



Report of Test

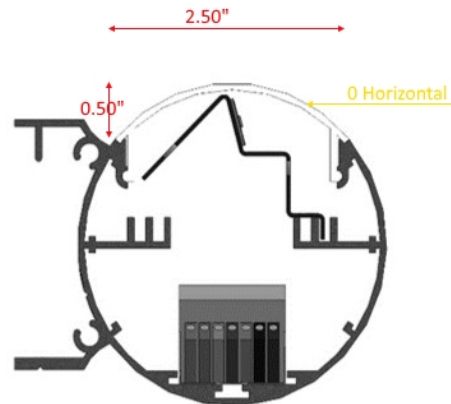
LLIA000938-006A

Catalog Number: AR300-IASY-XX-HO-K40-80-4-W-LOH-FXXX-UNV

Wall mounted extruded aluminum housing, formed white enamel
aluminum reflector, translucent white plastic enclosure.

96 white LEDs, one PAL-Lighting LED board with 96 LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L (labeled 720) LED driver
120.0Vac, 60.00Hz, 0.2317A, 27.72W, 0.997PF, 5.4%THD(i)



Performance Summary

Total Light Output	3137 lm
Luminaire Power	27.7 W
Luminous Efficacy	113.2 lm/W

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



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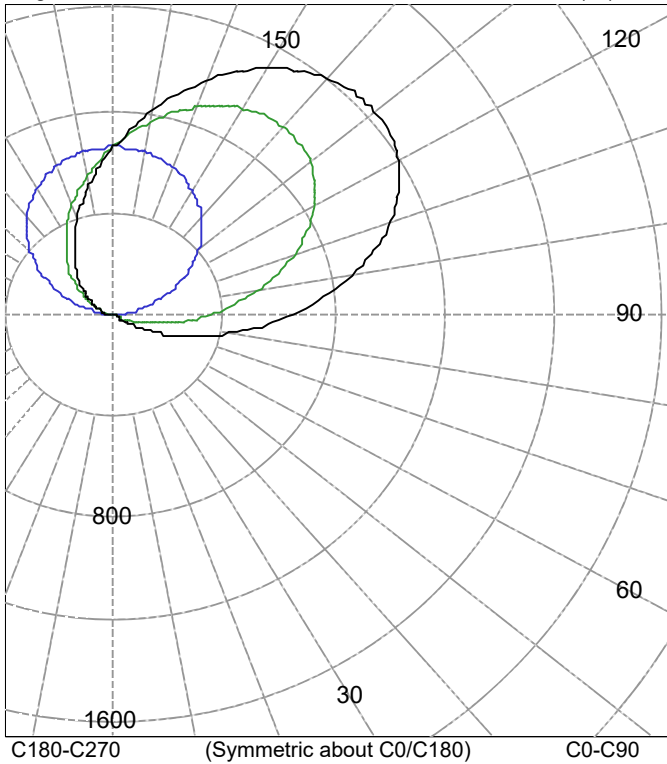
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Legend: C0/C180-Black, C45/C225-Green, C90/C270-Blue (cd)



INTENSITY SUMMARY (cd)

Gamma	C-Plane					Flux (lm)
	C0	C22.5	C45	C67.5	C90	
90.0	652	566	351	127	0	
95.0	768	677	442	190	34	244
100.0	881	787	529	259	77	
105.0	984	887	616	329	128	344
110.0	1073	972	700	403	184	
115.0	1143	1042	775	470	240	423
120.0	1196	1097	840	530	295	
125.0	1227	1136	893	584	349	460
130.0	1240	1157	933	633	402	
135.0	1234	1161	955	677	450	449
140.0	1211	1148	960	708	494	
145.0	1172	1118	953	727	533	393
150.0	1119	1074	934	737	567	
155.0	1053	1018	905	740	595	300
160.0	979	953	866	735	618	
165.0	898	881	820	723	636	186
170.0	815	806	769	705	649	
175.0	732	730	715	682	657	63
180.0	658	658	658	658	658	

