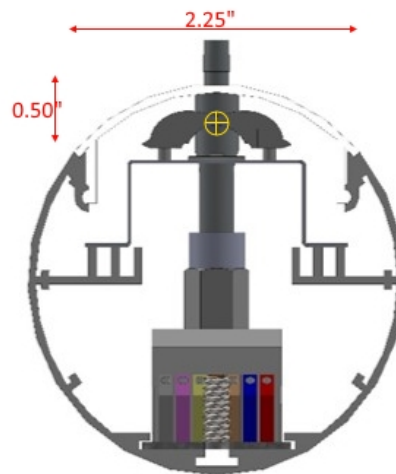




Report of Test

LLIA000930-003A

Catalog Number: AR300-I-MO-K40-80--4-XX-WSCL-XXXX-120
 Pendant mounted, extruded aluminum housing, formed
 white aluminum reflector tray, clear plastic enclosure.
 90 White LEDs with clear, lightly frosted plastic optics above.
 One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver.
 120.0Vac, 60.00Hz, 0.1560A, 18.62W, 0.995PF, 5.1%THD(i)



Performance Summary

Total Light Output	2460 lm
Luminaire Power	18.6 W
Luminous Efficacy	132.3 lm/W

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



Test Report No. LLIA000930-003A

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

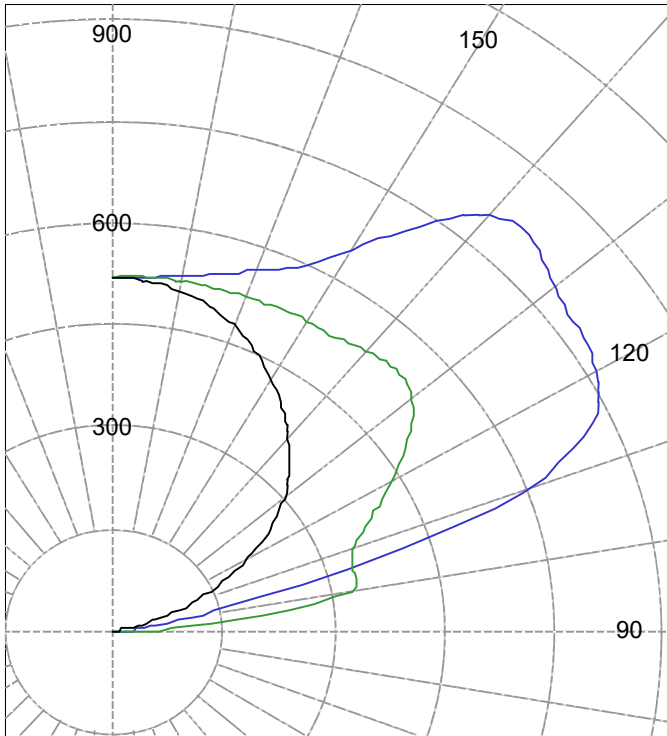
Pendant mounted, extruded aluminum housing, formed white aluminum reflector tray, clear plastic enclosure.

90 White LEDs with clear, lightly frosted plastic optics above.

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

120.0Vac, 60.00Hz, 0.1560A, 18.62W, 0.995PF, 5.1%THD(i)

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



INTENSITY SUMMARY (cd)

Gamma	C-Plane					Flux (lm)
	C0	C22.5	C45	C67.5	C90	
90.0	0	11	46	21	19	
95.0	8	27	167	54	40	81
100.0	28	55	328	138	107	
105.0	60	90	338	425	265	270
110.0	104	138	347	654	595	
115.0	155	194	386	707	720	424
120.0	209	250	436	711	760	
125.0	260	301	489	713	776	453
130.0	303	345	531	734	786	
135.0	339	382	544	752	810	433
140.0	371	410	537	729	799	
145.0	401	432	528	667	728	345
150.0	429	453	526	608	648	
155.0	455	472	525	572	591	243
160.0	478	488	524	554	565	
165.0	496	500	523	539	545	148
170.0	509	509	524	531	531	
175.0	518	516	523	524	522	50
180.0	520	520	520	520	520	

