

Report of Test

LLIA002547-002

Indoor Distribution Photometry Test Report

Catalog Number: GCP-100PCS-WH (30W - Uplight/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 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	120.1 Vac	Luminous Flux	4444.0 Lumens
Input Current	0.2606 A	Total Efficacy	146.9 lm/W
Input Power	30.26 W	Downward Flux	3852.5 Lumens
Frequency	60.00 Hz	Downward Flux	86.7 % of Total
Power Factor	0.968		
Current THD	8.4 %		

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

Test date: 01/15/2025
Report date: 01/16/2025

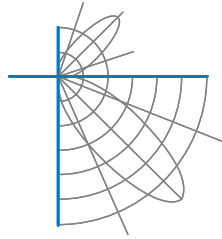
Signed: _____

North America (issuing laboratory)

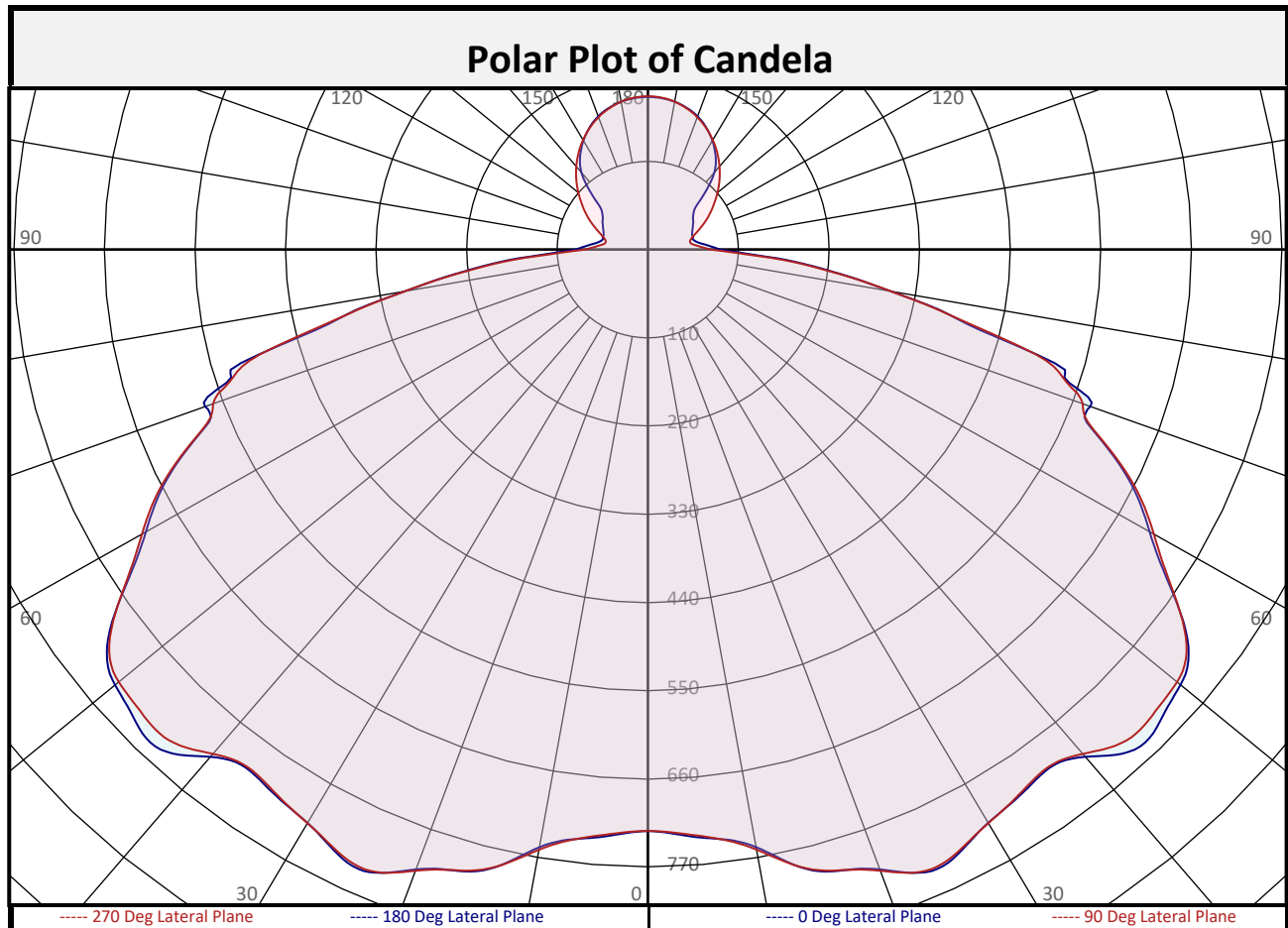
LightLab International Allentown, LLC
905 Harrison Street, Suite 135
Allentown, PA 18103 USA
Ph: +1 484-273-0705
Fx: +1 484-209-5779
www.lightlaballentown.com

