



# Report of Test

## LLIA000802-026A

Catalog Number: 3-625 Journey Ceiling  
Ceiling mounted, formed steel housing with white enamel  
steel reflector, translucent white plastic enclosure.  
30 white LEDs, one Harvard Engineering LEDENG-152-930-NL LED board.  
One LTF DA12W350C1834D010-0014 dimming LED driver.  
120.0Vac, 60.00Hz, 0.1107A, 12.93W, 0.974PF, 8.7%THD(i)



### Performance Summary

Total Light Output	698 lm
Luminaire Power	12.9 W
Luminous Efficacy	54.1 lm/W

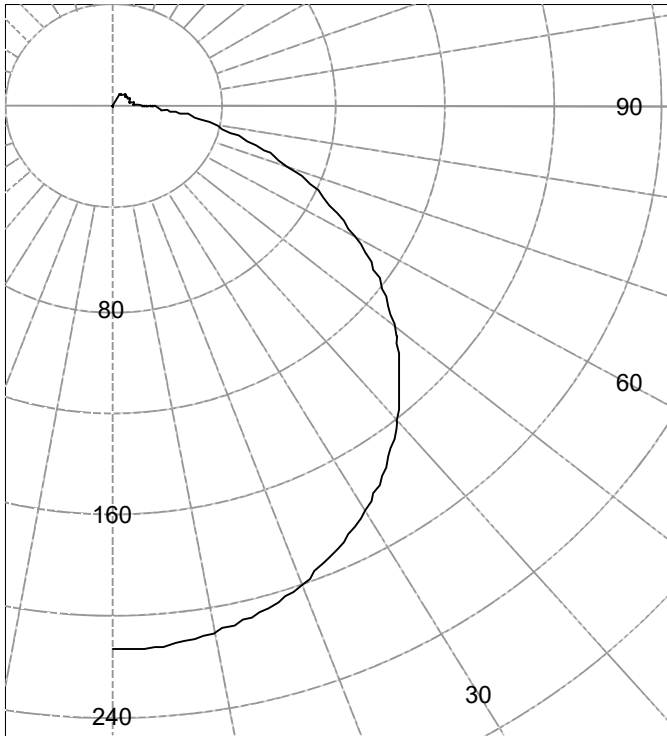
**PREPARED FOR : Oxygen Lighting, 201 Railhead Road, Fort Worth, TX 76106, USA**



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Legend: All planes - Solid (cd)



(Rotational symmetry)

**AVERAGE LUMINANCE (cd / m<sup>2</sup>)**

Gamma	C0
45.0	1923
55.0	1826
65.0	1680
75.0	1465
85.0	1293

**INTENSITY SUMMARY (cd)**

Gamma	All Planes	Flux (lm)	Gamma	C0	Flux (lm)
0	213		90	14	
5	213	20	95	9	11
10	210		100	7	
15	206	58	105	7	7
20	200		110	7	
25	192	89	115	7	6
30	183		120	7	
35	173	108	125	6	6
40	161		130	6	
45	147	114	135	6	5
50	133		140	6	
55	118	105	145	6	4
60	101		150	6	
65	84	83	155	6	3
70	67		160	6	
75	50	53	165	0	0
80	35		170	0	
85	23	25	175	0	0
90	14		180	0	

**ZONAL FLUX AND PERCENTAGES**

Zone	Flux (lm)	%Lamp	%Luminaire
0-30	167	N / A	23.9
0-40	275	N / A	39.4
0-60	494	N / A	70.7
0-90	656	N / A	94.0
40-90	381	N / A	54.6
60-90	162	N / A	23.2
90-180	42	N / A	6.0
0-180	698	N / A	100.0

Total Light Output = 698 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



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**Intensity (cd) and Flux (lm) data**

