

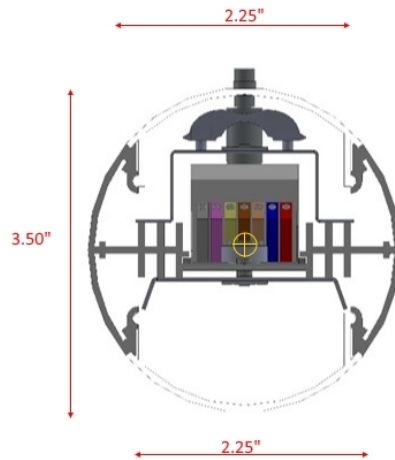


Report of Test

LLIA000930-007A

Catalog Number: AR300-I/D-MO/MO-K40-80--4-XX-WSCL/LOH-XXXX-120

Pendant mounted, extruded aluminum housing, formed white aluminum reflector trays, clear plastic upper enclosure and frosted plastic lower enclosure.
90 white upper LEDs with clear, lightly frosted plastic optics above, 96 white lower LEDs.
One Osram Optotronic OT50W/PRG1400C/UNV/DIM/L LED driver
120.0Vac, 60.00Hz, 0.3028A, 36.15W, 0.995PF, 7.7%THD(i)



Performance Summary

Total Light Output	4933 lm
Luminaire Power	36.1 W
Luminous Efficacy	136.6 lm/W

PREPARED FOR : Precision Architectural Lighting, 4830 Timber Creek Drive, Houston, TX 77017



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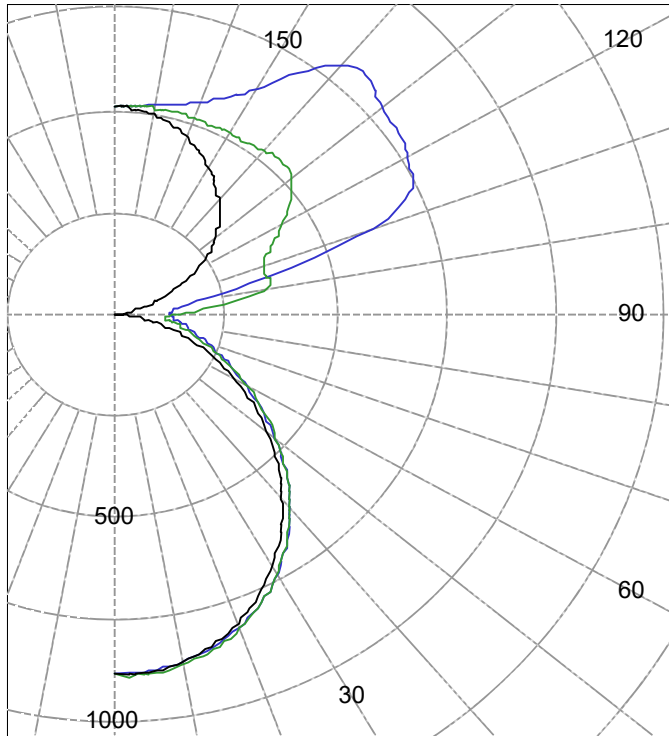
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Legend: C0-Black, C45-Green, C90-Blue (cd)



(Two plane symmetry) C0-C90

INTENSITY SUMMARY (cd)

Gamma	C-Plane					Flux (lm)
	C0	C22.5	C45	C67.5	C90	
0.0	888	888	888	888	888	
5.0	883	879	888	886	880	84
10.0	868	864	875	874	868	
15.0	843	841	853	853	848	239
20.0	808	808	822	824	818	
25.0	764	764	783	786	781	357
30.0	712	713	732	739	734	
35.0	655	656	676	683	679	419
40.0	588	594	614	620	615	
45.0	519	525	547	551	545	415
50.0	448	456	477	479	472	
55.0	377	387	406	406	401	356
60.0	307	320	339	339	336	
65.0	239	256	276	280	279	266
70.0	176	196	221	230	231	
75.0	116	141	175	188	191	175
80.0	64	96	139	155	159	
85.0	25	63	117	131	135	110
90.0	1	46	133	122	123	

AVERAGE LUMINANCE (cd / m²)

