

Report of Test

LLIA000824-025A

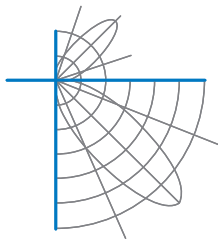
Catalog Number: 3-622-24 Journey Ceiling Mount
Ceiling mounted, formed white steel housing/reflector, opal glass enclosure.
24 white LEDs, One Harvard Engineering LEDENG-165-930 LED board
One L.T.F. DA12W350C1834D010-0014 dimmable LED driver
120.0Vac, 60.00Hz, 0.0878A, 10.10W, 0.959PF, 10.2%THD(i)



Performance Summary

Total Light Output	608 lm
Luminaire Power	10.1 W
Luminous Efficacy	60.2 lm/W

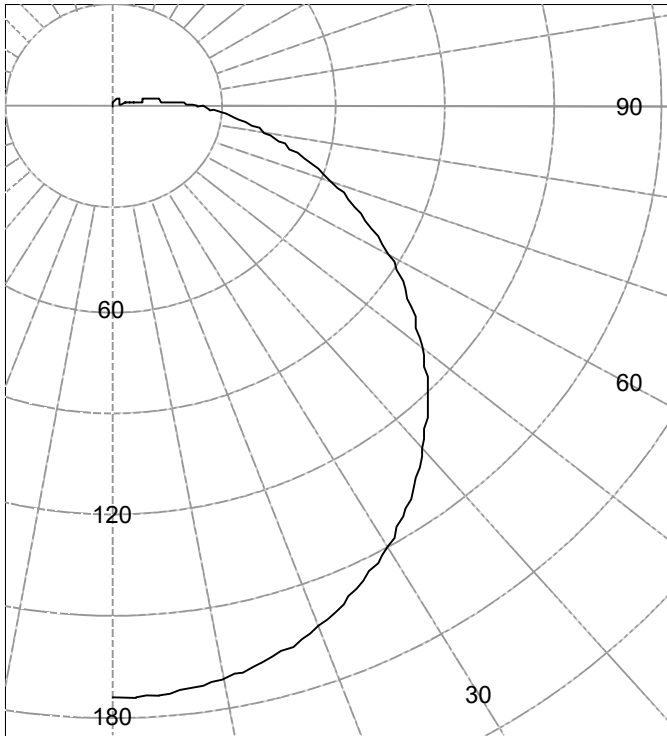
PREPARED FOR : Oxygen Lighting, 201 Railhead Road, Fort Worth, TX 76106, USA



Test Report No. LLIA000824-025A

Catalog Number: 3-622-24 Journey Ceiling Mount
Ceiling mounted, formed white steel housing/reflector, opal glass enclosure.
24 white LEDs, One Harvard Engineering LEDENG-165-930 LED board
One L.T.F. DA12W350C1834D010-0014 dimmable LED driver
120.0Vac, 60.00Hz, 0.0878A, 10.10W, 0.959PF, 10.2%THD(i)

Legend: All planes - Solid (cd)



(Rotational symmetry)

AVERAGE LUMINANCE (cd / m²)

Gamma	C0
45.0	2662
55.0	2411
65.0	2140
75.0	1867
85.0	1625

INTENSITY SUMMARY (cd)

Gamma	All Planes	Flux (lm)	Gamma	C0	Flux (lm)
0	174		90	24	
5	173	16	95	18	19
10	171		100	12	
15	168	47	105	8	9
20	163		110	5	
25	157	72	115	3	4
30	149		120	2	
35	141	88	125	2	2
40	131		130	2	
45	121	93	135	2	2
50	110		140	2	
55	98	88	145	2	1
60	86		150	3	
65	74	74	155	3	1
70	63		160	3	
75	52	55	165	3	1
80	42		170	2	
85	33	36	175	2	0
90	24		180	0	

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	%Lamp	%Luminaire
0-30	136	N / A	22.4
0-40	224	N / A	36.8
0-60	405	N / A	66.6
0-90	570	N / A	93.6
40-90	346	N / A	56.8
60-90	164	N / A	27.0
90-180	39	N / A	6.4
0-180	608	N / A	100.0

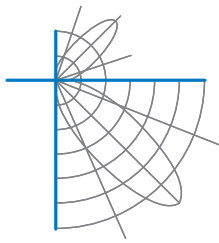
Total Light Output = 608 lm

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

Signed:

Authorized Signatory

Date of test 31-Jul-2017
Date of report 1-Aug-2017



Test Report No. LLIA000824-025A

Catalog Number: 3-622-24 Journey Ceiling Mount

Ceiling mounted, formed white steel housing/reflector, opal glass enclosure.

