



Report of Test

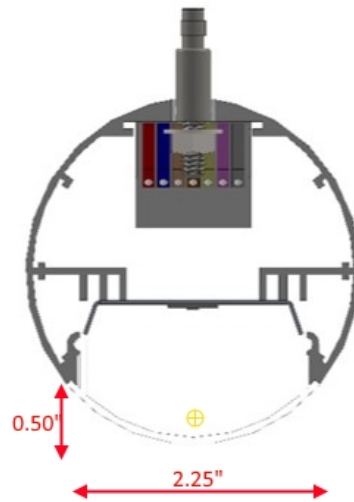
LLIA000930-002A

Catalog Number: AR300-D-HO-K40-80--4-XX-LOH-XXXX-120

Pendant mounted, extruded aluminum housing, formed white aluminum reflector tray, frosted plastic enclosure.

96 White LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver
120.0Vac, 60.00Hz, 0.2331A, 27.89W, 0.997PF, 5.9%THD(i)



Performance Summary

Total Light Output	3679 lm
Luminaire Power	27.9 W
Luminous Efficacy	131.9 lm/W

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



Test Report No. LLIA000930-002A

Catalog Number: AR300-D-HO-K40-80--4-XX-LOH-XXXX-120

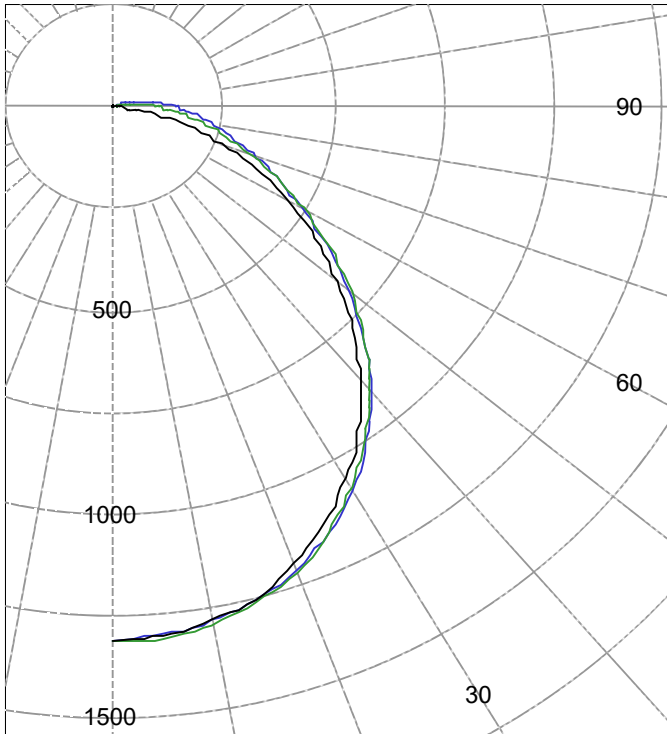
Pendant mounted, extruded aluminum housing, formed white aluminum reflector tray, frosted plastic enclosure.

96 White LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver

120.0Vac, 60.00Hz, 0.2331A, 27.89W, 0.997PF, 5.9%THD(i)

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	1311	1311	1311	1311	1311	
5.0	1303	1297	1311	1307	1300	124
10.0	1281	1276	1291	1289	1283	
15.0	1256	1251	1258	1257	1253	354
20.0	1193	1191	1221	1214	1211	
25.0	1129	1129	1153	1157	1156	527
30.0	1053	1055	1078	1087	1087	
35.0	970	977	995	1009	1003	619
40.0	871	877	903	916	908	
45.0	769	778	805	810	803	613
50.0	663	679	706	700	695	
55.0	562	574	597	593	590	524
60.0	457	476	497	495	493	
65.0	357	379	404	409	407	391
70.0	263	289	323	334	335	
75.0	174	208	253	271	274	254
80.0	97	142	194	218	223	
85.0	38	89	146	173	180	143
90.0	0	51	107	136	144	

