

Report of Test

LLIA000954-004A

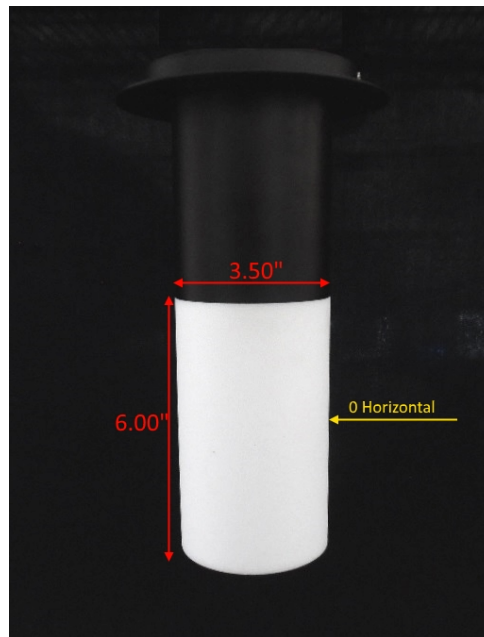
Catalog Number: 3-309-215 Pilar LG

Ceiling mounted, formed steel housing, formed steel center lamp holder, cast aluminum heatsink, frosted glass enclosure above LEDs, translucent white plastic outer enclosure.

12 white LEDs, one Harvard Engineering E-C041041-01201J15-930 LED board

One LTF DA6W150C2040LPD010-0014 dimmable LED driver.

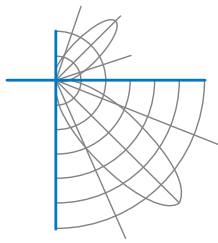
120.0Vac, 60.00Hz, 0.0587A, 6.52W, 0.926PF, 10.8%THD(i)



Performance Summary

Total Light Output	285 lm
Luminaire Power	6.52 W
Luminous Efficacy	43.7 lm/W

PREPARED FOR : Oxygen Lighting, 201 Railhead Road, Fort Worth, TX 76106, USA



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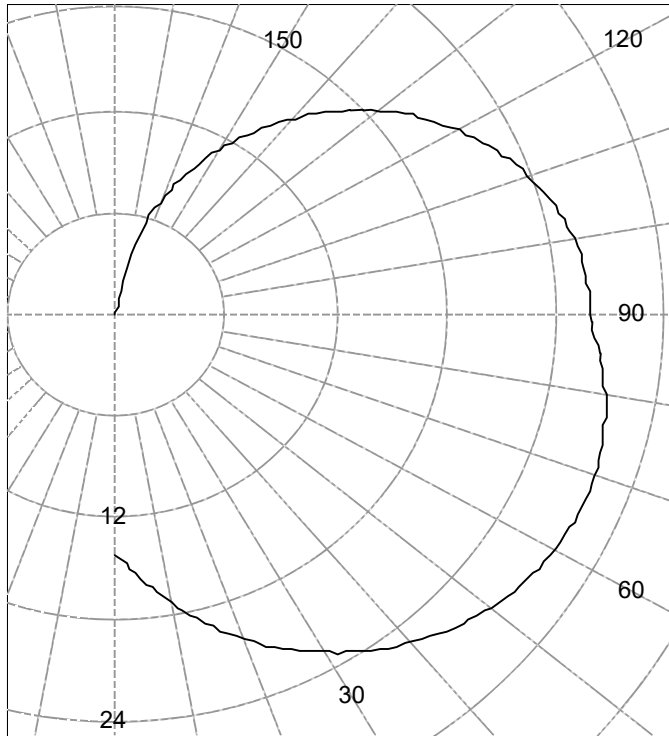
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Legend: All planes - Black (cd)



(Rotational symmetry)

AVERAGE LUMINANCE (cd / m²)

Gamma	C0
45.0	1871
55.0	1867
65.0	1869
75.0	1876
85.0	1890

INTENSITY SUMMARY (cd)

