

Report of Test

LLIA002547-007

Indoor Distribution Photometry Test Report

Catalog Number: GCP-100PCS-WH (100W - Downlight - 4000K)

Surface or bracket mounted, cast aluminum housing, lightly frosted prismatic plastic direct enclosure, frosted plastic indirect enclosure. 128 LEDs (64CW and 64WW) on two E502083 LED boards in direct section and 24 unenergized LEDs (12CW and 12WW) on two boards in uplight section.
One Moso N7L-120M260A12 LED driver



Prepared For:

Topaz Lighting Corp
925 Waverly Avenue
Holtsville, NY 11742, USA

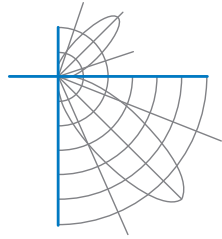
Performance Summary

Input Voltage	120.0 Vac	Luminous Flux	14041.8 Lumens
Input Current	0.8243 A	Total Efficacy	142.6 lm/W
Input Power	98.49 W	Downward Flux	13622.6 Lumens
Frequency	60.00 Hz	Downward Flux	97.0 % of Total
Power Factor	0.996		
Current THD	3.9 %		

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

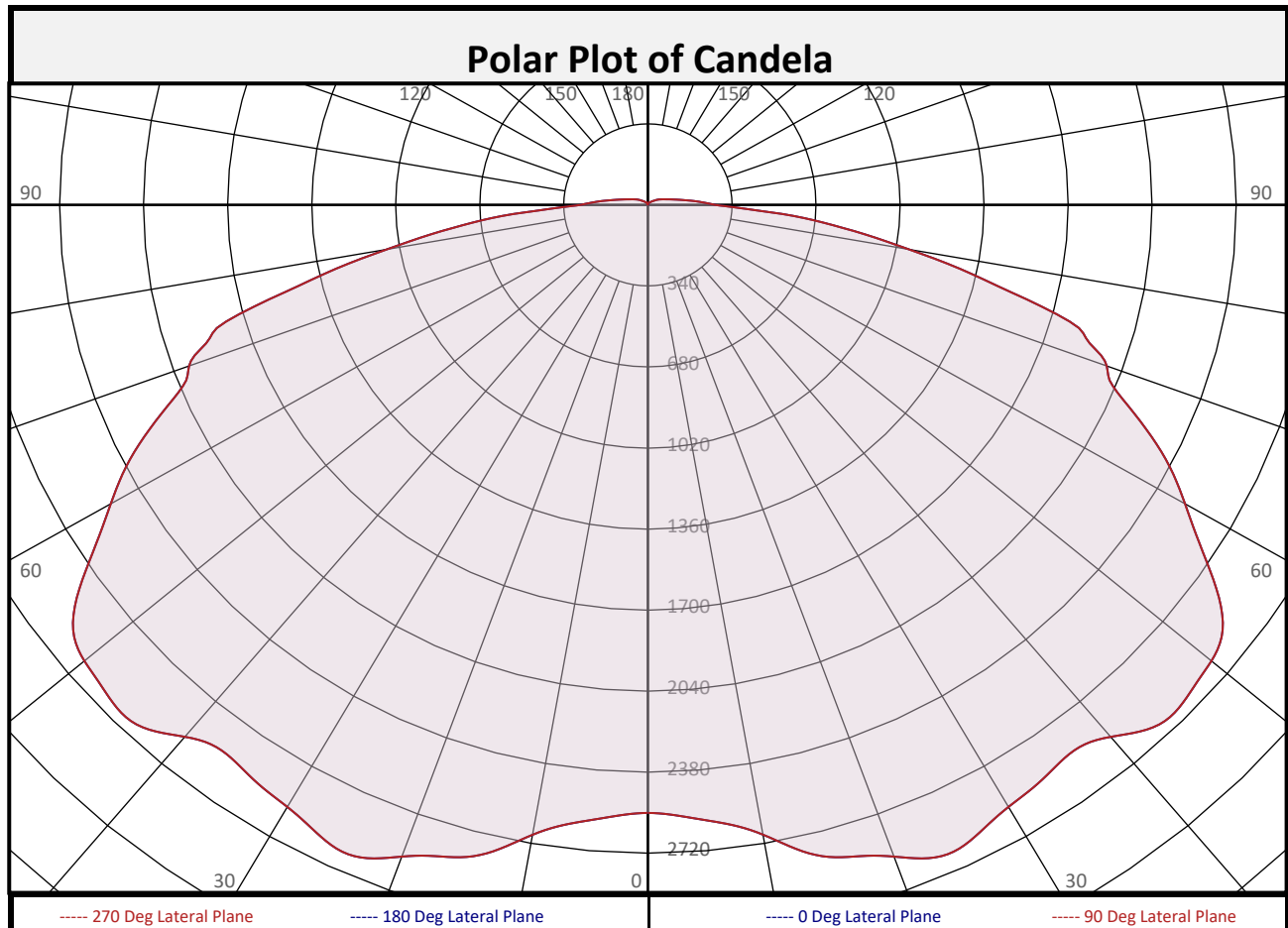
Test date: 01/14/2025
Report date: 01/16/2025