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	% Lamp	% Luminaire
180-150	440	N / A	17.9
180-140	785	N / A	31.9
180-120	1671	N / A	67.9
180-90	2446	N / A	99.4
140-90	1660	N / A	67.5
120-90	775	N / A	31.5
90-0	14	N / A	0.6
180-0	2460	N / A	100.0

Total Light Output = 2,460 lm

Signed:

Authorized Signatory

Date of test

19-Jan-2018

Date of report

25-Jan-2018



Test Report No. LLIA000930-003A

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

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

90 White LEDs with clear, lightly frosted plastic optics above.
One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver.
120.0Vac, 60.00Hz, 0.1560A, 18.62W, 0.995PF, 5.1%THD(i)

Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
0.0	0	0	0	0	0
2.5	0	0	0	0	0
5.0	0	0	0	0	0
7.5	0	0	0	0	0
10.0	0	0	0	0	0
12.5	0	0	0	0	0
15.0	0	0	0	0	0
17.5	0	0	0	0	0
20.0	0	0	0	0	0
22.5	0	0	0	0	0
25.0	0	0	0	0	0
27.5	0	0	0	0	0
30.0	0	0	0	0	0
32.5	0	0	0	0	0
35.0	0	0	0	0	0
37.5	0	0	0	0	0
40.0	0	0	0	0	0
42.5	0	0	0	0	0
45.0	0	0	0	0	0
47.5	0	0	0	0	0
50.0	0	0	0	0	0
52.5	0	0	0	0	0
55.0	0	0	0	0	0
57.5	0	0	0	0	0
60.0	0	0	0	0	0
62.5	0	0	0	0	0
65.0	0	0	0	0	3
67.5	0	0	0	3	4
70.0	0	0	0	4	4
72.5	0	0	3	4	5
75.0	0	0	3	5	6
77.5	0	0	5	6	7
80.0	0	0	6	7	8
82.5	0	0	9	9	9
85.0	0	4	14	11	11
87.5	0	7	23	14	13
90.0	0	11	46	21	19



Test Report No. LLIA000930-003A

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

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

90 White LEDs with clear, lightly frosted plastic optics above.
One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver.
120.0Vac, 60.00Hz, 0.1560A, 18.62W, 0.995PF, 5.1%THD(i)

Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
90.0	0	11	46	21	19
92.5	0	17	92	33	27
95.0	8	27	167	54	40
97.5	17	40	260	87	65
100.0	28	55	328	138	107
102.5	43	71	341	245	153
105.0	60	90	338	425	265
107.5	81	112	342	578	451
110.0	104	138	347	654	595
112.5	129	165	363	695	670
115.0	155	194	386	707	720
117.5	182	222	410	708	747
120.0	209	250	436	711	760
122.5	236	276	463	711	771
125.0	260	301	489	713	776
127.5	283	324	512	722	778
130.0	303	345	531	734	786
132.5	322	365	541	746	799
135.0	339	382	544	752	810
137.5	355	396	542	748	813
140.0	371	410	537	729	799
142.5	386	421	533	700	768
145.0	401	432	528	667	728
147.5	415	443	526	635	686
150.0	429	453	526	608	648
152.5	442	463	527	586	616
155.0	455	472	525	572	591
157.5	467	480	525	563	576
160.0	478	488	524	554	565
162.5	487	495	524	546	554
165.0	496	500	523	539	545
167.5	503	505	523	535	537
170.0	509	509	524	531	531
172.5	514	513	523	528	527
175.0	518	516	523	524	522
177.5	520	517	523	522	519
180.0	520	520	520	520	520



Test Number: LLIA000930-003A

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

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

90 White LEDs with clear, lightly frosted plastic optics above.

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

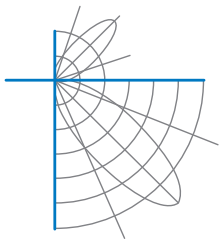
120.0Vac, 60.00Hz, 0.1560A, 18.62W, 0.995PF, 5.1%THD(i)