Gamma	All Planes	Flux (lm)	Gamma	C0	Flux (lm)
0	14.3		90	25.9	
5	15.6	2	95	25.8	28
10	17.2		100	25.4	
15	18.8	5	105	24.8	26
20	20.3		110	23.9	
25	21.8	10	115	22.9	23
30	23.1		120	21.7	
35	24.2	15	125	20.2	18
40	25.3		130	18.7	
45	26.1	20	135	16.9	13
50	26.8		140	15.1	
55	27.3	25	145	13.2	8
60	27.7		150	11.2	
65	27.8	28	155	9.2	4
70	27.8		160	7.0	
75	27.5	29	165	4.3	1
80	27.1		170	0.9	
85	26.5	29	175	0.0	0
90	25.9		180	0.0	

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	%Lamp	%Luminaire
0-30	17	N / A	6.0
0-40	32	N / A	11.3
0-60	77	N / A	27.0
0-90	163	N / A	57.1
40-90	130	N / A	45.8
60-90	86	N / A	30.1
90-180	122	N / A	42.9
0-180	285	N / A	100.0

Total Light Output = 285 lm

Signed:

Authorized Signatory

Spacing Criterion: 0-180 2.4
Spacing Criterion: 90-270 2.4

Date of test 6-Mar-2018
Date of report 7-Mar-2018



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Intensity (cd) and Flux (lm) data

Gamma	Intensity	Flux	Gamma	Intensity	Flux
0.0	14.3		90.0	25.9	
2.5	14.8		92.5	25.8	
5.0	15.6	2	95.0	25.8	28
7.5	16.4		97.5	25.6	
10.0	17.2		100.0	25.4	
12.5	18.0		102.5	25.1	
15.0	18.8	5	105.0	24.8	26
17.5	19.6		107.5	24.4	
20.0	20.3		110.0	23.9	
22.5	21.1		112.5	23.4	
25.0	21.8	10	115.0	22.9	23
27.5	22.4		117.5	22.3	
30.0	23.1		120.0	21.7	
32.5	23.7		122.5	21.0	
35.0	24.2	15	125.0	20.2	18
37.5	24.8		127.5	19.5	
40.0	25.3		130.0	18.7	
42.5	25.7		132.5	17.8	
45.0	26.1	20	135.0	16.9	13
47.5	26.5		137.5	16.0	
50.0	26.8		140.0	15.1	
52.5	27.1		142.5	14.1	
55.0	27.3	25	145.0	13.2	8
57.5	27.5		147.5	12.2	
60.0	27.7		150.0	11.2	
62.5	27.8		152.5	10.2	
65.0	27.8	28	155.0	9.2	4
67.5	27.8		157.5	8.1	
70.0	27.8		160.0	7.0	
72.5	27.7		162.5	5.8	
75.0	27.5	29	165.0	4.3	1
77.5	27.3		167.5	2.4	
80.0	27.1		170.0	0.9	
82.5	26.8		172.5	0.1	
85.0	26.5	29	175.0	0.0	0
87.5	26.1		177.5	0.0	
90.0	25.9		180.0	0.0	



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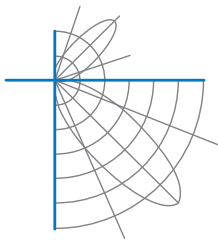
One LTF DA6W150C2040LPD010-0014 dimmable LED driver.

120.0Vac, 60.00Hz, 0.0587A, 6.52W, 0.926PF, 10.8%THD(i)

Coefficients Of 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	
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	63	63	63	57
1	94	88	82	76	87	81	76	71	69	65	61	58	55	52	47	45	43	38
2	84	74	65	58	77	68	61	54	57	52	47	48	43	39	39	35	32	27
3	75	63	54	46	69	58	50	43	49	42	37	41	35	31	33	29	25	21
4	68	55	45	38	62	51	42	35	43	36	30	35	30	25	28	24	20	17
5	62	48	39	31	57	45	36	29	38	30	25	31	25	21	25	20	17	13
6	57	43	33	27	52	40	31	25	33	26	21	28	22	18	22	18	14	11
7	52	38	29	23	48	35	27	21	30	23	18	25	19	15	20	16	12	9
8	48	34	26	20	44	32	24	18	27	20	16	23	17	13	18	14	11	8
9	45	31	23	17	41	29	21	16	25	18	14	21	15	12	17	12	9	7
10	42	29	21	15	39	27	19	14	23	16	12	19	14	10	15	11	8	6

For absolute test reports, CUs are expressed as a percentage of total lumen 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.

