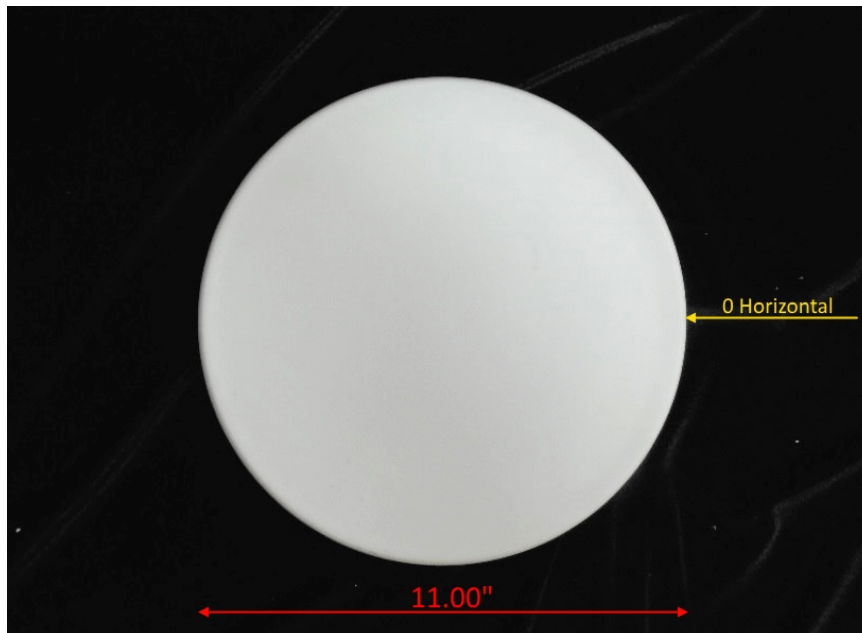




Report of Test

LLIA001067-031A

Catalog Number: 32-631 Zuri Ceiling Mount
Surface ceiling mounted, formed steel housing/reflector,
translucent white glass enclosure.
80 white LEDs, one Fulham Co. Inc. PTL123X2007 ver 1.1 LED board
One Fulham ThoroLED T1M1UNV0700-30L dimmable LED driver.
120.0Vac, 60.00Hz, 0.1986A, 23.55W, 0.991PF, 11.4%THD(i)



Performance Summary

Total Light Output	1328 lm
Luminaire Power	23.5 W
Luminous Efficacy	56.5 lm/W

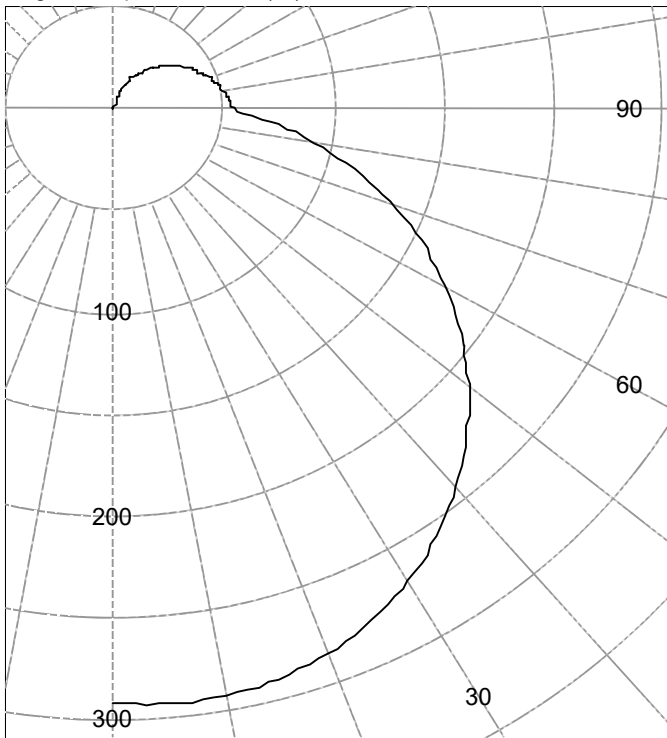
PREPARED FOR : Oxygen Lighting, 201 Railhead Road, Fort Worth, TX 76106, USA