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
0	95	95	95	95	82	82	82	82	56	56	56	32	32	32	11	11	11	1
1	87	82	79	76	74	71	68	65	48	47	45	28	27	26	9	9	9	0
2	79	72	66	61	67	62	57	53	42	39	37	24	23	22	8	8	7	0
3	72	63	56	51	61	54	49	44	37	34	31	22	20	18	7	6	6	0
4	65	55	48	43	56	48	42	37	33	29	26	19	17	15	6	6	5	0
5	60	49	42	36	51	42	36	31	29	25	22	17	15	13	6	5	4	0
6	55	44	36	31	47	38	31	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	46	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	2	0
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0

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.

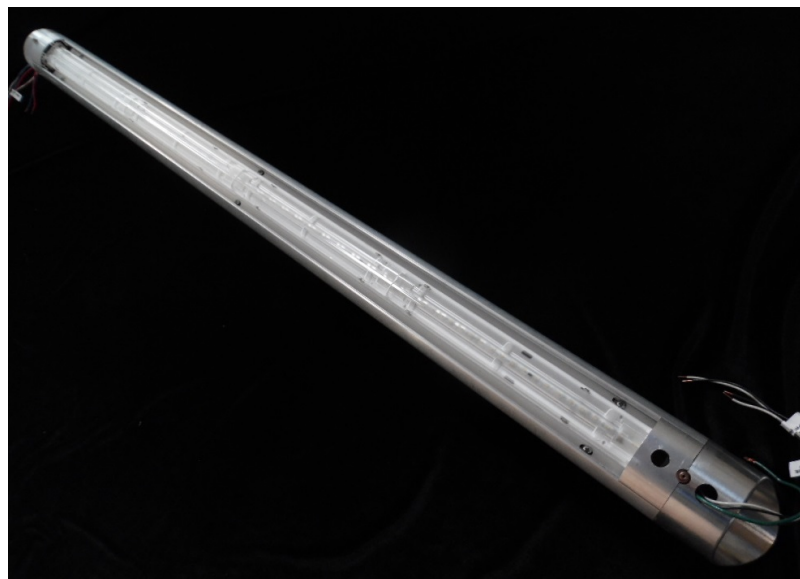
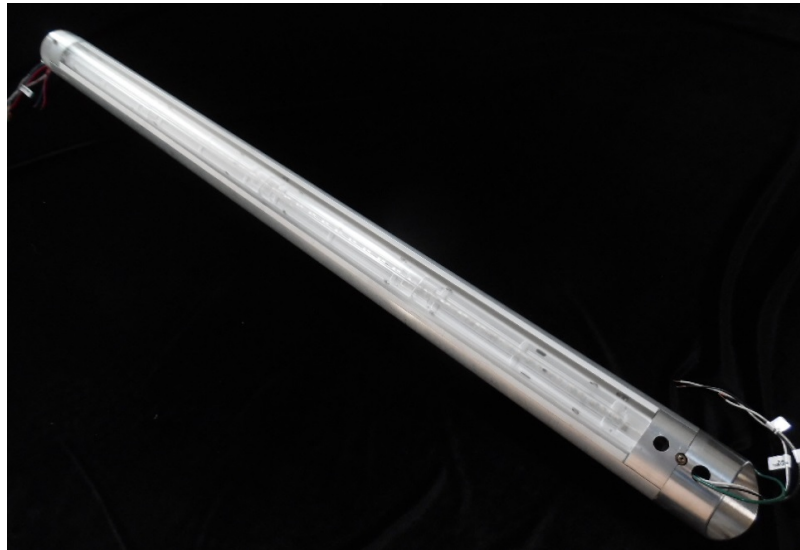


Test Report No. LLIA000930-003A

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

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

90 White LEDs with clear, lightly frosted plastic optics above.
One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver.
120.0Vac, 60.00Hz, 0.1560A, 18.62W, 0.995PF, 5.1%THD(i)