Circle of Light Plot			
Height(ft)	Illuminance at Nadir (fc)	Beam Width (across 50% Nadir Illum)	
		0-180	90-270
6.0	0.4	14.28	14.28
8.0	0.2	19.04	19.04
10.0	0.1	23.81	23.81
12.0	0.1	28.57	28.57
14.0	0.1	33.33	33.33
16.0	0.1	38.09	38.09



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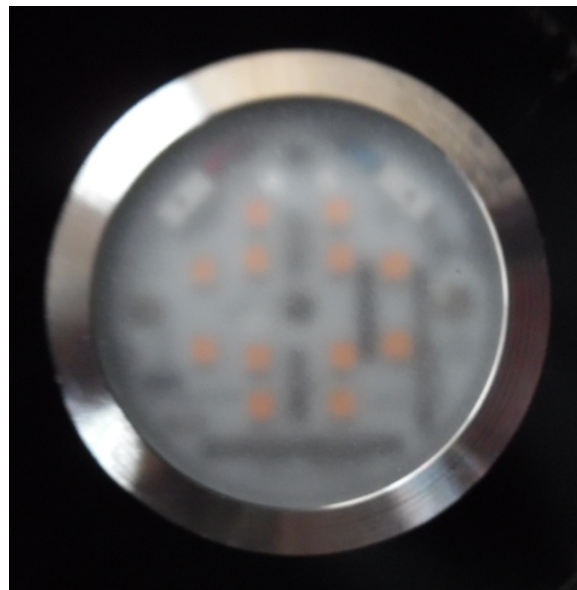
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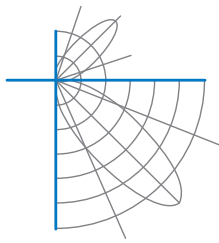
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Test Distance 9.5 m
Test Temperature 25.0 °C

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 publications: IES LM-79-08 (Sec. 12), IES LM-16-93, IES LM-58-13, CIE 13.3:1995, CIE 15:2004, ANSI C78.377:2015, ANSI C82.77-10:2014.

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

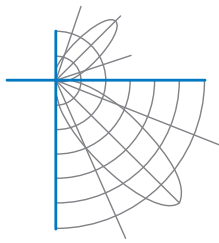
Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the CIE 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

LLIA000954-004B

Integrating Sphere Report

Catalog Number: 3-309-215 Pilar LG

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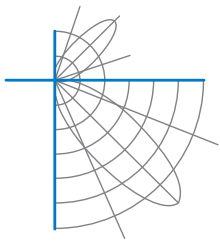
Performance Summary

Voltage	120.0 Vac
Current	0.0585 A
Power	6.52 W
Frequency	59.97 Hz
Power Factor	0.928
Current THD	10.6 %
Total Luminous Flux	288.5 lm
Efficacy	44.2 lm/W
Chromaticity (x,y)	(0.4481, 0.4107)
(u',v')	(0.2549, 0.5256)
Duv	0.0012
CCT	2874 K
CRI (Ra)	96
R9	82
TM-30: Rf	94
TM-30: Rg	100

