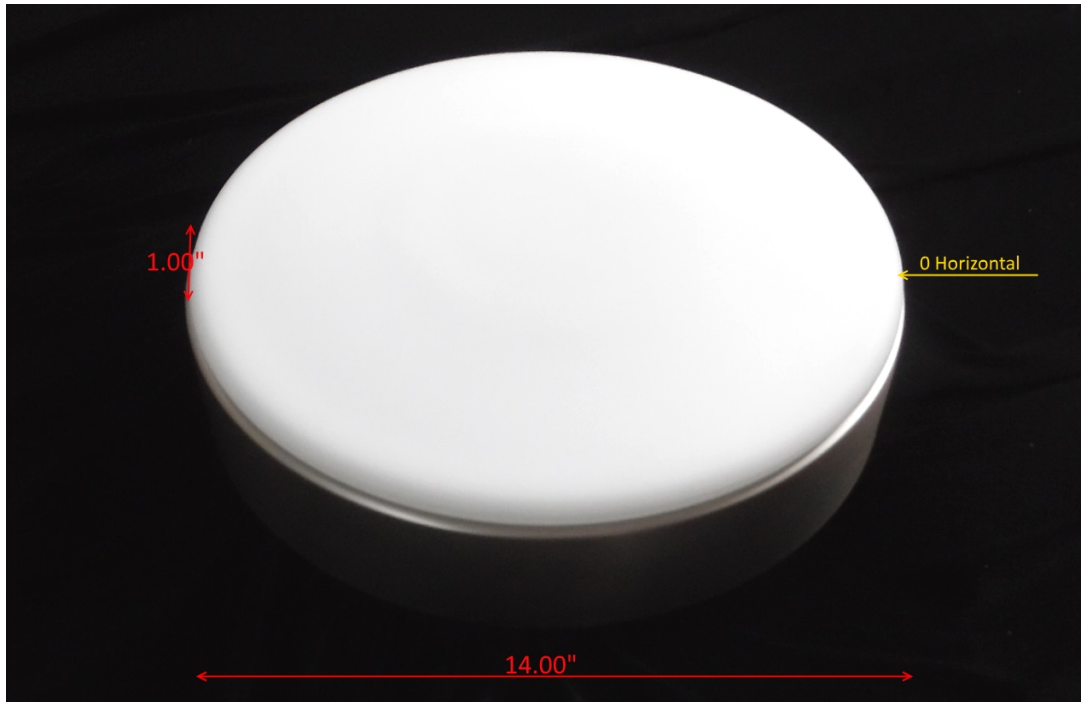


Report of Test

LLIA000802-025A

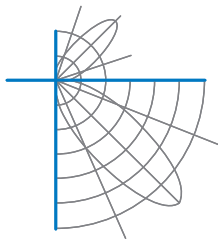
Catalog Number: 3-624 Journey Ceiling
Ceiling mounted, formed steel housing with white enamel steel reflector, translucent white glass enclosure.
60 white LEDs, two Harvard Engineering LEDENG-152-930-NL LED boards.
Two LTF DA12W350C1834D010-0014 dimming LED drivers.
120.0Vac, 60.00Hz, 0.2195A, 25.68W, 0.974PF, 8.5%THD(i)