Test Report No. LLIA000930-003A

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

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

90 White LEDs with clear, lightly frosted plastic optics above.
One Osram Optotronic OTi 30/120-277/1A0 DIM L LED driver.
120.0Vac, 60.00Hz, 0.1560A, 18.62W, 0.995PF, 5.1%THD(i)

Test Distance 9.5 m
Test Temperature 25.3 °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

LLIA000930-003B

Integrating Sphere Report

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

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

90 White LEDs with clear, lightly frosted plastic optics above.

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



Performance Summary

Voltage	120.0 Vac
Current	0.1561 A
Power	18.63 W
Frequency	59.97 Hz
Power Factor	0.995
Current THD	5.1 %

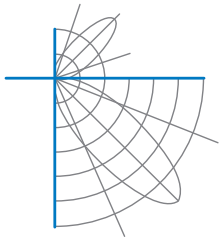
Total Luminous Flux	2564.8 lm
Efficacy	137.7 lm/W
Chromaticity (x,y)	(0.3794, 0.3757)
(u',v')	(0.2249, 0.5010)
Duv	-0.0002
CCT	4020 K
CRI (Ra)	85
R9	18
TM-30: Rf	83
TM-30: Rg	95

Prepared For:

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

Test date: 01/18/2018

Report date: 01/24/2018



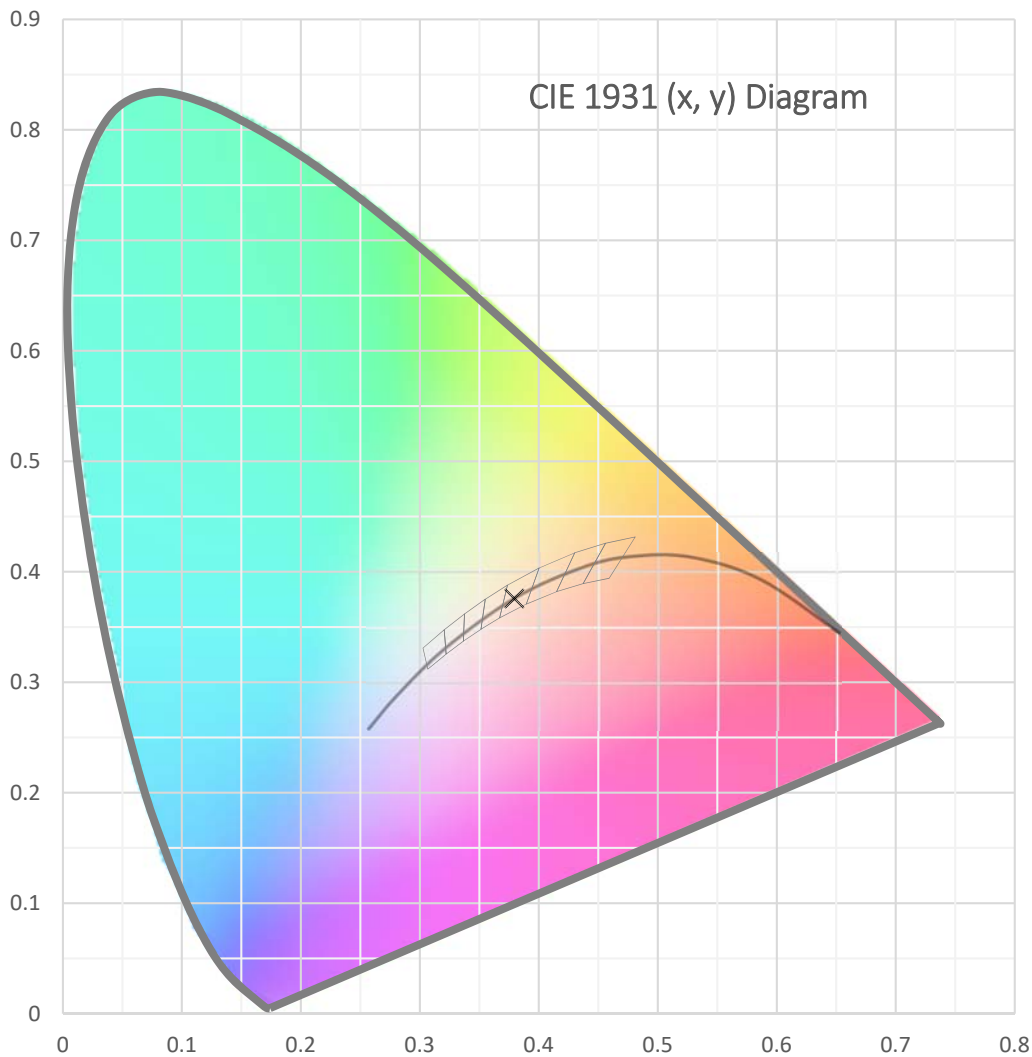
Test Report Number: LLIA000930-003B

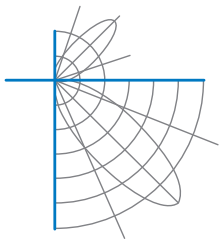
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Pendant mounted, extruded aluminum housing, formed white aluminum reflector tray, clear plastic enclosure.

90 White LEDs with clear, lightly frosted plastic optics above.

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





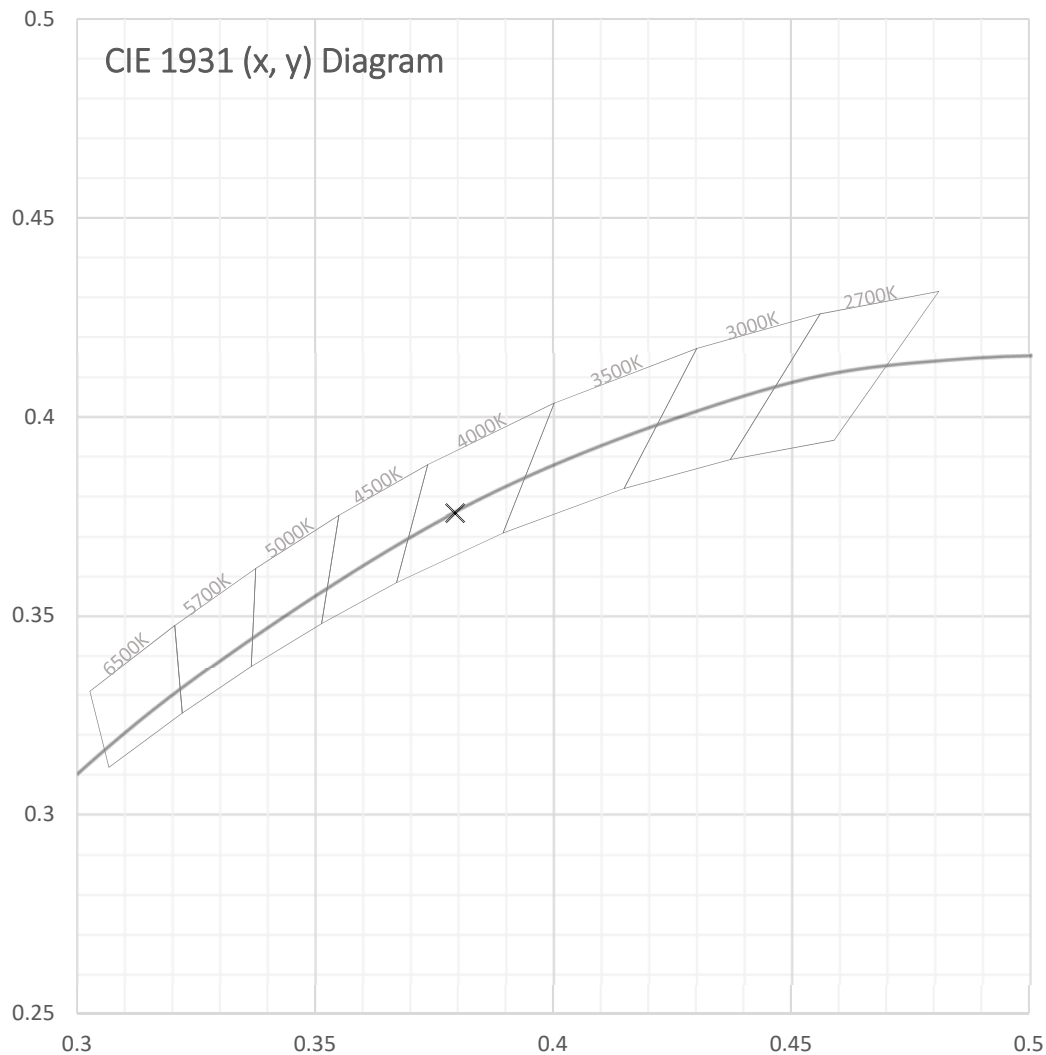
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Catalog Number: AR300-I-MO-K40-80--4-XX-WSCL-XXXX-120

