



Report of Test

LLIA002166-004A

Indoor Distribution Photometry Test Report

Catalog Number: L200-4-4800-30K-HTA-70/30-O50-UNI-(EMXX)

Pendant mounted, extruded steel housing, white painted steel reflectors, clear lightly patterned plastic top enclosure with white painted steel baffle, translucent plastic bottom enclosure.

192 white LEDs, 2 Samsung SI-B8V243B20WW LED boards with 96 LEDs each.

One eldoLED Optotronic OTi 50/120-277/1A4 DIM-1 L G2 LED driver measured at 688mA



Prepared For:

Mercury Lighting Products Company, Inc.

20 Audrey Place

Fairfield, NJ 07004, USA

Performance Summary

Input Voltage	120.0 Vac	Luminous Flux	4837.1 Lumens
Input Current	0.2869 A	Total Efficacy	144.0 Lm/W
Input Power	33.60 W	Downward Flux	1543.4 Lumens
Frequency	60.00 Hz	Downward Flux	31.9 % of Total
Power Factor	0.976		
Current THD	11.0 %		

This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

Test date: 07/21/2023

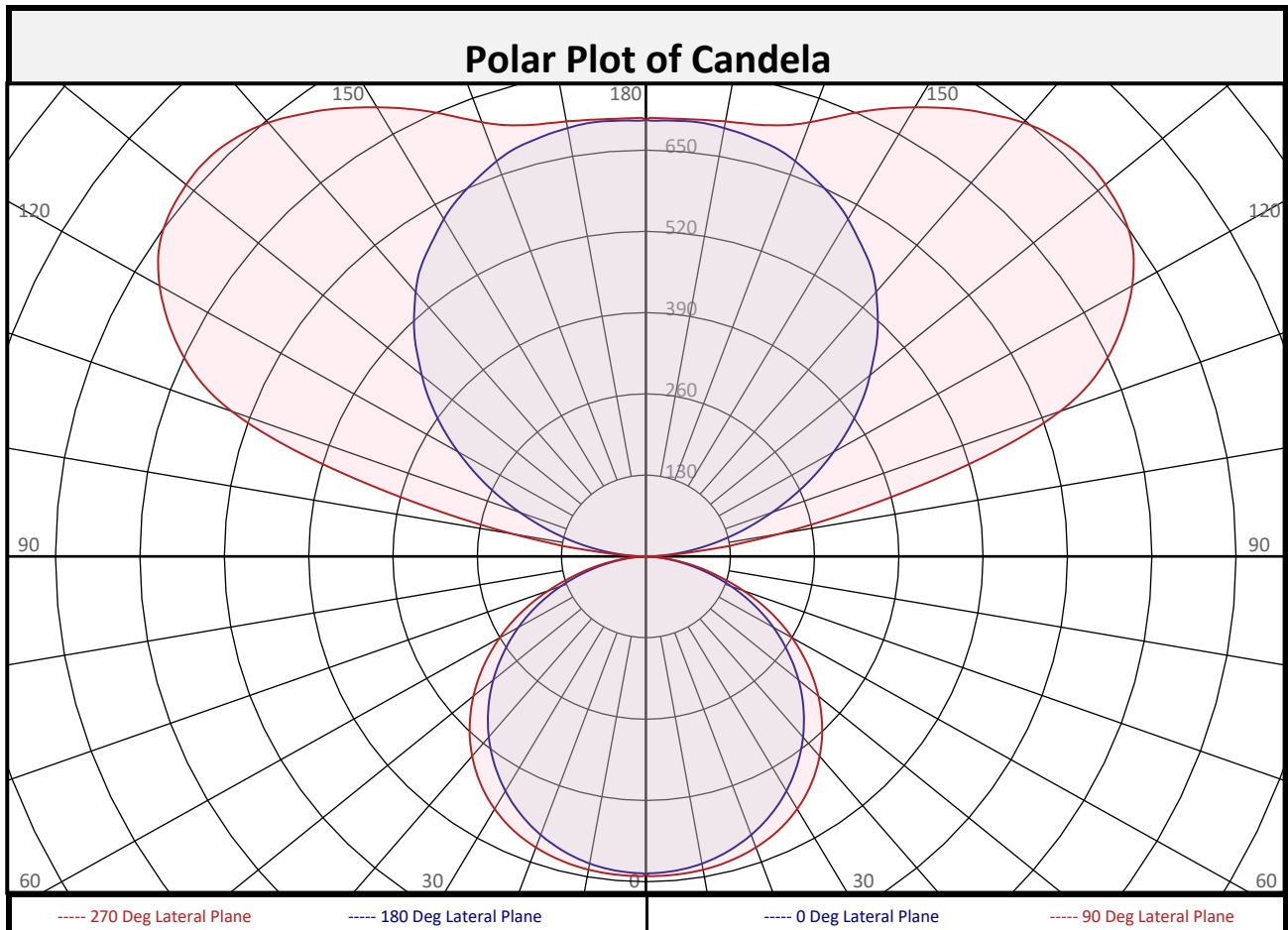
Report date: 07/21/2023

Signed: _____



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Zonal Flux Summary

Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	48.3	1.0%	90-100	74.2	1.5%	0-20	188.1	3.9%
10-20	139.8	2.9%	100-110	367.0	7.6%	0-30	404.1	8.4%
20-30	216.0	4.5%	110-120	593.2	12.3%	0-40	669.6	13.8%
30-40	265.6	5.5%	120-130	627.9	13.0%	0-60	1205	24.9%
40-50	280.0	5.8%	130-140	571.0	11.8%	0-80	1512	31.3%
50-60	255.8	5.3%	140-150	462.2	9.6%	10-90	1495	30.9%
60-70	196.1	4.1%	150-160	331.8	6.9%	20-50	761.5	15.7%
70-80	110.7	2.3%	160-170	199.5	4.1%	40-90	873.8	18.1%
80-90	31.2	0.6%	170-180	67.0	1.4%	60-90	338.0	7.0%
0-90	1543	31.9%	90-180	3294	68.1%	0-180	4837	100.0%



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Luminous Intensity (Candela) Table

Lateral (C-Plane) Angles										
