



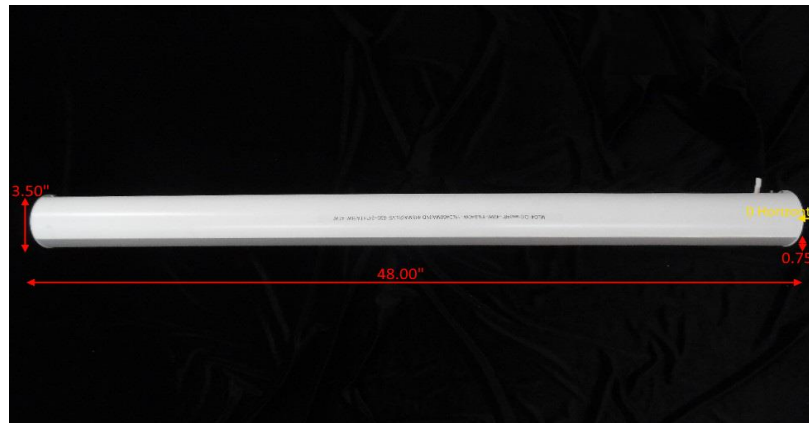
Report of Test

LLIA001503-002-R01*

Indoor Distribution Photometry Test Report

Catalog Number: MLC4-DI-48-695-670-35K-HTA-BW-1%-2C-U

Pendant mounted, extruded aluminum housing, frosted plastic upper enclosure, frosted plastic lower enclosure. 224 white LEDs, two Advance FO Strip PR 22 in 2200lm 835 LV5 LED boards with 56 LEDs each in indirect section, two Advance FO Strip PR 23.7 in 2200lm 835 LV5 LED boards with 56 LEDs each in direct section. Two Advance XI040C110V054BST2 LED drivers labeled as 460mA(direct) and 445mA(indirect)



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

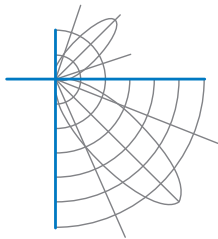
Performance Summary			
Input Voltage	120.0 V	Luminous Flux	5467.3 Lumens
Input Current	0.3459 A	Total Efficacy	133.5 Lm/W
Input Power	40.96 W	Downward Flux	2779.3 Lumens
Frequency	60.00 Hz	Downward Flux	50.8 % of Total
Power Factor	0.987		
Current THD	7.0 %		

*This test report supersedes test report LLIA001503-002

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

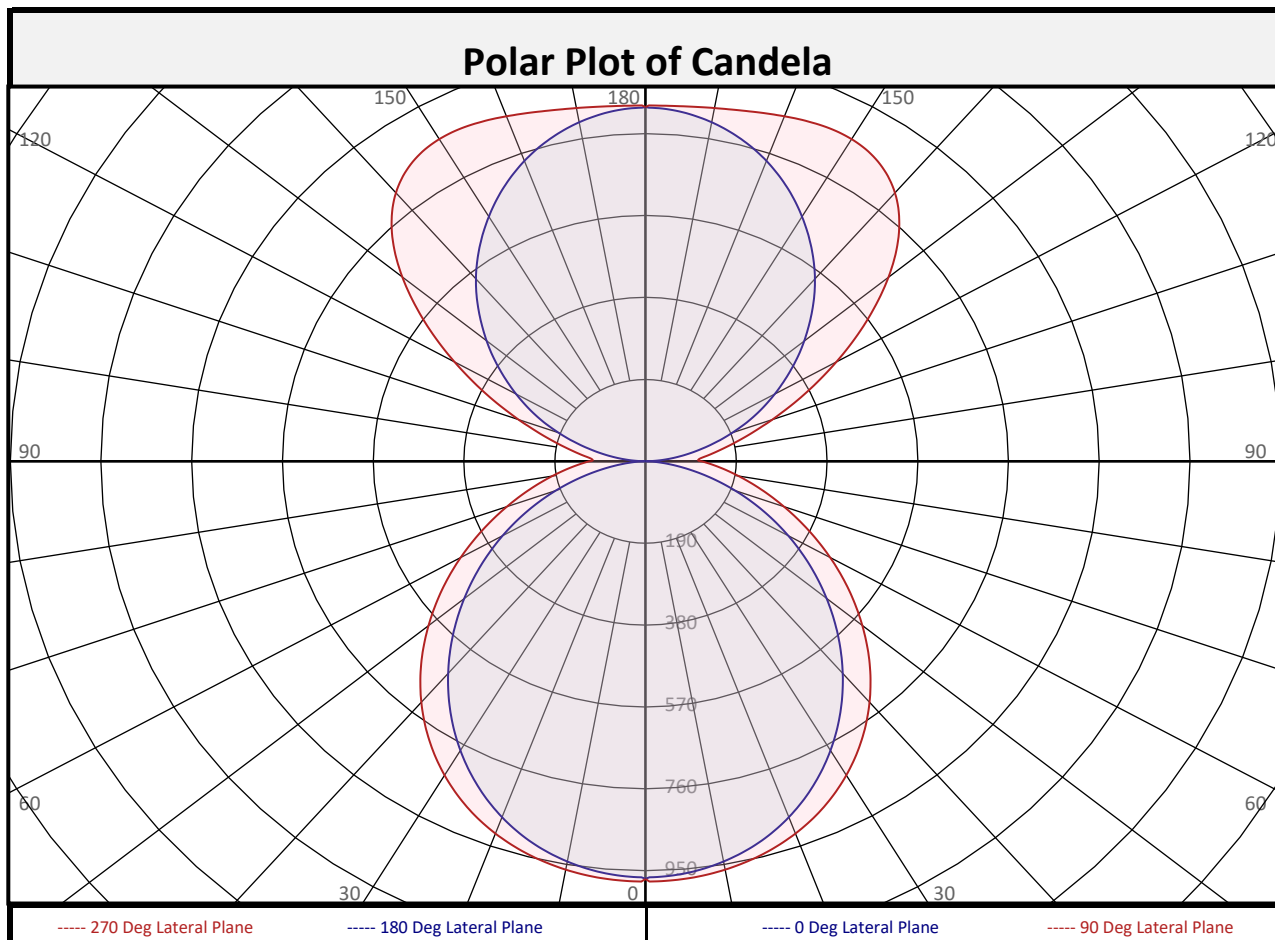
Test date: 07/30/2021
Report date: 08/19/2021