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	% Lamp	% Luminaire
180-150	550	N / A	17.5
180-140	942	N / A	30.0
180-120	1851	N / A	59.0
180-90	2862	N / A	91.3
140-90	1920	N / A	61.2
120-90	1011	N / A	32.2
90-0	274	N / A	8.7
180-0	3137	N / A	100.0

Total Light Output = 3,137 lm

Signed:

Authorized Signatory

Date of test

31-Jan-2018

Date of report

1-Feb-2018



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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	5	0	0	0	0
45.0	12	5	0	0	0
47.5	22	12	0	0	0
50.0	33	21	0	0	0
52.5	48	32	4	0	0
55.0	66	46	9	0	0
57.5	87	63	16	0	0
60.0	111	83	25	0	0
62.5	138	105	37	0	0
65.0	169	132	50	0	0
67.5	204	161	67	0	0
70.0	242	195	86	5	0
72.5	283	231	108	10	0
75.0	329	272	134	18	0
77.5	377	315	163	27	0
80.0	428	361	196	40	0
82.5	481	410	232	56	0
85.0	537	460	270	76	0
87.5	594	512	310	100	0
90.0	652	566	351	127	0



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Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
90.0	652	566	351	127	0
92.5	710	621	395	158	16
95.0	768	677	442	190	34
97.5	826	733	486	223	54
100.0	881	787	529	259	77
102.5	934	839	572	293	102
105.0	984	887	616	329	128
107.5	1030	932	659	366	156
110.0	1073	972	700	403	184
112.5	1111	1009	738	438	212
115.0	1143	1042	775	470	240
117.5	1172	1072	809	500	268
120.0	1196	1097	840	530	295
122.5	1214	1119	868	558	322
125.0	1227	1136	893	584	349
127.5	1236	1149	915	609	376
130.0	1240	1157	933	633	402
132.5	1239	1161	946	656	426
135.0	1234	1161	955	677	450
137.5	1224	1156	959	694	473
140.0	1211	1148	960	708	494
142.5	1193	1135	958	719	514
145.0	1172	1118	953	727	533
147.5	1147	1098	945	733	550
150.0	1119	1074	934	737	567
152.5	1088	1048	921	740	582
155.0	1053	1018	905	740	595
157.5	1018	987	887	738	607
160.0	979	953	866	735	618
162.5	939	918	844	730	628
165.0	898	881	820	723	636
167.5	857	844	795	715	644
170.0	815	806	769	705	649
172.5	773	768	742	694	654
175.0	732	730	715	682	657
177.5	692	693	687	669	659
180.0	658	658	658	658	658



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Intensity data (cd)

Gamma	C-Plane				
	C90	C112.5	C135	C157.5	C180
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	0
67.5	0	0	0	0	0
70.0	0	0	0	0	0
72.5	0	0	0	0	0
75.0	0	0	0	0	0
77.5	0	0	0	0	0
80.0	0	0	0	0	4
82.5	0	0	0	5	7
85.0	0	0	4	8	10
87.5	0	0	6	11	13
90.0	0	4	9	15	17



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120.0Vac, 60.00Hz, 0.2317A, 27.72W, 0.997PF, 5.4%THD(i)

Intensity data (cd)

Gamma	C-Plane				
	C90	C112.5	C135	C157.5	C180
90.0	0	4	9	15	17
92.5	16	6	12	18	20
95.0	34	10	16	22	24
97.5	54	16	21	26	28
100.0	77	25	26	31	33
102.5	102	36	33	37	38
105.0	128	49	41	43	44
107.5	156	64	50	50	51
110.0	184	81	60	58	58
112.5	212	100	72	67	66
115.0	240	120	85	77	75
117.5	268	141	98	87	85
120.0	295	163	113	98	95
122.5	322	186	129	110	106
125.0	349	208	145	124	118
127.5	376	231	163	138	131
130.0	402	254	182	153	145
132.5	426	277	202	169	160
135.0	450	300	223	186	176
137.5	473	323	244	204	193
140.0	494	346	265	224	211
142.5	514	368	288	245	231
145.0	533	390	310	267	253
147.5	550	412	333	290	275
150.0	567	434	356	313	298
152.5	582	455	380	337	322
155.0	595	476	404	361	347
157.5	607	496	428	386	373
160.0	618	516	453	413	399
162.5	628	536	477	440	427
165.0	636	555	503	468	456
167.5	644	574	528	497	486
170.0	649	592	554	527	518
172.5	654	609	581	559	551
175.0	657	626	608	592	586
177.5	659	642	635	626	622
180.0	658	658	658	658	658