	0	22.5	45	67.5	90	112.5	135	157.5	180	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	0	508	508	508	508	508	508	508	508	508
	2.5	506	506	507	509	511	509	507	506	506
	5	504	505	506	508	511	508	506	505	504
	7.5	502	502	505	507	510	507	505	502	502
	10	498	499	502	506	508	506	502	499	498
	12.5	494	495	499	503	506	503	499	495	494
	15	488	490	494	500	503	500	494	490	488
	17.5	481	484	489	495	500	495	489	484	481
	20	474	477	483	490	495	490	483	477	474
	22.5	465	468	476	484	490	484	476	468	465
	25	455	459	468	477	483	477	468	459	455
	27.5	445	449	459	469	475	469	459	449	445
	30	433	437	448	460	466	460	448	437	433
	32.5	420	425	437	449	456	449	437	425	420
	35	407	412	424	437	444	437	424	412	407
	37.5	392	397	410	424	431	424	410	397	392
	40	377	382	395	409	417	409	395	382	377
	42.5	361	366	379	394	401	394	379	366	361
	45	344	349	363	377	384	377	363	349	344
	47.5	326	331	345	359	366	359	345	331	326
50	307	313	326	340	347	340	326	313	307	
52.5	288	293	307	320	327	320	307	293	288	
55	268	273	286	299	306	299	286	273	268	
57.5	248	253	265	277	284	277	265	253	248	
60	227	232	244	255	261	255	244	232	227	
62.5	206	210	221	232	237	232	221	210	206	
65	185	188	198	208	213	208	198	188	185	
67.5	163	167	175	184	188	184	175	167	163	
70	141	144	152	159	161	159	152	144	141	
72.5	118	122	128	133	135	133	128	122	118	
75	97	100	105	108	110	108	105	100	97	
77.5	76	79	82	86	88	86	82	79	76	
80	56	59	62	65	66	65	62	59	56	
82.5	38	41	43	45	46	45	43	41	38	
85	23	25	27	29	28	29	27	25	23	
87.5	10	12	14	15	15	15	14	12	10	
90	5	5	6	7	6	7	6	5	5	

16 lateral half-planes of data were acquired, 22.5 degree increments shown.

North America (issuing laboratory)

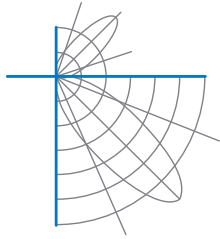
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Luminous Intensity (Candela) Table