AVERAGE LUMINANCE (cd / m²)

Gamma	C0	C45	C90
45.0	15486	14024	13316
55.0	13880	12072	11163
65.0	11900	10105	9319
75.0	9320	8620	8227
85.0	5520	8247	8239

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	% Lamp	% Luminaire
0-30	1005	N / A	27.3
0-40	1624	N / A	44.1
0-60	2761	N / A	75.0
0-90	3550	N / A	96.5
40-90	1926	N / A	52.3
60-90	789	N / A	21.4
90-180	129	N / A	3.5
0-180	3679	N / A	100.0

Total Light Output = 3,679 lm

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

Signed:

Authorized Signatory

Date of test 18-Jan-2018
Date of report 25-Jan-2018



Test Report No. LLIA000930-002A

Catalog Number: AR300-D-HO-K40-80--4-XX-LOH-XXXX-120

Pendant mounted, extruded aluminum housing, formed
white aluminum reflector tray, frosted plastic enclosure.

96 White LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver
120.0Vac, 60.00Hz, 0.2331A, 27.89W, 0.997PF, 5.9%THD(i)

Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
0.0	1311	1311	1311	1311	1311
2.5	1308	1302	1316	1312	1304
5.0	1303	1297	1311	1307	1300
7.5	1293	1288	1302	1299	1293
10.0	1281	1276	1291	1289	1283
12.5	1269	1262	1276	1275	1270
15.0	1256	1251	1258	1257	1253
17.5	1223	1226	1240	1237	1234
20.0	1193	1191	1221	1214	1211
22.5	1163	1161	1191	1187	1185
25.0	1129	1129	1153	1157	1156
27.5	1093	1093	1116	1123	1123
30.0	1053	1055	1078	1087	1087
32.5	1019	1014	1038	1050	1047
35.0	970	977	995	1009	1003
37.5	920	931	950	965	957
40.0	871	877	903	916	908
42.5	820	828	854	864	856
45.0	769	778	805	810	803
47.5	719	727	758	754	750
50.0	663	679	706	700	695
52.5	610	627	650	645	642
55.0	562	574	597	593	590
57.5	507	524	546	543	540
60.0	457	476	497	495	493
62.5	406	428	449	450	448
65.0	357	379	404	409	407
67.5	309	333	362	370	370
70.0	263	289	323	334	335
72.5	217	247	286	301	303
75.0	174	208	253	271	274
77.5	134	173	222	243	247
80.0	97	142	194	218	223
82.5	65	114	169	195	201
85.0	38	89	146	173	180
87.5	16	69	125	154	161
90.0	0	51	107	136	144



Test Report No. LLIA000930-002A

Catalog Number: AR300-D-HO-K40-80--4-XX-LOH-XXXX-120

Pendant mounted, extruded aluminum housing, formed
white aluminum reflector tray, frosted plastic enclosure.

96 White LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver
120.0Vac, 60.00Hz, 0.2331A, 27.89W, 0.997PF, 5.9%THD(i)

Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
90.0	0	51	107	136	144
92.5	0	38	91	120	128
95.0	0	27	76	105	113
97.5	0	19	63	92	100
100.0	0	13	52	80	88
102.5	0	8	43	69	76
105.0	0	5	34	58	66
107.5	0	3	27	50	57
110.0	0	0	22	41	48
112.5	0	0	17	34	41
115.0	0	0	13	28	34
117.5	0	0	9	23	28
120.0	0	0	7	18	23
122.5	0	0	5	14	18
125.0	0	0	3	11	14
127.5	0	0	0	8	11
130.0	0	0	0	6	8
132.5	0	0	0	4	6
135.0	0	0	0	3	4
137.5	0	0	0	0	3
140.0	0	0	0	0	0
142.5	0	0	0	0	0
145.0	0	0	0	0	0
147.5	0	0	0	0	0
150.0	0	0	0	0	0
152.5	0	0	0	0	0
155.0	0	0	0	0	0
157.5	0	0	0	0	0
160.0	0	0	0	0	0
162.5	0	0	0	0	0
165.0	0	0	0	0	0
167.5	0	0	0	0	0
170.0	0	0	0	0	0
172.5	0	0	0	0	0
175.0	0	0	0	0	0
177.5	0	0	0	0	0
180.0	0	0	0	0	0



