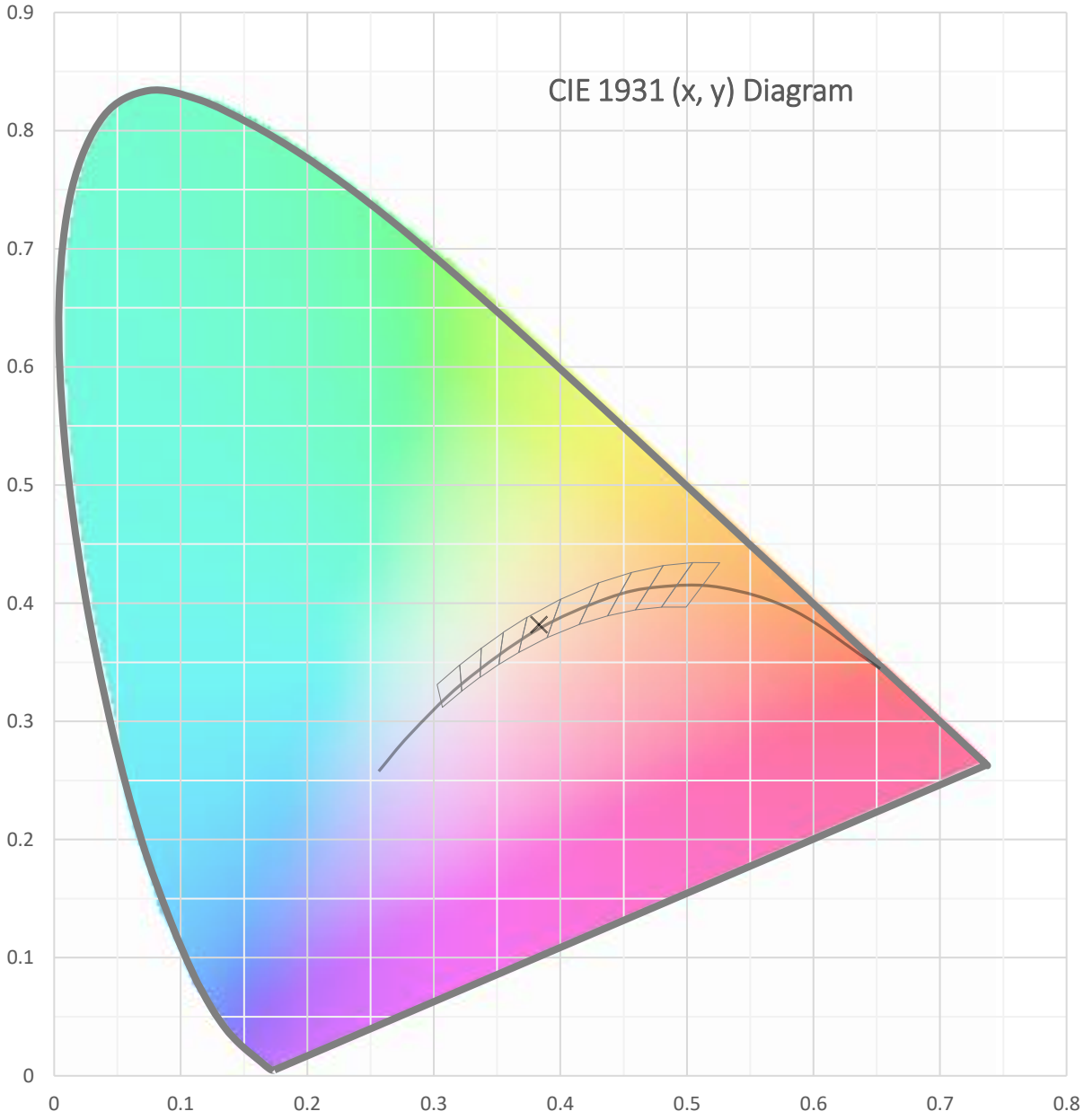
Precision Architectural Lighting
4830 Timber Creek Drive
Houston, TX 77017, USA

