

Report of Test

LLIA002505-001-R01*

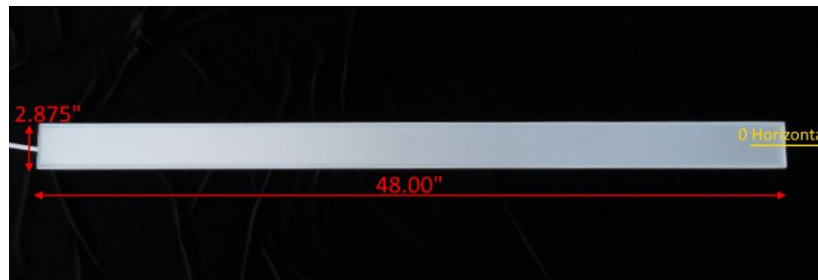
Indoor Distribution Photometry Test Report

Catalog Number: MLD3-BW-M-48-400-35K-1%-U

Pendant mounted, white painted extruded aluminum housing, white aluminum reflector, frosted linear prismatic lens.

112 white LEDs, 2 LED boards with 56 LEDs each.

One Advance XI020C056V054BST3 LED driver measured at 254mA



Prepared For:

Mercury Lighting Products Company, Inc.

20 Audrey Place

Fairfield, NJ 07004, USA

Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	1523.9 Lumens
Input Current	0.0937 A	Total Efficacy	137.0 Lm/W
Input Power	11.12 W	Downward Flux	1523.9 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.989		
Current THD	6.4 %		

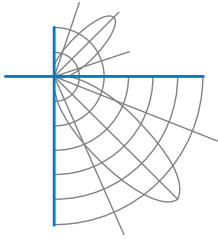
*This test report supersedes previous versions - see the end of this report for a list of revisions