Test Number: LLIA000930-002A

Catalog Number: AR300-D-HO-K40-80--4-XX-LOH-XXXX-120

Pendant mounted, extruded aluminum housing, formed white aluminum reflector tray, frosted plastic enclosure.

96 White LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver

120.0Vac, 60.00Hz, 0.2331A, 27.89W, 0.997PF, 5.9%THD(i)

Coefficients Of Utilization - Zonal Cavity Method

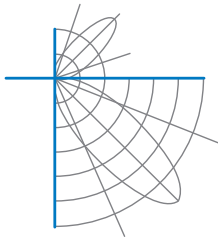
Effective Floor Cavity Reflectance 0.20

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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	96
1	107	102	98	94	104	100	96	92	95	91	88	90	87	85	86	84	82	79
2	98	89	82	76	95	87	81	75	83	77	73	79	75	71	75	72	69	66
3	89	78	70	64	86	77	69	63	73	67	61	70	64	60	67	62	58	56
4	82	70	61	54	79	68	60	54	65	58	52	62	56	51	60	55	50	48
5	75	62	53	47	73	61	53	46	58	51	45	56	50	45	54	48	44	42
6	70	56	47	41	67	55	47	41	53	46	40	51	44	39	49	43	39	37
7	65	51	42	36	63	50	42	36	48	41	35	46	40	35	45	39	34	32
8	60	47	38	32	58	46	38	32	44	37	32	43	36	31	41	35	31	29
9	56	43	35	29	55	42	34	29	41	34	29	39	33	28	38	32	28	26
10	53	40	32	26	51	39	31	26	38	31	26	37	30	26	35	30	26	24

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	36.4	7.20	7.39
8.0	20.5	9.60	9.85
10.0	13.1	12.00	12.31
12.0	9.1	14.40	14.78
14.0	6.7	16.79	17.24
16.0	5.1	19.19	19.70



Test Report No. LLIA000930-002A

Catalog Number: AR300-D-HO-K40-80--4-XX-LOH-XXXX-120

Pendant mounted, extruded aluminum housing, formed white aluminum reflector tray, frosted plastic enclosure.

96 White LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver
120.0Vac, 60.00Hz, 0.2331A, 27.89W, 0.997PF, 5.9%THD(i)





Test Report No. LLIA000930-002A

Catalog Number: AR300-D-HO-K40-80--4-XX-LOH-XXXX-120

Pendant mounted, extruded aluminum housing, formed
white aluminum reflector tray, frosted plastic enclosure.

96 White LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver
120.0Vac, 60.00Hz, 0.2331A, 27.89W, 0.997PF, 5.9%THD(i)

Test Distance 9.5 m
Test Temperature 25.1 °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

LLIA000930-002B

Integrating Sphere Report

Catalog Number: AR300-D-HO-K40-80--4-XX-LOH-XXXX-120

Pendant mounted, extruded aluminum housing, formed white aluminum reflector tray, frosted plastic enclosure.