Gamma	Intensity	Flux	Gamma	Intensity	Flux
0.0	213		90.0	14	
2.5	213		92.5	11	
5.0	213	20	95.0	9	
7.5	211		97.5	8	11
10.0	210		100.0	7	
12.5	208		102.5	7	
15.0	206	58	105.0	7	
17.5	203		107.5	7	7
20.0	200		110.0	7	
22.5	196		112.5	7	
25.0	192	89	115.0	7	
27.5	188		117.5	7	6
30.0	183		120.0	7	
32.5	178		122.5	6	
35.0	173	108	125.0	6	
37.5	167		127.5	6	6
40.0	161		130.0	6	
42.5	154		132.5	6	
45.0	147	114	135.0	6	
47.5	140		137.5	6	5
50.0	133		140.0	6	
52.5	125		142.5	6	
55.0	118	105	145.0	6	
57.5	109		147.5	6	4
60.0	101		150.0	6	
62.5	93		152.5	6	
65.0	84	83	155.0	6	
67.5	76		157.5	6	3
70.0	67		160.0	6	
72.5	59		162.5	0	
75.0	50	53	165.0	0	
77.5	42		167.5	0	0
80.0	35		170.0	0	
82.5	28		172.5	0	
85.0	23	25	175.0	0	
87.5	18		177.5	0	0
90.0	14		180.0	0	



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**Coefficients Of Utilization - Zonal Cavity Method**

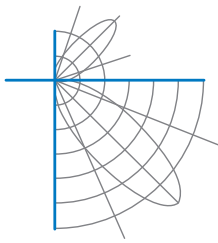
Effective Floor Cavity Reflectance 0.20

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	106	101	97	92	103	98	94	90	93	90	86	88	85	83	83	81	79	77
2	96	88	81	74	93	85	79	73	81	75	70	76	72	68	73	69	66	63
3	88	77	68	61	85	75	67	61	71	64	59	67	62	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	73	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	38
6	68	54	45	39	65	53	44	38	50	43	37	48	42	37	46	40	36	33
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	32	30
8	58	45	36	30	56	44	36	30	42	35	29	40	34	29	39	33	28	26
9	54	41	33	27	53	40	32	27	39	31	26	37	31	26	36	30	25	24
10	51	38	30	24	49	37	29	24	36	29	24	34	28	23	33	27	23	21

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.

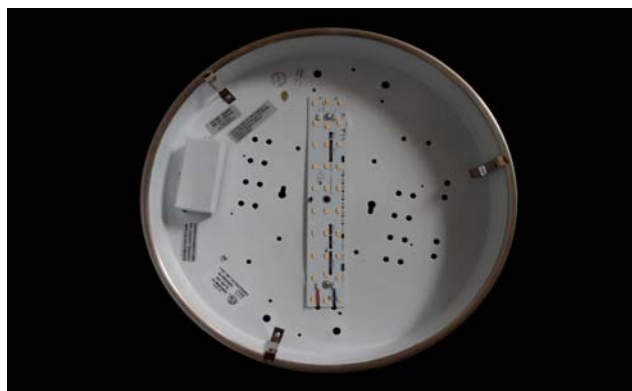
**Circle of Light Plot**

Height(ft)	Illuminance at Nadir (fc)	Beam Width (across 50% Nadir Illum)	
		0-180	90-270
6.0	5.9	7.65	7.65
8.0	3.3	10.20	10.20
10.0	2.1	12.75	12.75
12.0	1.5	15.30	15.30
14.0	1.1	17.85	17.85
16.0	0.8	20.40	20.40



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**Test Distance** 9.5 m  
**Test Temperature** 24.7 °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

**LLIA000802-026B**

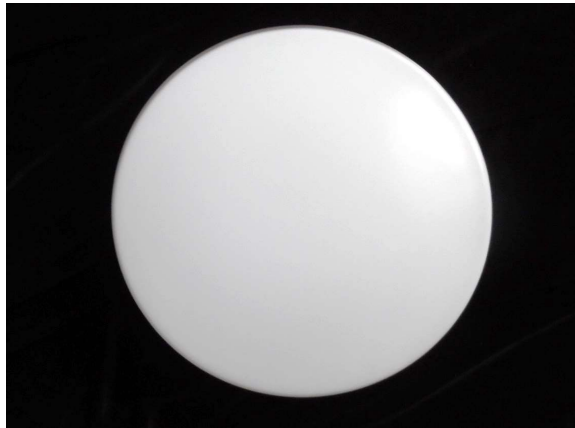
Integrating Sphere Report

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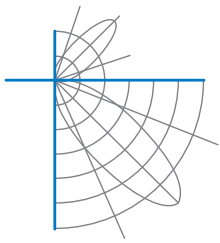
### Performance Summary

Voltage	120.0 Vac
Current	0.1106 A
Power	12.94 W
Frequency	60.00 Hz
Power Factor	0.975
Current THD	8.8 %