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

90 White LEDs with clear, lightly frosted plastic optics above.

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





Test Report Number: LLIA000930-003B

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

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

90 White LEDs with clear, lightly frosted plastic optics above.

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

Spectral Data

Total Radiant Flux	7.983 W
Total Luminous Flux	2564.8 Lm
Chromaticity CIE 1931 (x, y)	(0.3794, 0.3757)
Chromaticity CIE 1976 (u', v')	(0.2249, 0.5010)
Correlated Color Temperature (CCT)	4020 K
Color Rendering Index (Ra)	85
R1	83
R2	91
R3	95
R4	83
R5	83
R6	86
R7	87
R8	68
R9	18
R10	78
R11	81
R12	61
R13	85
R14	98
TM-30: Rf	83
TM-30: Rg	95
Distance from Planckian Locus (Duv)	-0.0002
Scotopic/Photopic Ratio *	1.716

Electrical Data

Voltage	120.0 Vac
Current	0.1561 A
Power	18.63 W
Frequency	59.97 Hz
Power Factor	0.995
Current THD	5.1 %



Test Report Number: LLIA000930-003B

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

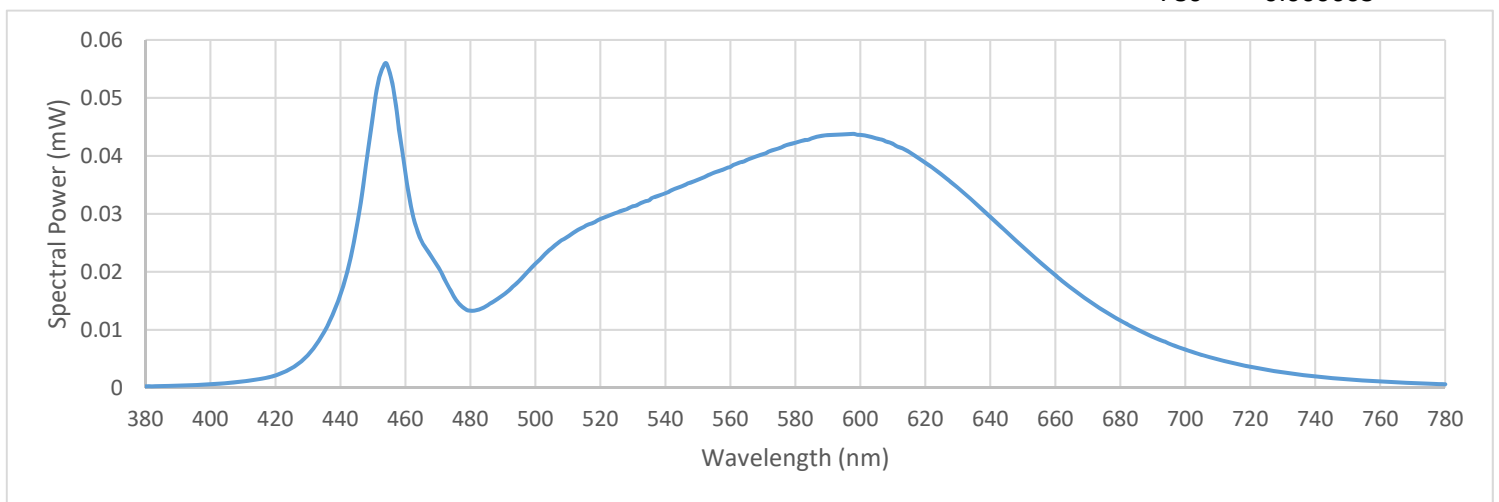
Pendant mounted, extruded aluminum housing, formed white aluminum reflector tray, clear plastic enclosure.