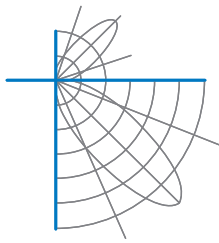
24 white LEDs, One Harvard Engineering LEDENG-165-930 LED board

One L.T.F. DA12W350C1834D010-0014 dimmable LED driver

120.0Vac, 60.00Hz, 0.0878A, 10.10W, 0.959PF, 10.2%THD(i)

Intensity (cd) and Flux (lm) data

Gamma	Intensity	Flux	Gamma	Intensity	Flux
0.0	174		90.0	24	
2.5	174		92.5	21	
5.0	173	16	95.0	18	
7.5	173		97.5	15	19
10.0	171		100.0	12	
12.5	170		102.5	10	
15.0	168	47	105.0	8	
17.5	166		107.5	7	9
20.0	163		110.0	5	
22.5	160		112.5	4	
25.0	157	72	115.0	3	
27.5	153		117.5	3	4
30.0	149		120.0	2	
32.5	145		122.5	2	
35.0	141	88	125.0	2	
37.5	136		127.5	2	2
40.0	131		130.0	2	
42.5	126		132.5	2	
45.0	121	93	135.0	2	
47.5	115		137.5	2	2
50.0	110		140.0	2	
52.5	104		142.5	2	
55.0	98	88	145.0	2	
57.5	92		147.5	3	1
60.0	86		150.0	3	
62.5	80		152.5	3	
65.0	74	74	155.0	3	
67.5	69		157.5	3	1
70.0	63		160.0	3	
72.5	57		162.5	3	
75.0	52	55	165.0	3	
77.5	47		167.5	3	1
80.0	42		170.0	2	
82.5	37		172.5	2	
85.0	33	36	175.0	2	
87.5	28		177.5	1	0
90.0	24		180.0	0	



Test Number: LLIA000824-025A

Catalog Number: 3-622-24 Journey Ceiling Mount

Ceiling mounted, formed white steel housing/reflector, opal glass enclosure.

24 white LEDs, One Harvard Engineering LEDENG-165-930 LED board

One L.T.F. DA12W350C1834D010-0014 dimmable LED driver

120.0Vac, 60.00Hz, 0.0878A, 10.10W, 0.959PF, 10.2%THD(i)

Coefficients Of Utilization - Zonal Cavity Method

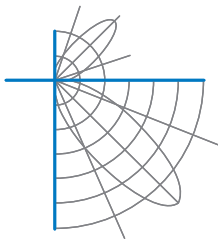
Effective Floor Cavity Reflectance 0.20

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	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	105	100	94	90	102	97	92	88	91	87	84	86	83	80	81	79	77	74
2	95	86	78	72	92	83	76	70	79	73	68	74	69	65	70	66	63	60
3	86	75	66	59	83	73	64	58	69	62	56	65	59	54	62	57	52	50
4	79	66	57	49	76	64	55	49	61	53	47	58	51	46	55	49	45	42
5	72	59	49	42	70	57	48	42	54	47	41	52	45	40	49	43	39	36
6	67	53	43	37	64	51	43	36	49	41	35	47	40	35	44	38	34	31
7	62	48	39	32	59	46	38	32	44	37	31	42	36	31	40	34	30	28
8	57	43	35	29	55	42	34	28	41	33	28	39	32	27	37	31	27	25
9	53	40	31	26	52	39	31	25	37	30	25	36	29	24	34	28	24	22
10	50	37	29	23	48	36	28	23	34	27	23	33	27	22	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	4.8	7.64	7.64
8.0	2.7	10.19	10.19
10.0	1.7	12.74	12.74
12.0	1.2	15.29	15.29
14.0	0.9	17.83	17.83
16.0	0.7	20.38	20.38



