

Report of Test

LLIA000802-027A

Catalog Number: 3-626 Journey Ceiling
Ceiling mounted, formed steel housing with white enamel
steel reflector, translucent white plastic enclosure.
60 white LEDs, two Harvard Engineering LEDENG-152-930-NL LED boards.
Two LTF DA12W350C1834D010-0014 dimming LED drivers.
120.0Vac, 60.00Hz, 0.2211A, 25.91W, 0.976PF, 8.5%THD(i)



Performance Summary

Total Light Output	1363 lm
Luminaire Power	25.9 W
Luminous Efficacy	52.6 lm/W

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

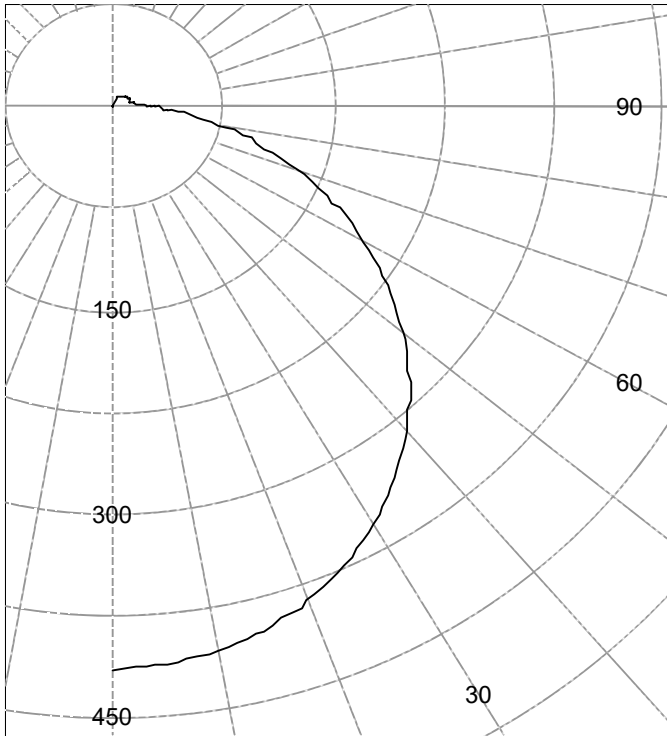


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Legend: All planes - Solid (cd)



(Rotational symmetry)

AVERAGE LUMINANCE (cd / m²)

Gamma	C0
45.0	3719
55.0	3539
65.0	3288
75.0	2952
85.0	2736

INTENSITY SUMMARY (cd)

Gamma	All Planes	Flux (lm)	Gamma	C0	Flux (lm)
0	414		90	30	
5	412	39	95	20	23
10	407		100	15	
15	399	113	105	14	15
20	387		110	13	
25	372	172	115	13	13
30	355		120	12	
35	334	209	125	12	11
40	311		130	12	
45	285	220	135	11	9
50	257		140	10	
55	228	204	145	10	6
60	197		150	10	
65	165	163	155	9	4
70	133		160	9	
75	101	107	165	8	2
80	72		170	7	
85	48	54	175	0	0
90	30		180	0	

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	%Lamp	%Luminaire
0-30	323	N / A	23.7
0-40	532	N / A	39.1
0-60	956	N / A	70.2
0-90	1280	N / A	93.9
40-90	748	N / A	54.9
60-90	324	N / A	23.8
90-180	83	N / A	6.1
0-180	1363	N / A	100.0