Signed: _____



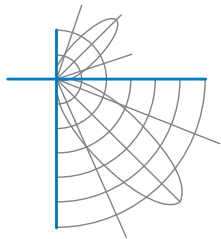
Report of Test

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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	91.7	1.7%	90-100	103.1	1.9%	0-20	353.7	6.5%
10-20	262.0	4.8%	100-110	200.5	3.7%	0-30	748.3	13.7%
20-30	394.6	7.2%	110-120	327.9	6.0%	0-40	1218	22.3%
30-40	469.4	8.6%	120-130	440.5	8.1%	0-60	2119	38.8%
40-50	477.5	8.7%	130-140	491.4	9.0%	0-80	2662	48.7%
50-60	423.7	7.7%	140-150	457.8	8.4%	10-90	2688	49.2%
60-70	327.3	6.0%	150-160	360.5	6.6%	20-50	1341	24.5%
70-80	215.5	3.9%	160-170	228.1	4.2%	40-90	1562	28.6%
80-90	117.7	2.2%	170-180	78.2	1.4%	60-90	660.5	12.1%
0-90	2779	50.8%	90-180	2688	49.2%	0-180	5467	100.0%

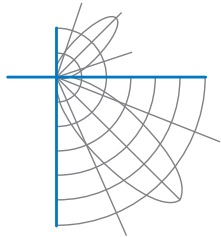


Report of Test

LLIA001503-002-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	0	969	969	969	969	969	969	969	969	969
	2.5	964	964	967	971	974	971	967	964	964
	5	960	960	964	968	972	968	964	960	960
	7.5	953	954	958	964	968	964	958	954	953
	10	943	944	950	957	962	957	950	944	943
	12.5	931	933	940	948	954	948	940	933	931
	15	916	919	928	938	944	938	928	919	916
	17.5	899	902	913	925	933	925	913	902	899
	20	879	883	897	911	919	911	897	883	879
	22.5	856	861	878	894	903	894	878	861	856
	25	831	838	857	875	885	875	857	838	831
	27.5	804	812	834	854	864	854	834	812	804
	30	775	784	808	830	841	830	808	784	775
	32.5	744	754	782	805	816	805	782	754	744
	35	711	723	753	777	789	777	753	723	711
	37.5	677	691	722	748	761	748	722	691	677
	40	642	657	690	717	730	717	690	657	642
	42.5	606	622	656	685	698	685	656	622	606
	45	570	587	622	651	664	651	622	587	570
	47.5	532	551	587	616	629	616	587	551	532
50	495	514	551	580	593	580	551	514	495	
52.5	457	477	514	544	557	544	514	477	457	
55	420	439	478	508	520	508	478	439	420	
57.5	382	402	441	472	484	472	441	402	382	
60	345	366	405	436	447	436	405	366	345	
62.5	308	329	370	401	411	401	370	329	308	
65	272	294	336	366	376	366	336	294	272	
67.5	236	259	303	333	342	333	303	259	236	
70	201	225	272	301	310	301	272	225	201	
72.5	166	193	242	271	279	271	242	193	166	
75	134	163	213	243	251	243	213	163	134	
77.5	103	135	187	216	224	216	187	135	103	
80	74	110	162	192	199	192	162	110	74	
82.5	49	87	140	169	176	169	140	87	49	
85	28	67	119	148	155	148	119	67	28	
87.5	11	50	100	129	136	129	100	50	11	
90	0	36	84	111	119	111	84	36	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	90	0	36	84	111	119	111	84	36	0
	92.5	16	46	84	106	112	106	84	46	16
	95	37	63	105	121	124	121	105	63	37
	97.5	59	82	124	140	142	140	124	82	59
	100	83	105	147	162	162	162	147	105	83
	102.5	108	130	172	186	186	186	172	130	108
	105	135	159	202	215	214	215	202	159	135
	107.5	164	190	237	248	246	248	237	190	164
	110	194	223	273	285	283	285	273	223	194