Performance Summary

Total Light Output	1460 lm
Luminaire Power	25.7 W
Luminous Efficacy	56.8 lm/W

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

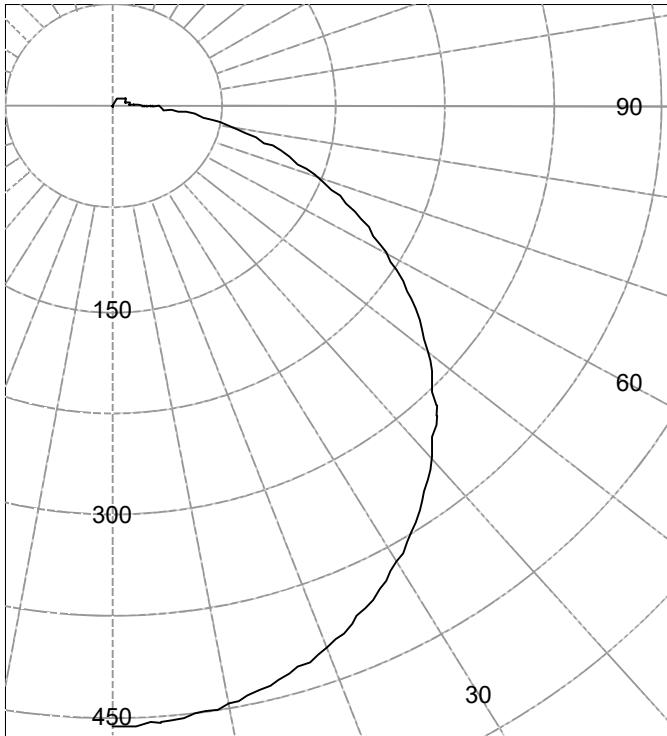


Test Report No. LLIA000802-025A

Catalog Number: 3-624 Journey Ceiling
Ceiling mounted, formed steel housing with white enamel
steel reflector, translucent white glass enclosure.

60 white LEDs, two Harvard Engineering LEDENG-152-930-NL LED boards.
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120.0Vac, 60.00Hz, 0.2195A, 25.68W, 0.974PF, 8.5%THD(i)

Legend: All planes - Solid (cd)



(Rotational symmetry)

AVERAGE LUMINANCE (cd / m²)

Gamma	C0
45.0	4038
55.0	3847
65.0	3606
75.0	3273
85.0	2807

INTENSITY SUMMARY (cd)

Gamma	All Planes	Flux (lm)	Gamma	C0	Flux (lm)
0	455		90	27	
5	453	43	95	17	19
10	447		100	13	
15	437	123	105	11	12
20	424		110	11	
25	407	188	115	10	10
30	387		120	9	
35	364	228	125	9	8
40	338		130	9	
45	310	239	135	8	6
50	280		140	8	
55	248	221	145	8	5
60	215		150	8	
65	181	179	155	8	4
70	147		160	7	
75	112	119	165	7	1
80	79		170	0	
85	49	55	175	0	0
90	27		180	0	

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	%Lamp	%Luminaire
0-30	354	N / A	24.2
0-40	582	N / A	39.8
0-60	1042	N / A	71.4
0-90	1395	N / A	95.5
40-90	813	N / A	55.7
60-90	353	N / A	24.2
90-180	66	N / A	4.5
0-180	1460	N / A	100.0

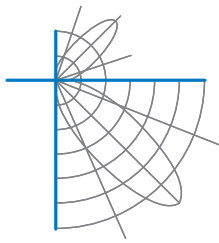
Total Light Output = 1,460 lm

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

Signed:

Authorized Signatory

Date of test 28-Aug-2017
Date of report 30-Aug-2017

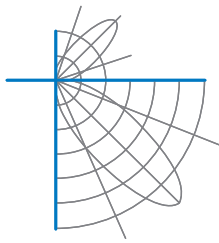


Test Report No. LLIA000802-025A

Catalog Number: 3-624 Journey Ceiling
Ceiling mounted, formed steel housing with white enamel
steel reflector, translucent white glass enclosure.
60 white LEDs, two Harvard Engineering LEDENG-152-930-NL LED boards.
Two LTF DA12W350C1834D010-0014 dimming LED drivers.
120.0Vac, 60.00Hz, 0.2195A, 25.68W, 0.974PF, 8.5%THD(i)