Test Report No. LLIA000824-025A

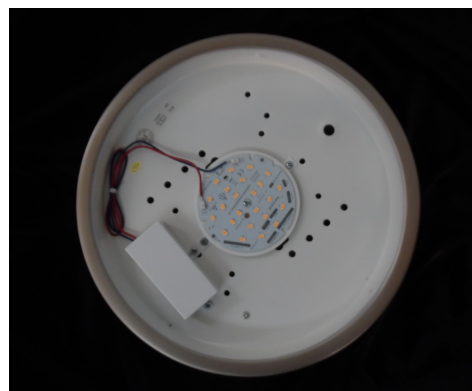
Catalog Number: 3-622-24 Journey Ceiling Mount

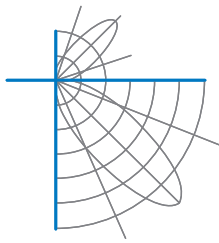
Ceiling mounted, formed white steel housing/reflector, opal glass enclosure.

24 white LEDs, One Harvard Engineering LEDENG-165-930 LED board

One L.T.F. DA12W350C1834D010-0014 dimmable LED driver

120.0Vac, 60.00Hz, 0.0878A, 10.10W, 0.959PF, 10.2%THD(i)





Test Report No. LLIA000824-025A

Catalog Number: 3-622-24 Journey Ceiling Mount

Ceiling mounted, formed white steel housing/reflector, opal glass enclosure.

24 white LEDs, One Harvard Engineering LEDENG-165-930 LED board

One L.T.F. DA12W350C1834D010-0014 dimmable LED driver

120.0Vac, 60.00Hz, 0.0878A, 10.10W, 0.959PF, 10.2%THD(i)

Test Distance 9.5 m
Test Temperature 24.8 °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.

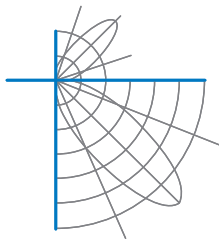
Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

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

LLIA000824-025B

Integrating Sphere Report

Catalog Number: 3-622-24 Journey Ceiling Mount

Ceiling mounted, formed white steel housing/reflector, opal glass enclosure.

24 white LEDs, One Harvard Engineering LEDENG-165-930 LED board

One L.T.F. DA12W350C1834D010-0014 dimmable LED driver

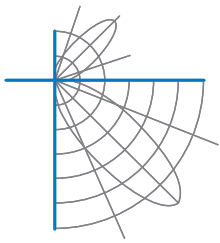


Performance Summary

Voltage	120.0 Vac
Current	0.0877 A
Power	10.11 W
Frequency	60.00 Hz
Power Factor	0.960
Current THD	10.3 %
Total Luminous Flux	606.7 lm
Efficacy	60.0 lm/W
Chromaticity (x,y)	(0.4403, 0.4100)
(u',v')	(0.2502, 0.5242)
Duv	0.0019
CCT	2992 K
CRI (Ra)	91
R9	53

