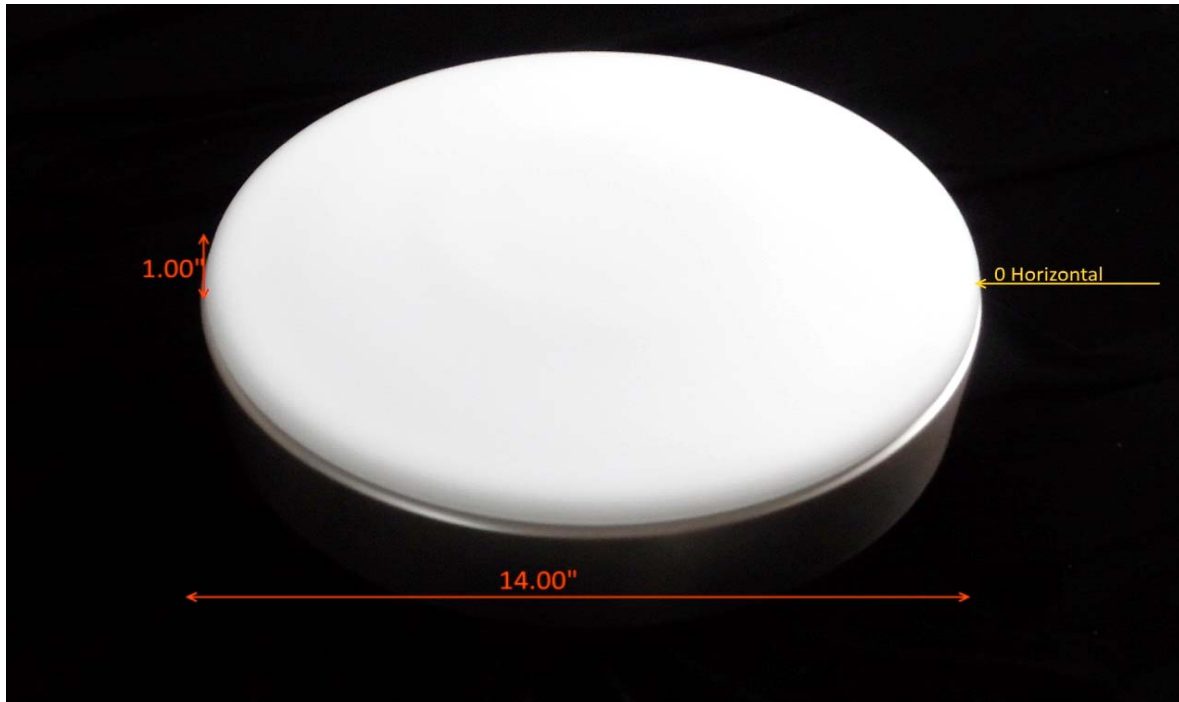


Report of Test

LLIA000802-024A

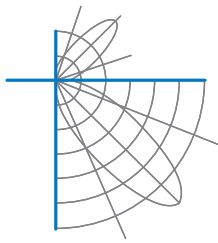
Catalog Number: 3-623 Journey Ceiling
Ceiling mounted, formed steel housing with white enamel
steel reflector, translucent white glass enclosure.
30 white LEDs, One Harvard Engineering LEDENG-152-930-NL LED board.
One LTF DA12W350C1834D010-0014 dimming LED driver.
120.0Vac, 60.00Hz, 0.1116A, 13.03W, 0.974PF, 8.5%THD(i)