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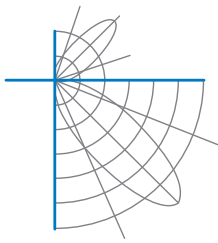
120.0Vac, 60.00Hz, 0.2317A, 27.72W, 0.997PF, 5.4%THD(i)

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
0	97	97	97	97	84	84	84	84	60	60	60	38	38	38	18	18	18	9
1	86	81	77	73	74	70	67	63	50	47	45	30	29	27	13	12	11	3
2	78	70	64	58	67	61	55	51	43	39	36	26	24	22	10	9	8	1
3	71	61	54	48	61	53	47	42	37	33	30	22	20	18	9	8	7	1
4	65	54	46	40	55	47	40	35	33	28	25	20	17	15	8	6	5	0
5	59	48	40	34	51	41	34	29	29	24	21	18	15	13	7	6	4	0
6	54	42	35	29	46	37	30	25	26	21	18	16	13	11	6	5	4	0
7	50	38	30	25	43	33	26	22	23	19	15	14	11	9	6	4	3	0
8	46	34	27	22	39	30	23	19	21	17	13	13	10	8	5	4	3	0
9	43	31	24	19	37	27	21	17	19	15	12	12	9	7	5	3	3	0
10	40	28	21	17	34	24	19	15	17	13	10	11	8	6	4	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.



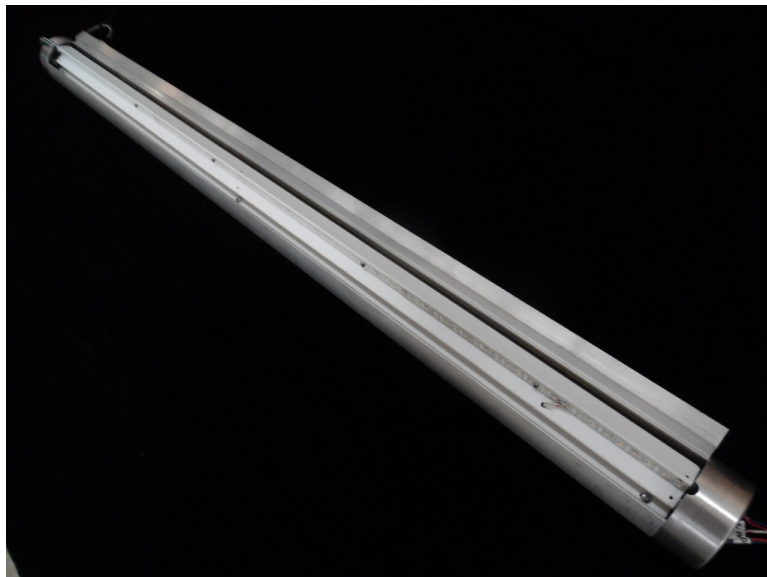
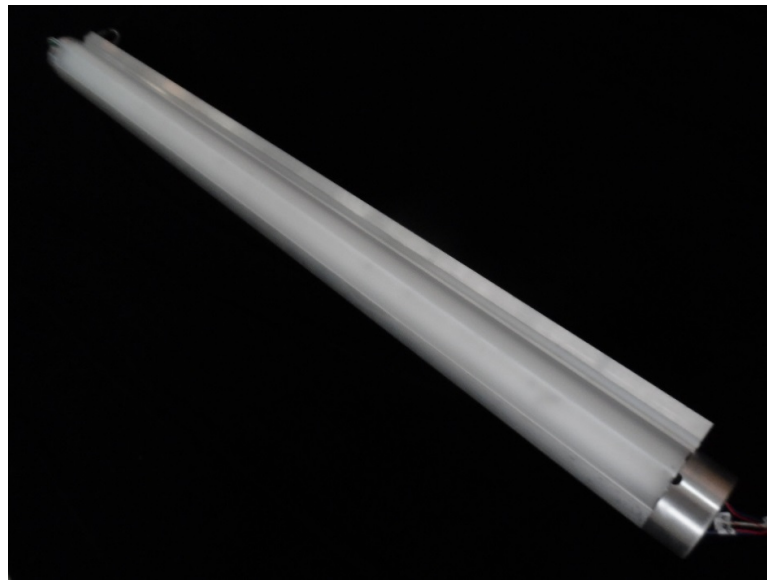
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Test Distance 9.5 m
Test Temperature 25.2 °C