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

Test date: 09/04/2024

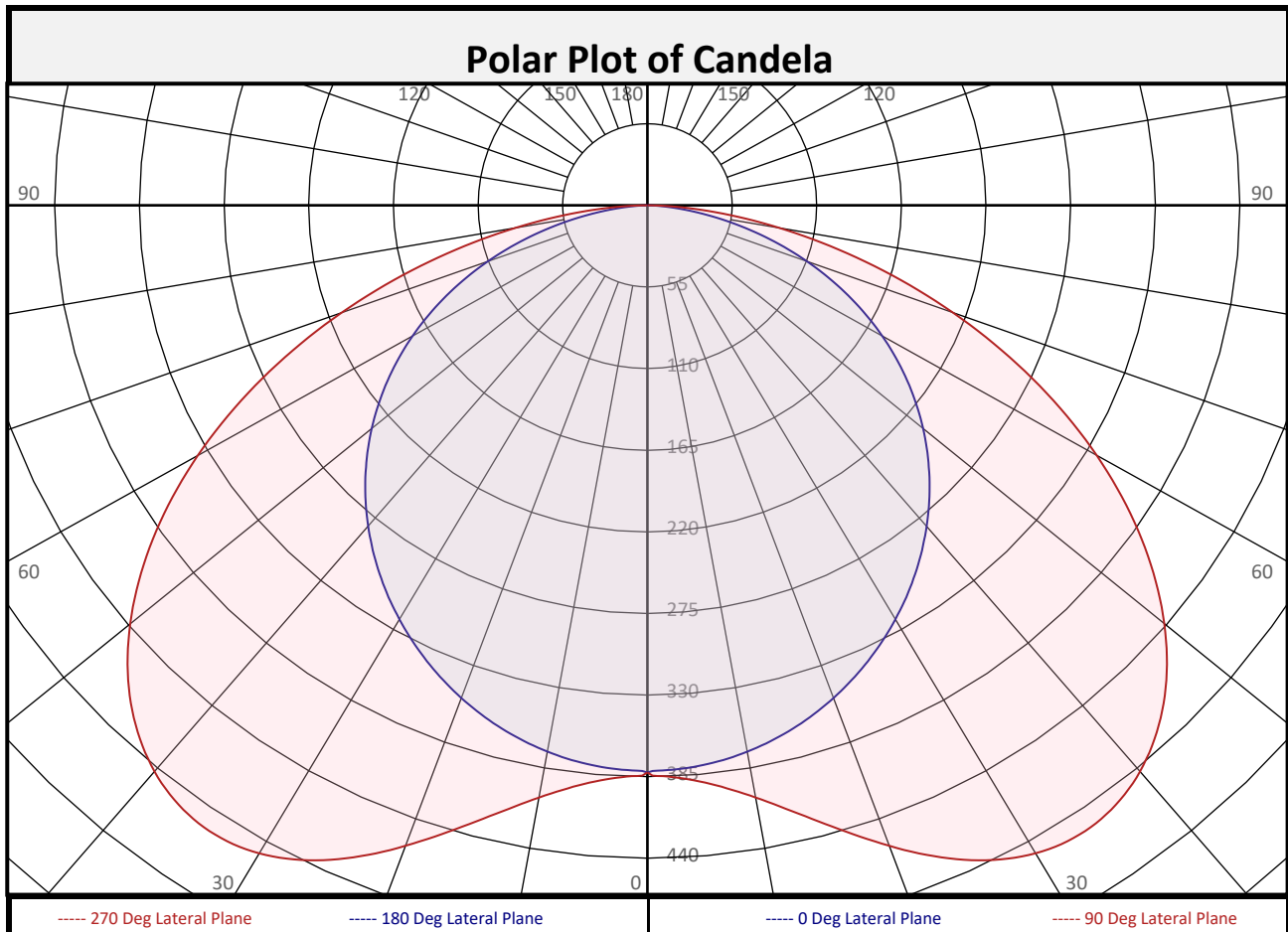
Report date: 11/11/2024

Signed: _____



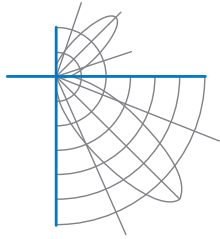
Report of Test

LLIA002505-001-R01



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	36.8	2.4%	90-100	0.0	0.0%	0-20	149.5	9.8%
10-20	112.7	7.4%	100-110	0.0	0.0%	0-30	339.7	22.3%
20-30	190.2	12.5%	110-120	0.0	0.0%	0-40	594.6	39.0%
30-40	254.9	16.7%	120-130	0.0	0.0%	0-60	1155	75.8%
40-50	286.9	18.8%	130-140	0.0	0.0%	0-80	1492	97.9%
50-60	273.7	18.0%	140-150	0.0	0.0%	10-90	1487	97.6%
60-70	214.4	14.1%	150-160	0.0	0.0%	20-50	731.9	48.0%
70-80	122.8	8.1%	160-170	0.0	0.0%	40-90	929.3	61.0%
80-90	31.5	2.1%	170-180	0.0	0.0%	60-90	368.8	24.2%
0-90	1524	100.0%	90-180	0.0	0.0%	0-180	1524	100.0%



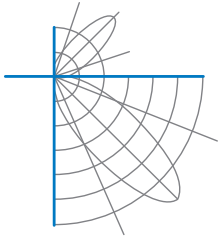
Report of Test

LLIA002505-001-R01

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	382	382	382	382	382	382	382	382	382
	2.5	381	381	382	385	386	385	382	381	381
	5	379	380	384	388	390	388	384	380	379
	7.5	377	379	386	393	396	393	386	379	377
	10	374	378	389	400	405	400	389	378	374
	12.5	370	376	392	409	417	409	392	376	370
	15	365	373	396	420	430	420	396	373	365
	17.5	360	370	399	431	444	431	399	370	360
	20	353	367	403	443	459	443	403	367	353
	22.5	346	363	407	455	474	455	407	363	346
	25	339	358	410	465	487	465	410	358	339
	27.5	331	352	412	474	497	474	412	352	331
	30	322	345	413	481	504	481	413	345	322
	32.5	313	338	412	484	508	484	412	338	313
	35	303	330	410	485	508	485	410	330	303
	37.5	293	320	405	482	505	482	405	320	293
	40	282	310	399	477	498	477	399	310	282
	42.5	271	299	391	468	488	468	391	299	271
	45	259	287	380	456	474	456	380	287	259
	47.5	247	274	368	441	458	441	368	274	247
50	234	260	354	423	438	423	354	260	234	
52.5	220	245	337	403	416	403	337	245	220	
55	206	230	319	380	392	380	319	230	206	
57.5	191	214	298	355	366	355	298	214	191	
60	176	197	276	328	337	328	276	197	176	
62.5	160	179	253	299	307	299	253	179	160	
65	144	161	228	270	276	270	228	161	144	
67.5	127	143	202	239	244	239	202	143	127	
70	110	124	176	207	211	207	176	124	110	
72.5	93	105	150	176	179	176	150	105	93	
75	76	86	123	144	147	144	123	86	76	
77.5	59	67	97	114	116	114	97	67	59	
80	43	49	73	85	86	85	73	49	43	
82.5	28	33	49	58	59	58	49	33	28	
85	15	18	29	34	35	34	29	18	15	
87.5	5	7	11	14	15	14	11	7	5	
90	0	0	1	1	2	1	1	0	0	