Performance Summary

Total Light Output	728 lm
Luminaire Power	13.0 W
Luminous Efficacy	56.0 lm/W

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

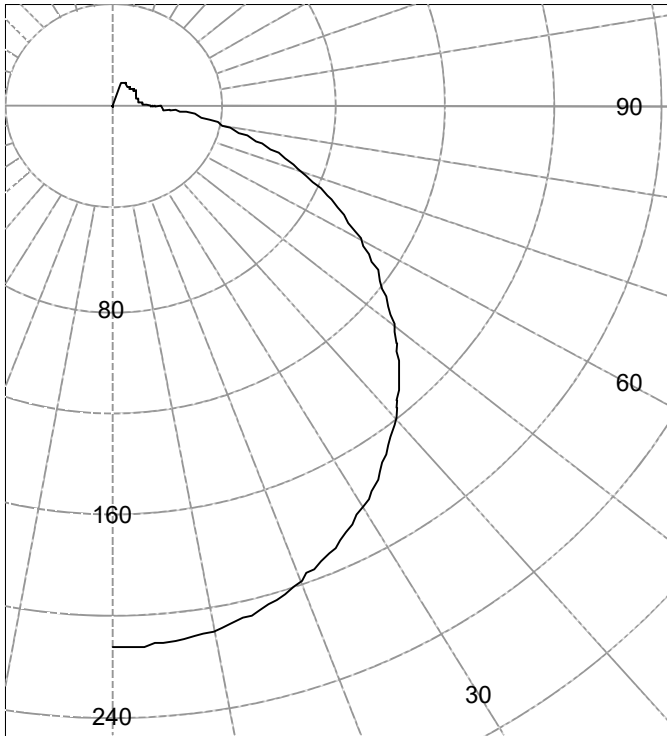


Test Report No. LLIA000802-024A

Catalog Number: 3-623 Journey Ceiling
Ceiling mounted, formed steel housing with white enamel
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120.0Vac, 60.00Hz, 0.1116A, 13.03W, 0.974PF, 8.5%THD(i)

Legend: All planes - Solid (cd)



(Rotational symmetry)

AVERAGE LUMINANCE (cd / m²)

Gamma	C0
45.0	1910
55.0	1835
65.0	1747
75.0	1634
85.0	1522

INTENSITY SUMMARY (cd)

Gamma	All Planes	Flux (lm)	Gamma	C0	Flux (lm)
0	213		90	17	
5	212	20	95	12	13
10	209		100	10	
15	205	58	105	9	10
20	198		110	9	
25	191	88	115	9	9
30	182		120	9	
35	171	107	125	10	9
40	159		130	10	
45	146	113	135	10	8
50	133		140	10	
55	118	106	145	10	6
60	103		150	10	
65	88	87	155	10	5
70	72		160	10	
75	56	59	165	9	2
80	41		170	0	
85	27	30	175	0	0
90	17		180	0	

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	%Lamp	%Luminaire
0-30	166	N / A	22.8
0-40	273	N / A	37.4
0-60	491	N / A	67.5
0-90	667	N / A	91.6
40-90	395	N / A	54.2
60-90	176	N / A	24.1
90-180	61	N / A	8.4
0-180	728	N / A	100.0

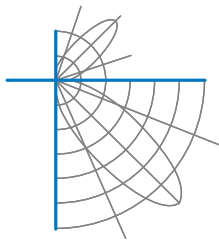
Total Light Output = 728 lm

Spacing Criterion: 0-180 1.3
Spacing Criterion: 90-270 1.3

Signed:

Authorized Signatory

Date of test 29-Aug-2017
Date of report 30-Aug-2017

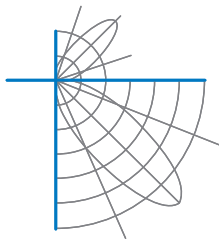


Test Report No. LLIA000802-024A

Catalog Number: 3-623 Journey Ceiling
Ceiling mounted, formed steel housing with white enamel
steel reflector, translucent white glass enclosure.
30 white LEDs, One Harvard Engineering LEDENG-152-930-NL LED board.
One LTF DA12W350C1834D010-0014 dimming LED driver.
120.0Vac, 60.00Hz, 0.1116A, 13.03W, 0.974PF, 8.5%THD(i)