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

LLIA000938-006B

Integrating Sphere Report

Catalog Number: AR300-IASY-XX-HO-K40-80-4-W-LOH-FXXX-UNV

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Performance Summary

Voltage	120.0 Vac
Current	0.2320 A
Power	27.77 W
Frequency	59.97 Hz
Power Factor	0.997
Current THD	5.4 %

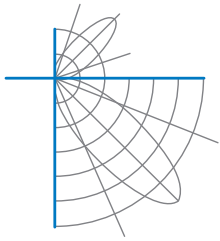
Total Luminous Flux	3261.7 lm
Efficacy	117.5 lm/W
Chromaticity (x,y)	(0.3819, 0.3772)
(u',v')	(0.2259, 0.5020)
Duv	-0.0002
CCT	3964 K
CRI (Ra)	84
R9	18
TM-30: Rf	83
TM-30: Rg	95

Prepared For:

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

Test date: 01/30/2018

Report date: 02/01/2018



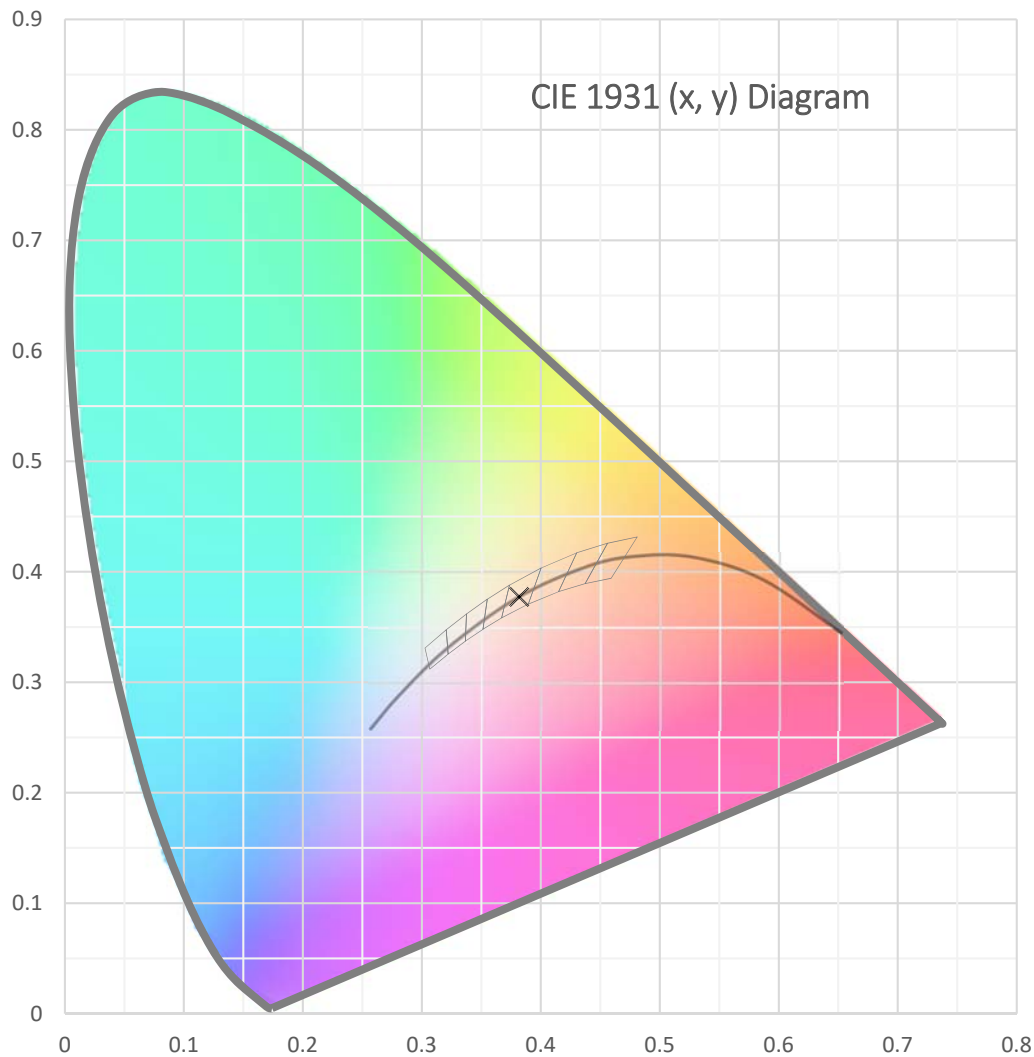
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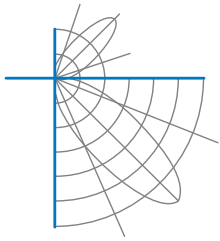
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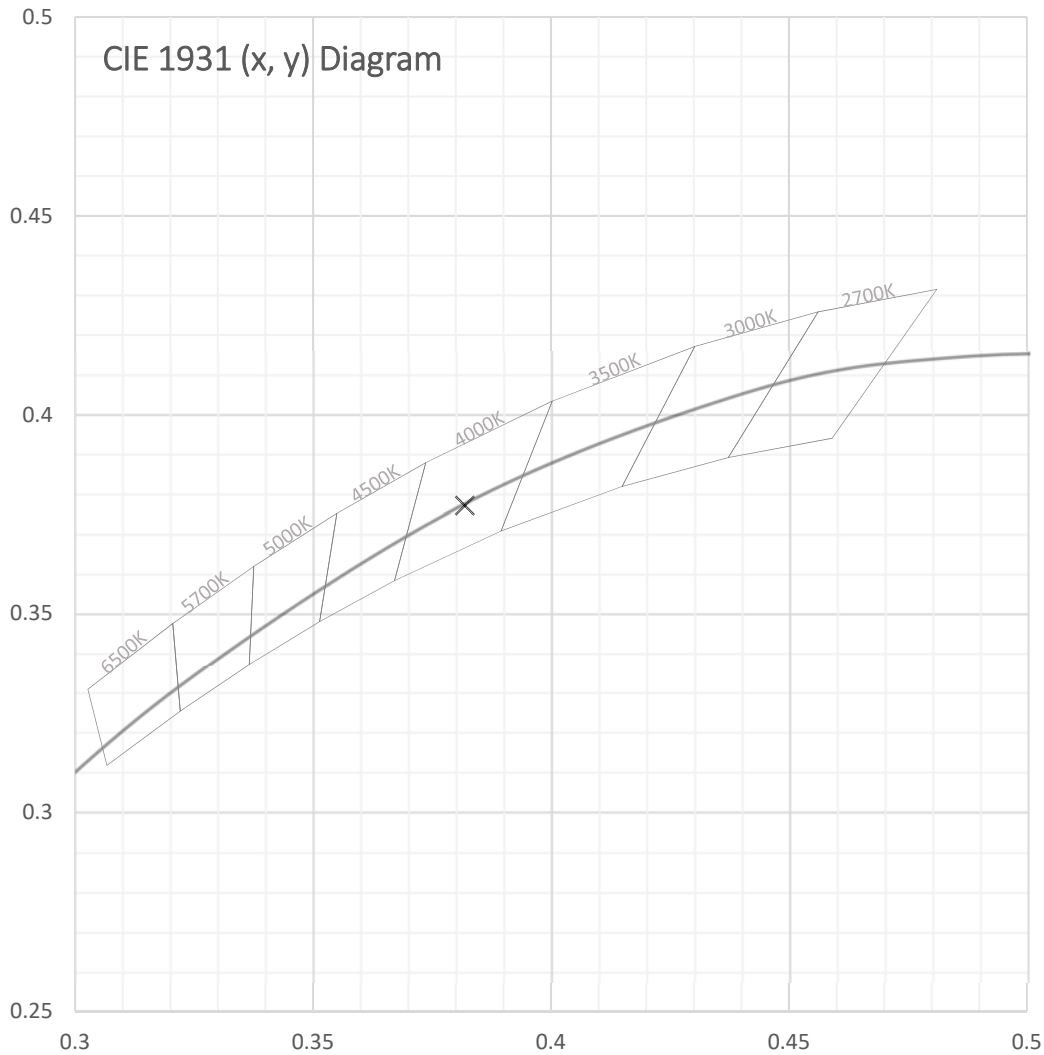
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Spectral Data