Intensity (cd) and Flux (lm) data

Gamma	Intensity	Flux	Gamma	Intensity	Flux
0.0	455		90.0	27	
2.5	454		92.5	21	
5.0	453	43	95.0	17	
7.5	450		97.5	14	19
10.0	447		100.0	13	
12.5	443		102.5	12	
15.0	437	123	105.0	11	
17.5	431		107.5	11	12
20.0	424		110.0	11	
22.5	416		112.5	10	
25.0	407	188	115.0	10	
27.5	397		117.5	10	10
30.0	387		120.0	9	
32.5	376		122.5	9	
35.0	364	228	125.0	9	
37.5	351		127.5	9	8
40.0	338		130.0	9	
42.5	324		132.5	8	
45.0	310	239	135.0	8	
47.5	295		137.5	8	6
50.0	280		140.0	8	
52.5	264		142.5	8	
55.0	248	221	145.0	8	
57.5	231		147.5	8	5
60.0	215		150.0	8	
62.5	198		152.5	8	
65.0	181	179	155.0	8	
67.5	164		157.5	7	4
70.0	147		160.0	7	
72.5	129		162.5	7	
75.0	112	119	165.0	7	
77.5	96		167.5	0	1
80.0	79		170.0	0	
82.5	63		172.5	0	
85.0	49	55	175.0	0	
87.5	37		177.5	0	0
90.0	27		180.0	0	



Test Number: LLIA000802-025A

Catalog Number: 3-624 Journey Ceiling

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

60 white LEDs, two Harvard Engineering LEDENG-152-930-NL LED boards.

Two LTF DA12W350C1834D010-0014 dimming LED drivers.

120.0Vac, 60.00Hz, 0.2195A, 25.68W, 0.974PF, 8.5%THD(i)

Coefficients Of Utilization - Zonal Cavity Method

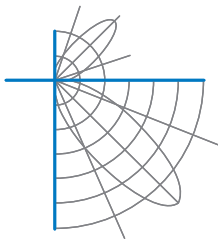
Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	96
1	107	101	97	92	103	99	94	91	94	90	87	89	86	83	84	82	80	78
2	97	88	80	74	93	85	79	73	81	76	71	77	73	68	73	70	66	64
3	88	77	68	61	85	75	67	60	71	64	59	68	62	57	65	60	56	53
4	80	68	59	52	77	66	58	51	63	56	50	60	54	49	57	52	48	45
5	74	60	51	44	71	59	50	44	56	49	43	54	47	42	51	46	41	39
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	47	41	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	32	42	37	32	30
8	58	45	36	30	57	44	36	30	42	35	29	41	34	29	39	33	29	27
9	55	41	33	27	53	40	32	27	39	32	26	37	31	26	36	30	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	28	24	33	28	23	22

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	12.6	7.59	7.59
8.0	7.1	10.11	10.11
10.0	4.5	12.64	12.64
12.0	3.2	15.17	15.17
14.0	2.3	17.70	17.70
16.0	1.8	20.23	20.23



Test Report No. LLIA000802-025A

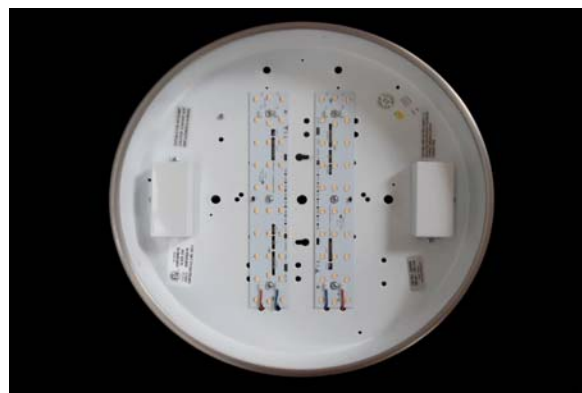
Catalog Number: 3-624 Journey Ceiling

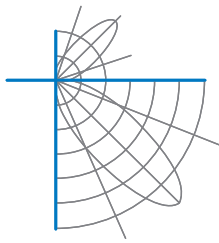
Ceiling mounted, formed steel housing with white enamel
steel reflector, translucent white glass enclosure.

60 white LEDs, two Harvard Engineering LEDENG-152-930-NL LED boards.