Signed: _____

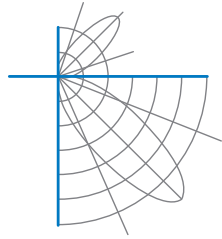


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Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	250.1	1.8%		90-100	207.9	1.5%		0-20	1052	7.5%
10-20	801.5	5.7%		100-110	97.8	0.7%		0-30	2419	17.2%
20-30	1367	9.7%		110-120	54.9	0.4%		0-40	4232	30.1%
30-40	1814	12.9%		120-130	29.2	0.2%		0-60	9039	64.4%
40-50	2314	16.5%		130-140	15.1	0.1%		0-80	12931	92.1%
50-60	2493	17.8%		140-150	7.9	0.1%		10-90	13372	95.2%
60-70	2203	15.7%		150-160	3.9	0.0%		20-50	5495	39.1%
70-80	1689	12.0%		160-170	1.9	0.0%		40-90	9390	66.9%
80-90	691.2	4.9%		170-180	0.5	0.0%		60-90	4583	32.6%
0-90	13623	97.0%		90-180	419.2	3.0%		0-180	14042	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	2551	2551	2551	2551	2551	2551	2551	2551	2551
	2.5	2564	2564	2564	2564	2564	2564	2564	2564	2564
	5	2590	2590	2590	2590	2590	2590	2590	2590	2590
	7.5	2625	2625	2625	2625	2625	2625	2625	2625	2625
	10	2684	2684	2684	2684	2684	2684	2684	2684	2684
	12.5	2768	2768	2768	2768	2768	2768	2768	2768	2768
	15	2833	2833	2833	2833	2833	2833	2833	2833	2833
	17.5	2865	2865	2865	2865	2865	2865	2865	2865	2865
	20	2910	2910	2910	2910	2910	2910	2910	2910	2910
	22.5	2967	2967	2967	2967	2967	2967	2967	2967	2967
	25	2980	2980	2980	2980	2980	2980	2980	2980	2980
	27.5	2948	2948	2948	2948	2948	2948	2948	2948	2948
	30	2917	2917	2917	2917	2917	2917	2917	2917	2917
	32.5	2900	2900	2900	2900	2900	2900	2900	2900	2900
	35	2877	2877	2877	2877	2877	2877	2877	2877	2877
	37.5	2868	2868	2868	2868	2868	2868	2868	2868	2868
	40	2914	2914	2914	2914	2914	2914	2914	2914	2914
	42.5	2987	2987	2987	2987	2987	2987	2987	2987	2987
	45	3014	3014	3014	3014	3014	3014	3014	3014	3014
	47.5	2995	2995	2995	2995	2995	2995	2995	2995	2995
	50	2977	2977	2977	2977	2977	2977	2977	2977	2977
	52.5	2931	2931	2931	2931	2931	2931	2931	2931	2931
	55	2808	2808	2808	2808	2808	2808	2808	2808	2808
	57.5	2647	2647	2647	2647	2647	2647	2647	2647	2647
	60	2510	2510	2510	2510	2510	2510	2510	2510	2510
	62.5	2380	2380	2380	2380	2380	2380	2380	2380	2380
	65	2223	2223	2223	2223	2223	2223	2223	2223	2223
	67.5	2056	2056	2056	2056	2056	2056	2056	2056	2056
	70	1976	1976	1976	1976	1976	1976	1976	1976	1976
	72.5	1859	1859	1859	1859	1859	1859	1859	1859	1859
	75	1651	1651	1651	1651	1651	1651	1651	1651	1651
	77.5	1344	1344	1344	1344	1344	1344	1344	1344	1344
	80	1071	1071	1071	1071	1071	1071	1071	1071	1071
	82.5	842	842	842	842	842	842	842	842	842
	85	635	635	635	635	635	635	635	635	635
	87.5	404	404	404	404	404	404	404	404	404
	90	273	273	273	273	273	273	273	273	273

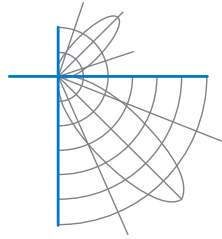
16 lateral half-planes of data were acquired, 22.5 degree increments shown.