Total Radiant Flux	10.17 W
Total Luminous Flux	3261.7 Lm
Chromaticity CIE 1931 (x, y)	(0.3819, 0.3772)
Chromaticity CIE 1976 (u', v')	(0.2259, 0.5020)
Correlated Color Temperature (CCT)	3964 K
Color Rendering Index (Ra)	84
R1	83
R2	91
R3	95
R4	82
R5	83
R6	86
R7	87
R8	68
R9	18
R10	77
R11	81
R12	62
R13	85
R14	98
TM-30: Rf	83
TM-30: Rg	95
Distance from Planckian Locus (Duv)	-0.0002
Scotopic/Photopic Ratio *	1.694

Electrical Data

Voltage	120.0 Vac
Current	0.2320 A
Power	27.77 W
Frequency	59.97 Hz
Power Factor	0.997
Current THD	5.4 %



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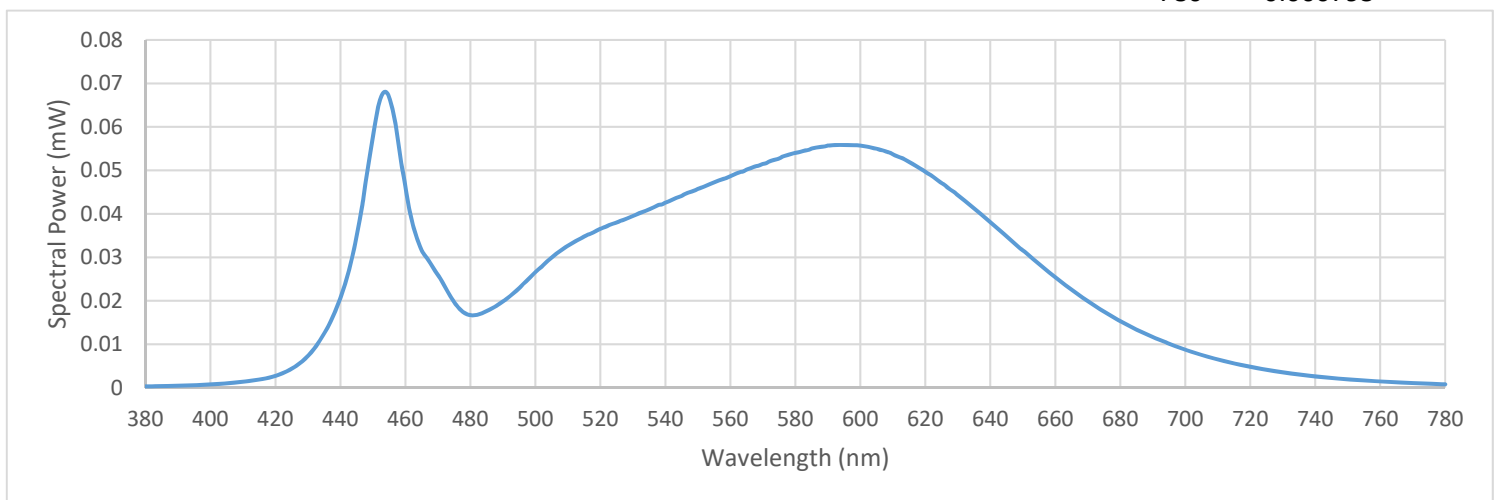
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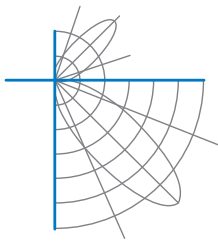
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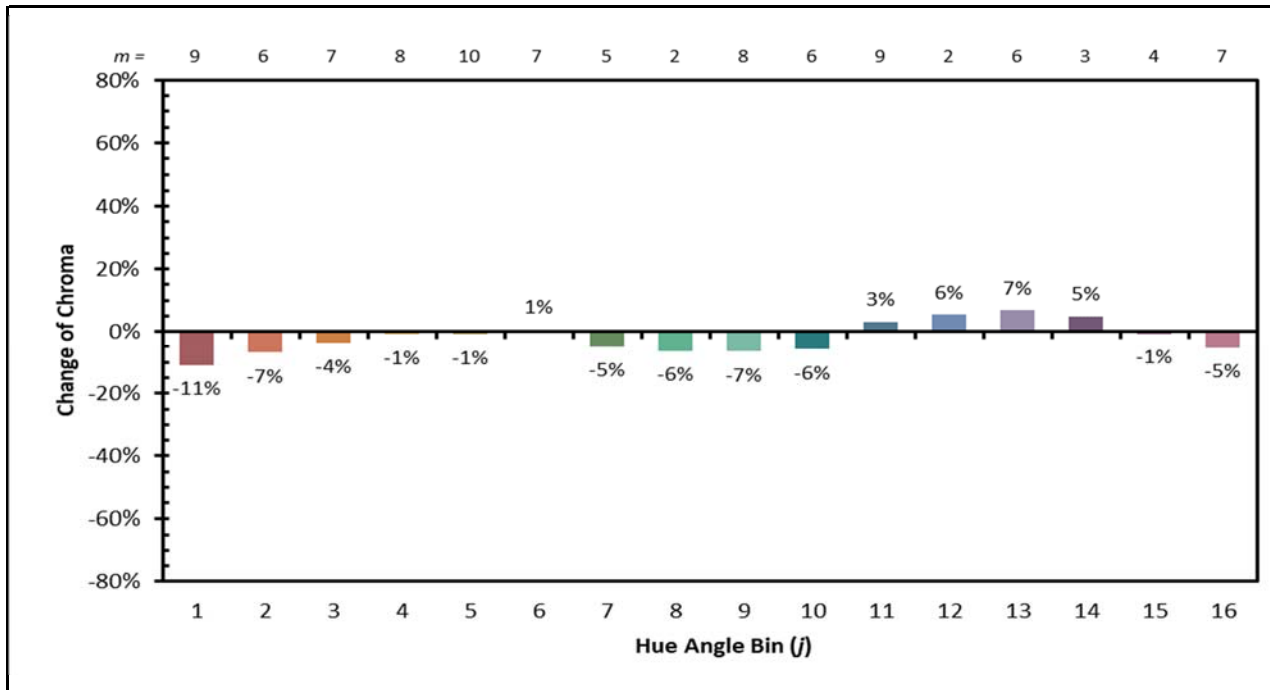
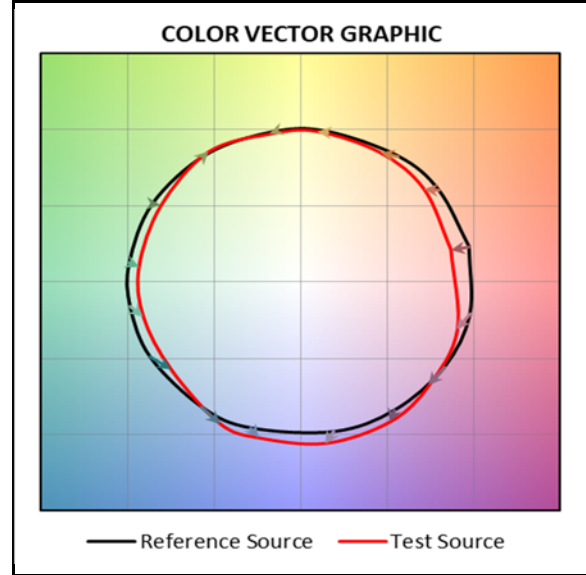
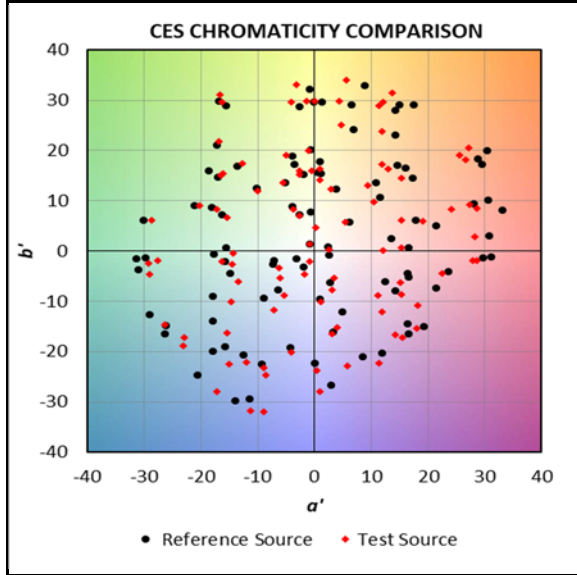
Summary Spectral Power Distribution (wavelength - nm, spectral power - mW)