		Lateral (C-Plane) Angles								
		0	22.5	45	67.5	90	112.5	135	157.5	180
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	5	5	6	7	6	7	6	5	5
	92.5	16	20	20	15	11	15	20	20	16
	95	39	54	68	61	54	61	68	54	39
	97.5	63	97	125	139	130	139	125	97	63
	100	90	149	199	219	208	219	199	149	90
	102.5	118	213	286	318	311	318	286	213	118
	105	147	278	382	438	437	438	382	278	147
	107.5	176	340	482	564	571	564	482	340	176
	110	207	392	558	662	680	662	558	392	207
	112.5	239	430	610	724	749	724	610	430	239
	115	271	461	652	767	796	767	652	461	271
	117.5	302	485	686	803	834	803	686	485	302
	120	334	503	713	834	866	834	713	503	334
	122.5	365	520	735	856	892	856	735	520	365
	125	395	536	751	873	909	873	751	536	395
	127.5	424	550	761	888	919	888	761	550	424
	130	451	563	765	896	925	896	765	563	451
	132.5	478	577	767	896	928	896	767	577	478
	135	505	587	764	891	926	891	764	587	505
	137.5	529	597	757	883	918	883	757	597	529
	140	552	609	752	872	906	872	752	609	552
	142.5	574	618	750	859	889	859	750	618	574
	145	591	626	744	844	871	844	744	626	591
	147.5	606	637	735	827	851	827	735	637	606
	150	623	649	724	809	830	809	724	649	623
	152.5	638	658	716	790	808	790	716	658	638
	155	650	667	710	769	785	769	710	667	650
	157.5	662	676	707	749	761	749	707	676	662
	160	673	683	704	733	739	733	704	683	673
	162.5	682	689	703	722	724	722	703	689	682
165	687	692	703	715	714	715	703	692	687	
167.5	692	696	703	711	710	711	703	696	692	
170	696	698	703	708	707	708	703	698	696	
172.5	699	700	702	705	704	705	702	700	699	
175	699	699	699	702	702	702	699	699	699	
177.5	698	698	698	700	702	700	698	698	698	
180	698	698	698	698	698	698	698	698	698	

16 lateral half-planes of data were acquired, 22.5 degree increments shown.



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Coefficients of Utilization/Room 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	50	30	10	0
RCR																					
0	103	103	103	103	93	93	93	93	73	73	73	56	56	56	40	40	40	32			
1	94	89	85	82	84	80	77	74	64	62	60	49	47	46	35	34	33	27			
2	85	78	72	67	76	70	65	61	56	52	49	43	40	38	30	29	28	22			
3	77	68	61	55	69	62	55	50	49	45	41	37	34	32	27	25	23	18			
4	71	60	52	46	63	54	48	42	43	39	35	33	30	27	24	22	20	16			
5	65	53	45	40	58	48	41	36	39	34	30	30	26	23	21	19	17	13			
6	59	48	40	34	53	43	36	31	35	30	26	27	23	20	19	17	15	12			
7	55	43	35	30	49	39	32	27	31	26	22	24	21	18	17	15	13	10			
8	51	39	31	26	46	35	29	24	28	23	20	22	18	16	16	14	12	9			
9	47	35	28	23	42	32	26	21	26	21	18	20	17	14	15	12	11	8			
10	44	32	25	20	39	29	23	19	24	19	16	19	15	13	14	11	10	7			

For absolute test reports, RUs are expressed as a percentage of total lumen output. For relative test reports, CUs are expressed as a percentage of total lamp 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)	Ground-level distance to half-of-nadir illuminance (ft)	
		0-180 deg	90-270 deg
6.0	14.1	7.60	8.15
8.0	7.9	10.13	10.86
10.0	5.1	12.66	13.58
12.0	3.5	15.20	16.29
14.0	2.6	17.73	19.01
16.0	2.0	20.26	21.72

Spacing Criterion	
0 deg:	1.3
90 deg:	1.4
180 deg:	1.3
270 deg:	1.4

Average Luminance (cd/m ²)			
	0 deg Plane	45 deg Plane	90 deg Plane
0	6222	6222	6222
45	5952	6282	6661
55	5720	6116	6534
65	5351	5751	6171
75	4581	4967	5226
85	3197	3776	3997

Beam and Field Angle	
0-180 Degree Plane	
Beam Angle:	45.5°
Field Angle:	150.9°
90-270 Degree Plane	
Beam Angle:	61.1°
Field Angle:	154.0°