North America (issuing laboratory)

LightLab International Allentown, LLC
905 Harrison Street, Suite 135
Allentown, PA 18103 USA
Ph: +1 484-273-0705
Fx: +1 484-209-5779
www.lightlaballentown.com

Australasia & S.E. Asia

LightLab International
50 Redcliffe Gardens Drive
Clontarf - Queensland, 4019, Australia
Ph: +61 7 3283 7862
Fx: +61 7 3283 8751
www.lightlabint.com



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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	273	273	273	273	273	273	273	273	273
	92.5	226	226	226	226	226	226	226	226	226
	95	187	187	187	187	187	187	187	187	187
	97.5	151	151	151	151	151	151	151	151	151
	100	125	125	125	125	125	125	125	125	125
	102.5	105	105	105	105	105	105	105	105	105
	105	90	90	90	90	90	90	90	90	90
	107.5	78	78	78	78	78	78	78	78	78
	110	69	69	69	69	69	69	69	69	69
	112.5	61	61	61	61	61	61	61	61	61
	115	55	55	55	55	55	55	55	55	55
	117.5	49	49	49	49	49	49	49	49	49
	120	43	43	43	43	43	43	43	43	43
	122.5	37	37	37	37	37	37	37	37	37
	125	31	31	31	31	31	31	31	31	31
	127.5	28	28	28	28	28	28	28	28	28
	130	24	24	24	24	24	24	24	24	24
	132.5	22	22	22	22	22	22	22	22	22
	135	19	19	19	19	19	19	19	19	19
	137.5	17	17	17	17	17	17	17	17	17
	140	15	15	15	15	15	15	15	15	15
	142.5	14	14	14	14	14	14	14	14	14
	145	13	13	13	13	13	13	13	13	13
	147.5	11	11	11	11	11	11	11	11	11
	150	10	10	10	10	10	10	10	10	10
	152.5	9	9	9	9	9	9	9	9	9
	155	8	8	8	8	8	8	8	8	8
	157.5	8	8	8	8	8	8	8	8	8
	160	7	7	7	7	7	7	7	7	7
	162.5	7	7	7	7	7	7	7	7	7
	165	7	7	7	7	7	7	7	7	7
	167.5	6	6	6	6	6	6	6	6	6
	170	6	6	6	6	6	6	6	6	6
	172.5	6	6	6	6	6	6	6	6	6
	175	5	5	5	5	5	5	5	5	5
	177.5	3	3	3	3	3	3	3	3	3
	180	0	0	0	0	0	0	0	0	0

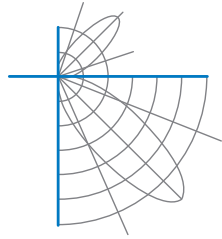
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Coefficients of Utilization/Room Utilization - Zonal Cavity Method

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	118	118	118	118		115	115	115	115		109	109	109			104	104	104			99	99	99			97
1	105	99	94	89		102	97	92	87		92	88	84			87	84	81			83	80	78			75
2	94	84	76	69		91	82	74	68		78	71	66			74	69	64			70	66	62			59
3	84	72	63	55		82	70	62	55		67	59	53			64	57	52			60	55	50			48
4	77	63	53	45		74	61	52	45		58	50	44			55	48	43			53	47	42			39
5	70	55	45	38		67	54	45	37		51	43	37			49	42	36			47	40	35			33
6	64	49	39	32		62	48	39	32		46	38	31			44	36	31			42	35	30			28
7	59	44	35	28		57	43	34	28		41	33	27			39	32	27			38	31	26			24
8	55	40	31	24		53	39	30	24		37	30	24			36	29	23			34	28	23			21
9	51	36	28	22		49	36	27	21		34	27	21			33	26	21			32	25	21			19
10	47	33	25	19		46	33	25	19		31	24	19			30	23	19			29	23	18			17

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	70.9	10.35	10.35
8.0	39.9	13.80	13.80
10.0	25.5	17.25	17.25
12.0	17.7	20.69	20.69
14.0	13.0	24.14	24.14
16.0	10.0	27.59	27.59

Spacing Criterion

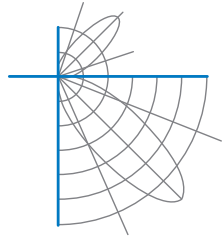
SC: 1.7

Average Luminance (cd/m²)

	0 deg Plane	45 deg Plane	90 deg Plane
0	27627	27627	27627
45	42631	42631	42631
55	47421	47421	47421
65	48398	48398	48398
75	52800	52800	52800
85	40607	40607	40607

Beam and Field Angle

0-180 Degree Plane	
Beam Angle:	152.1°
Field Angle:	178.6°
90-270 Degree Plane	
Beam Angle:	152.1°
Field Angle:	178.6°



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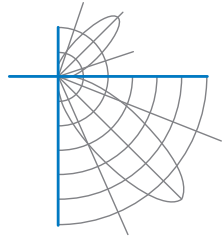
UGR Table - Corrected