96 White LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver



Performance Summary

Voltage	120.0 Vac
Current	0.2332 A
Power	27.91 W
Frequency	59.97 Hz
Power Factor	0.997
Current THD	5.9 %

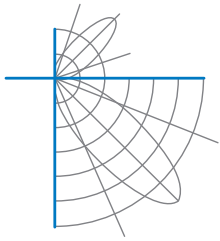
Total Luminous Flux	3813.8 lm
Efficacy	136.6 lm/W
Chromaticity (x,y)	(0.3817, 0.3793)
(u',v')	(0.2249, 0.5029)
Duv	0.0008
CCT	3985 K
CRI (Ra)	84
R9	15
TM-30: Rf	83
TM-30: Rg	96

Prepared For:

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

Test date: 01/16/2018

Report date: 01/24/2018



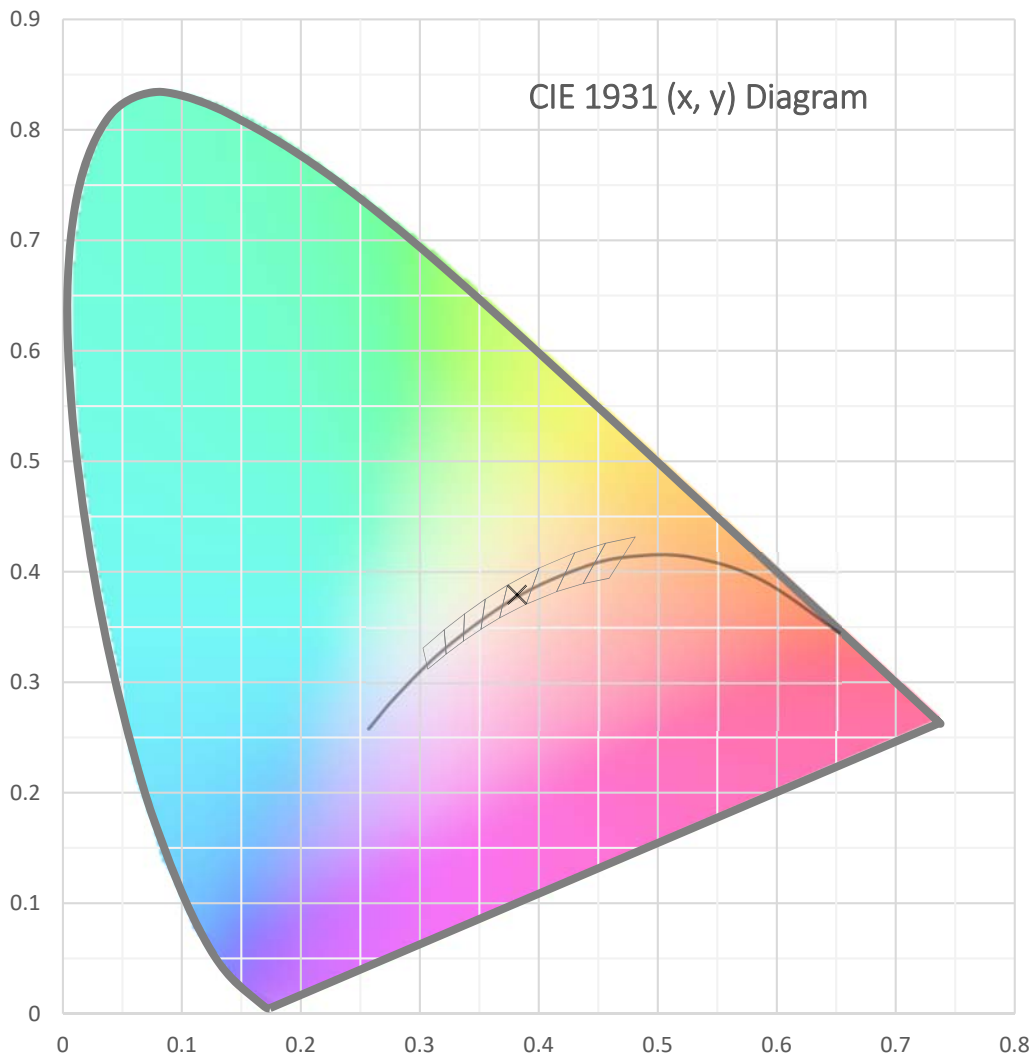
Test Report Number: LLIA000930-002B

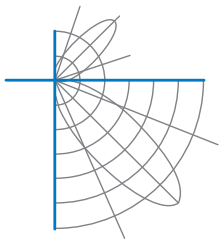
Catalog Number: AR300-D-HO-K40-80--4-XX-LOH-XXXX-120

Pendant mounted, extruded aluminum housing, formed
white aluminum reflector tray, frosted plastic enclosure.