Prepared For:
Oxygen Lighting
201 Railhead Road
Fort Worth, TX 76106, USA

Test date: 03/06/2018

Report date: 03/07/2018



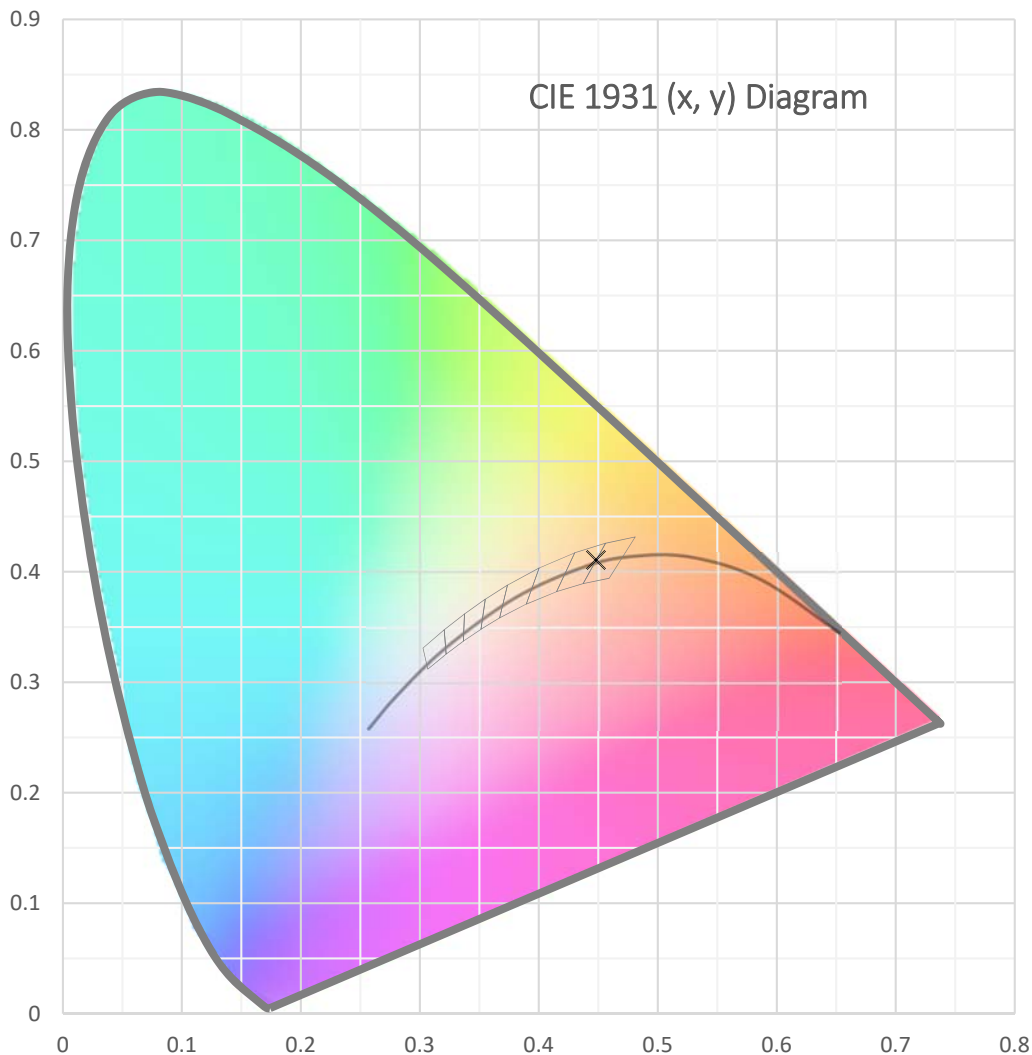
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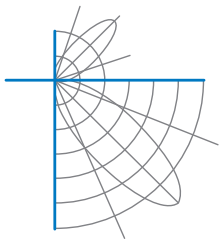
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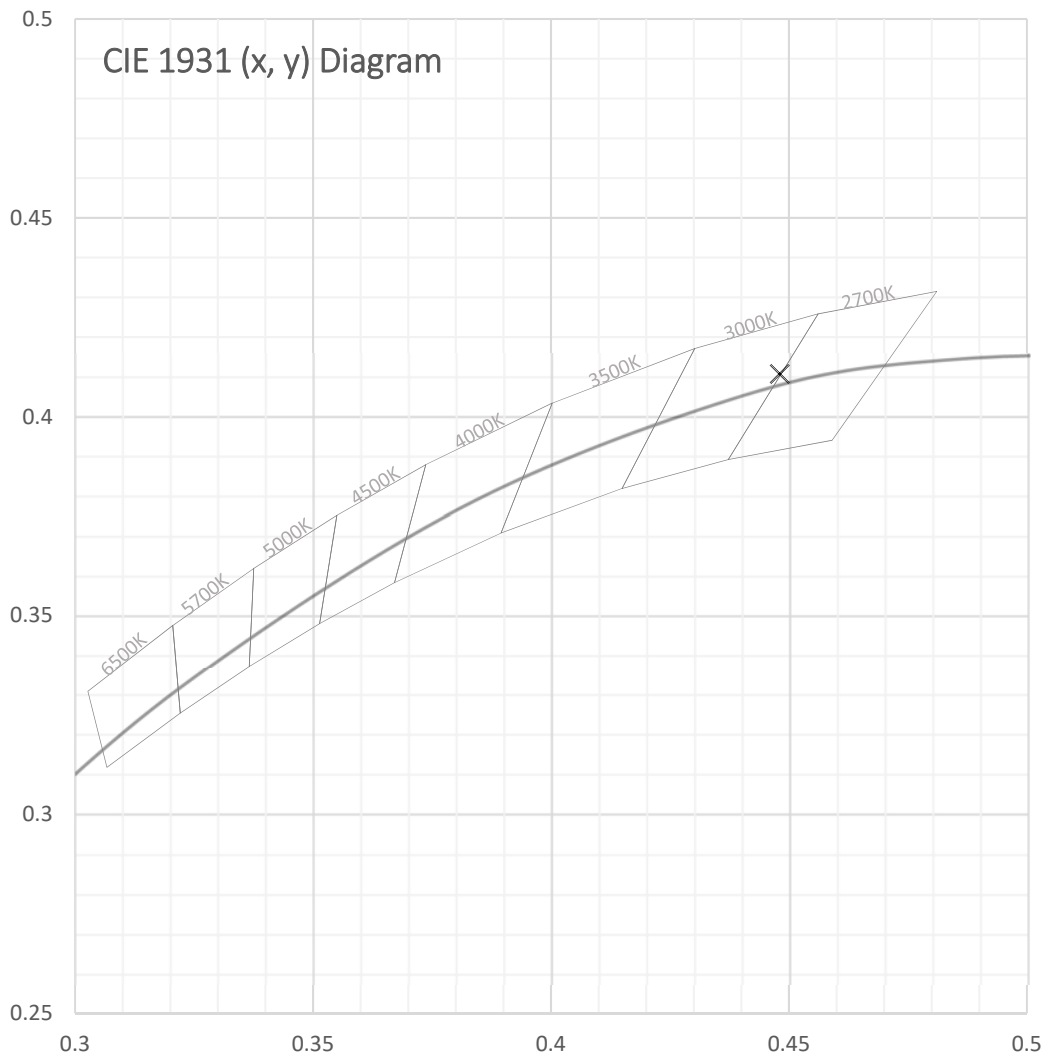
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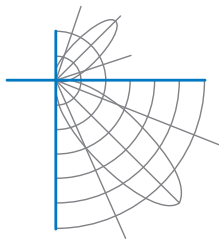
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Spectral Data