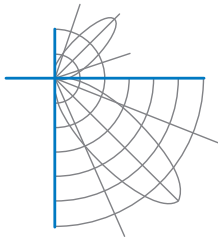
90 White LEDs with clear, lightly frosted plastic optics above.

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

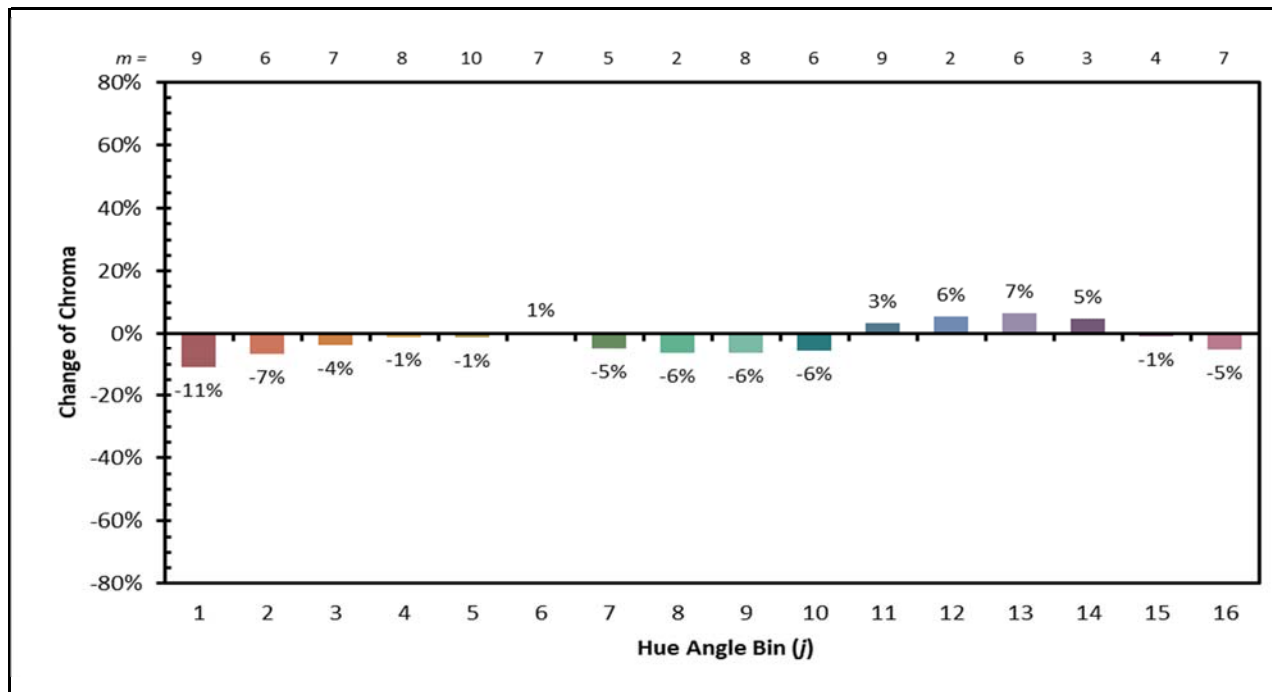
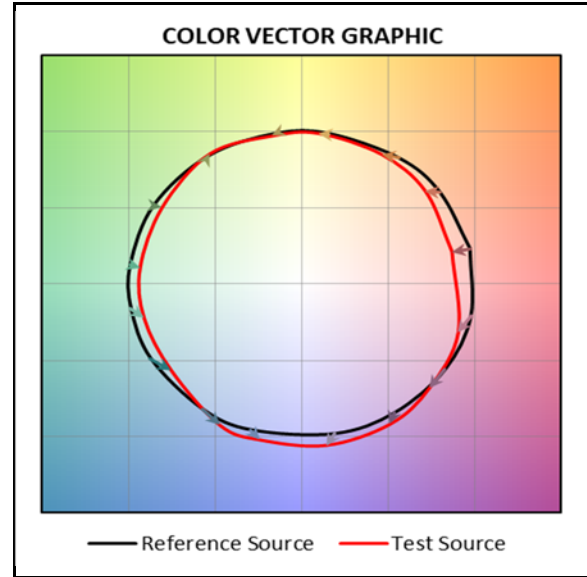
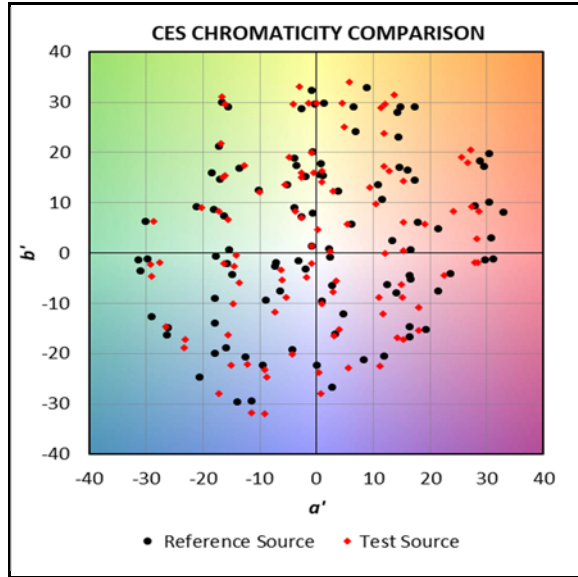
Summary Spectral Power Distribution (wavelength - nm, spectral power - mW)