Test Report No. LLIA001067-031A

Catalog Number: 32-631 Zuri Ceiling Mount
Surface ceiling mounted, formed steel housing/reflector,
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120.0Vac, 60.00Hz, 0.1986A, 23.55W, 0.991PF, 11.4%THD(i)

Legend: All planes - Black (cd)



(Rotational symmetry)

AVERAGE LUMINANCE (cd / m²)

Gamma	C0
45.0	4261
55.0	4122
65.0	3975
75.0	3828
85.0	3655

INTENSITY SUMMARY (cd)

Gamma	All Planes	Flux (lm)	Gamma	C0	Flux (lm)
0	292		90	54	
5	293	28	95	53	57
10	293		100	51	
15	290	82	105	48	51
20	285		110	46	
25	277	128	115	43	43
30	268		120	40	
35	256	160	125	37	33
40	242		130	34	
45	227	175	135	30	24
50	210		140	27	
55	193	172	145	23	14
60	174		150	19	
65	154	152	155	15	7
70	134		160	11	
75	113	120	165	7	2
80	92		170	3	
85	71	78	175	1	0
90	54		180	0	

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	%Lamp	%Luminaire
0-30	238	N / A	17.9
0-40	398	N / A	30.0
0-60	746	N / A	56.2
0-90	1096	N / A	82.5
40-90	698	N / A	52.5
60-90	350	N / A	26.4
90-180	232	N / A	17.5
0-180	1328	N / A	100.0

Total Light Output = 1,328 lm

Spacing Criterion: 0-180 1.4
Spacing Criterion: 90-270 1.4

Signed:

Authorized Signatory

Date of test 8-Jan-2019
Date of report 10-Jan-2019



Test Report No. LLIA001067-031A

Catalog Number: 32-631 Zuri Ceiling Mount
Surface ceiling mounted, formed steel housing/reflector,
translucent white glass enclosure.

80 white LEDs, one Fulham Co. Inc. PTL123X2007 ver 1.1 LED board
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120.0Vac, 60.00Hz, 0.1986A, 23.55W, 0.991PF, 11.4%THD(i)

Intensity (cd) and Flux (lm) data

Gamma	Intensity	Flux	Gamma	Intensity	Flux
0.0	292		90.0	54	
2.5	293		92.5	53	
5.0	293	28	95.0	53	57
7.5	293		97.5	52	
10.0	293		100.0	51	
12.5	292		102.5	50	
15.0	290	82	105.0	48	51
17.5	288		107.5	47	
20.0	285		110.0	46	
22.5	281		112.5	45	
25.0	277	128	115.0	43	43
27.5	273		117.5	42	
30.0	268		120.0	40	
32.5	262		122.5	39	
35.0	256	160	125.0	37	33
37.5	249		127.5	36	
40.0	242		130.0	34	
42.5	235		132.5	32	
45.0	227	175	135.0	30	24
47.5	219		137.5	28	
50.0	210		140.0	27	
52.5	202		142.5	25	
55.0	193	172	145.0	23	14
57.5	183		147.5	21	
60.0	174		150.0	19	
62.5	164		152.5	17	
65.0	154	152	155.0	15	7
67.5	144		157.5	13	
70.0	134		160.0	11	
72.5	124		162.5	9	
75.0	113	120	165.0	7	2
77.5	103		167.5	5	
80.0	92		170.0	3	
82.5	82		172.5	2	
85.0	71	78	175.0	1	0
87.5	61		177.5	0	
90.0	54		180.0	0	



Test Number: LLIA001067-031A

Catalog Number: 32-631 Zuri Ceiling Mount

Surface ceiling mounted, formed steel housing/reflector,
translucent white glass enclosure.

80 white LEDs, one Fulham Co. Inc. PTL123X2007 ver 1.1 LED board

One Fulham ThoroLED T1M1UNV0700-30L dimmable LED driver.