96 White LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver





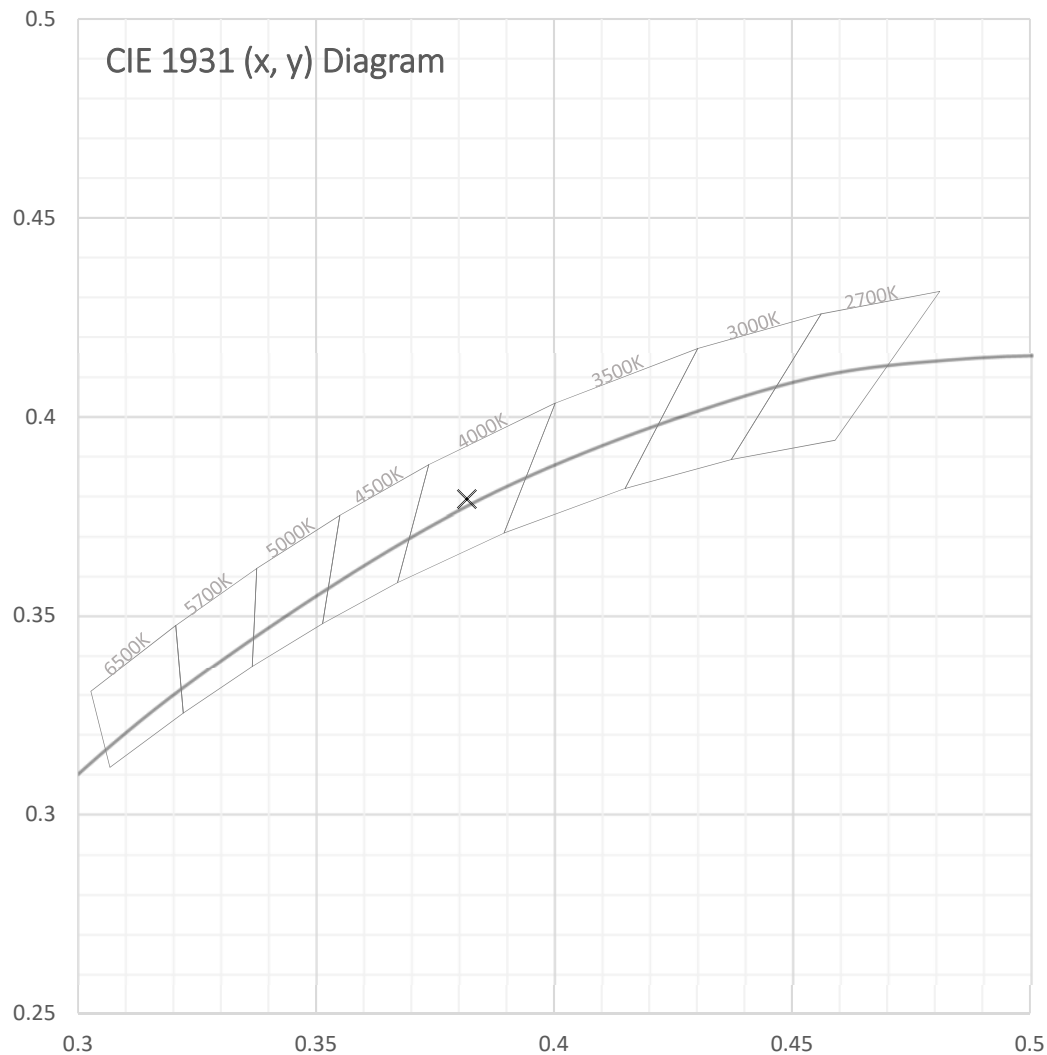
Test Report Number: LLIA000930-002B

Catalog Number: AR300-D-HO-K40-80--4-XX-LOH-XXXX-120

Pendant mounted, extruded aluminum housing, formed white aluminum reflector tray, frosted plastic enclosure.