380	0.000325	480	0.016704	580	0.054008	680	0.015329
385	0.000361	485	0.017685	585	0.055007	685	0.013415
390	0.000445	490	0.019857	590	0.055706	690	0.011638
395	0.000586	495	0.022872	595	0.055853	695	0.010107
400	0.000789	500	0.026637	600	0.055700	700	0.008749
405	0.001044	505	0.029914	605	0.054996	705	0.007530
410	0.001377	510	0.032646	610	0.053709	710	0.006495
415	0.001866	515	0.034782	615	0.051969	715	0.005608
420	0.002754	520	0.036523	620	0.049676	720	0.004824
425	0.004366	525	0.037981	625	0.047069	725	0.004145
430	0.007358	530	0.039520	630	0.044284	730	0.003559
435	0.012530	535	0.041026	635	0.041310	735	0.003052
440	0.020673	540	0.042591	640	0.038050	740	0.002614
445	0.035072	545	0.044114	645	0.034866	745	0.002256
450	0.057794	550	0.045728	650	0.031596	750	0.001940
455	0.066860	555	0.047290	655	0.028409	755	0.001668
460	0.046282	560	0.048663	660	0.025477	760	0.001450
465	0.031606	565	0.050188	665	0.022521	765	0.001249
470	0.025954	570	0.051489	670	0.019876	770	0.001071
475	0.019688	575	0.052720	675	0.017531	775	0.000925
						780	0.000795





IES TM-30 Summary





Test Report Number: LLIA000938-006B

Catalog Number: AR300-IASY-XX-HO-K40-80-4-W-LOH-FXXX-UNV

Wall mounted extruded aluminum housing, formed white enamel
aluminum reflector, translucent white plastic enclosure.

96 white LEDs, one PAL-Lighting LED board with 96 LEDs

One Osram Optotronic OTi 30/120-277/1A0 DIM L (labeled 720) 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: 24.9 °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.