Gamma	C0	C45	C90
45.0	10451	9520	9034
55.0	9306	8218	7595
65.0	7971	6904	6380
75.0	6189	5961	5742
85.0	3634	6589	6183

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	% Lamp	% Luminaire
0-30	680	N / A	13.8
0-40	1099	N / A	22.3
0-60	1870	N / A	37.9
0-90	2422	N / A	49.1
40-90	1323	N / A	26.8
60-90	552	N / A	11.2
90-180	2511	N / A	50.9
0-180	4933	N / A	100.0

Total Light Output = 4,933 lm

Spacing Criterion:	0-180	1.2
Spacing Criterion:	90-270	1.2

Signed:

Authorized Signatory

Date of test 24-Jan-2018
Date of report 25-Jan-2018



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Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
0.0	888	888	888	888	888
2.5	887	883	891	889	883
5.0	883	879	888	886	880
7.5	876	873	883	881	875
10.0	868	864	875	874	868
12.5	857	854	865	865	859
15.0	843	841	853	853	848
17.5	829	826	839	840	834
20.0	808	808	822	824	818
22.5	786	786	803	806	801
25.0	764	764	783	786	781
27.5	739	739	759	763	759
30.0	712	713	732	739	734
32.5	684	685	705	713	708
35.0	655	656	676	683	679
37.5	622	626	646	652	648
40.0	588	594	614	620	615
42.5	554	559	581	586	581
45.0	519	525	547	551	545
47.5	485	491	512	515	509
50.0	448	456	477	479	472
52.5	412	422	442	442	436
55.0	377	387	406	406	401
57.5	341	353	372	372	368
60.0	307	320	339	339	336
62.5	273	288	306	309	306
65.0	239	256	276	280	279
67.5	207	225	248	254	254
70.0	176	196	221	230	231
72.5	145	167	197	208	210
75.0	116	141	175	188	191
77.5	89	117	155	171	174
80.0	64	96	139	155	159
82.5	43	78	125	141	146
85.0	25	63	117	131	135
87.5	11	53	118	124	127
90.0	1	46	133	122	123



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Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
90.0	1	46	133	122	123
92.5	3	44	166	129	123
95.0	9	46	222	148	133
97.5	17	53	292	182	161
100.0	28	64	344	235	205
102.5	42	77	359	329	263
105.0	59	92	356	467	363
107.5	79	112	355	590	503
110.0	101	135	358	669	623
112.5	124	161	369	701	703
115.0	150	188	388	706	743
117.5	176	216	410	706	757
120.0	203	243	433	707	768
122.5	229	269	460	707	777
125.0	254	293	485	709	782
127.5	276	316	506	714	785
130.0	296	337	522	727	792
132.5	315	357	531	739	803
135.0	331	374	533	745	815
137.5	347	389	530	737	816
140.0	362	402	526	716	799
142.5	377	414	520	685	767
145.0	391	425	516	652	725
147.5	404	435	514	622	681
150.0	418	446	514	595	643
152.5	431	455	514	575	611
155.0	443	464	513	561	586
157.5	455	472	513	552	570
160.0	465	479	513	543	557
162.5	475	485	514	535	545
165.0	484	491	515	529	535
167.5	491	496	515	526	529
170.0	497	500	514	522	524
172.5	502	503	513	517	518
175.0	506	505	513	514	513
177.5	509	506	512	511	509
180.0	508	508	508	508	508



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Coefficients Of Utilization - Zonal Cavity Method

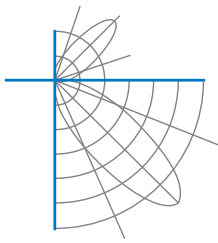
Effective Floor Cavity Reflectance 0.20

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
0	107	107	107	107	99	99	99	99	83	83	83	68	68	68	55	55	55	49
1	97	92	88	85	89	85	82	79	72	69	67	59	58	56	48	47	46	40
2	88	81	74	69	81	74	69	64	63	59	55	52	49	46	42	40	38	33
3	80	71	63	57	74	65	59	54	55	50	46	46	42	39	37	35	32	28
4	74	63	55	48	67	58	51	45	49	44	39	41	37	34	33	30	28	24
5	68	56	48	41	62	52	44	39	44	38	34	37	32	29	30	27	24	21
6	62	50	42	36	57	46	39	34	40	34	30	33	29	25	27	24	21	18
7	58	45	37	32	53	42	35	30	36	30	26	30	26	23	25	22	19	16
8	53	41	33	28	49	38	31	26	33	27	23	28	23	20	23	20	17	15
9	50	37	30	25	46	35	28	23	30	25	21	25	21	18	21	18	15	13
10	46	34	27	22	43	32	25	21	28	22	19	23	19	16	20	16	14	12