120.0Vac, 60.00Hz, 0.1986A, 23.55W, 0.991PF, 11.4%THD(i)

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	83
1	102	97	92	87	98	93	88	84	85	81	78	78	75	73	72	70	67	64
2	92	83	75	69	88	79	73	67	73	67	62	67	62	58	62	58	55	51
3	83	72	63	56	79	69	61	54	64	57	51	58	53	48	54	49	45	42
4	76	63	54	47	72	61	52	46	56	49	43	52	45	41	47	42	38	35
5	70	56	47	40	66	54	45	39	50	42	37	46	40	35	42	37	33	30
6	64	50	41	34	61	48	40	33	45	37	32	41	35	30	38	33	29	26
7	59	45	36	30	56	44	35	29	41	33	28	38	31	26	35	29	25	23
8	55	41	32	26	52	40	32	26	37	30	25	34	28	24	32	26	22	20
9	51	38	29	24	49	36	28	23	34	27	22	32	25	21	29	24	20	18
10	48	35	27	21	46	33	26	21	31	25	20	29	23	19	27	22	18	16

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.

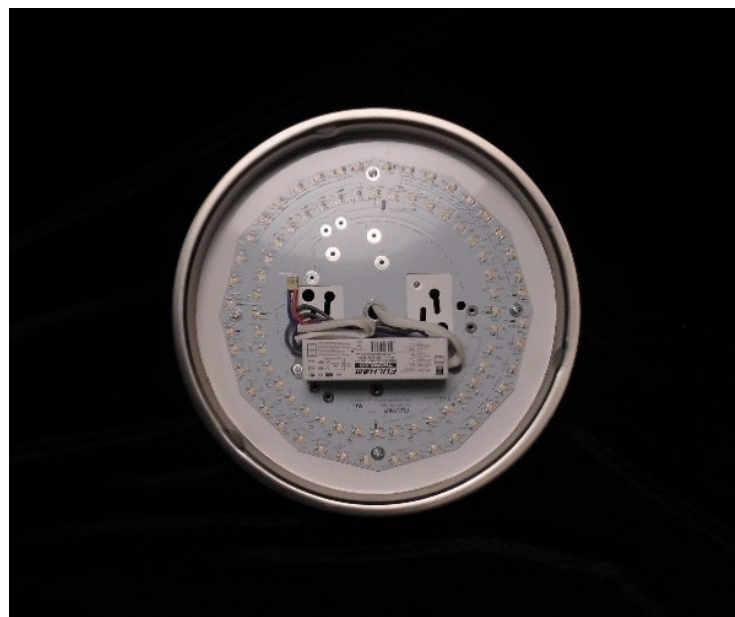
Circle of Light Plot

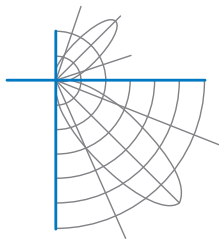
Height(ft)	Illuminance at Nadir (fc)	Beam Width (across 50% Nadir Illum)	
		0-180	90-270
6.0	8.1	8.14	8.14
8.0	4.6	10.85	10.85
10.0	2.9	13.57	13.57
12.0	2.0	16.28	16.28
14.0	1.5	19.00	19.00
16.0	1.1	21.71	21.71



Test Report No. LLIA001067-031A

Catalog Number: 32-631 Zuri Ceiling Mount
Surface ceiling mounted, formed steel housing/reflector,
translucent white glass enclosure.
80 white LEDs, one Fulham Co. Inc. PTL123X2007 ver 1.1 LED board
One Fulham ThoroLED T1M1UNV0700-30L dimmable LED driver.
120.0Vac, 60.00Hz, 0.1986A, 23.55W, 0.991PF, 11.4%THD(i)





Test Report No. LLIA001067-031A

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80 white LEDs, one Fulham Co. Inc. PTL123X2007 ver 1.1 LED board
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120.0Vac, 60.00Hz, 0.1986A, 23.55W, 0.991PF, 11.4%THD(i)

Test Distance 9.5 m
Test Temperature 24.8 °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