Total Light Output = 1,363 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	414		90.0	30	
2.5	413		92.5	24	
5.0	412	39	95.0	20	
7.5	410		97.5	17	23
10.0	407		100.0	15	
12.5	403		102.5	15	
15.0	399	113	105.0	14	
17.5	393		107.5	14	15
20.0	387		110.0	13	
22.5	380		112.5	13	
25.0	372	172	115.0	13	
27.5	364		117.5	13	13
30.0	355		120.0	12	
32.5	345		122.5	12	
35.0	334	209	125.0	12	
37.5	323		127.5	12	11
40.0	311		130.0	12	
42.5	298		132.5	11	
45.0	285	220	135.0	11	
47.5	272		137.5	11	9
50.0	257		140.0	10	
52.5	243		142.5	10	
55.0	228	204	145.0	10	
57.5	212		147.5	10	6
60.0	197		150.0	10	
62.5	181		152.5	9	
65.0	165	163	155.0	9	
67.5	149		157.5	9	4
70.0	133		160.0	9	
72.5	117		162.5	9	
75.0	101	107	165.0	8	
77.5	86		167.5	8	2
80.0	72		170.0	7	
82.5	59		172.5	0	
85.0	48	54	175.0	0	
87.5	38		177.5	0	0
90.0	30		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
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	87	80	74	93	85	78	73	80	75	70	76	72	68	72	69	65	63
3	87	76	68	61	84	74	66	60	70	64	58	67	61	57	64	59	55	52
4	80	67	58	51	77	66	57	51	62	55	49	59	53	48	56	51	47	44
5	73	60	51	44	71	59	50	44	56	48	42	53	47	41	51	45	40	38
6	68	54	45	38	65	53	44	38	50	43	37	48	41	36	46	40	35	33
7	63	49	40	34	60	48	39	33	46	38	33	44	37	32	42	36	31	29
8	58	45	36	30	56	44	35	30	42	34	29	40	33	29	38	32	28	26
9	54	41	32	27	53	40	32	27	38	31	26	37	30	26	35	30	25	23
10	51	38	30	24	49	37	29	24	35	28	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.

Height(ft)	Illuminance at Nadir (fc)	Beam Width (across 50% Nadir Illum)	
		0-180	90-270
6.0	11.5	7.64	7.64
8.0	6.5	10.19	10.19
10.0	4.1	12.73	12.73
12.0	2.9	15.28	15.28
14.0	2.1	17.83	17.83
16.0	1.6	20.37	20.37



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120.0Vac, 60.00Hz, 0.2211A, 25.91W, 0.976PF, 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

LLIA000802-027B

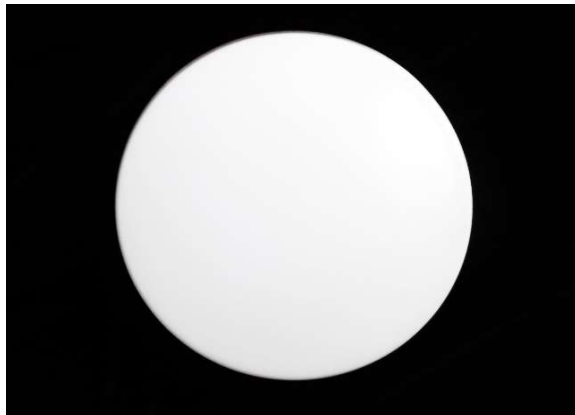
Integrating Sphere Report

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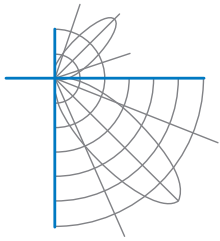
Performance Summary

Voltage	120.0 Vac
Current	0.2210 A
Power	25.90 W
Frequency	60.00 Hz
Power Factor	0.977
Current THD	8.5 %

Total Luminous Flux	1357.2 lm
Efficacy	52.4 lm/W
Chromaticity (x,y)	(0.4344, 0.3973)
(u',v')	(0.2519, 0.5183)
Duv	-0.0024
CCT	2987 K
CRI (Ra)	95
R9	72