Intensity (cd) and Flux (lm) data

Gamma	Intensity	Flux	Gamma	Intensity	Flux
0.0	213		90.0	17	
2.5	212		92.5	14	
5.0	212	20	95.0	12	
7.5	211		97.5	11	13
10.0	209		100.0	10	
12.5	207		102.5	10	
15.0	205	58	105.0	9	
17.5	202		107.5	9	10
20.0	198		110.0	9	
22.5	195		112.5	9	
25.0	191	88	115.0	9	
27.5	186		117.5	9	9
30.0	182		120.0	9	
32.5	176		122.5	10	
35.0	171	107	125.0	10	
37.5	165		127.5	10	9
40.0	159		130.0	10	
42.5	153		132.5	10	
45.0	146	113	135.0	10	
47.5	140		137.5	10	8
50.0	133		140.0	10	
52.5	126		142.5	10	
55.0	118	106	145.0	10	
57.5	111		147.5	10	6
60.0	103		150.0	10	
62.5	95		152.5	10	
65.0	88	87	155.0	10	
67.5	80		157.5	10	5
70.0	72		160.0	10	
72.5	64		162.5	9	
75.0	56	59	165.0	9	
77.5	48		167.5	0	2
80.0	41		170.0	0	
82.5	33		172.5	0	
85.0	27	30	175.0	0	
87.5	21		177.5	0	0
90.0	17		180.0	0	



Test Number: LLIA000802-024A

Catalog Number: 3-623 Journey Ceiling

Ceiling mounted, formed steel housing with white enamel steel reflector, translucent white glass enclosure.

30 white LEDs, One Harvard Engineering LEDENG-152-930-NL LED board.

One LTF DA12W350C1834D010-0014 dimming LED driver.

120.0Vac, 60.00Hz, 0.1116A, 13.03W, 0.974PF, 8.5%THD(i)

Coefficients Of Utilization - Zonal Cavity Method

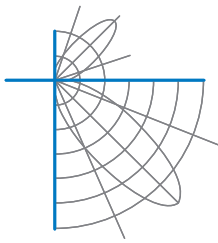
Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
0	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	92
1	106	100	96	91	102	97	93	89	91	88	85	86	83	81	81	79	77	74
2	95	87	79	73	92	84	77	72	79	74	69	74	70	66	70	67	63	61
3	87	76	67	60	83	73	66	59	69	63	57	65	60	55	62	57	53	50
4	79	67	58	51	76	65	56	50	61	54	48	58	52	47	55	50	45	43
5	73	59	50	43	70	58	49	43	55	47	41	52	45	40	49	44	39	37
6	67	53	44	38	64	52	43	37	49	42	36	47	40	35	44	39	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	29	25	34	29	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	32	26	22	20

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.

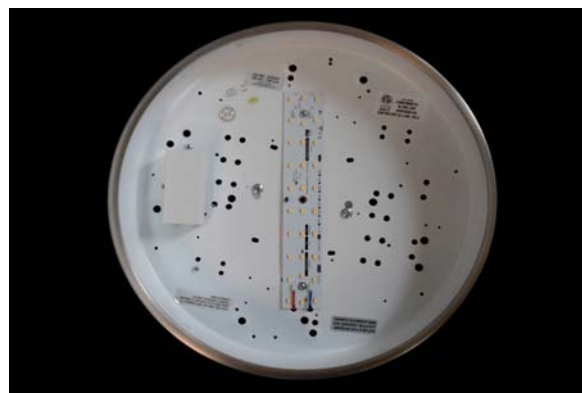
Circle of Light Plot

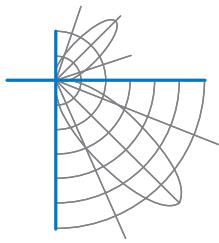
Height(ft)	Illuminance at Nadir (fc)	Beam Width (across 50% Nadir Illum)	
		0-180	90-270
6.0	5.9	7.62	7.62
8.0	3.3	10.16	10.16
10.0	2.1	12.70	12.70
12.0	1.5	15.24	15.24
14.0	1.1	17.78	17.78
16.0	0.8	20.32	20.32