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

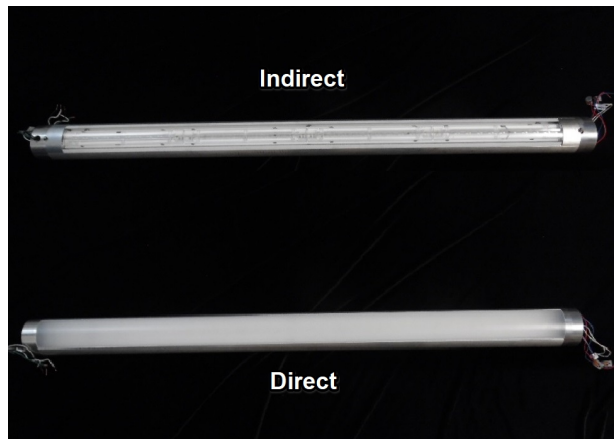
Height(ft)	Illuminance at Nadir (fc)	Beam Width (across 50% Nadir Illum)	
		0-180	90-270
6.0	24.7	7.18	7.37
8.0	13.9	9.57	9.83
10.0	8.9	11.96	12.29
12.0	6.2	14.35	14.75
14.0	4.5	16.74	17.20
16.0	3.5	19.14	19.66



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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

LLIA000930-007B

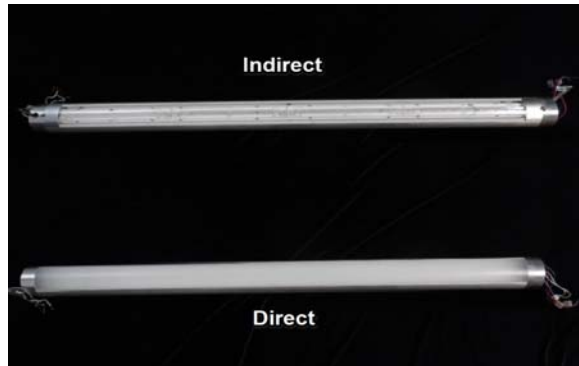
Integrating Sphere Report

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Performance Summary

Voltage	120.0 Vac
Current	0.3027 A
Power	36.13 W
Frequency	59.97 Hz
Power Factor	0.995
Current THD	7.7 %

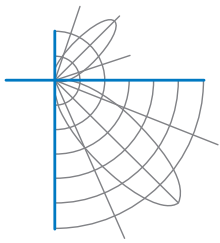
Total Luminous Flux	4896.2 lm
Efficacy	135.5 lm/W
Chromaticity (x,y)	(0.3796, 0.3755)
(u',v')	(0.2251, 0.5009)
Duv	-0.0003
CCT	4013 K
CRI (Ra)	85
R9	18
TM-30: Rf	83
TM-30: Rg	95

Prepared For:

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

Test date: 01/19/2018

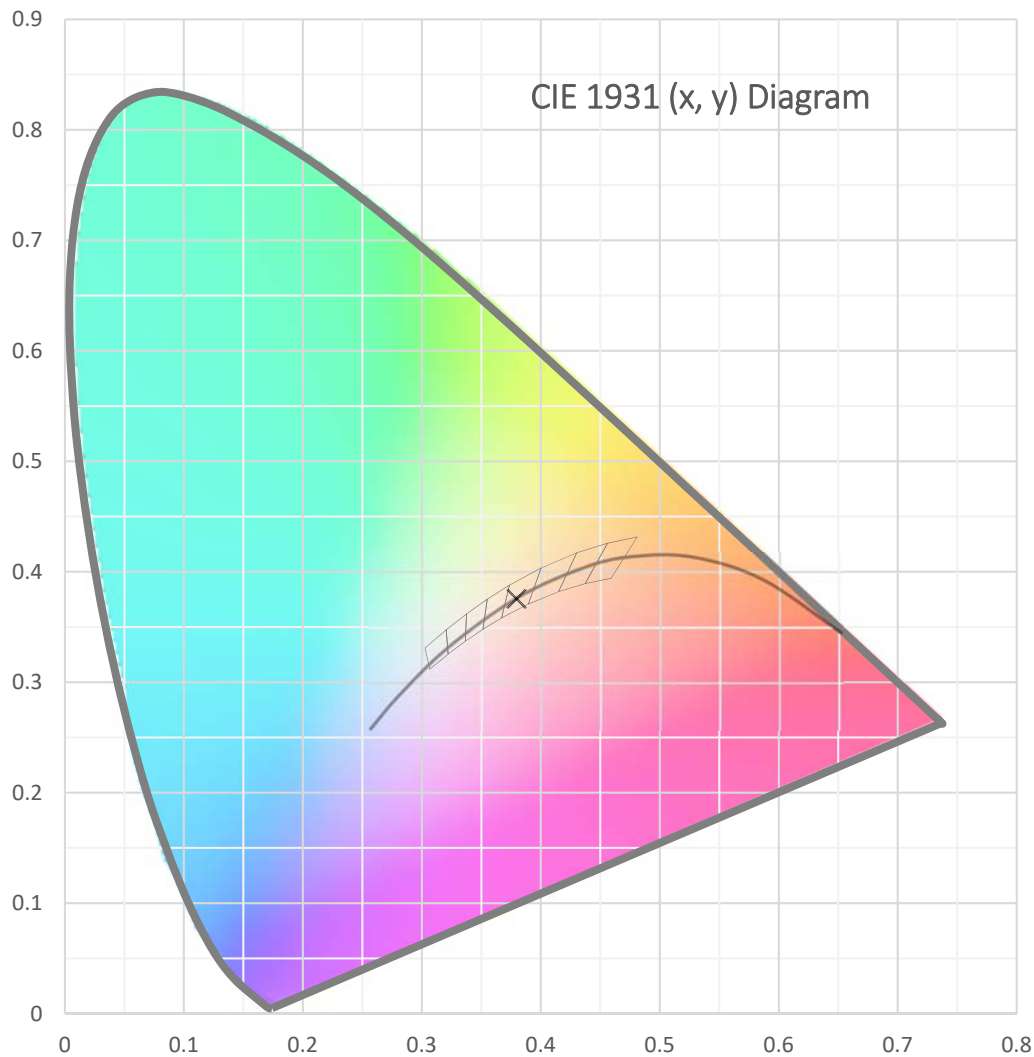
Report date: 01/24/2018

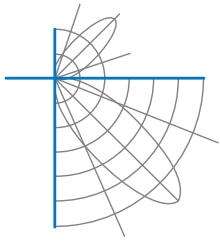


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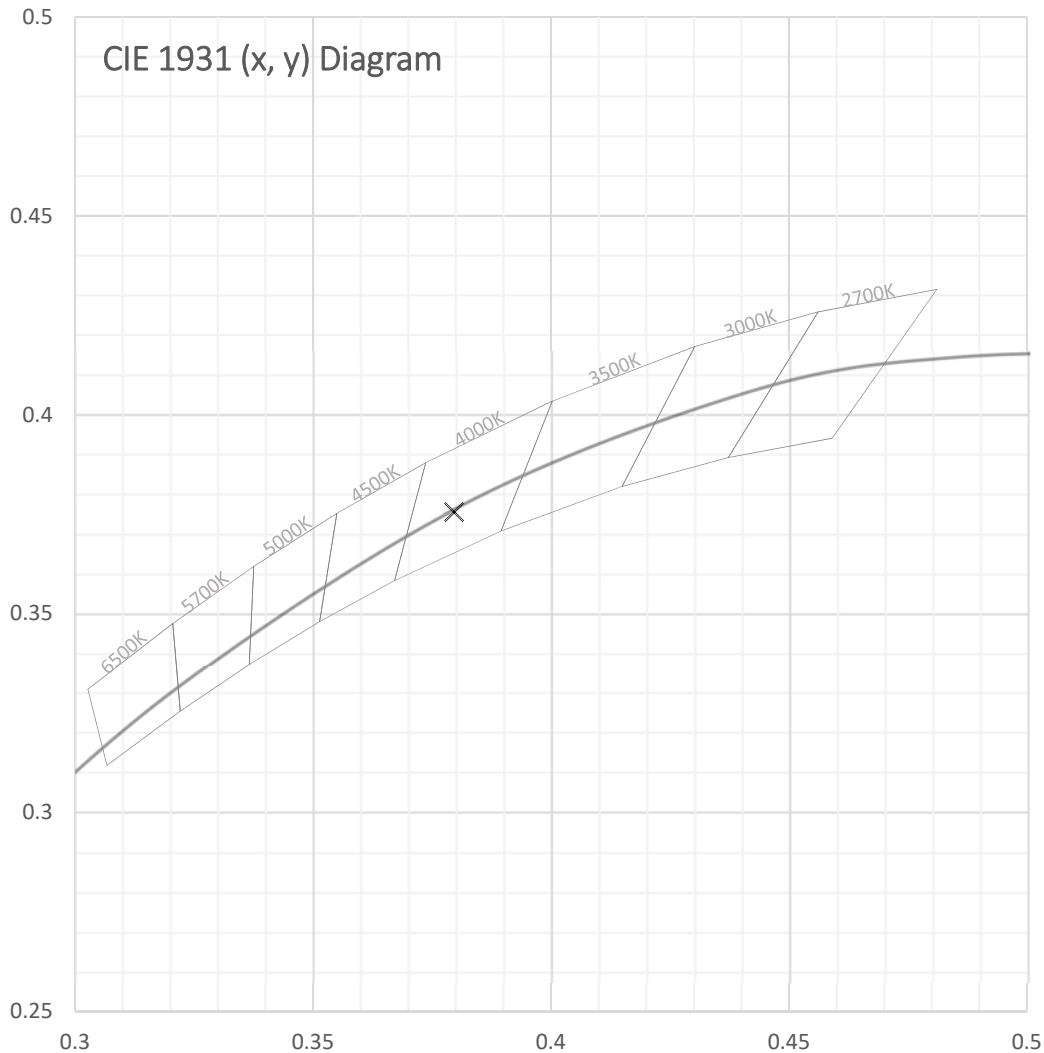


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Spectral Data

Total Radiant Flux	15.26 W
Total Luminous Flux	4896.2 Lm
Chromaticity CIE 1931 (x, y)	(0.3796, 0.3755)
Chromaticity CIE 1976 (u', v')	(0.2251, 0.5009)
Correlated Color Temperature (CCT)	4013 K
Color Rendering Index (Ra)	85
R1	83
R2	91
R3	95
R4	82
R5	83
R6	87
R7	87
R8	68
R9	18
R10	78
R11	81
R12	62
R13	85
R14	98
TM-30: Rf	83
TM-30: Rg	95
Distance from Planckian Locus (Duv)	-0.0003
Scotopic/Photopic Ratio *	1.716

Electrical Data

Voltage	120.0 Vac
Current	0.3027 A
Power	36.13 W
Frequency	59.97 Hz
Power Factor	0.995
Current THD	7.7 %