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

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



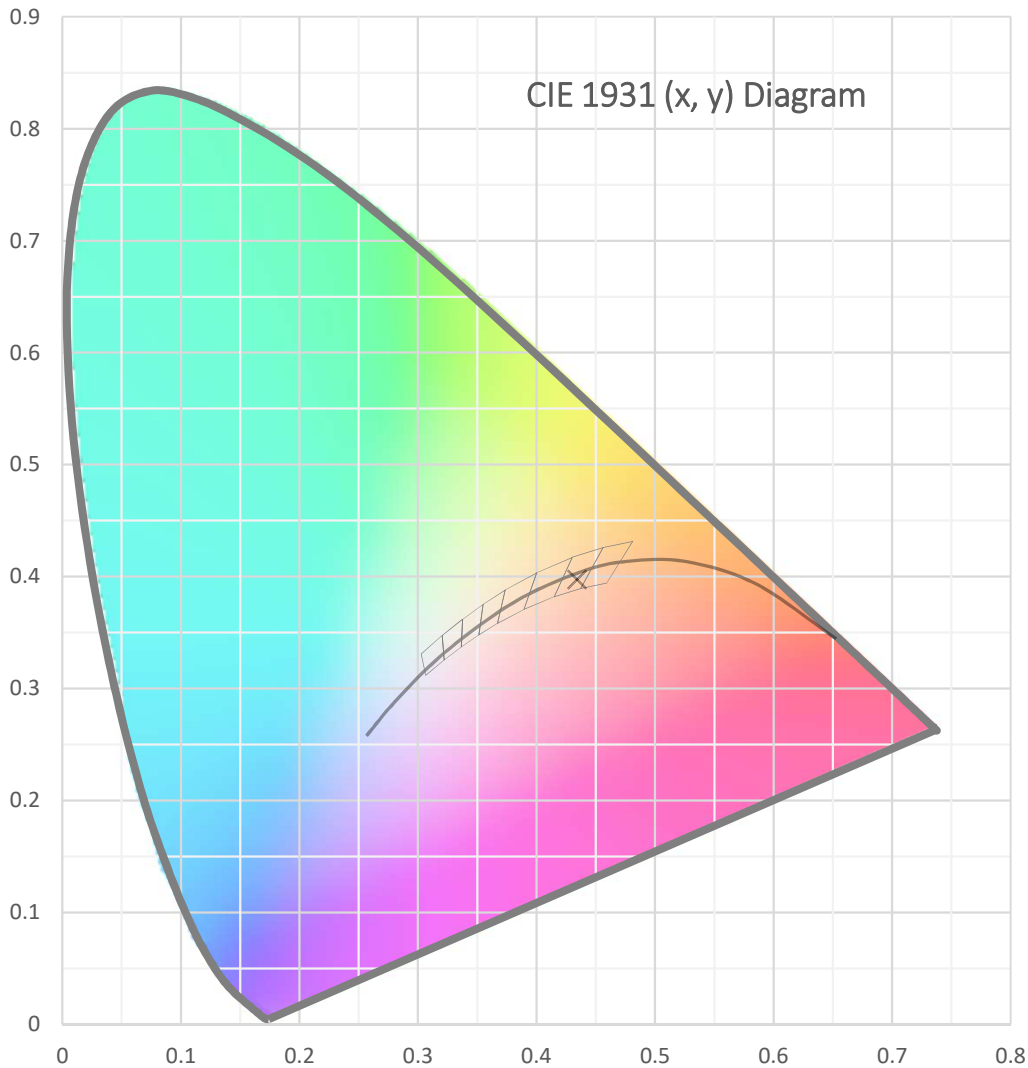
Test Report Number: LLIA000802-027B

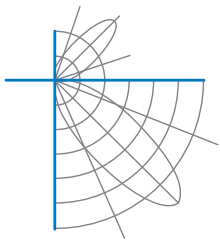
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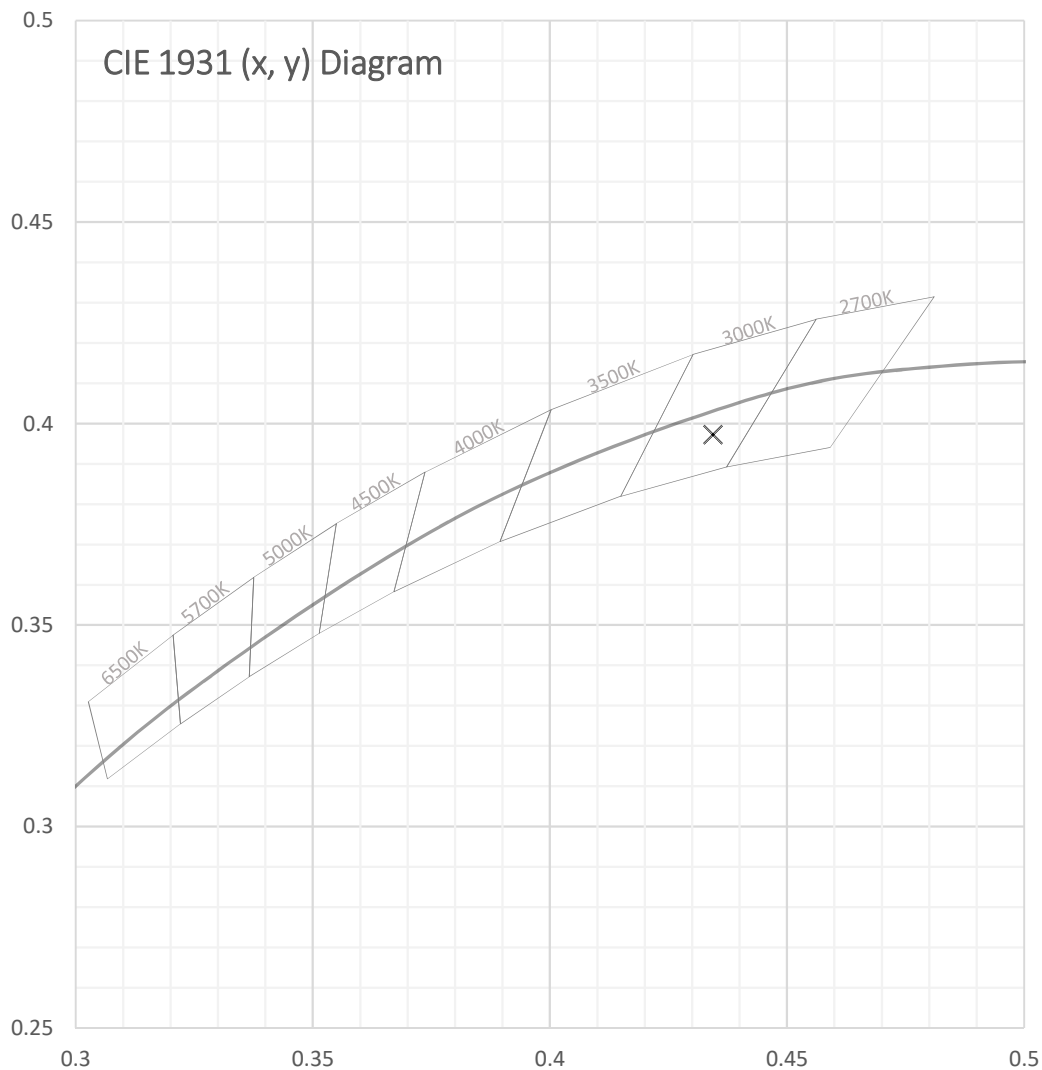
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Spectral Data

Total Radiant Flux	4.929 W
Total Luminous Flux	1357.2 Lm
Chromaticity CIE 1931 (x, y)	(0.4344, 0.3973)
Chromaticity CIE 1976 (u', v')	(0.2519, 0.5183)
Correlated Color Temperature (CCT)	2987 K
Color Rendering Index (Ra)	95
R1	96
R2	97
R3	96
R4	95
R5	95
R6	96
R7	94
R8	88
R9	72
R10	92
R11	95
R12	85
R13	96
R14	97
Distance from Planckian Locus (Duv)	-0.0024
Scotopic/Photopic Ratio *	1.422

Electrical Data

Voltage	120.0 Vac
Current	0.2210 A
Power	25.90 W
Frequency	60.00 Hz
Power Factor	0.977
Current THD	8.5 %