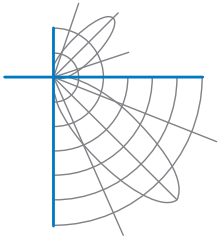
Test date: 01/03/2022

Report date: 01/05/2022

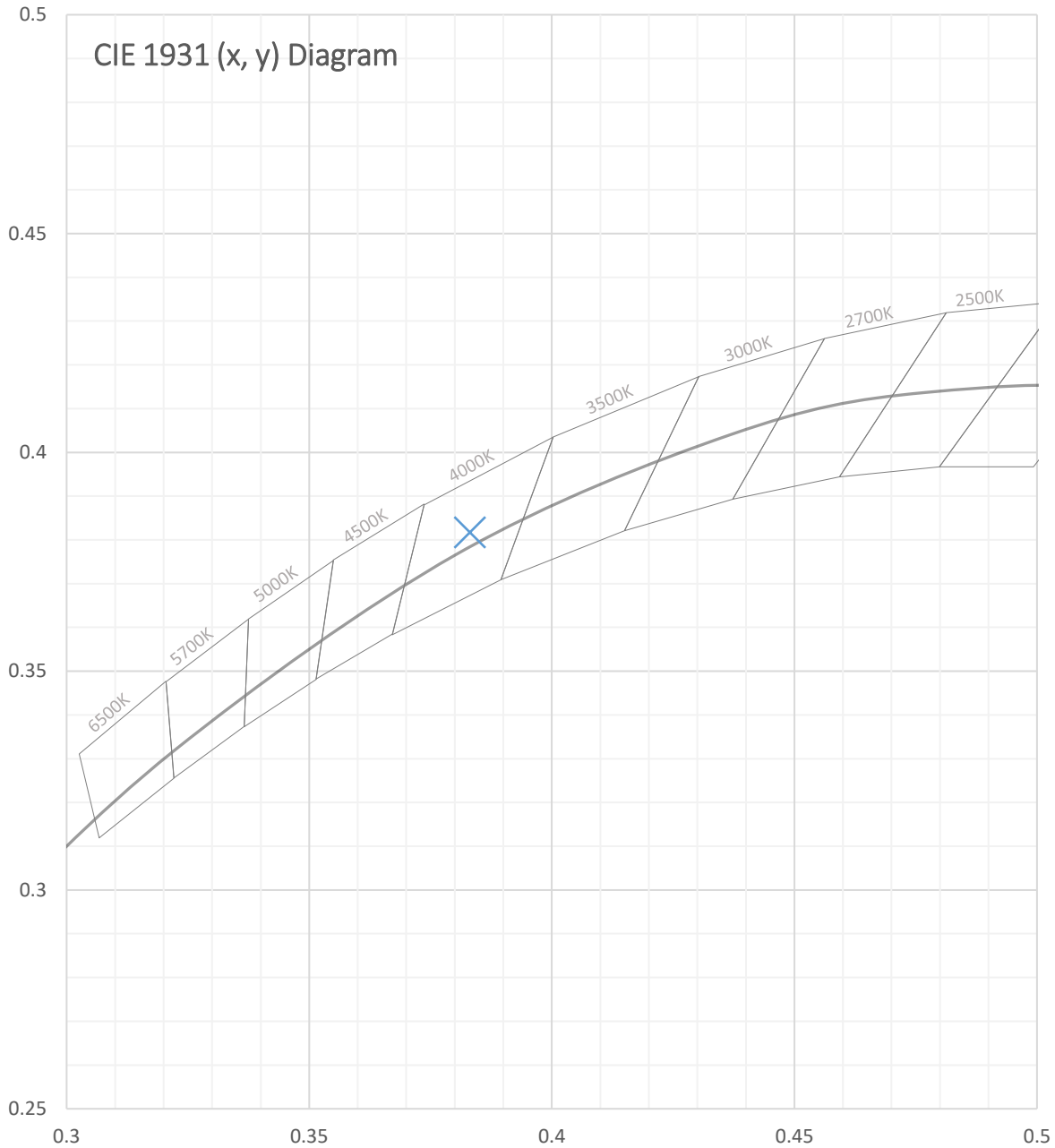


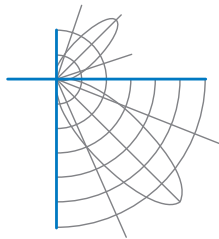
Test Report Number: LLIA001618-006B





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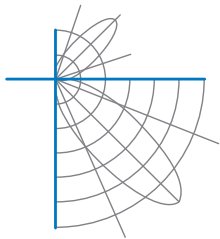


Test Report Number: LLIA001618-006B

Total Radiant Flux	7.381 W
Total Luminous Flux	2470.0 Lm
Chromaticity CIE 1931 (x, y)	(0.3831, 0.3817)
Chromaticity CIE 1976 (u', v')	(0.2249, 0.5042)
Correlated Color Temperature (CCT)	3965 K
Color Rendering Index (Ra)	83
R1	81
R2	88
R3	93
R4	83
R5	81
R6	84
R7	86
R8	64
R9	4
R10	71
R11	83
R12	58
R13	83
R14	96
TM-30: Rf	82
TM-30: Rg	96
TM-30: Rcs,h1	-12
Distance from Planckian Locus (Duv)	0.0015
Scotopic/Photopic Ratio ‡	1.652