Two LTF DA12W350C1834D010-0014 dimming LED drivers.

120.0Vac, 60.00Hz, 0.2195A, 25.68W, 0.974PF, 8.5%THD(i)





Test Report No. LLIA000802-025A

Catalog Number: 3-624 Journey Ceiling
Ceiling mounted, formed steel housing with white enamel
steel reflector, translucent white glass enclosure.
60 white LEDs, two Harvard Engineering LEDENG-152-930-NL LED boards.
Two LTF DA12W350C1834D010-0014 dimming LED drivers.
120.0Vac, 60.00Hz, 0.2195A, 25.68W, 0.974PF, 8.5%THD(i)

Test Distance 9.5 m
Test Temperature 24.9 °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

LLIA000802-025B

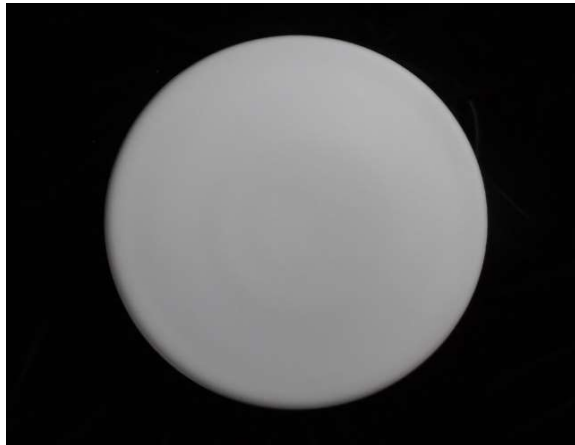
Integrating Sphere Report

Catalog Number: 3-624 Journey Ceiling

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

60 white LEDs, two Harvard Engineering LEDENG-152-930-NL LED boards.

Two LTF DA12W350C1834D010-0014 dimming LED drivers.



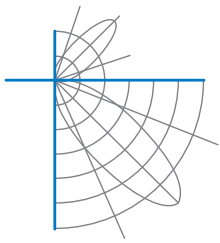
Performance Summary

Voltage	120.0 Vac
Current	0.2194 A
Power	25.65 W
Frequency	60.00 Hz
Power Factor	0.975
Current THD	8.6 %

Total Luminous Flux	1478.3 lm
Efficacy	57.6 lm/W
Chromaticity (x,y)	(0.4280, 0.3975)
(u',v')	(0.2476, 0.5174)
Duv	-0.0014
CCT	3102 K
CRI (Ra)	91
R9	59