Total Luminous Flux	700.0 lm
Efficacy	54.1 lm/W
Chromaticity (x,y)	(0.4291, 0.3924)
(u',v')	(0.2505, 0.5155)
Duv	-0.0036
CCT	3040 K
CRI (Ra)	95
R9	73

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

Test date: 08/27/2017  
Report date: 08/30/2017



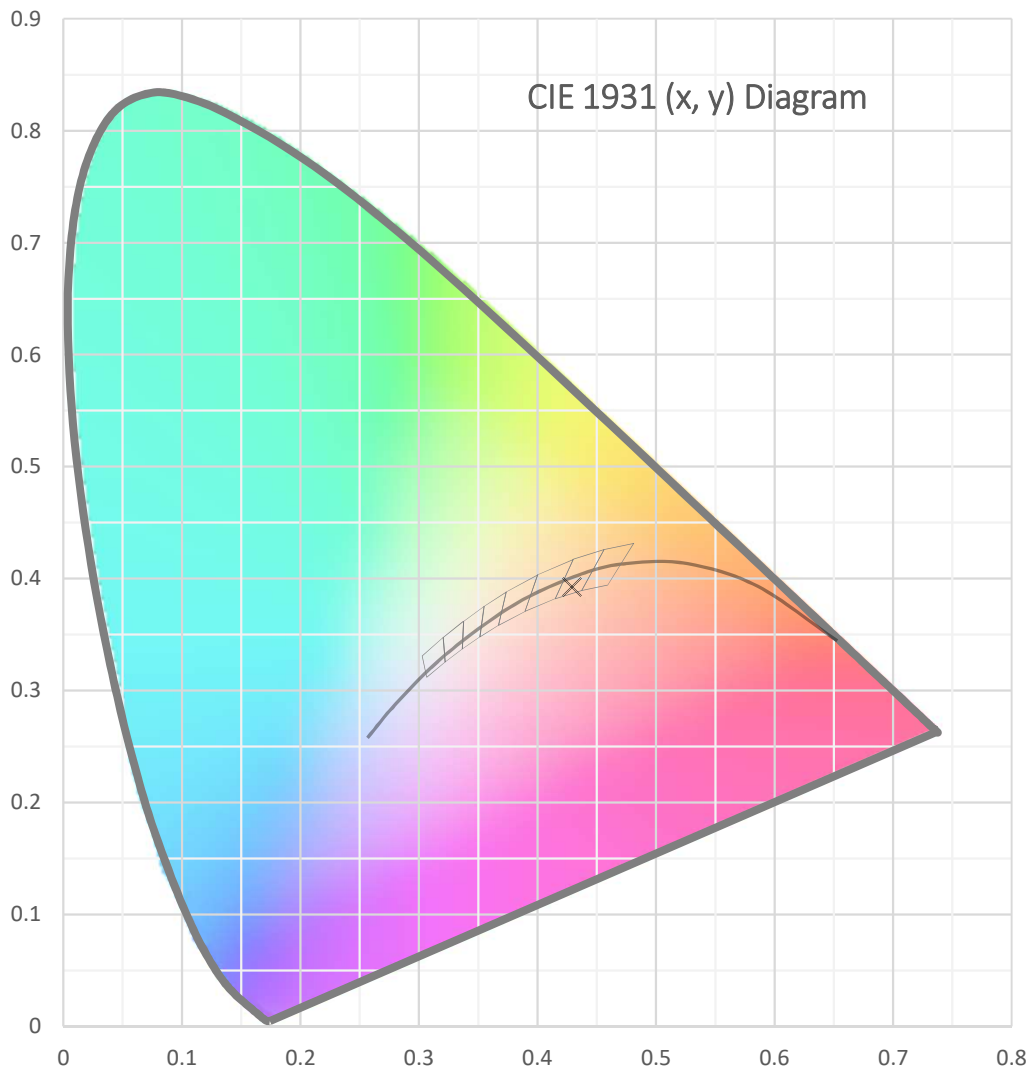
**Test Report Number: LLIA000802-026B**

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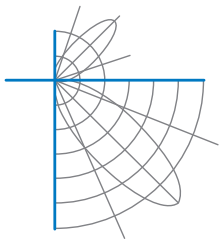
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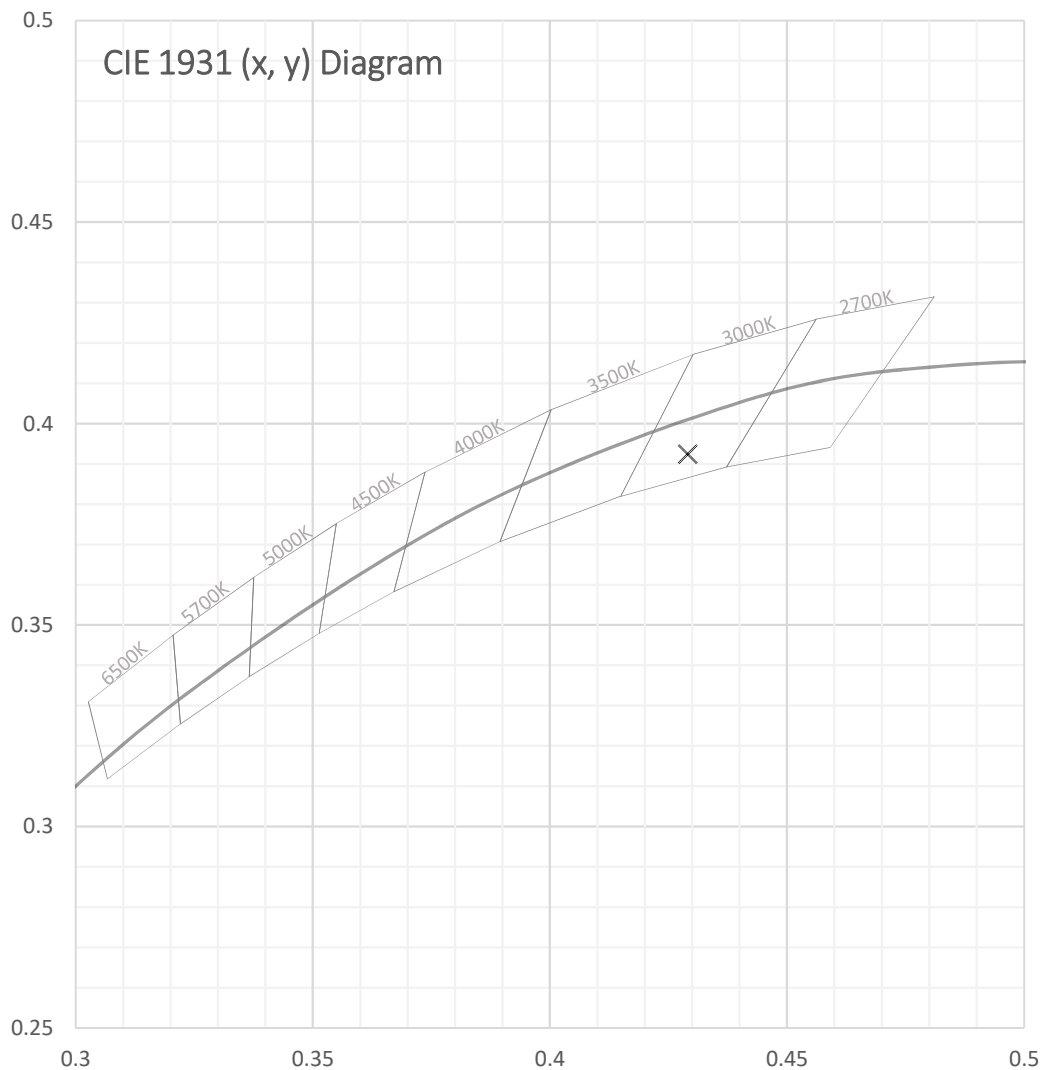
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**Spectral Data**

Total Radiant Flux	2.542 W
Total Luminous Flux	700.0 Lm
Chromaticity CIE 1931 (x, y)	(0.4291, 0.3924)
Chromaticity CIE 1976 (u', v')	(0.2505, 0.5155)
Correlated Color Temperature (CCT)	3040 K
Color Rendering Index (Ra)	95
R1	96
R2	97
R3	96
R4	95
R5	95
R6	96
R7	93
R8	88
R9	73
R10	92
R11	95
R12	85
R13	96
R14	97
Distance from Planckian Locus (Duv)	-0.0036
Scotopic/Photopic Ratio *	1.450