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UGR Table - Corrected

Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size

UGR Viewed Crosswise

UGR Viewed Endwise

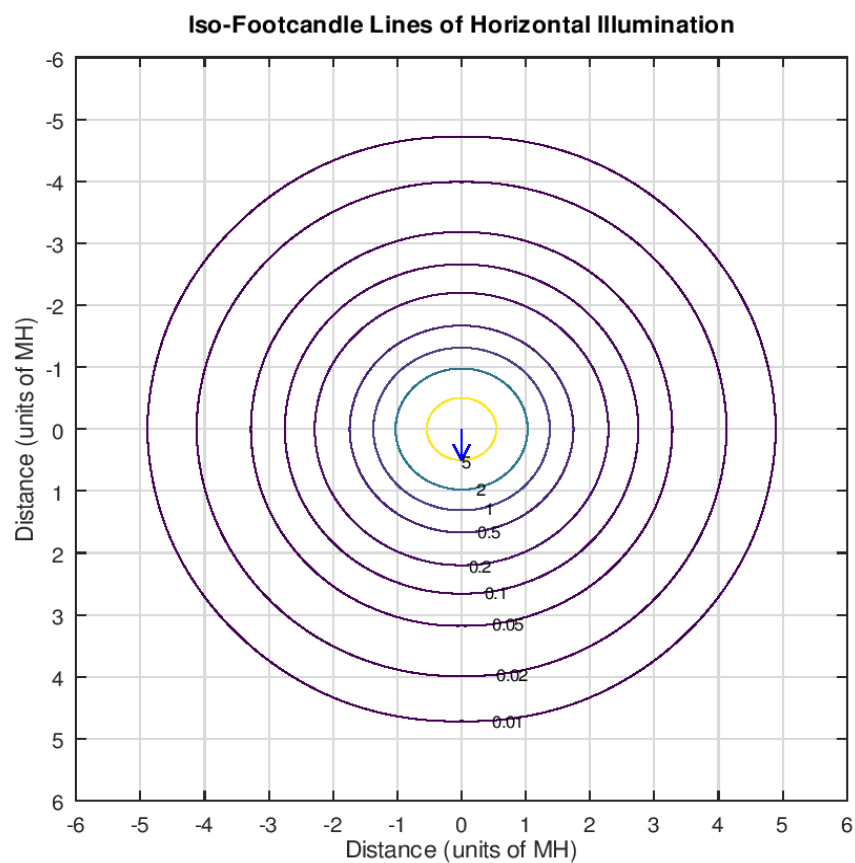
X=2H	Y=2H	12.5	13.2	13.6	14.3	15.8	13.2	13.9	14.3	15.0	16.5
	3H	14.2	14.9	15.3	16.0	17.5	15.0	15.6	16.1	16.7	18.2
	4H	14.8	15.4	15.9	16.5	18.1	15.6	16.2	16.7	17.3	18.8
	6H	15.2	15.8	16.3	16.9	18.4	16.0	16.6	17.1	17.7	19.2
	8H	15.3	15.9	16.4	17.0	18.5	16.1	16.7	17.2	17.8	19.3
	12H	15.4	15.9	16.5	17.0	18.6	16.2	16.7	17.3	17.8	19.4
4H	2H	13.1	13.7	14.2	14.8	16.3	13.6	14.3	14.8	15.4	16.9
	3H	15.0	15.5	16.1	16.7	18.2	15.6	16.2	16.8	17.3	18.8
	4H	15.7	16.2	16.9	17.3	18.9	16.4	16.8	17.5	18.0	19.5
	6H	16.3	16.7	17.4	17.8	19.4	16.9	17.3	18.1	18.5	20.0
	8H	16.4	16.8	17.6	17.9	19.5	17.1	17.5	18.2	18.6	20.2
	12H	16.5	16.9	17.7	18.0	19.6	17.2	17.6	18.4	18.7	20.3
8H	4H	16.0	16.4	17.1	17.5	19.1	16.6	17.0	17.7	18.1	19.7
	6H	16.7	17.0	17.8	18.2	19.7	17.3	17.6	18.4	18.8	20.3
	8H	16.9	17.2	18.1	18.3	19.9	17.5	17.8	18.7	19.0	20.5
	12H	17.1	17.3	18.2	18.5	20.1	17.7	17.9	18.9	19.1	20.7
12H	4H	16.0	16.4	17.2	17.5	19.1	16.6	16.9	17.7	18.0	19.6
	6H	16.7	17.0	17.9	18.2	19.8	17.3	17.6	18.5	18.7	20.3
	8H	17.0	17.2	18.2	18.4	20.0	17.6	17.8	18.8	19.0	20.6

Maximum UGR = 20.7



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Iso-Illuminance Plot



The isofootcandle values shown in the plot above are based on a mounting height of $h = 8.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution of room reflections.



Report of Test
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Additional Pictures of Test Subject





Report of Test

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Test Distance 9.5 m
Ambient 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 IES LM-79-19. Format of reports and angular increments based on IES LM-41-20 and LM-46-20.

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 C-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

LLIA002166-004B

Electrical Test Report

Catalog Number: L200-4-4800-30K-HTA-70/30-1%-UNI

Pendant mounted, extruded steel housing, white painted steel reflectors, clear lightly patterned plastic top enclosure with white painted steel baffle, translucent plastic bottom enclosure.

192 white LEDs, 2 Samsung SI-B8V243B20WW LED boards with 96 LEDs each.

One eldoLED Optotronic OTi 50/120-277/1A4 DIM-1 L G2 LED driver measured at 688mA



Performance Summary

Voltage	277.0 Vac
Current	0.1347 A
Power	33.81 W
Frequency	60.00 Hz
Power Factor	0.906
Current THD	17.9 %
Ambient Temperature:	24.9 °C

Prepared For:
Mercury Lighting Products Company, Inc.
20 Audrey Place
Fairfield, NJ 07004, USA

Tested in accordance with the applicable sections of IES LM-79-19. 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. 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 must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

Test date: 07/21/2023
Report date: 07/21/2023

Electrical Report Template V1-4