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



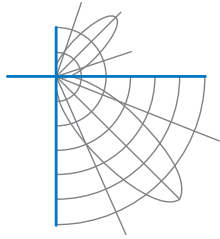
Report of Test

LLIA002505-001-R01

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	0	0	1	1	2	1	1	0	0	
	92.5	0	0	0	0	0	0	0	0	0	
	95	0	0	0	0	0	0	0	0	0	
	97.5	0	0	0	0	0	0	0	0	0	
	100	0	0	0	0	0	0	0	0	0	
	102.5	0	0	0	0	0	0	0	0	0	
	105	0	0	0	0	0	0	0	0	0	
	107.5	0	0	0	0	0	0	0	0	0	
	110	0	0	0	0	0	0	0	0	0	
	112.5	0	0	0	0	0	0	0	0	0	
	115	0	0	0	0	0	0	0	0	0	
	117.5	0	0	0	0	0	0	0	0	0	
	120	0	0	0	0	0	0	0	0	0	
	122.5	0	0	0	0	0	0	0	0	0	
	125	0	0	0	0	0	0	0	0	0	
	127.5	0	0	0	0	0	0	0	0	0	
	130	0	0	0	0	0	0	0	0	0	
	132.5	0	0	0	0	0	0	0	0	0	
	135	0	0	0	0	0	0	0	0	0	
	137.5	0	0	0	0	0	0	0	0	0	
140	0	0	0	0	0	0	0	0	0		
142.5	0	0	0	0	0	0	0	0	0		
145	0	0	0	0	0	0	0	0	0		
147.5	0	0	0	0	0	0	0	0	0		
150	0	0	0	0	0	0	0	0	0		
152.5	0	0	0	0	0	0	0	0	0		
155	0	0	0	0	0	0	0	0	0		
157.5	0	0	0	0	0	0	0	0	0		
160	0	0	0	0	0	0	0	0	0		
162.5	0	0	0	0	0	0	0	0	0		
165	0	0	0	0	0	0	0	0	0		
167.5	0	0	0	0	0	0	0	0	0		
170	0	0	0	0	0	0	0	0	0		
172.5	0	0	0	0	0	0	0	0	0		
175	0	0	0	0	0	0	0	0	0		
177.5	0	0	0	0	0	0	0	0	0		
180	0	0	0	0	0	0	0	0	0		

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



Report of Test

LLIA002505-001-R01

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	108	103	98	94	105	101	97	93	96	93	90	92	90	87	89	87	84	82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67			
3	88	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56			
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47			
5	74	60	51	44	71	59	50	43	57	49	43	55	48	42	53	47	42	40			
6	68	54	44	38	66	53	44	37	51	43	37	49	42	37	48	41	36	34			
7	63	48	39	33	61	48	39	33	46	38	32	44	37	32	43	37	32	30			
8	58	44	35	29	56	43	35	29	42	34	29	41	34	28	39	33	28	26			
9	54	40	32	26	53	39	31	26	38	31	26	37	30	25	36	30	25	23			
10	50	37	29	23	49	36	28	23	35	28	23	34	28	23	33	27	23	21			

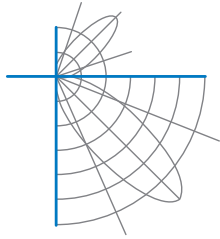
For absolute test reports, RUs are expressed as a percentage of total lumen output. For relative test reports, CUs are expressed as a percentage of total lamp output. Calculations were based on published IES procedures, and are based on the zonal cavity method. Basic assumptions: 1) Room surfaces are 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	10.6	7.53	11.15
8.0	6.0	10.04	14.86
10.0	3.8	12.55	18.58
12.0	2.7	15.06	22.30
14.0	2.0	17.57	26.01
16.0	1.5	20.08	29.73

Spacing Criterion	
0 deg:	1.3
90 deg:	1.9
180 deg:	1.3
270 deg:	1.9

Average Luminance (cd/m ²)			
	0 deg Plane	45 deg Plane	90 deg Plane
0	4293	4293	4293
45	4116	6043	7537
55	4034	6240	7677
65	3828	6064	7332
75	3285	5349	6358
85	1908	3701	4544

Beam and Field Angle	
0-180 Degree Plane	
Beam Angle:	91.9°
Field Angle:	157.4°
90-270 Degree Plane	
Beam Angle:	133.4°
Field Angle:	166.7°