Total Radiant Flux	1.073 W
Total Luminous Flux	288.5 Lm
Chromaticity CIE 1931 (x, y)	(0.4481, 0.4107)
Chromaticity CIE 1976 (u', v')	(0.2549, 0.5256)
Correlated Color Temperature (CCT)	2874 K
Color Rendering Index (Ra)	96
R1	97
R2	97
R3	94
R4	97
R5	96
R6	96
R7	98
R8	93
R9	82
R10	91
R11	98
R12	83
R13	97
R14	96
TM-30: Rf	94
TM-30: Rg	100
Distance from Planckian Locus (Duv)	0.0012
Scotopic/Photopic Ratio *	1.360

Electrical Data

Voltage	120.0 Vac
Current	0.0585 A
Power	6.52 W
Frequency	59.97 Hz
Power Factor	0.928
Current THD	10.6 %



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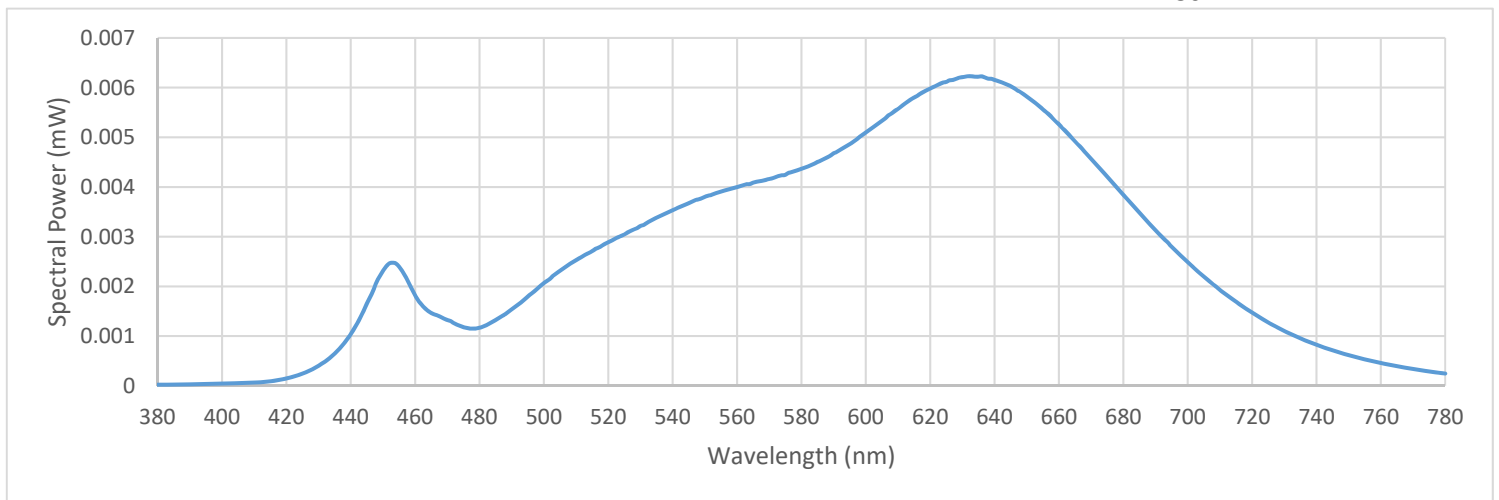
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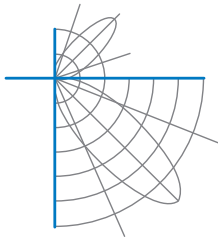
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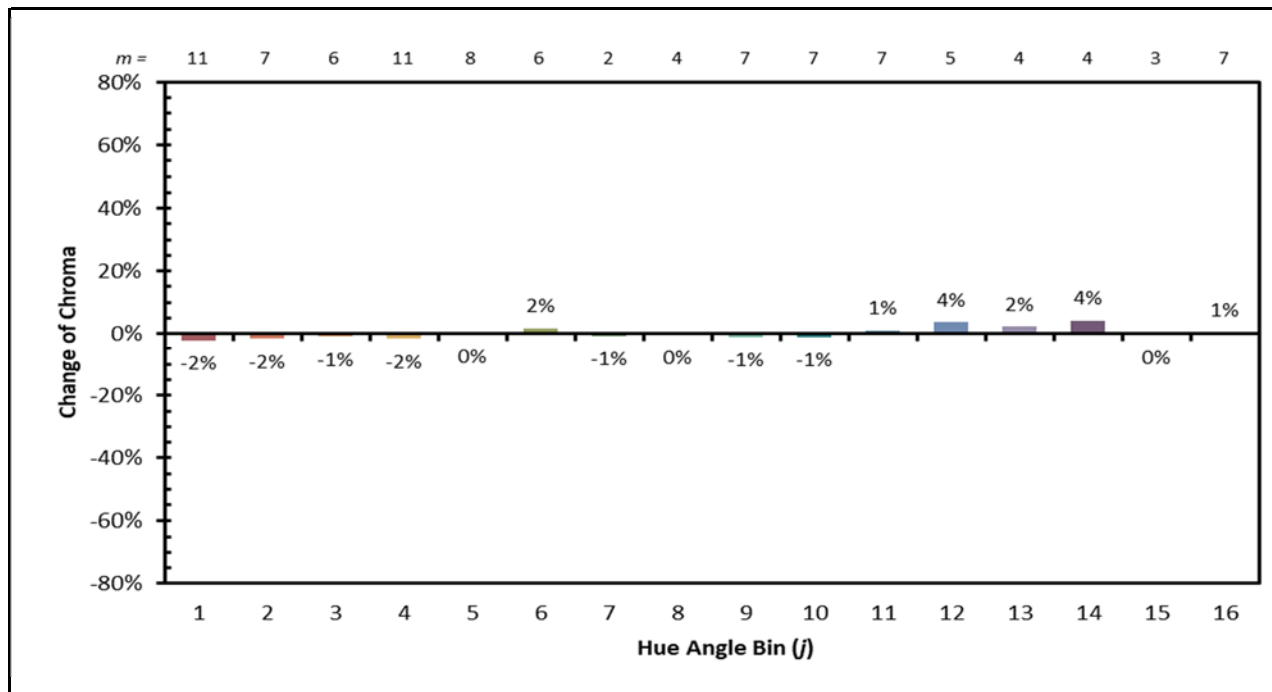
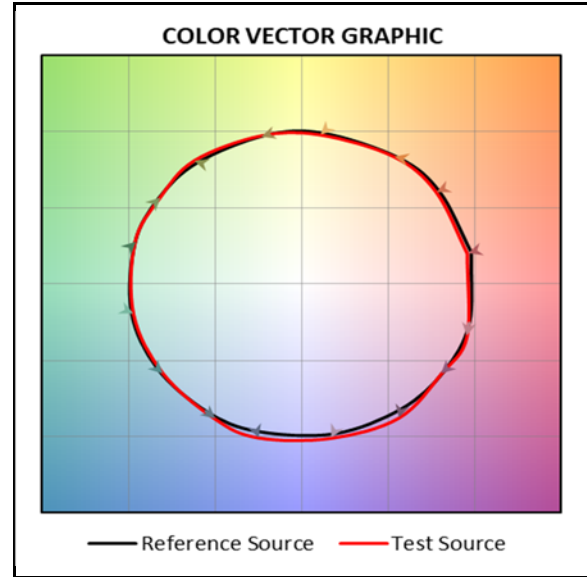
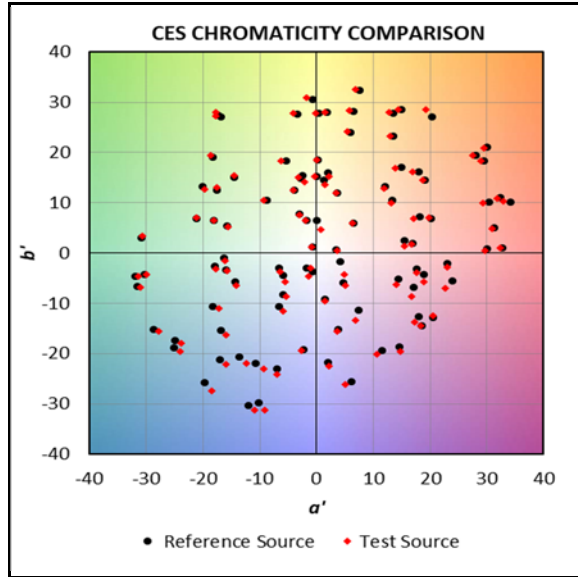
Summary Spectral Power Distribution (wavelength - nm, spectral power - mW)