LLIA001067-031B

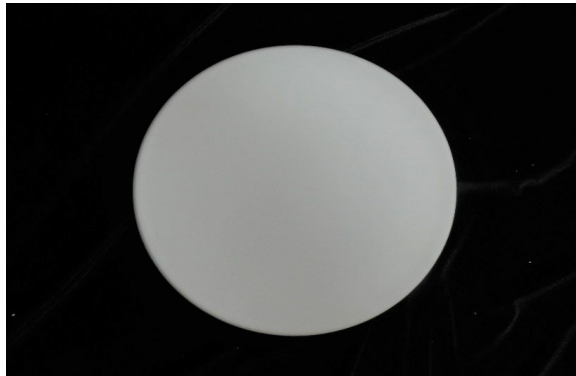
Integrating Sphere Report

Catalog Number: 32-631 Zuri Ceiling Mount

Surface ceiling mounted, formed steel housing/reflector,
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80 white LEDs, one Fulham Co. Inc. PTL123X2007 ver 1.1 LED board

One Fulham ThoroLED T1M1UNV0700-30L dimmable LED driver.



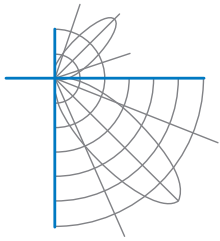
Performance Summary

Voltage	120.0 Vac
Current	0.1978 A
Power	23.53 W
Frequency	59.99 Hz
Power Factor	0.991
Current THD	11.5 %

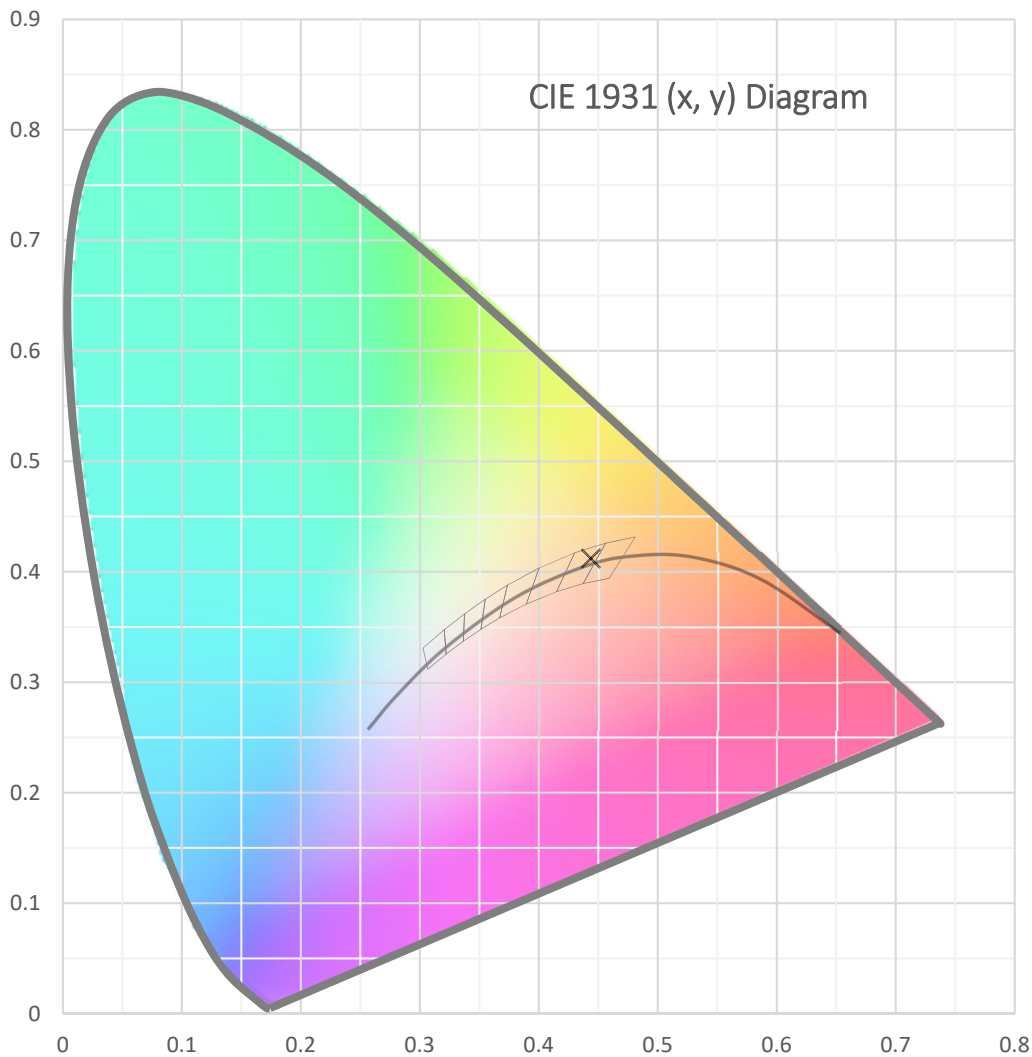
Total Luminous Flux	1329.3 lm
Efficacy	56.5 lm/W
Chromaticity (x,y)	(0.4437, 0.4119)
(u',v')	(0.2516, 0.5254)
Duv	0.0022
CCT	2951 K
CRI (Ra)	93
R9	58
TM-30: Rf	92
TM-30: Rg	99