Test Report No. LLIA000802-024A

Catalog Number: 3-623 Journey Ceiling
Ceiling mounted, formed steel housing with white enamel
steel reflector, translucent white glass enclosure.
30 white LEDs, One Harvard Engineering LEDENG-152-930-NL LED board.
One LTF DA12W350C1834D010-0014 dimming LED driver.
120.0Vac, 60.00Hz, 0.1116A, 13.03W, 0.974PF, 8.5%THD(i)





Test Report No. LLIA000802-024A

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Ceiling mounted, formed steel housing with white enamel
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One LTF DA12W350C1834D010-0014 dimming LED driver.
120.0Vac, 60.00Hz, 0.1116A, 13.03W, 0.974PF, 8.5%THD(i)

Test Distance 9.5 m
Test Temperature 24.6 °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.

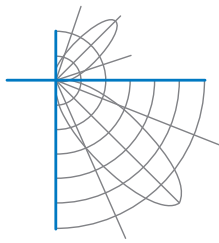
Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

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

LLIA000802-024B

Integrating Sphere Report

Catalog Number: 3-623 Journey Ceiling

Ceiling mounted, formed steel housing with white enamel
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30 white LEDs, One Harvard Engineering LEDENG-152-930-NL LED board.

One LTF DA12W350C1834D010-0014 dimming LED driver.

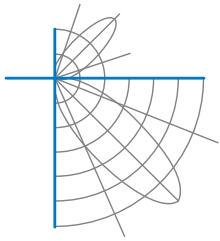


Performance Summary

Voltage	120.0 Vac
Current	0.1114 A
Power	13.02 W
Frequency	60.00 Hz
Power Factor	0.974
Current THD	8.5 %
Total Luminous Flux	748.4 lm
Efficacy	57.5 lm/W
Chromaticity (x,y)	(0.4297, 0.3984)
(u',v')	(0.2483, 0.5181)
Duv	-0.0012
CCT	3078 K
CRI (Ra)	92
R9	61