	112.5	224	256	312	327	322	327	312	256	224
	115	254	290	352	371	366	371	352	290	254
	117.5	283	323	393	417	413	417	393	323	283
	120	313	357	436	465	462	465	436	357	313
	122.5	343	390	479	513	513	513	479	390	343
	125	373	423	521	562	564	562	521	423	373
	127.5	404	455	559	609	615	609	559	455	404
	130	434	486	595	654	664	654	595	486	434
	132.5	463	516	628	695	710	695	628	516	463
	135	493	545	656	731	751	731	656	545	493
	137.5	523	572	681	762	785	762	681	572	523
140	552	598	702	787	813	787	702	598	552	
142.5	579	622	721	806	834	806	721	622	579	
145	606	644	737	820	849	820	737	644	606	
147.5	631	665	750	829	859	829	750	665	631	
150	655	686	762	835	863	835	762	686	655	
152.5	679	705	772	838	864	838	772	705	679	
155	701	723	780	838	862	838	780	723	701	
157.5	722	740	788	837	858	837	788	740	722	
160	742	755	794	836	852	836	794	755	742	
162.5	759	769	800	833	846	833	800	769	759	
165	774	782	805	831	841	831	805	782	774	
167.5	787	793	809	829	836	829	809	793	787	
170	799	802	813	828	832	828	813	802	799	
172.5	808	809	817	826	829	826	817	809	808	
175	815	815	819	825	827	825	819	815	815	
177.5	819	819	821	825	826	825	821	819	819	
180	822	822	822	822	822	822	822	822	822	



Report of Test

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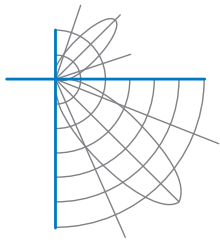
Coefficients of Utilization/Room Utilization - Zonal Cavity Method																						
Effective Floor Cavity Reflectance 0.20																						
RC	80					70					50				30				10			0
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50	30	10	0
RCR																						
0	107	107	107	107		99	99	99	99		84	84	84		70	70	70		57	57	57	51
1	97	93	89	85		90	86	82	79		73	70	68		60	59	57		49	48	47	42
2	88	81	74	69		81	75	69	64		63	59	55		53	50	47		43	41	39	34
3	81	71	63	57		74	66	59	54		56	51	46		47	43	40		38	35	33	29
4	74	63	54	48		68	58	51	45		49	44	39		41	37	34		34	31	28	25
5	68	56	47	41		62	52	44	39		44	38	34		37	33	29		30	27	25	21
6	62	50	42	36		57	46	39	34		40	34	30		33	29	26		28	24	22	19
7	57	45	37	31		53	42	35	29		36	30	26		30	26	23		25	22	19	17
8	53	41	33	28		49	38	31	26		33	27	23		28	23	20		23	20	17	15
9	50	37	30	25		46	35	28	23		30	24	21		26	21	18		21	18	15	13
10	46	34	27	22		43	32	25	21		28	22	19		24	19	16		20	16	14	12

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	26.9	7.16	7.71	
8.0	15.1	9.54	10.29	
10.0	9.7	11.93	12.86	
12.0	6.7	14.32	15.43	
14.0	4.9	16.70	18.00	
16.0	3.8	19.09	20.57	

Average Luminance (cd/m ²)			
	0 deg Plane	45 deg Plane	90 deg Plane
0	10430	10430	10430
45	8672	8044	8088
55	7876	7155	7196
65	6916	6205	6237
75	5553	5345	5391
85	3429	4870	4969

Spacing Criterion	
0 degree plane:	1.2
90 degree plane:	1.3
180 degree plane:	1.2
270 degree plane:	1.3