380	0.000023	480	0.001169	580	0.004369	680	0.003843
385	0.000024	485	0.001326	585	0.004504	685	0.003489
390	0.000029	490	0.001539	590	0.004677	690	0.003133
395	0.000036	495	0.001797	595	0.004865	695	0.002791
400	0.000044	500	0.002068	600	0.005092	700	0.002491
405	0.000053	505	0.002313	605	0.005334	705	0.002195
410	0.000065	510	0.002529	610	0.005569	710	0.001927
415	0.000090	515	0.002709	615	0.005802	715	0.001694
420	0.000148	520	0.002890	620	0.005980	720	0.001471
425	0.000245	525	0.003043	625	0.006115	725	0.001274
430	0.000405	530	0.003217	630	0.006209	730	0.001106
435	0.000652	535	0.003384	635	0.006221	735	0.000955
440	0.001038	540	0.003532	640	0.006155	740	0.000822
445	0.001655	545	0.003673	645	0.006029	745	0.000713
450	0.002311	550	0.003802	650	0.005823	750	0.000617
455	0.002397	555	0.003910	655	0.005562	755	0.000530
460	0.001829	560	0.004003	660	0.005265	760	0.000460
465	0.001464	565	0.004088	665	0.004916	765	0.000394
470	0.001322	570	0.004161	670	0.004565	770	0.000337
475	0.001182	575	0.004246	675	0.004209	775	0.000289
						780	0.000246





IES TM-30 Summary





Test Report Number: LLIA000954-004B

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One LTF DA6W150C2040LPD010-0014 dimmable LED driver.

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

Test Temperature: 25.2 °C

Test Procedure: Tested in accordance with the applicable sections of:
LM-79-08, LM-78-07, LM-58-13, ANSI_ANSLG C78.377-2015,
ANSI C82-77-10:2014, TM-30-15

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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