Australasia & S.E. Asia

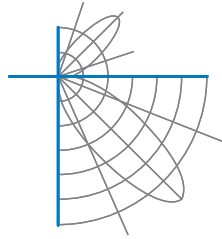
LightLab International
50 Redcliffe Gardens Drive
Clontarf - Queensland, 4019, Australia
Ph : +61 7 3283 7862
Fx : +61 7 3283 8751
www.lightlabint.com



Report of Test LLIA002547-002



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	70.9	1.6%		90-100	71.9	1.6%		0-20	297.5	6.7%
10-20	226.6	5.1%		100-110	57.4	1.3%		0-30	685.2	15.4%
20-30	387.6	8.7%		110-120	63.0	1.4%		0-40	1198	27.0%
30-40	512.6	11.5%		120-130	73.2	1.6%		0-60	2556	57.5%
40-50	655.0	14.7%		130-140	88.1	2.0%		0-80	3655	82.3%
50-60	703.2	15.8%		140-150	91.3	2.1%		10-90	3782	85.1%
60-70	622.8	14.0%		150-160	77.2	1.7%		20-90	1555	35.0%
70-80	476.8	10.7%		160-170	51.4	1.2%		40-90	2655	59.7%
80-90	197.0	4.4%		170-180	18.0	0.4%		60-90	1297	29.2%
0-90	3852	86.7%		90-180	591.5	13.3%		0-180	4444	100.0%



Report of Test

LLIA002547-002

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	725	725	725	725	725	725	725	725	725
	2.5	729	729	729	728	728	728	729	729	729
	5	736	736	736	735	734	735	736	736	736
	7.5	742	743	744	744	744	744	744	743	742
	10	757	757	759	760	760	760	759	757	757
	12.5	782	780	781	783	783	783	781	780	782
	15	803	801	799	799	801	799	799	801	803
	17.5	811	813	810	809	811	809	810	813	811
	20	822	826	825	824	824	824	825	826	822
	22.5	841	843	841	841	841	841	841	843	841
	25	848	847	845	844	845	844	845	847	848
	27.5	838	837	835	835	836	835	835	837	838
	30	826	827	824	826	826	826	824	827	826
	32.5	820	820	818	820	819	820	818	820	820
	35	813	813	812	813	811	813	812	813	813
	37.5	810	810	811	810	809	810	811	810	810
	40	826	823	825	824	821	824	825	823	826
	42.5	853	844	846	845	840	845	846	844	853
	45	862	854	854	851	846	851	854	854	862
	47.5	852	851	849	844	843	844	849	851	852
	50	845	847	843	840	839	840	843	847	845
	52.5	828	832	827	825	825	825	827	832	828
	55	790	797	790	788	789	788	790	797	790
	57.5	742	751	745	741	746	741	745	751	742
	60	704	712	707	704	709	704	707	712	704
	62.5	671	675	671	669	675	669	671	675	671
	65	631	630	628	625	633	625	628	630	631
	67.5	583	583	580	577	585	577	580	583	583
	70	572	565	559	556	562	556	559	565	572
	72.5	530	532	529	524	528	524	529	532	530
	75	464	463	466	463	468	463	466	463	464
	77.5	374	380	372	378	373	378	372	380	374
	80	299	300	300	302	299	302	300	300	299
	82.5	237	238	236	239	235	239	236	238	237
	85	181	183	179	183	176	183	179	183	181
	87.5	120	120	116	119	111	119	116	120	120
	90	87	86	83	82	76	82	83	86	87

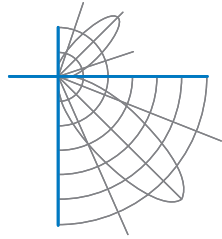
16 lateral half-planes of data were acquired, 22.5 degree increments shown.