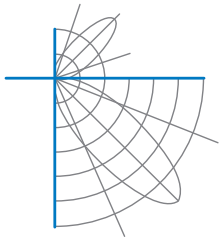
Prepared For:
Oxygen Lighting
201 Railhead Road
Fort Worth, TX 76106, USA

Test date: 01/08/2018
Report date: 01/09/2019

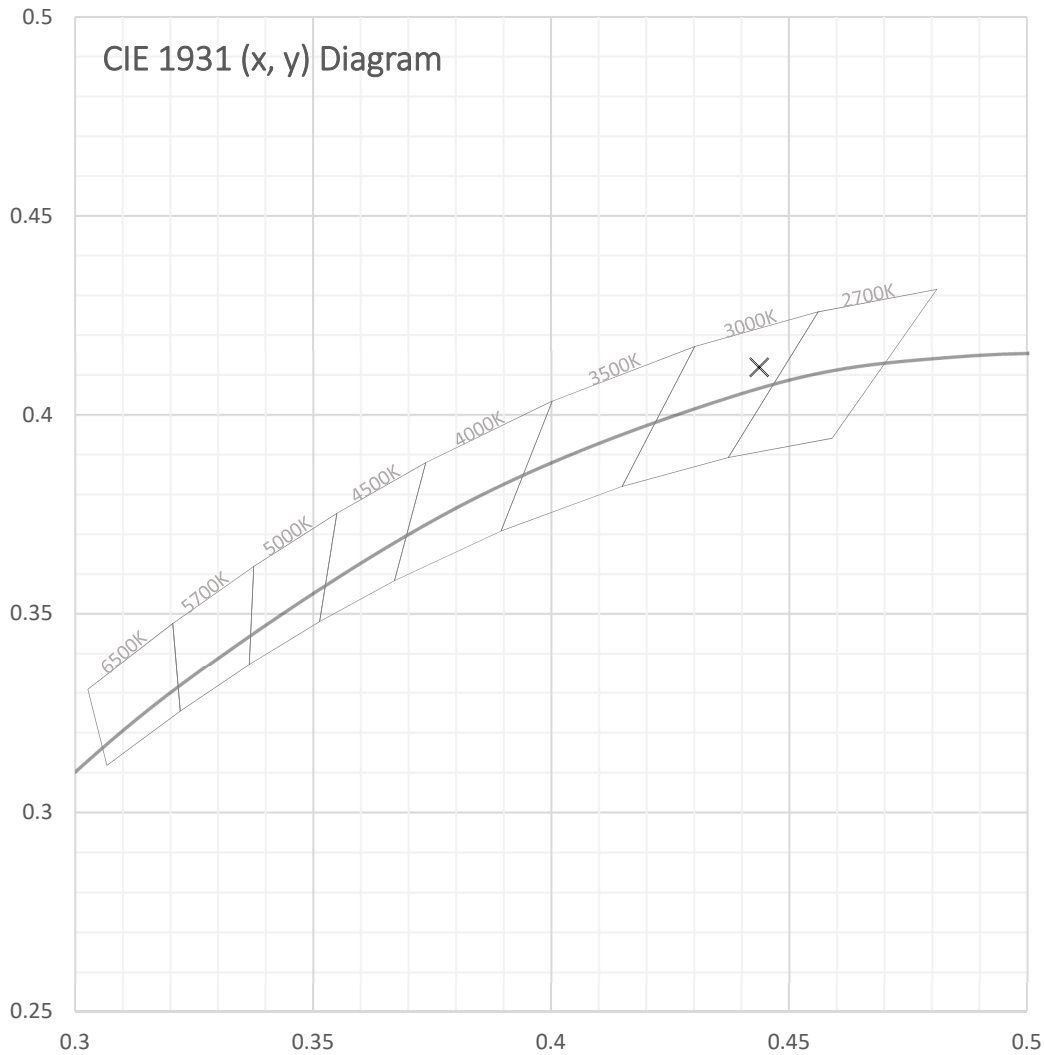


Test Report Number: LLIA001067-031B
Catalog Number: 32-631 Zuri Ceiling Mount
Surface ceiling mounted, formed steel housing/reflector,
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80 white LEDs, one Fulham Co. Inc. PTL123X2007 ver 1.1 LED board

One Fulham ThoroLED T1M1UNV0700-30L dimmable LED driver.

Spectral Data

Total Radiant Flux	4.580 W
Total Luminous Flux	1329.3 Lm
Chromaticity CIE 1931 (x, y)	(0.4437, 0.4119)
Chromaticity CIE 1976 (u', v')	(0.2516, 0.5254)
Correlated Color Temperature (CCT)	2951 K