96 White LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver





Test Report Number: LLIA000930-002B

Catalog Number: AR300-D-HO-K40-80--4-XX-LOH-XXXX-120

Pendant mounted, extruded aluminum housing, formed white aluminum reflector tray, frosted plastic enclosure.

96 White LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver

Spectral Data

Total Radiant Flux	11.80 W
Total Luminous Flux	3813.8 Lm
Chromaticity CIE 1931 (x, y)	(0.3817, 0.3793)
Chromaticity CIE 1976 (u', v')	(0.2249, 0.5029)
Correlated Color Temperature (CCT)	3985 K
Color Rendering Index (Ra)	84
R1	82
R2	89
R3	94
R4	82
R5	82
R6	85
R7	87
R8	67
R9	15
R10	74
R11	81
R12	61
R13	84
R14	97
TM-30: Rf	83
TM-30: Rg	96
Distance from Planckian Locus (Duv)	0.0008
Scotopic/Photopic Ratio *	1.683

Electrical Data

Voltage	120.0 Vac
Current	0.2332 A
Power	27.91 W
Frequency	59.97 Hz
Power Factor	0.997
Current THD	5.9 %



Test Report Number: LLIA000930-002B

Catalog Number: AR300-D-HO-K40-80--4-XX-LOH-XXXX-120

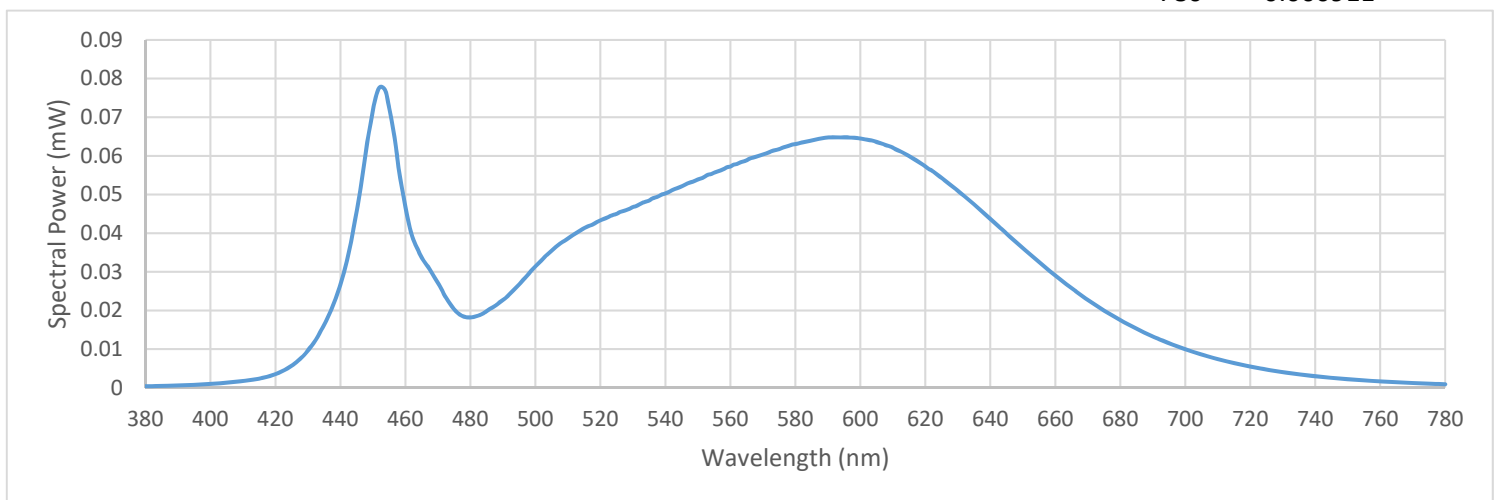
Pendant mounted, extruded aluminum housing, formed white aluminum reflector tray, frosted plastic enclosure.