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



Report of Test

LLIA002547-002

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 shown.	90	87	86	83	82	76	82	83	86	87
	92.5	78	76	73	70	66	70	73	76	78
	95	70	68	65	61	59	61	65	68	70
	97.5	63	61	58	54	54	54	58	61	63
	100	59	58	54	51	52	51	54	58	59
	102.5	57	55	52	51	53	51	52	55	57
	105	56	54	51	52	55	52	51	54	56
	107.5	57	55	52	54	59	54	52	55	57
	110	57	56	53	59	63	59	53	56	57
	112.5	58	57	54	65	69	65	54	57	58
	115	60	59	56	72	74	72	56	59	60
	117.5	62	60	58	79	80	79	58	60	62
	120	63	62	62	85	86	85	62	62	63
	122.5	65	64	67	92	92	92	67	64	65
	125	67	67	78	98	98	98	78	67	67
	127.5	69	70	91	104	104	104	91	70	69
	130	73	77	102	111	110	111	102	77	73
	132.5	79	90	112	117	117	117	112	90	79
	135	95	106	120	124	123	124	120	106	95
	137.5	112	119	128	130	129	130	128	119	112
	140	126	129	135	136	135	136	135	129	126
	142.5	136	138	141	142	141	142	141	138	136
	145	143	145	148	147	147	147	148	145	143
	147.5	150	152	153	153	152	153	153	152	150
	150	157	157	159	158	158	158	159	157	157
	152.5	162	163	164	163	162	163	164	163	162
	155	168	168	168	167	167	167	168	168	168
	157.5	172	172	172	172	172	172	172	172	172
	160	177	176	176	176	175	176	176	176	177
	162.5	180	179	179	179	179	179	179	179	180
	165	183	182	182	182	182	182	182	182	183
	167.5	185	185	185	185	185	185	185	185	185
	170	187	187	187	187	187	187	187	187	187
	172.5	188	188	189	189	189	189	189	188	188
	175	189	190	190	190	190	190	190	190	189
	177.5	190	190	191	191	191	191	191	190	190
	180	191	191	191	191	191	191	191	191	191

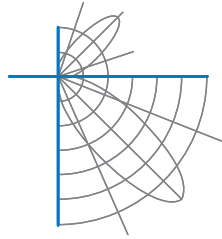
16 lateral half-planes of data were acquired, 22.5 degree increments shown.

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



Report of Test

LLIA002547-002

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	116	116	116	116		112	112	112	112		104	104	104			96	96	96			90	90	90			87
1	103	98	92	88		99	94	89	85		87	83	80			81	78	75			75	73	71			67
2	92	83	75	68		88	80	73	67		74	68	63			69	64	59			64	60	56			53
3	83	71	62	55		79	69	60	53		64	57	51			59	53	48			55	50	46			43
4	75	62	52	45		72	60	51	44		56	48	42			52	45	40			48	42	38			35
5	69	55	45	38		66	53	44	37		49	41	35			46	39	34			42	37	32			29
6	63	49	39	32		60	47	38	31		44	36	30			41	34	29			38	32	27			25
7	58	44	34	28		55	42	33	27		39	32	26			37	30	25			34	28	24			22
8	54	39	30	24		51	38	30	24		36	28	23			33	27	22			31	25	21			19
9	50	36	27	21		48	35	27	21		33	25	20			31	24	19			29	23	19			17
10	47	33	25	19		45	32	24	19		30	23	18			28	22	17			26	21	17			15

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	20.1	10.34	10.25
8.0	11.3	13.79	13.67
10.0	7.3	17.24	17.09
12.0	5.0	20.68	20.51
14.0	3.7	24.13	23.92
16.0	2.8	27.58	27.34