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

Test date: 08/28/2017
Report date: 08/31/2017



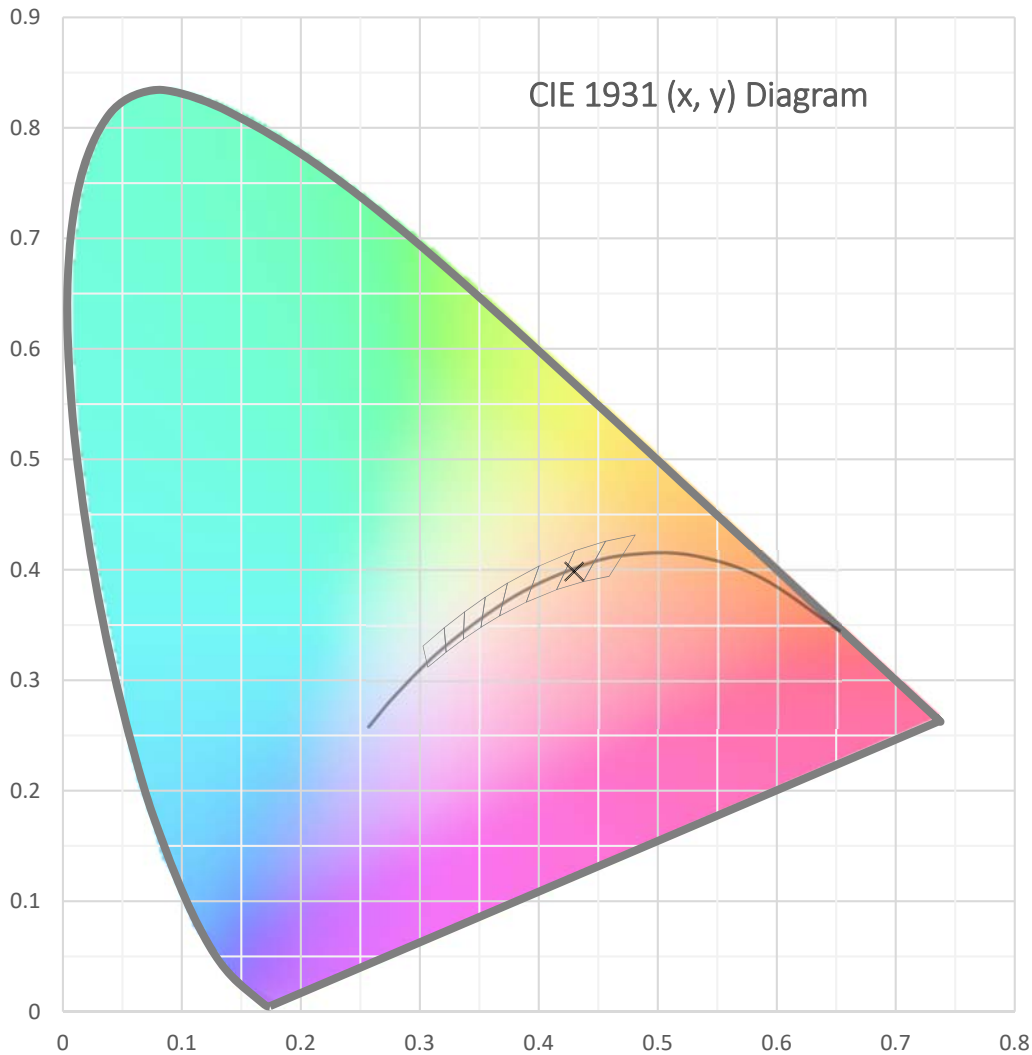
Test Report Number: LLIA000802-024B

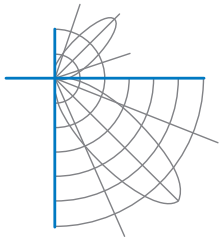
Catalog Number: 3-623 Journey Ceiling

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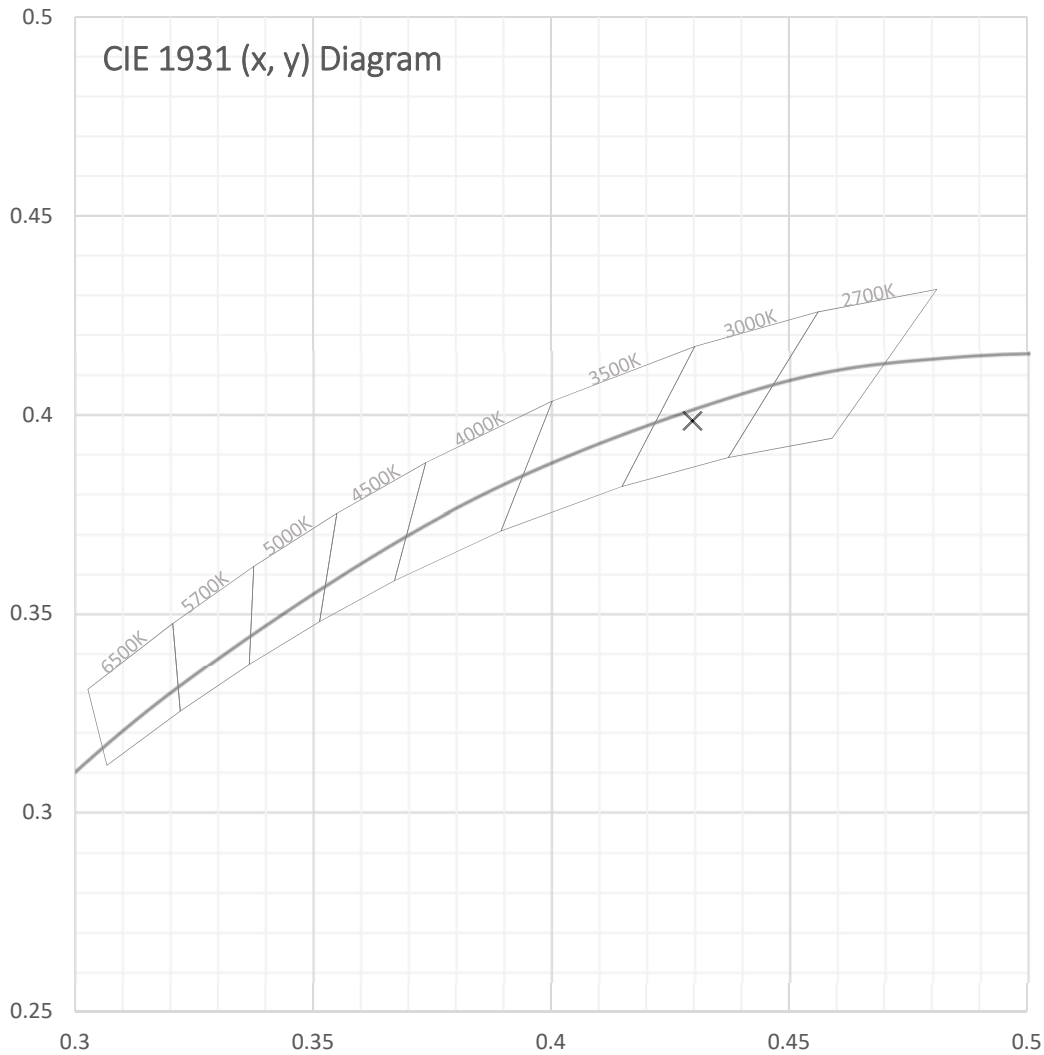
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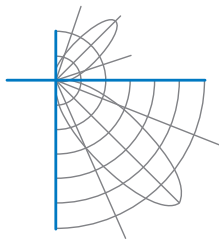
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One LTF DA12W350C1834D010-0014 dimming LED driver.





Test Report Number: LLIA000802-024B

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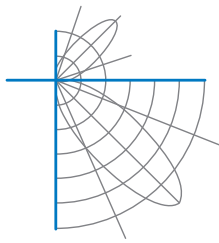
One LTF DA12W350C1834D010-0014 dimming LED driver.

Spectral Data

Total Radiant Flux	2.628 W
Total Luminous Flux	748.4 Lm
Chromaticity CIE 1931 (x, y)	(0.4297, 0.3984)
Chromaticity CIE 1976 (u', v')	(0.2483, 0.5181)
Correlated Color Temperature (CCT)	3078 K
Color Rendering Index (Ra)	92
R1	92
R2	95
R3	95
R4	92
R5	91
R6	92
R7	93
R8	83
R9	61
R10	86
R11	92
R12	80
R13	92
R14	97
Distance from Planckian Locus (Duv)	-0.0012
Scotopic/Photopic Ratio *	1.425

Electrical Data

Voltage	120.0 Vac
Current	0.1114 A
Power	13.02 W
Frequency	60.00 Hz
Power Factor	0.974
Current THD	8.5 %