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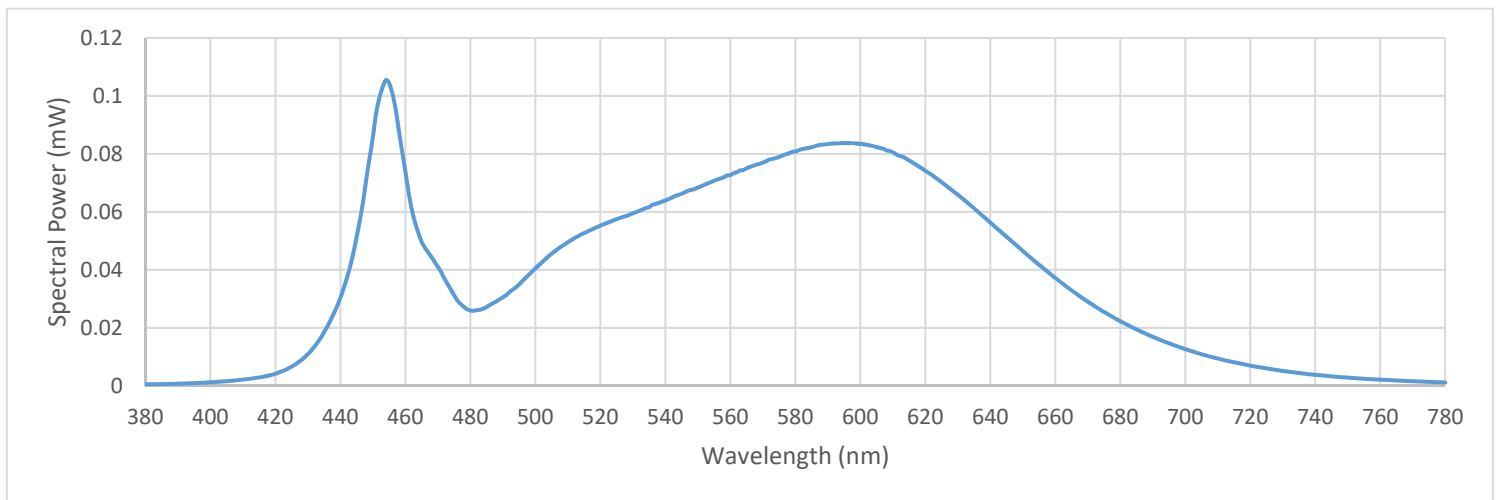
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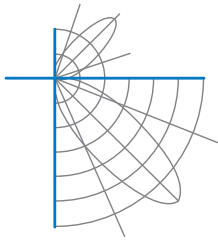
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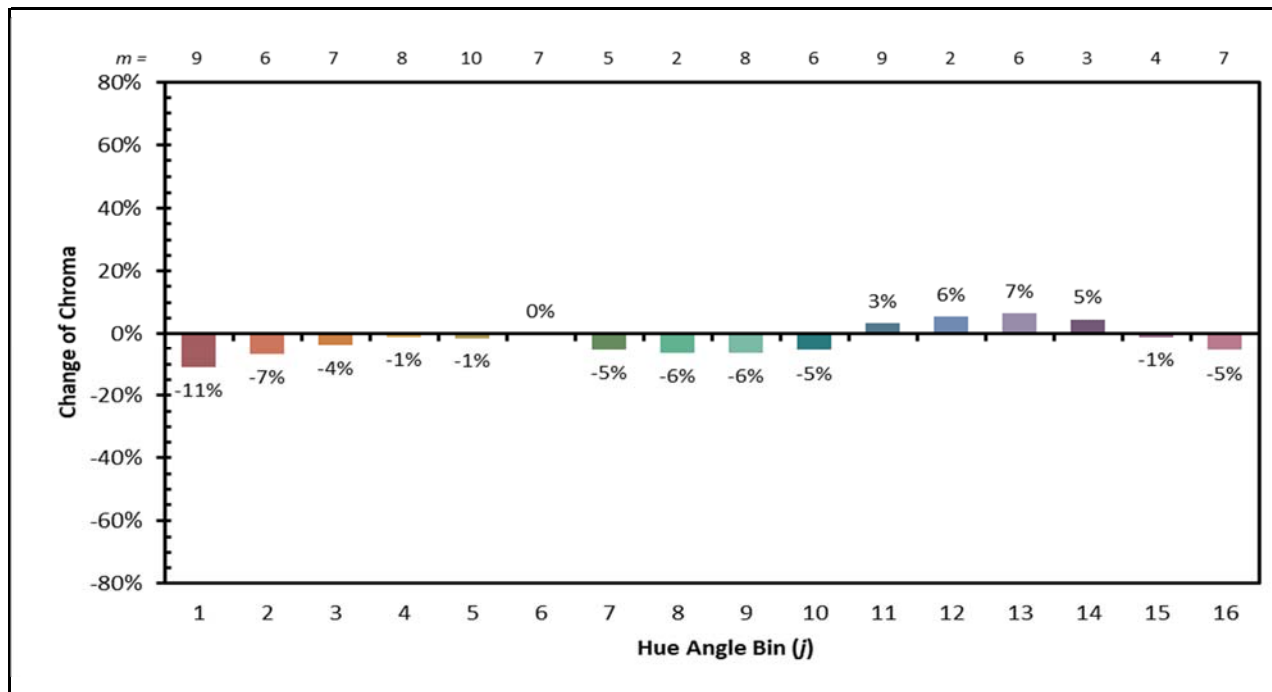
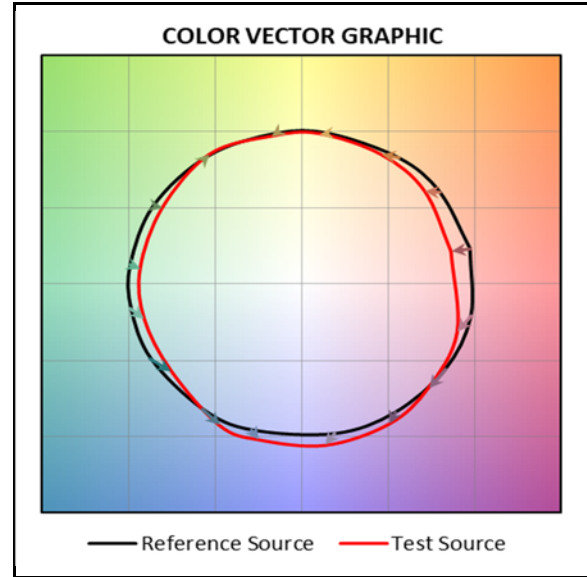
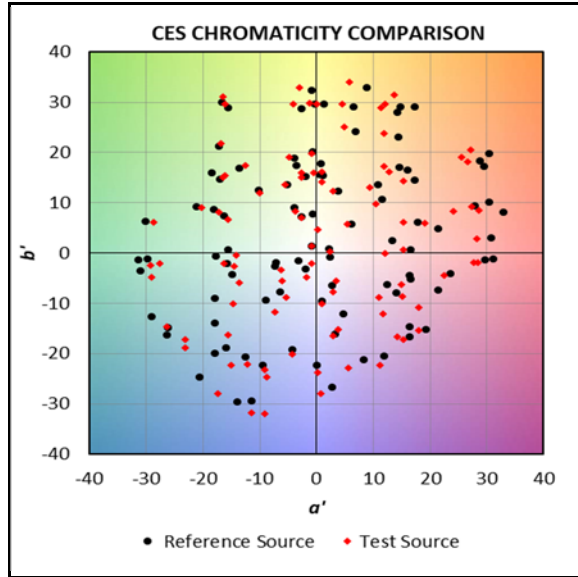
Summary Spectral Power Distribution (wavelength - nm, spectral power - mW)