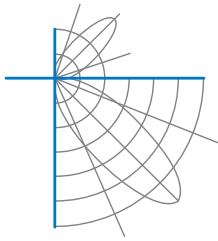
96 White LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver

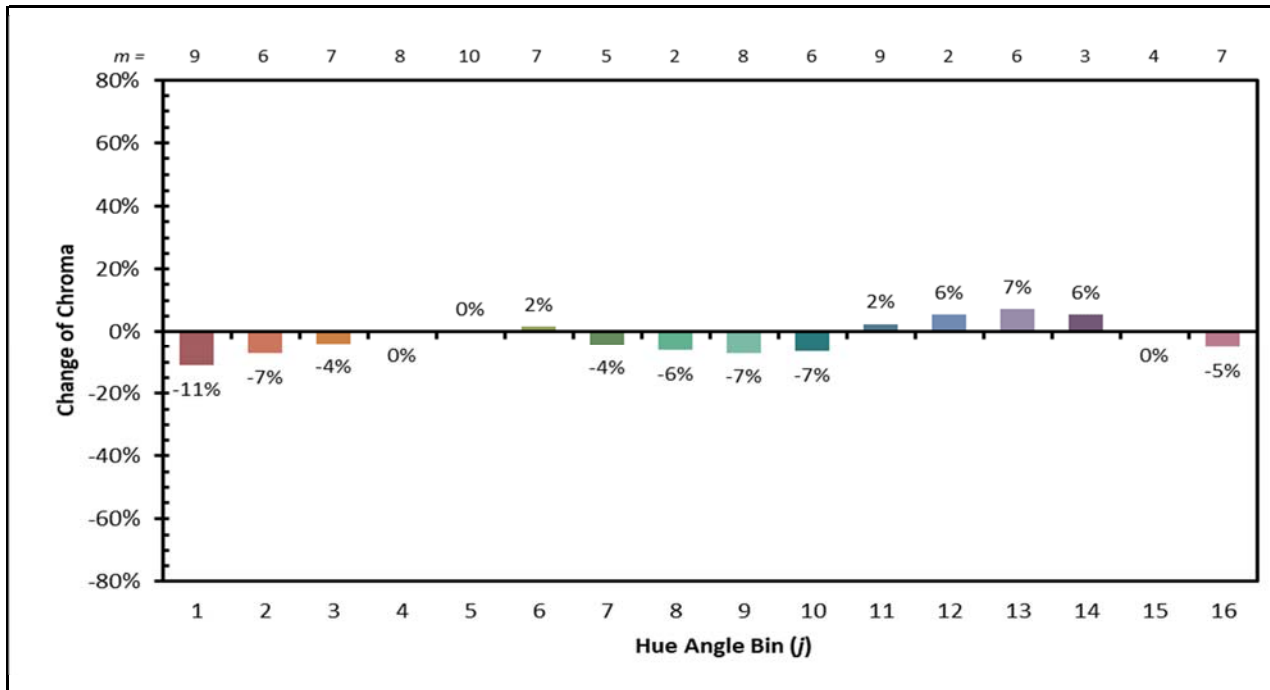
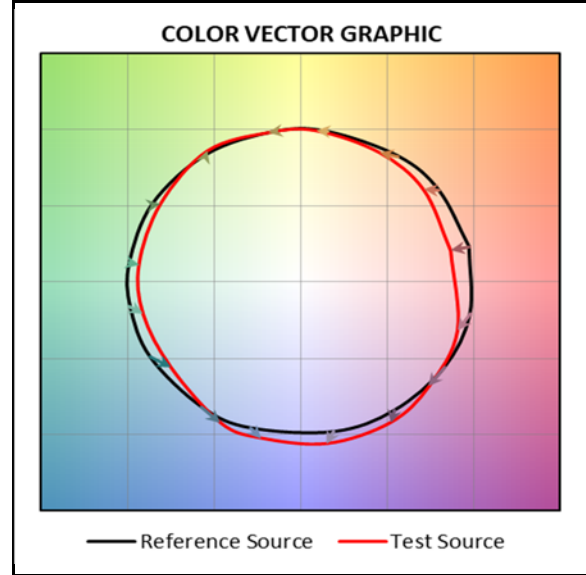
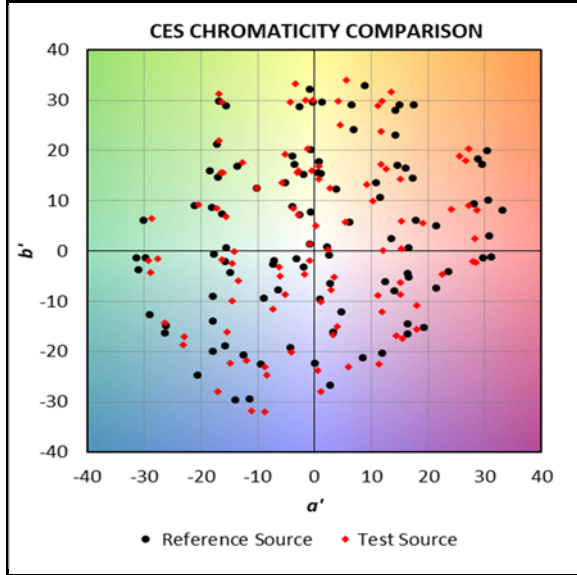
Summary Spectral Power Distribution (wavelength - nm, spectral power - mW)