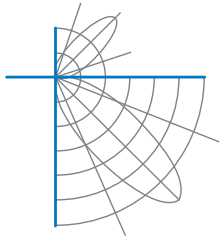
Report of Test

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UGR TABLE - CORRECTED

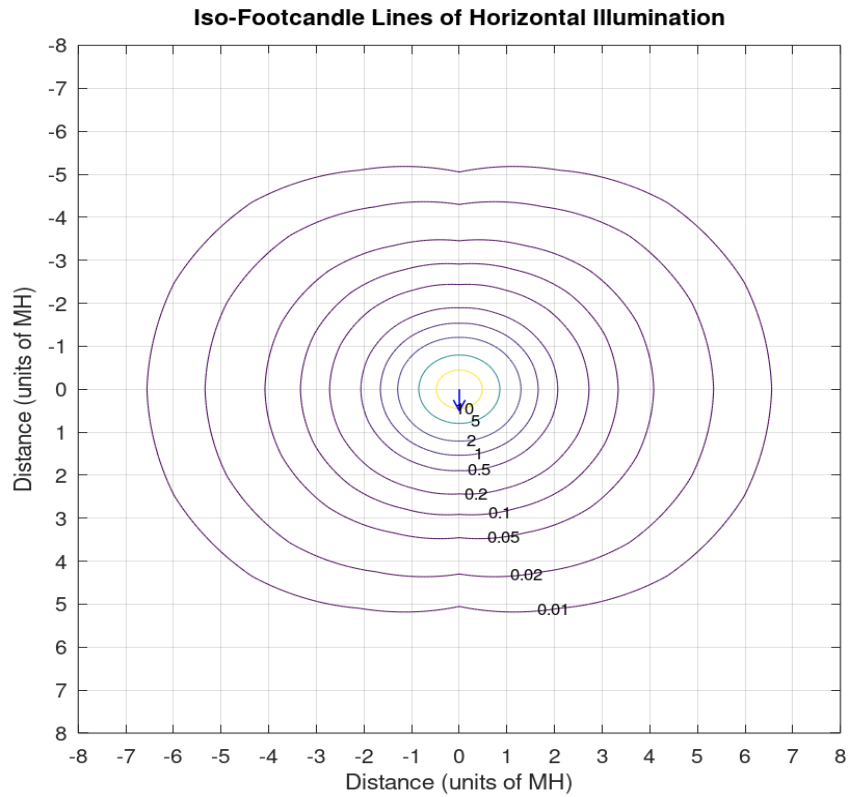
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	14.0	14.9	15.0	15.9	17.1	15.9	16.8	16.8	17.7	19.0
	3H	15.4	16.2	16.3	17.2	18.4	17.9	18.7	18.9	19.7	21.0
	4H	15.8	16.6	16.8	17.5	18.8	18.9	19.6	19.8	20.6	21.9
	6H	16.0	16.7	17.0	17.7	19.0	19.8	20.5	20.8	21.5	22.8
	8H	16.1	16.7	17.1	17.7	19.0	20.2	20.9	21.2	21.9	23.2
	12H	16.1	16.7	17.1	17.7	19.0	20.7	21.4	21.7	22.4	23.7
4H	2H	14.8	15.5	15.7	16.5	17.8	16.2	17.0	17.2	18.0	19.3
	3H	16.4	17.0	17.3	18.0	19.3	18.5	19.1	19.5	20.1	21.4
	4H	16.9	17.5	17.9	18.5	19.8	19.6	20.2	20.6	21.2	22.5
	6H	17.2	17.7	18.2	18.8	20.1	20.7	21.2	21.7	22.2	23.6
	8H	17.3	17.8	18.3	18.8	20.1	21.3	21.7	22.3	22.8	24.1
	12H	17.3	17.8	18.4	18.8	20.1	21.9	22.3	22.9	23.3	24.7
8H	4H	17.4	17.9	18.4	18.9	20.2	19.8	20.2	20.8	21.3	22.6
	6H	17.9	18.3	19.0	19.4	20.7	21.0	21.4	22.1	22.5	23.8
	8H	18.1	18.4	19.1	19.5	20.8	21.7	22.1	22.8	23.1	24.5
	12H	18.2	18.5	19.2	19.5	20.9	22.5	22.8	23.6	23.9	25.3
12H	4H	17.5	17.9	18.5	19.0	20.3	19.7	20.2	20.8	21.2	22.5
	6H	18.1	18.5	19.2	19.5	20.9	21.1	21.4	22.1	22.5	23.8
	8H	18.4	18.7	19.4	19.7	21.1	21.8	22.1	22.9	23.2	24.6

Maximum UGR = 25.3

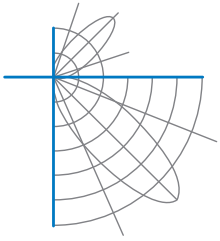


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Iso-Illuminance Plot



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.



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Additional Pictures of Test Subject





Report of Test

LLIA001503-002-R01

Test Distance 9.5 m
Ambient Temperature 25.0 °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-41-14 and LM-46-04.

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

R01 - 08/19/2021 - Revised catalog number