380	0.000523	480	0.025978	580	0.080817	680	0.022278
385	0.000558	485	0.027190	585	0.082314	685	0.019426
390	0.000698	490	0.030550	590	0.083371	690	0.016872
395	0.000896	495	0.034989	595	0.083732	695	0.014631
400	0.001206	500	0.040559	600	0.083448	700	0.012657
405	0.001601	505	0.045591	605	0.082319	705	0.010909
410	0.002121	510	0.049534	610	0.080551	710	0.009380
415	0.002845	515	0.052756	615	0.077728	715	0.008087
420	0.004208	520	0.055293	620	0.074221	720	0.006955
425	0.006579	525	0.057417	625	0.070292	725	0.005962
430	0.010929	530	0.059512	630	0.065815	730	0.005133
435	0.018510	535	0.061625	635	0.061301	735	0.004392
440	0.030353	540	0.063962	640	0.056269	740	0.003775
445	0.051278	545	0.066218	645	0.051409	745	0.003254
450	0.085859	550	0.068399	650	0.046431	750	0.002799
455	0.104412	555	0.070805	655	0.041727	755	0.002414
460	0.073874	560	0.072682	660	0.037171	760	0.002099
465	0.049615	565	0.074994	665	0.032925	765	0.001806
470	0.041051	570	0.077006	670	0.028966	770	0.001553
475	0.031158	575	0.078949	675	0.025476	775	0.001342
						780	0.001161





IES TM-30 Summary





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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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