**Electrical Data**

Voltage	120.0 Vac
Current	0.1106 A
Power	12.94 W
Frequency	60.00 Hz
Power Factor	0.975
Current THD	8.8 %



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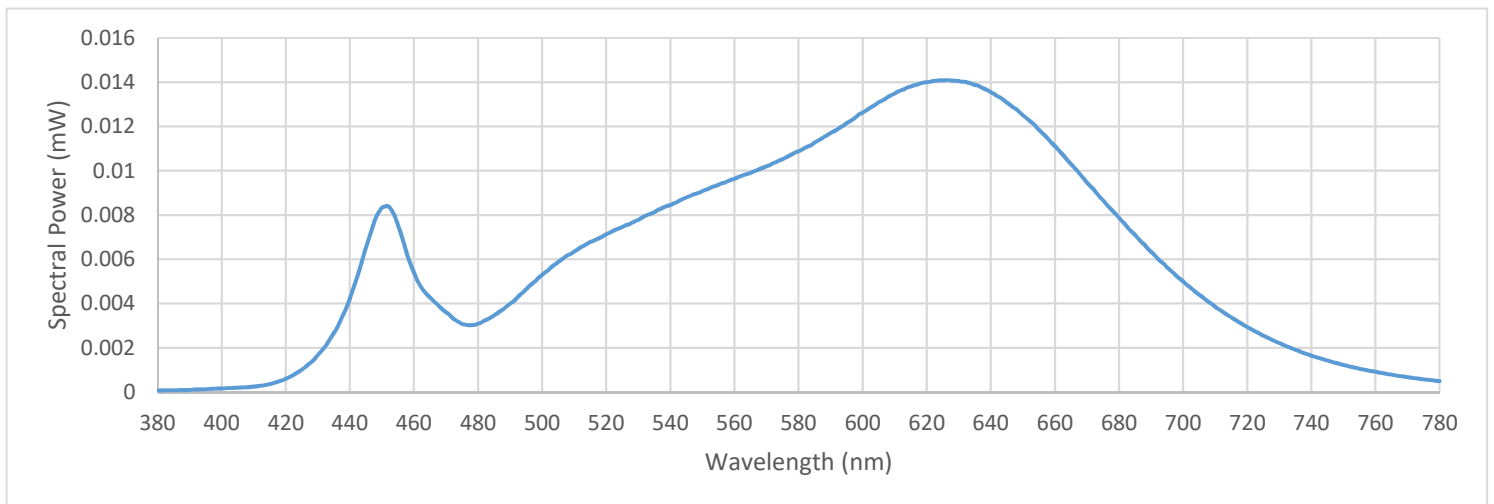
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Summary Spectral Power Distribution (wavelength - nm, spectral power - mW)

380	0.000063	480	0.003082	580	0.010881	680	0.007870
385	0.000079	485	0.003460	585	0.011275	685	0.007102
390	0.000096	490	0.003990	590	0.011707	690	0.006340
395	0.000126	495	0.004635	595	0.012156	695	0.005627
400	0.000161	500	0.005299	600	0.012620	700	0.004999
405	0.000196	505	0.005873	605	0.013090	705	0.004399
410	0.000245	510	0.006338	610	0.013492	710	0.003849
415	0.000353	515	0.006776	615	0.013807	715	0.003375
420	0.000601	520	0.007124	620	0.013999	720	0.002941
425	0.001005	525	0.007452	625	0.014081	725	0.002548
430	0.001667	530	0.007781	630	0.014054	730	0.002212
435	0.002658	535	0.008127	635	0.013875	735	0.001907
440	0.004222	540	0.008449	640	0.013548	740	0.001644
445	0.006521	545	0.008793	645	0.013082	745	0.001421
450	0.008321	550	0.009077	650	0.012510	750	0.001223
455	0.007555	555	0.009364	655	0.011843	755	0.001052
460	0.005409	560	0.009638	660	0.011112	760	0.000913
465	0.004268	565	0.009903	665	0.010295	765	0.000783
470	0.003608	570	0.010203	670	0.009467	770	0.000670
475	0.003077	575	0.010519	675	0.008666	775	0.000575
						780	0.000494





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**Test Equipment Configuration:** LightLab International Allentown 2m Integrating Sphere  
Measurements acquired using a Labsphere CDS 2600 spectroradiometer  
Testing was performed using 4 $\pi$  geometry

**Test Temperature:** 24.6 °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.  
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