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

Test date: 07/27/2017
Report date: 08/01/2017



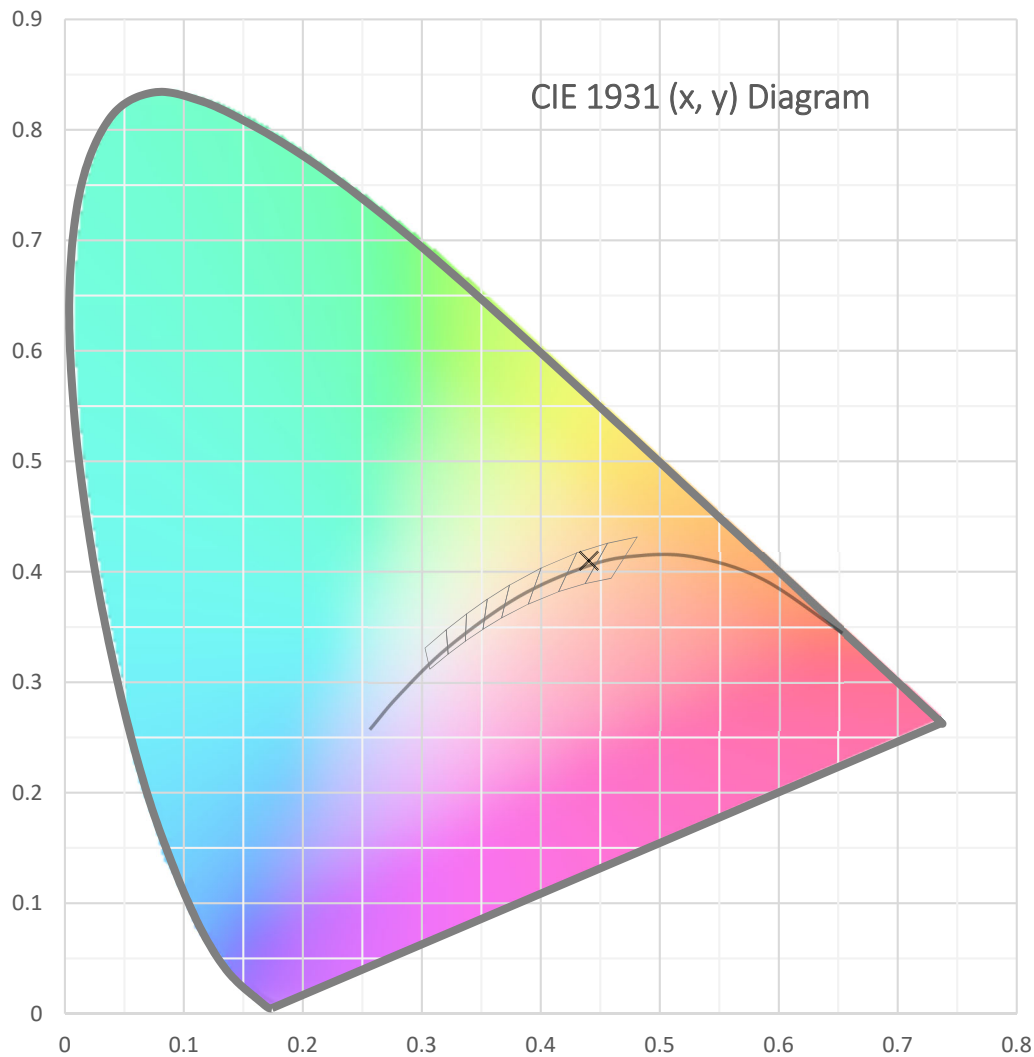
Test Report Number: LLIA000824-025B

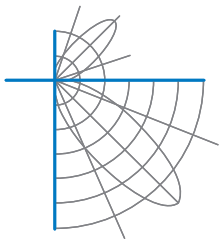
Catalog Number: 3-622-24 Journey Ceiling Mount

Ceiling mounted, formed white steel housing/reflector, opal glass enclosure.