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

Test date: 08/28/2017
Report date: 08/30/2017



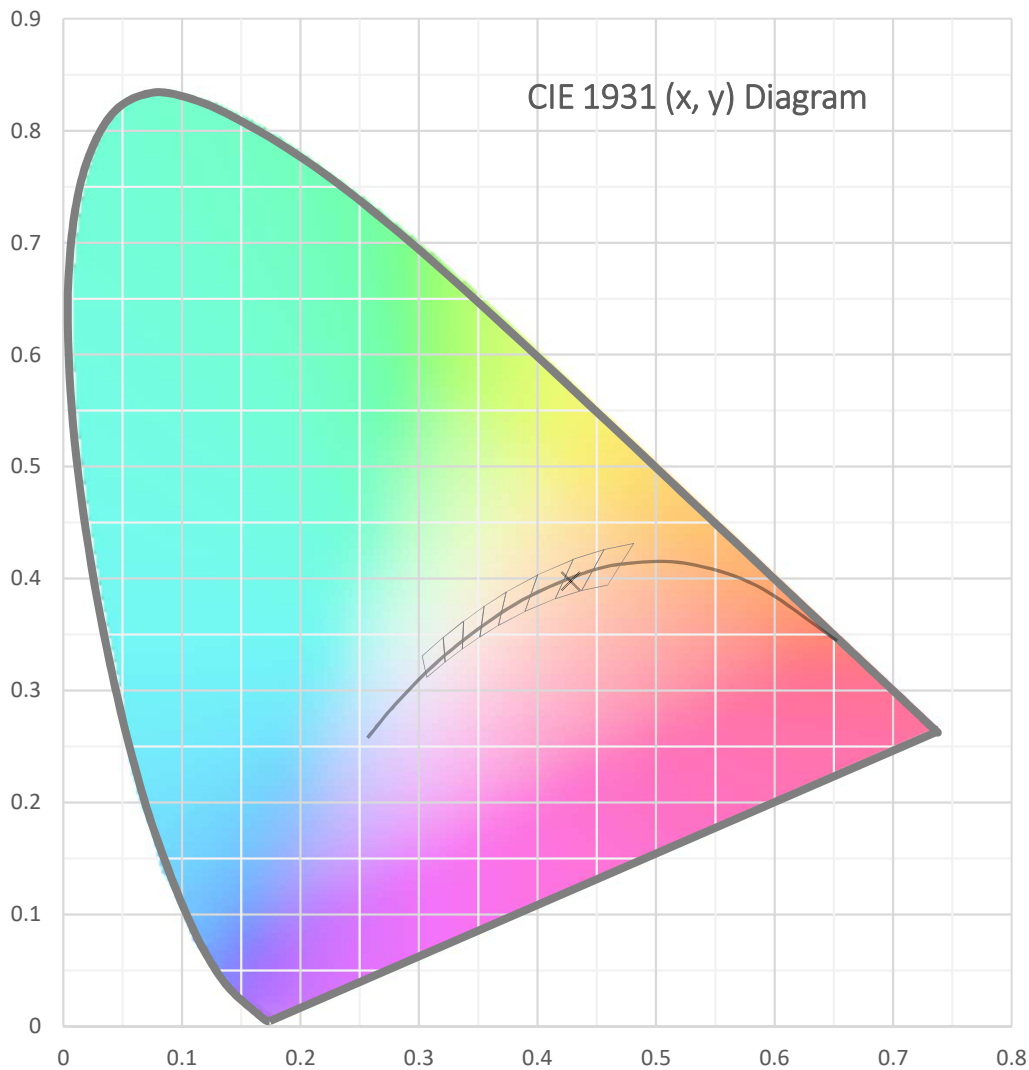
Test Report Number: LLIA000802-025B

Catalog Number: 3-624 Journey Ceiling

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

60 white LEDs, two Harvard Engineering LEDENG-152-930-NL LED boards.

Two LTF DA12W350C1834D010-0014 dimming LED drivers.