Test Report Number: LLIA000802-024B

Catalog Number: 3-623 Journey Ceiling

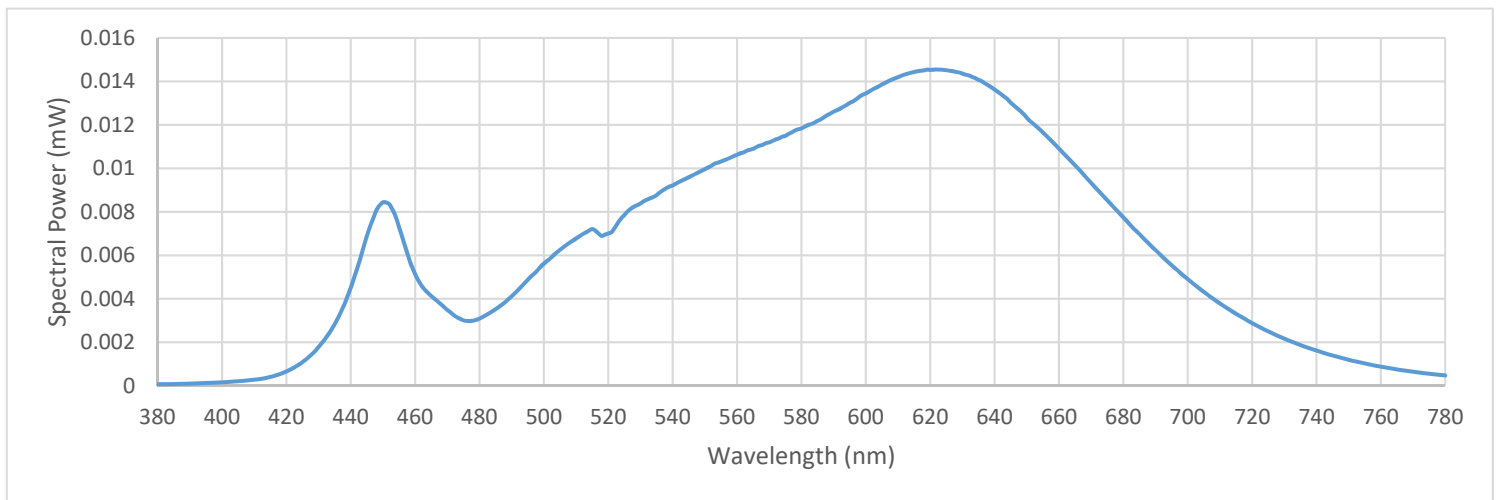
Ceiling mounted, formed steel housing with white enamel
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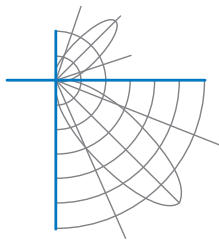
30 white LEDs, One Harvard Engineering LEDENG-152-930-NL LED board.

One LTF DA12W350C1834D010-0014 dimming LED driver.

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

380	0.000069	480	0.003089	580	0.011837	680	0.007743
385	0.000078	485	0.003525	585	0.012188	685	0.006983
390	0.000098	490	0.004114	590	0.012613	690	0.006242
395	0.000125	495	0.004866	595	0.013012	695	0.005533
400	0.000161	500	0.005623	600	0.013445	700	0.004911
405	0.000206	505	0.006251	605	0.013861	705	0.004324
410	0.000277	510	0.006771	610	0.014192	710	0.003782
415	0.000405	515	0.007209	615	0.014441	715	0.003312
420	0.000658	520	0.007709	620	0.014529	720	0.002885
425	0.001091	525	0.007855	625	0.014515	725	0.002507
430	0.001784	530	0.008386	630	0.014360	730	0.002176
435	0.002835	535	0.008769	635	0.014070	735	0.001872
440	0.004511	540	0.009213	640	0.013631	740	0.001610
445	0.006884	545	0.009584	645	0.013017	745	0.001390
450	0.008441	550	0.009966	650	0.012324	750	0.001194
455	0.007288	555	0.010313	655	0.011649	755	0.001024
460	0.005144	560	0.010629	660	0.010914	760	0.000882
465	0.004121	565	0.010899	665	0.010132	765	0.000758
470	0.003488	570	0.011197	670	0.009329	770	0.000649
475	0.003006	575	0.011494	675	0.008533	775	0.000557
						780	0.000478





Test Report Number: LLIA000802-024B

Catalog Number: 3-623 Journey Ceiling

Ceiling mounted, formed steel housing with white enamel
steel reflector, translucent white glass enclosure.

30 white LEDs, One Harvard Engineering LEDENG-152-930-NL LED board.

One LTF DA12W350C1834D010-0014 dimming 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: 25.4 °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

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
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