Color Rendering Index (Ra)	93
R1	94
R2	96
R3	97
R4	96
R5	93
R6	96
R7	93
R8	82
R9	58
R10	89
R11	97
R12	80
R13	95
R14	97
TM-30: Rf	92
TM-30: Rg	99
Distance from Planckian Locus (Duv)	0.0022
Scotopic/Photopic Ratio *	1.377

Electrical Data

Voltage	120.0 Vac
Current	0.1978 A
Power	23.53 W
Frequency	59.99 Hz
Power Factor	0.991
Current THD	11.5 %



Test Report Number: LLIA001067-031B

Catalog Number: 32-631 Zuri Ceiling Mount

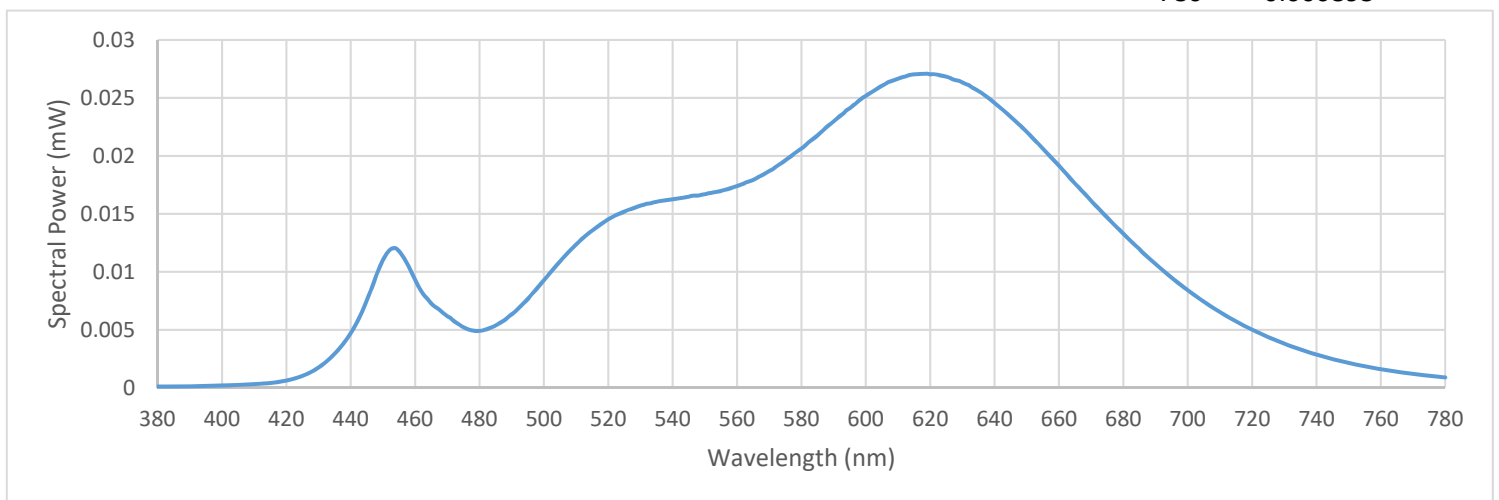
Surface ceiling mounted, formed steel housing/reflector,
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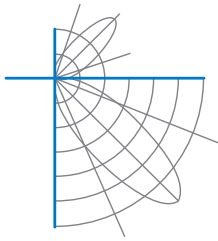
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One Fulham ThoroLED T1M1UNV0700-30L dimmable LED driver.