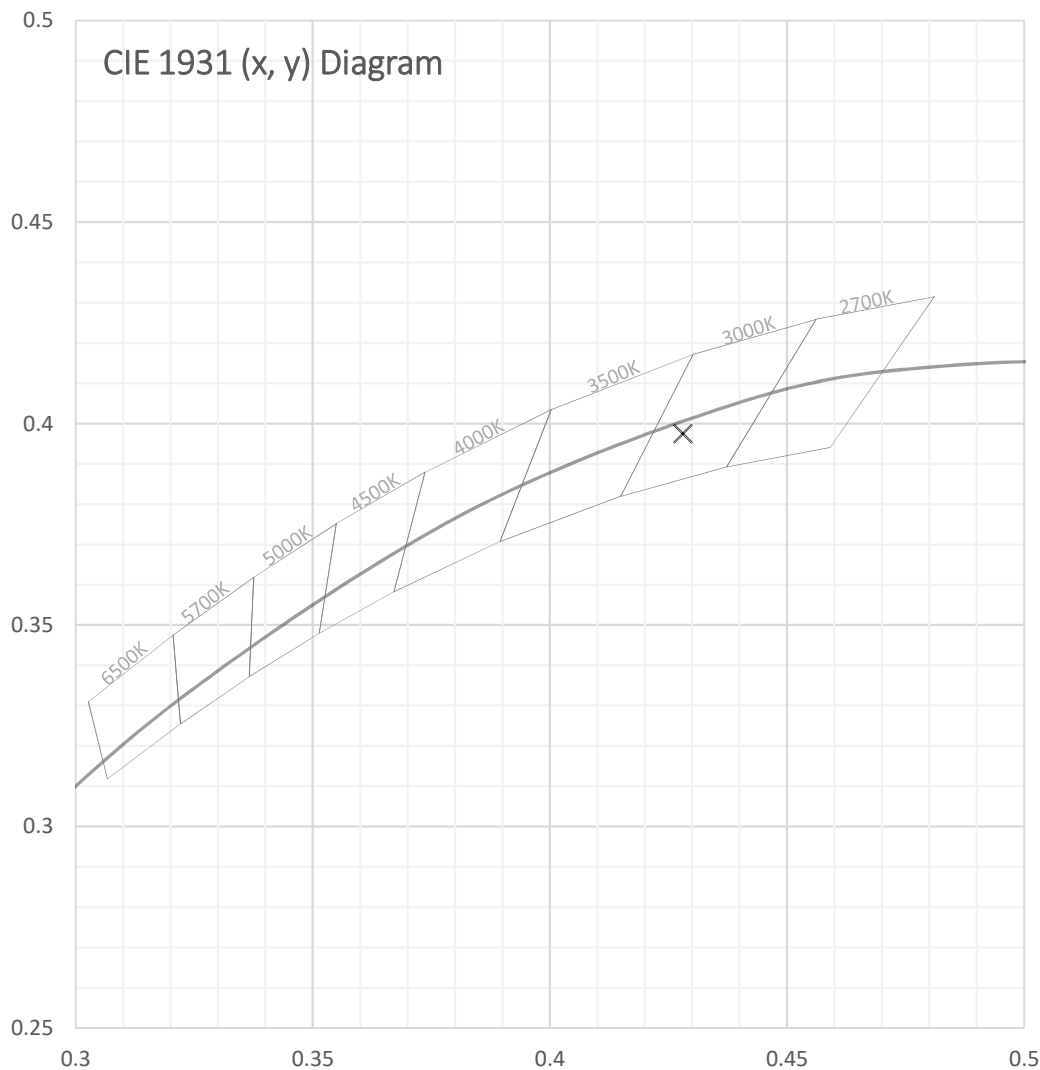
Test Report Number: LLIA000802-025B

Catalog Number: 3-624 Journey Ceiling

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Test Report Number: LLIA000802-025B

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

60 white LEDs, two Harvard Engineering LEDENG-152-930-NL LED boards.

Two LTF DA12W350C1834D010-0014 dimming LED drivers.

Spectral Data

Total Radiant Flux	5.162 W
Total Luminous Flux	1478.3 Lm
Chromaticity CIE 1931 (x, y)	(0.4280, 0.3975)
Chromaticity CIE 1976 (u', v')	(0.2476, 0.5174)
Correlated Color Temperature (CCT)	3102 K
Color Rendering Index (Ra)	91
R1	91
R2	94
R3	95
R4	91
R5	91
R6	92
R7	92
R8	82
R9	59
R10	85
R11	90
R12	79
R13	92
R14	97
Distance from Planckian Locus (Duv)	-0.0014
Scotopic/Photopic Ratio *	1.433

Electrical Data

Voltage	120.0 Vac
Current	0.2194 A
Power	25.65 W
Frequency	60.00 Hz
Power Factor	0.975
Current THD	8.6 %