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

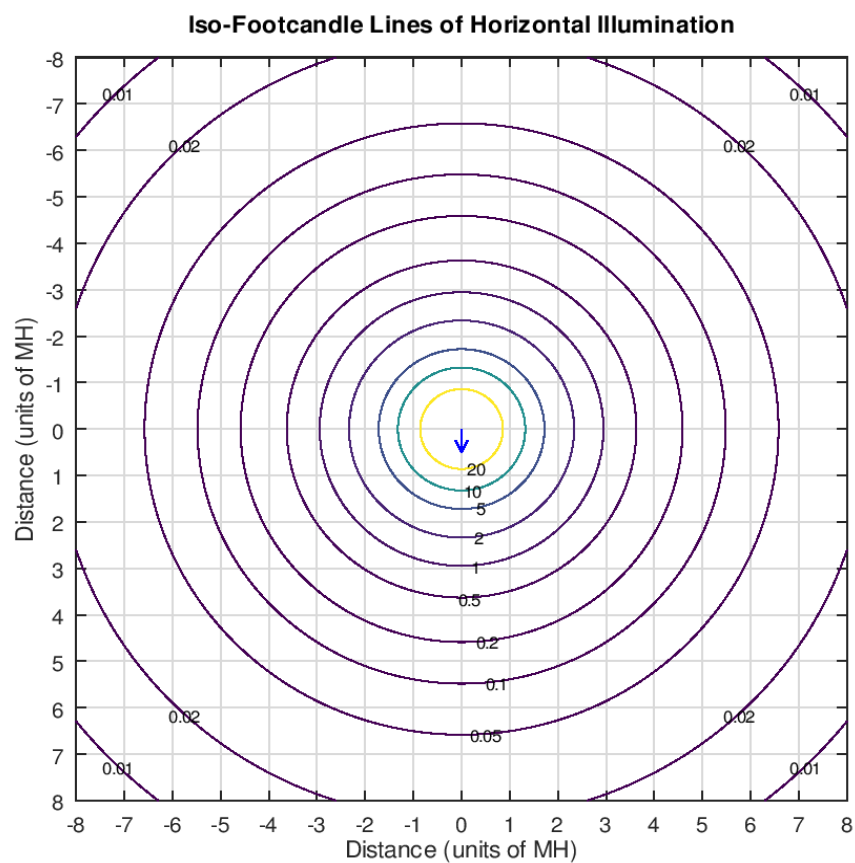
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	24.9	26.6	25.3	27.0	27.4	24.9	26.6	25.3	27.0	27.4
	3H	27.3	28.8	27.7	29.2	29.7	27.3	28.8	27.7	29.2	29.7
	4H	28.4	30.0	28.9	30.4	30.8	28.4	30.0	28.9	30.4	30.8
	6H	29.3	30.7	29.7	31.1	31.5	29.3	30.7	29.7	31.1	31.5
	8H	29.5	30.9	30.0	31.3	31.8	29.5	30.9	30.0	31.3	31.8
	12H	29.8	31.1	30.2	31.5	32.0	29.8	31.1	30.2	31.5	32.0
4H	2H	25.7	27.2	26.1	27.6	28.0	25.7	27.2	26.1	27.6	28.0
	3H	28.3	29.6	28.8	30.1	30.5	28.3	29.6	28.8	30.1	30.5
	4H	29.6	30.8	30.1	31.3	31.8	29.6	30.8	30.1	31.3	31.8
	6H	30.6	31.6	31.1	32.1	32.6	30.6	31.6	31.1	32.1	32.6
	8H	30.9	31.9	31.4	32.4	32.9	30.9	31.9	31.4	32.4	32.9
	12H	31.2	32.1	31.7	32.6	33.2	31.2	32.1	31.7	32.6	33.2
8H	4H	30.1	31.1	30.6	31.6	32.1	30.1	31.1	30.6	31.6	32.1
	6H	31.2	32.0	31.7	32.5	33.1	31.2	32.0	31.7	32.5	33.1
	8H	31.6	32.4	32.1	32.9	33.5	31.6	32.4	32.1	32.9	33.5
	12H	32.0	32.7	32.6	33.2	33.8	32.0	32.7	32.6	33.2	33.8
12H	4H	30.2	31.1	30.7	31.6	32.1	30.2	31.1	30.7	31.6	32.1
	6H	31.3	32.0	31.8	32.6	33.2	31.3	32.0	31.8	32.6	33.2
	8H	31.8	32.5	32.3	33.0	33.6	31.8	32.5	32.3	33.0	33.6

Maximum UGR = 33.8

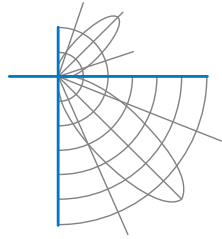


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Iso-Illuminance Plot



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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Test Distance 9.5 m
Ambient Temperature 25.1 °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.