24 white LEDs, One Harvard Engineering LEDENG-165-930 LED board

One L.T.F. DA12W350C1834D010-0014 dimmable LED driver





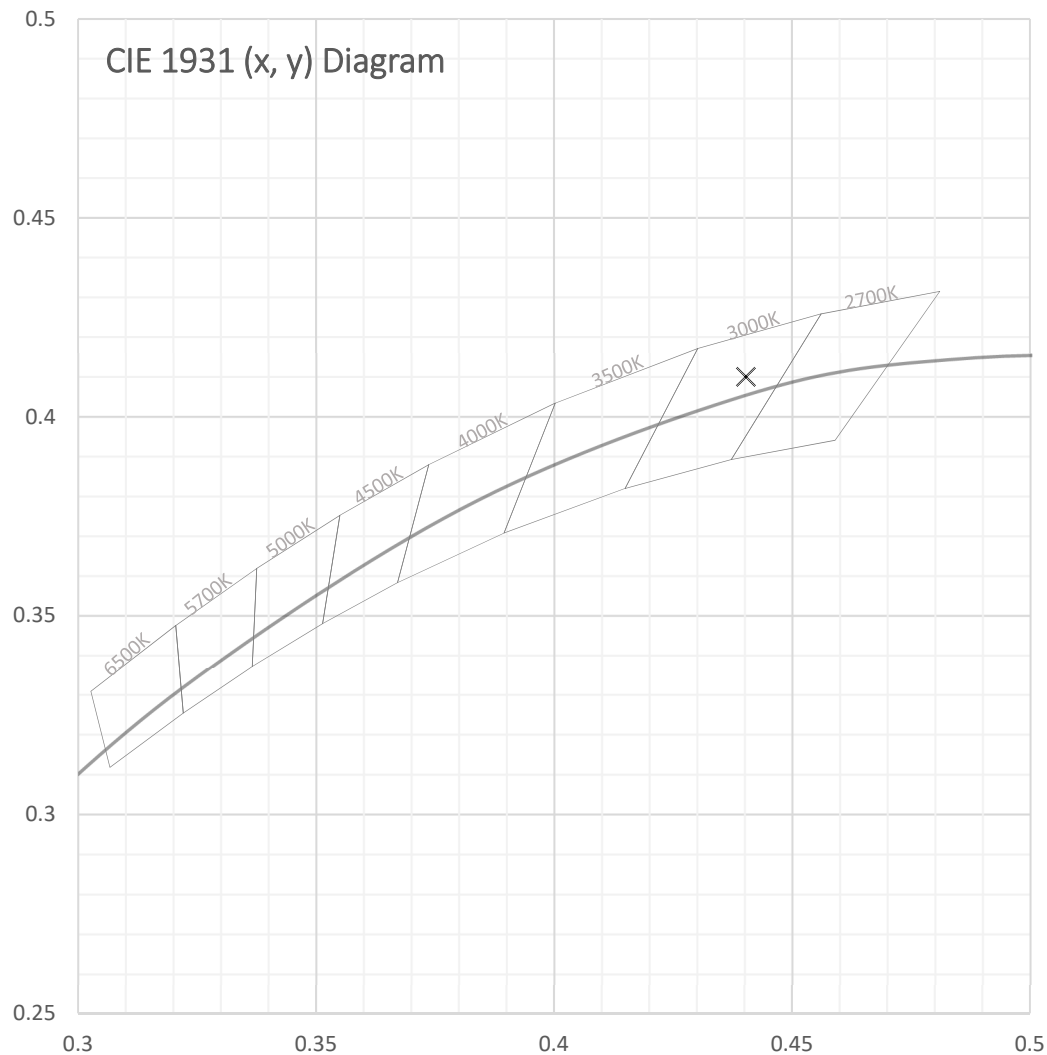
Test Report Number: LLIA000824-025B

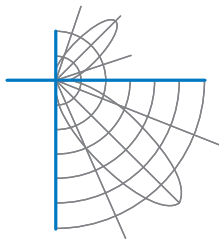
Catalog Number: 3-622-24 Journey Ceiling Mount

Ceiling mounted, formed white steel housing/reflector, opal glass enclosure.

24 white LEDs, One Harvard Engineering LEDENG-165-930 LED board

One L.T.F. DA12W350C1834D010-0014 dimmable LED driver





Test Report Number: LLIA000824-025B

Catalog Number: 3-622-24 Journey Ceiling Mount

Ceiling mounted, formed white steel housing/reflector, opal glass enclosure.

24 white LEDs, One Harvard Engineering LEDENG-165-930 LED board

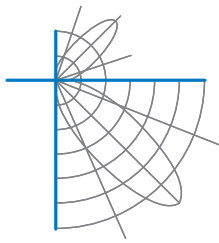
One L.T.F. DA12W350C1834D010-0014 dimmable LED driver

Spectral Data

Total Radiant Flux	2.078 W
Total Luminous Flux	606.7 Lm
Chromaticity CIE 1931 (x, y)	(0.4403, 0.4100)
Chromaticity CIE 1976 (u', v')	(0.2502, 0.5242)
Correlated Color Temperature (CCT)	2992 K
Color Rendering Index (Ra)	91
R1	90
R2	94
R3	96
R4	91
R5	90
R6	92
R7	93
R8	80
R9	53
R10	84
R11	91
R12	78
R13	91
R14	97
Distance from Planckian Locus (Duv)	0.0019
Scotopic/Photopic Ratio *	1.369

Electrical Data

Voltage	120.0 Vac
Current	0.0877 A
Power	10.11 W
Frequency	60.00 Hz
Power Factor	0.960
Current THD	10.3 %