Electrical Data

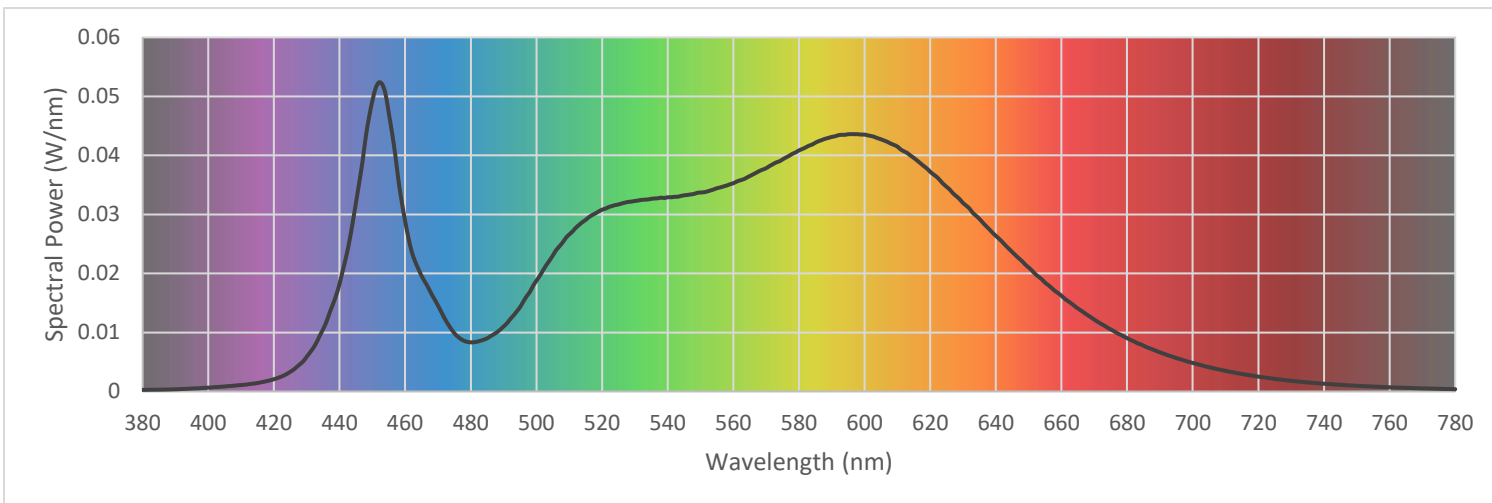
Voltage	120.0 Vac
Current	0.1823 A
Power	20.46 W
Frequency	59.99 Hz
Power Factor	0.935
Current THD	17.2 %



Test Report Number: LLIA001618-006B

Summary Spectral Power Distribution (wavelength - nm, spectral power - W/nm)