Test Report Number: LLIA000802-025B

Catalog Number: 3-624 Journey Ceiling

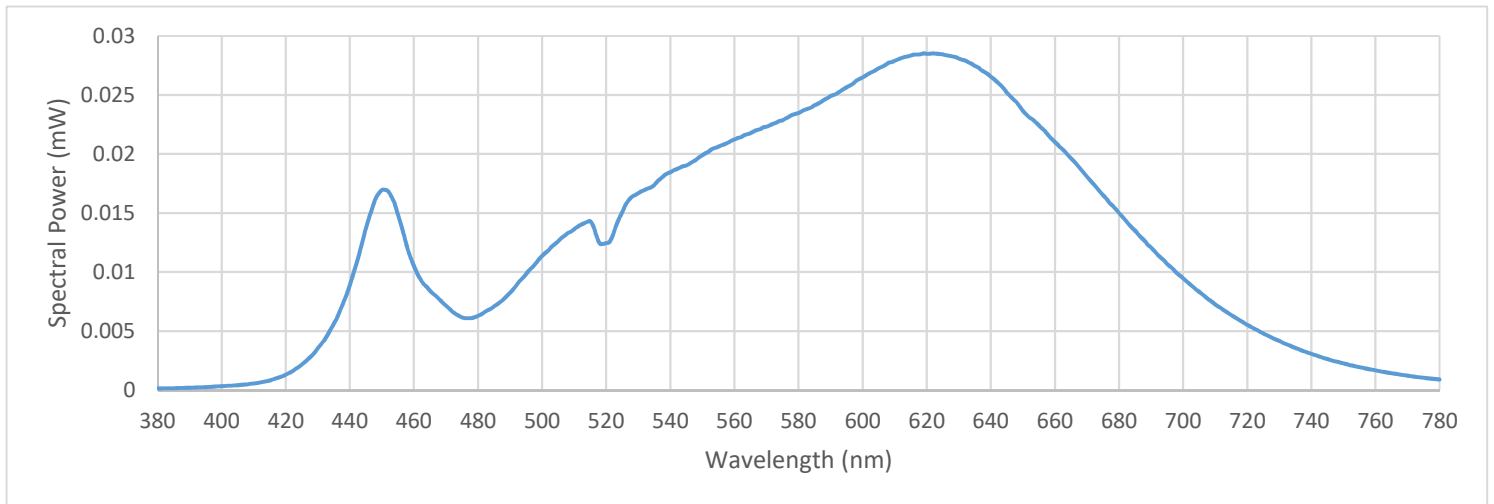
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Two LTF DA12W350C1834D010-0014 dimming LED drivers.

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

380	0.000136	480	0.006285	580	0.023475	680	0.014993
385	0.000155	485	0.007081	585	0.024125	685	0.013511
390	0.000192	490	0.008245	590	0.024906	690	0.012070
395	0.000249	495	0.009815	595	0.025650	695	0.010678
400	0.000319	500	0.011359	600	0.026485	700	0.009464
405	0.000408	505	0.012606	605	0.027260	705	0.008323
410	0.000553	510	0.013627	610	0.027894	710	0.007261
415	0.000805	515	0.014303	615	0.028336	715	0.006358
420	0.001302	520	0.012451	620	0.028488	720	0.005527
425	0.002152	525	0.015068	625	0.028436	725	0.004787
430	0.003521	530	0.016665	630	0.028092	730	0.004157
435	0.005595	535	0.017366	635	0.027469	735	0.003564
440	0.008916	540	0.018446	640	0.026550	740	0.003058
445	0.013690	545	0.019031	645	0.025187	745	0.002629
450	0.016944	550	0.019895	650	0.023661	750	0.002253
455	0.014881	555	0.020626	655	0.022413	755	0.001928
460	0.010524	560	0.021226	660	0.021026	760	0.001665
465	0.008413	565	0.021756	665	0.019631	765	0.001423
470	0.007156	570	0.022312	670	0.018070	770	0.001216
475	0.006148	575	0.022846	675	0.016515	775	0.001043
						780	0.000892





Test Report Number: LLIA000802-025B

Catalog Number: 3-624 Journey Ceiling

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

60 white LEDs, two Harvard Engineering LEDENG-152-930-NL LED boards.

Two LTF DA12W350C1834D010-0014 dimming LED drivers.

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: 25.1 °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
combinations (such as lamp / LED / Ballast / driver), or for use in different
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