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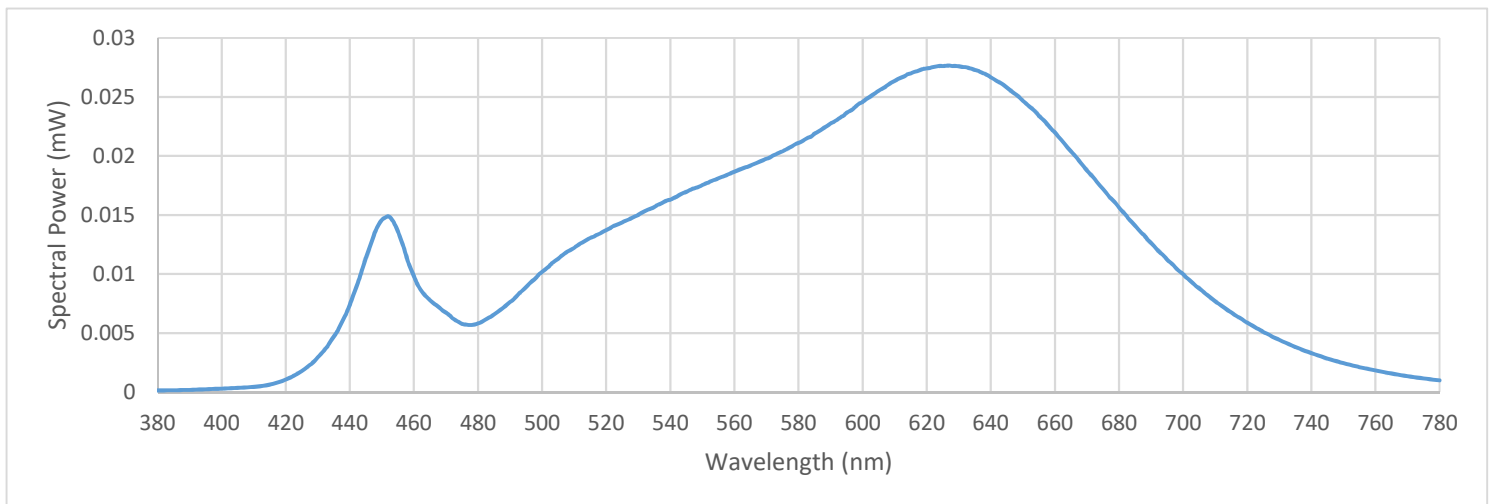
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Summary Spectral Power Distribution (wavelength - nm, spectral power - mW)

380	0.000132	480	0.005806	580	0.021110	680	0.015629
385	0.000146	485	0.006576	585	0.021891	685	0.014104
390	0.000181	490	0.007627	590	0.022759	690	0.012632
395	0.000229	495	0.008893	595	0.023652	695	0.011228
400	0.000285	500	0.010184	600	0.024576	700	0.009979
405	0.000349	505	0.011302	605	0.025531	705	0.008787
410	0.000436	510	0.012216	610	0.026356	710	0.007682
415	0.000620	515	0.013055	615	0.026998	715	0.006747
420	0.001056	520	0.013724	620	0.027417	720	0.005875
425	0.001774	525	0.014377	625	0.027615	725	0.005087
430	0.002936	530	0.015009	630	0.027598	730	0.004422
435	0.004687	535	0.015672	635	0.027288	735	0.003815
440	0.007405	540	0.016294	640	0.026668	740	0.003291
445	0.011363	545	0.016964	645	0.025796	745	0.002843
450	0.014582	550	0.017539	650	0.024676	750	0.002450
455	0.013606	555	0.018106	655	0.023399	755	0.002105
460	0.009816	560	0.018657	660	0.021990	760	0.001828
465	0.007790	565	0.019182	665	0.020390	765	0.001568
470	0.006716	570	0.019765	670	0.018766	770	0.001338
475	0.005772	575	0.020391	675	0.017197	775	0.001152
						780	0.000986





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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 π geometry

Test Temperature: 25.0 °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.
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Notes: The measurements and other derived quantities contained in this report are based on the absolute data as measured.

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