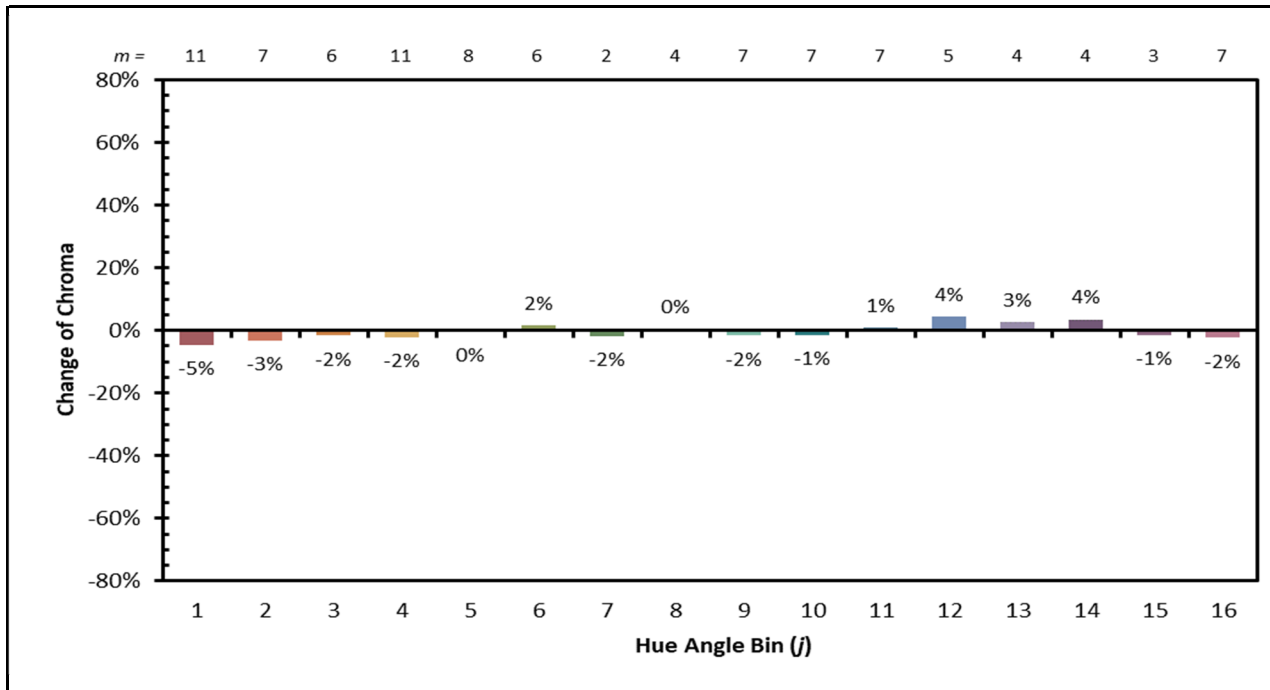
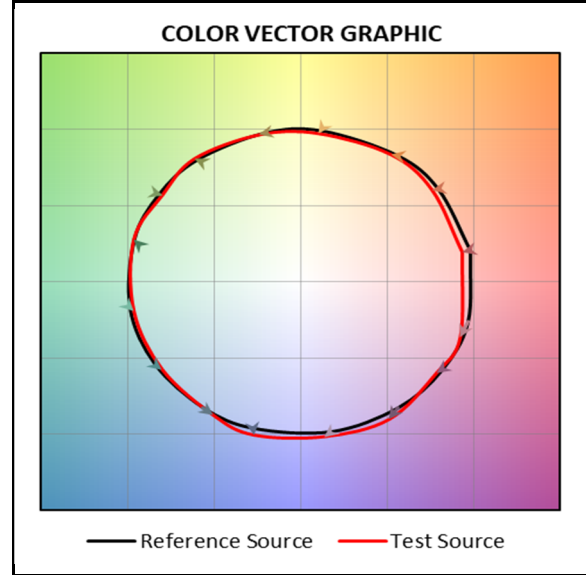
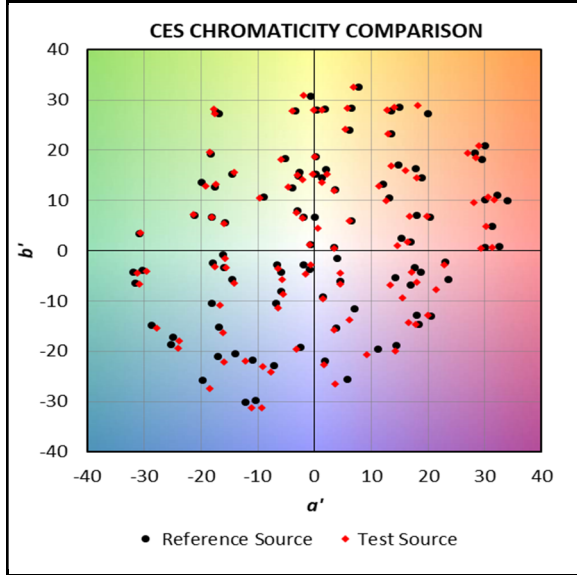
Summary Spectral Power Distribution (wavelength - nm, spectral power - mW)