Report of Test

LLIA002505-001-R01

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

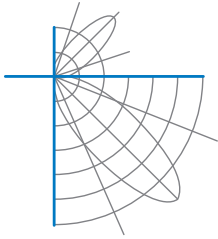
Room Size

UGR Viewed Crosswise

UGR Viewed Endwise

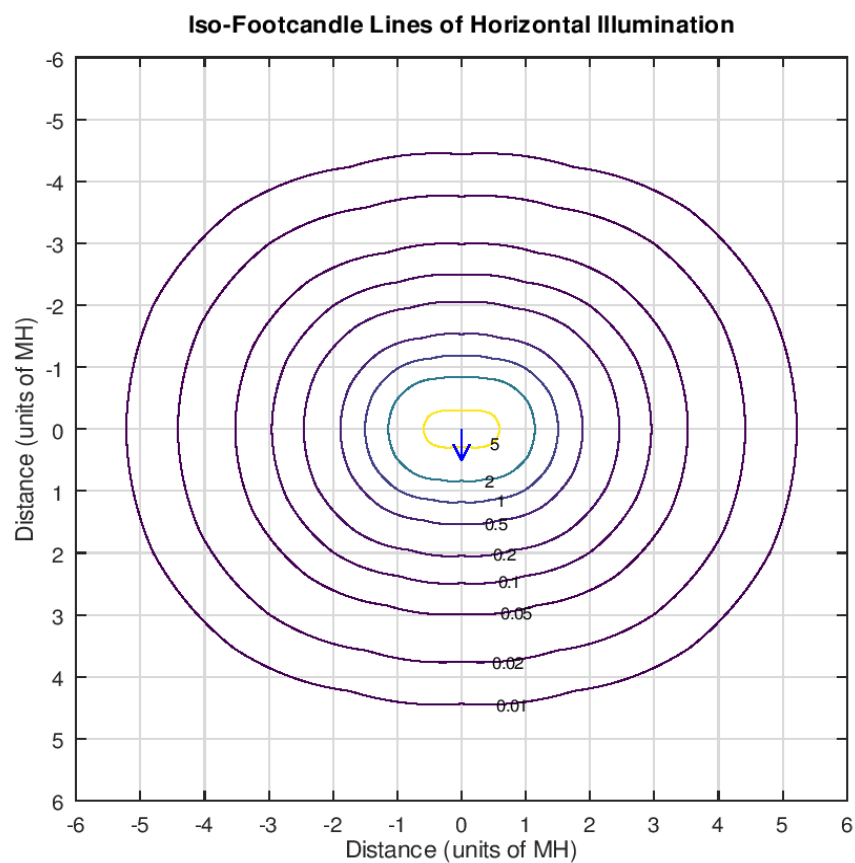
X=2H	Y=2H	16.6	18.3	17.0	18.6	18.9	20.3	22.0	20.7	22.3	22.6
	3H	18.4	19.9	18.7	20.2	20.6	22.2	23.8	22.6	24.1	24.4
	4H	19.0	20.5	19.4	20.8	21.2	22.9	24.4	23.3	24.7	25.1
	6H	19.4	20.8	19.8	21.1	21.5	23.4	24.8	23.8	25.1	25.5
	8H	19.5	20.8	19.9	21.2	21.6	23.6	24.9	24.0	25.2	25.6
	12H	19.6	20.8	20.0	21.2	21.6	23.7	24.9	24.1	25.3	25.7
4H	2H	18.0	19.5	18.4	19.8	20.2	20.8	22.2	21.1	22.6	22.9
	3H	19.9	21.1	20.3	21.5	21.9	22.9	24.2	23.3	24.5	24.9
	4H	20.5	21.7	21.0	22.1	22.5	23.8	24.9	24.2	25.3	25.7
	6H	21.0	22.0	21.5	22.4	22.9	24.4	25.4	24.9	25.8	26.3
	8H	21.2	22.1	21.6	22.5	23.0	24.6	25.5	25.1	26.0	26.4
	12H	21.2	22.1	21.7	22.5	23.0	24.8	25.6	25.2	26.1	26.5
8H	4H	21.2	22.1	21.7	22.6	23.0	24.0	24.9	24.4	25.3	25.8
	6H	21.8	22.6	22.3	23.0	23.5	24.7	25.5	25.2	26.0	26.5
	8H	22.0	22.7	22.5	23.2	23.6	25.0	25.7	25.5	26.2	26.7
	12H	22.1	22.7	22.6	23.2	23.7	25.3	25.9	25.8	26.3	26.9
12H	4H	21.3	22.1	21.8	22.6	23.1	24.0	24.8	24.5	25.3	25.8
	6H	22.0	22.6	22.5	23.1	23.6	24.8	25.5	25.3	25.9	26.5
	8H	22.2	22.8	22.7	23.3	23.8	25.1	25.7	25.6	26.2	26.8

Maximum UGR = 26.9

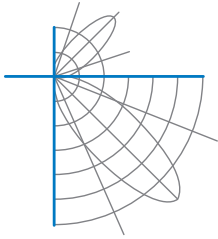


Report of Test LLIA002505-001-R01

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

LLIA002505-001-R01

Test Distance 9.5 m
Ambient 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 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.

Revision History: R01 - 11/11/2024 - Revised catalog number