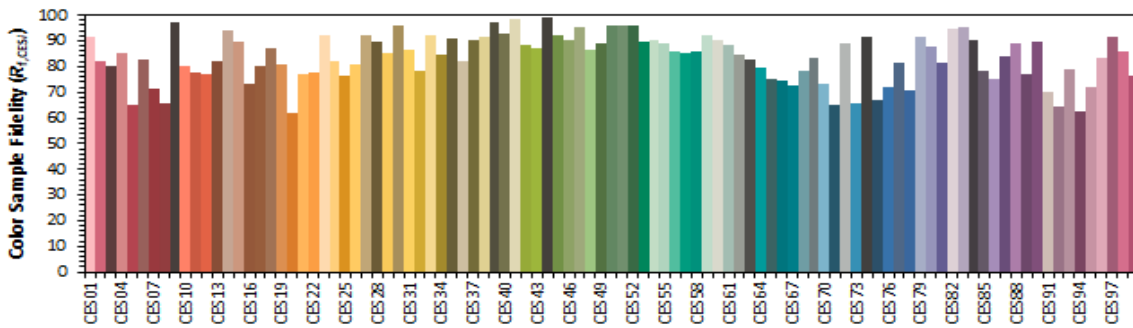
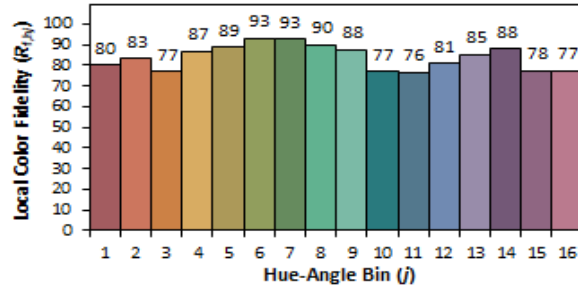
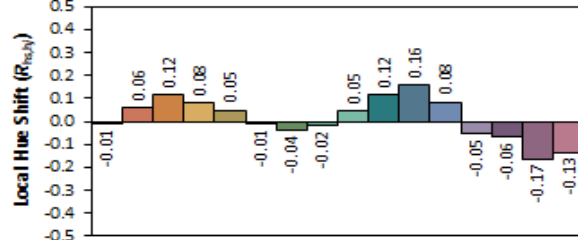
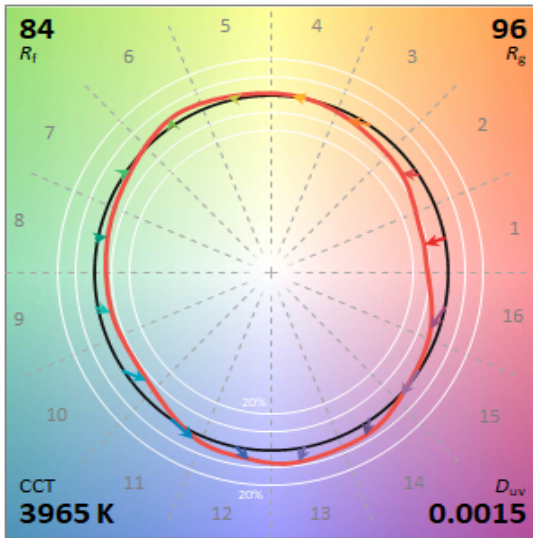
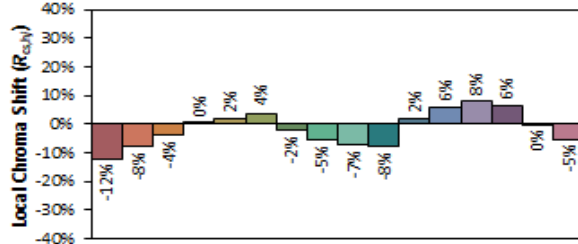
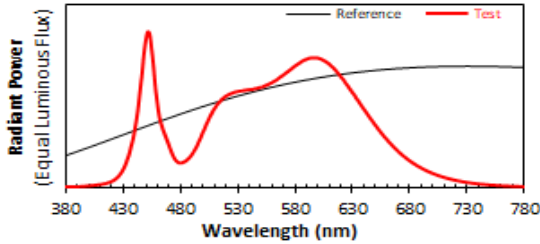
380	0.000278	480	0.008321	580	0.040847	680	0.009037
385	0.000304	485	0.009018	585	0.042150	685	0.007775
390	0.000369	490	0.011015	590	0.043133	690	0.006630
395	0.000495	495	0.014281	595	0.043583	695	0.005654
400	0.000649	500	0.018775	600	0.043528	700	0.004835
405	0.000850	505	0.023039	605	0.042724	705	0.004106
410	0.001087	510	0.026602	610	0.041498	710	0.003496
415	0.001428	515	0.029072	615	0.039577	715	0.002974
420	0.002077	520	0.030798	620	0.037226	720	0.002510
425	0.003340	525	0.031688	625	0.034680	725	0.002128
430	0.005876	530	0.032280	630	0.031932	730	0.001813
435	0.010554	535	0.032639	635	0.029238	735	0.001536
440	0.018254	540	0.032910	640	0.026366	740	0.001312
445	0.032009	545	0.033236	645	0.023626	745	0.001124
450	0.049239	550	0.033712	650	0.021003	750	0.000965
455	0.047183	555	0.034440	655	0.018449	755	0.000824
460	0.028800	560	0.035282	660	0.016222	760	0.000711
465	0.019579	565	0.036506	665	0.014065	765	0.000612
470	0.014551	570	0.037832	670	0.012177	770	0.000524
475	0.009863	575	0.039316	675	0.010512	775	0.000452
						780	0.000391





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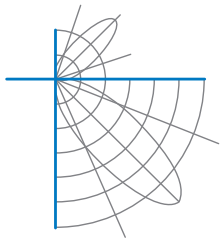
IES TM-30 Details



Notes:

x 0.3831
y 0.3817
u' 0.2249
v' 0.5041

CIE 13.3-1995 (CRI)	
R _a	83
R _s	4



Test Report Number: LLIA001618-006B

Test Equipment Configuration: LightLab International Allentown 2m Integrating Sphere
Measurements acquired using a Labsphere CDS 2600 spectroradiometer
Testing was performed using 4π geometry

Test Temperature: 24.7 °C

Test Procedure: Tested in accordance with the applicable sections of:
LM-79-19, LM-78-20, LM-58-20, ANSI_ANSI C78.377-2017, TM-30-20

Significance: The laboratory has not participated in the selection of samples to be tested.
All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Notes: The measurements and other derived quantities contained in this report are based on the absolute data as measured.

Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

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