380	0.000104	480	0.004909	580	0.020634	680	0.013272
385	0.000107	485	0.005367	585	0.021765	685	0.011967
390	0.000129	490	0.006333	590	0.022960	690	0.010662
395	0.000156	495	0.007639	595	0.024094	695	0.009480
400	0.000193	500	0.009290	600	0.025172	700	0.008428
405	0.000244	505	0.010888	605	0.026060	705	0.007425
410	0.000312	510	0.012368	610	0.026677	710	0.006519
415	0.000419	515	0.013557	615	0.027017	715	0.005726
420	0.000628	520	0.014536	620	0.027036	720	0.005013
425	0.001026	525	0.015196	625	0.026840	725	0.004374
430	0.001766	530	0.015705	630	0.026338	730	0.003811
435	0.002940	535	0.016044	635	0.025586	735	0.003310
440	0.004696	540	0.016260	640	0.024571	740	0.002860
445	0.007564	545	0.016480	645	0.023380	745	0.002473
450	0.011013	550	0.016689	650	0.022061	750	0.002140
455	0.011776	555	0.016975	655	0.020602	755	0.001849
460	0.009341	560	0.017398	660	0.019160	760	0.001609
465	0.007270	565	0.017932	665	0.017604	765	0.001388
470	0.006174	570	0.018697	670	0.016120	770	0.001197
475	0.005218	575	0.019611	675	0.014698	775	0.001036
						780	0.000895





IES TM-30 Summary





Test Report Number: LLIA001067-031B

Catalog Number: 32-631 Zuri Ceiling Mount

Surface ceiling mounted, formed steel housing/reflector,
translucent white glass enclosure.

80 white LEDs, one Fulham Co. Inc. PTL123X2007 ver 1.1 LED board

One Fulham ThoroLED T1M1UNV0700-30L 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: 25.1 °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
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