380	0.000261	480	0.013297	580	0.042255	680	0.011602
385	0.000278	485	0.014120	585	0.043038	685	0.010133
390	0.000351	490	0.015985	590	0.043571	690	0.008787
395	0.000458	495	0.018428	595	0.043723	695	0.007601
400	0.000611	500	0.021414	600	0.043616	700	0.006597
405	0.000822	505	0.024061	605	0.043009	705	0.005680
410	0.001094	510	0.026057	610	0.042080	710	0.004884
415	0.001452	515	0.027773	615	0.040658	715	0.004216
420	0.002133	520	0.029103	620	0.038805	720	0.003615
425	0.003361	525	0.030193	625	0.036798	725	0.003096
430	0.005685	530	0.031306	630	0.034508	730	0.002663
435	0.009648	535	0.032337	635	0.032074	735	0.002279
440	0.016046	540	0.033554	640	0.029463	740	0.001960
445	0.027794	545	0.034767	645	0.026897	745	0.001691
450	0.046856	550	0.035901	650	0.024303	750	0.001455
455	0.054733	555	0.037115	655	0.021787	755	0.001256
460	0.037144	560	0.038098	660	0.019437	760	0.001090
465	0.025208	565	0.039267	665	0.017165	765	0.000939
470	0.020896	570	0.040299	670	0.015103	770	0.000806
475	0.015658	575	0.041343	675	0.013266	775	0.000695
						780	0.000603





IES TM-30 Summary





Test Report Number: LLIA000930-003B

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

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

90 White LEDs with clear, lightly frosted plastic optics above.

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 4 π geometry

Test Temperature: 25.8 °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

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