Test Report Number: LLIA000824-025B

Catalog Number: 3-622-24 Journey Ceiling Mount

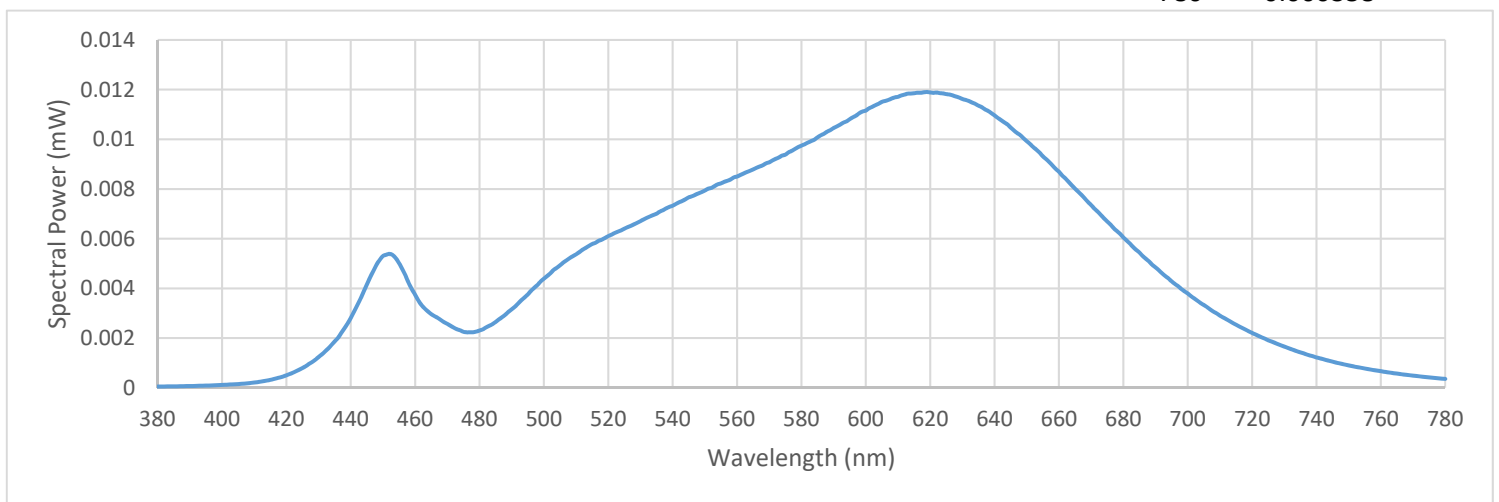
Ceiling mounted, formed white steel housing/reflector, opal glass enclosure.

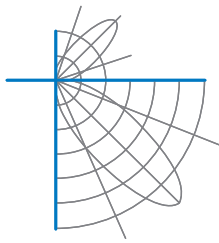
24 white LEDs, One Harvard Engineering LEDENG-165-930 LED board

One L.T.F. DA12W350C1834D010-0014 dimmable LED driver

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

380	0.000051	480	0.002307	580	0.009746	680	0.006053
385	0.000055	485	0.002651	585	0.010083	685	0.005444
390	0.000071	490	0.003161	590	0.010454	690	0.004845
395	0.000087	495	0.003760	595	0.010808	695	0.004284
400	0.000113	500	0.004390	600	0.011157	700	0.003795
405	0.000149	505	0.004930	605	0.011506	705	0.003331
410	0.000211	510	0.005371	610	0.011711	710	0.002904
415	0.000317	515	0.005785	615	0.011852	715	0.002540
420	0.000504	520	0.006104	620	0.011886	720	0.002207
425	0.000795	525	0.006406	625	0.011818	725	0.001911
430	0.001238	530	0.006707	630	0.011623	730	0.001659
435	0.001866	535	0.007007	635	0.011353	735	0.001426
440	0.002813	540	0.007329	640	0.010963	740	0.001222
445	0.004156	545	0.007665	645	0.010476	745	0.001053
450	0.005303	550	0.007936	650	0.009925	750	0.000902
455	0.005016	555	0.008226	655	0.009315	755	0.000775
460	0.003745	560	0.008503	660	0.008694	760	0.000668
465	0.002964	565	0.008788	665	0.008013	765	0.000571
470	0.002570	570	0.009076	670	0.007354	770	0.000488
475	0.002254	575	0.009382	675	0.006695	775	0.000418
						780	0.000358





Test Report Number: LLIA000824-025B

Catalog Number: 3-622-24 Journey Ceiling Mount

Ceiling mounted, formed white steel housing/reflector, opal glass enclosure.

24 white LEDs, One Harvard Engineering LEDENG-165-930 LED board

One L.T.F. DA12W350C1834D010-0014 dimmable 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: 24.0 °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 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.