380	0.000417	480	0.018208	580	0.063041	680	0.017488
385	0.000453	485	0.019824	585	0.064014	685	0.015296
390	0.000583	490	0.022713	590	0.064768	690	0.013270
395	0.000760	495	0.026726	595	0.064816	695	0.011501
400	0.001016	500	0.031427	600	0.064502	700	0.009982
405	0.001325	505	0.035450	605	0.063593	705	0.008596
410	0.001754	510	0.038627	610	0.062125	710	0.007395
415	0.002358	515	0.041301	615	0.059936	715	0.006379
420	0.003550	520	0.043338	620	0.057292	720	0.005500
425	0.005695	525	0.045002	625	0.054318	725	0.004721
430	0.009698	530	0.046756	630	0.050957	730	0.004062
435	0.016269	535	0.048438	635	0.047503	735	0.003482
440	0.026762	540	0.050276	640	0.043666	740	0.002981
445	0.045680	545	0.052116	645	0.039894	745	0.002573
450	0.071720	550	0.053898	650	0.036140	750	0.002209
455	0.072413	555	0.055658	655	0.032493	755	0.001902
460	0.046764	560	0.057245	660	0.029090	760	0.001656
465	0.033664	565	0.058850	665	0.025754	765	0.001427
470	0.027139	570	0.060371	670	0.022688	770	0.001226
475	0.020252	575	0.061758	675	0.020003	775	0.001052
						780	0.000911





IES TM-30 Summary





Test Report Number: LLIA000930-002B

Catalog Number: AR300-D-HO-K40-80--4-XX-LOH-XXXX-120

Pendant mounted, extruded aluminum housing, formed white aluminum reflector tray, frosted plastic enclosure.

96 White LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver

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: 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.

This report is free of erasures and corrections

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