Spacing Criterion

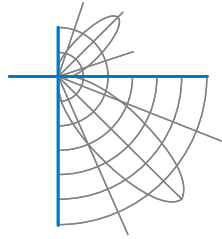
0 deg:	1.7
90 deg:	1.7
180 deg:	1.7
270 deg:	1.7

Average Luminance (cd/m²)

	0 deg Plane	45 deg Plane	90 deg Plane
0	7852	7852	7852
45	12188	12079	11971
55	13334	13335	13328
65	13738	13676	13791
75	14844	14903	14980
85	11541	11425	11255

Beam and Field Angle

0-180 Degree Plane	
Beam Angle:	151.4°
Field Angle:	#N/A
90-270 Degree Plane	
Beam Angle:	151.8°
Field Angle:	178.1°



Report of Test

LLIA002547-002

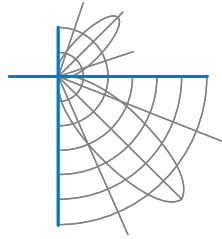
UGR Table - Corrected

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

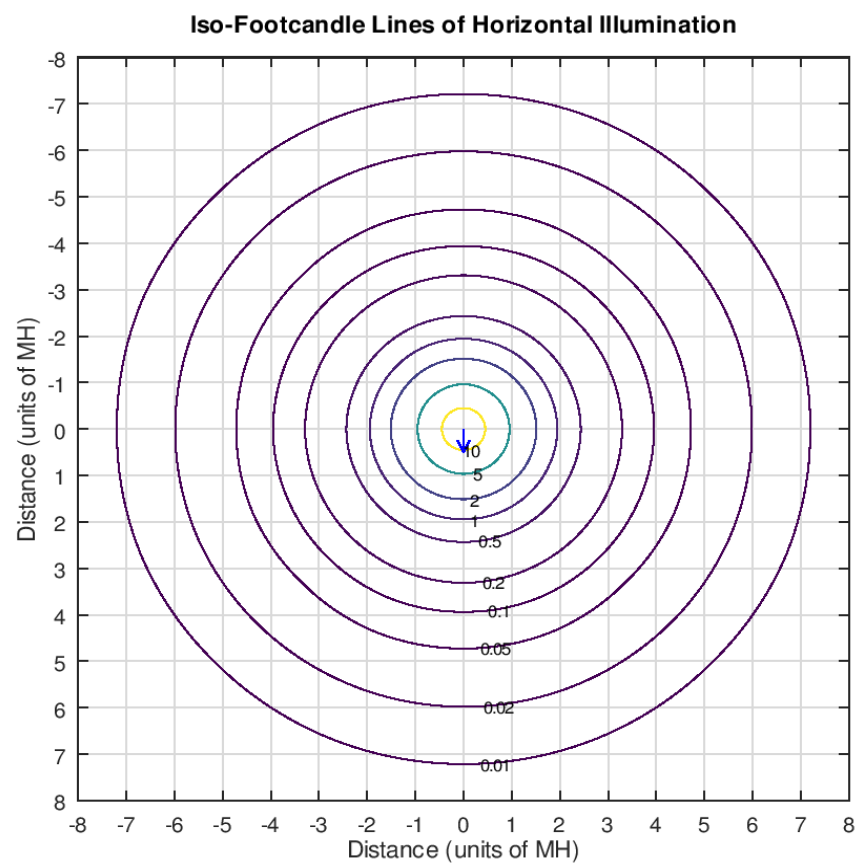
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	19.8	21.3	20.4	21.9	22.5	19.8	21.3	20.3	21.8	22.4
	3H	22.2	23.6	22.8	24.1	24.8	22.1	23.5	22.7	24.1	24.7
	4H	23.4	24.7	24.0	25.3	25.9	23.3	24.6	23.9	25.2	25.9
	6H	24.2	25.4	24.8	26.0	26.7	24.1	25.3	24.7	25.9	26.6
	8H	24.4	25.6	25.0	26.2	26.9	24.4	25.6	25.0	26.2	26.9
	12H	24.7	25.8	25.3	26.4	27.1	24.6	25.7	25.2	26.3	27.1
4H	2H	20.6	21.9	21.1	22.5	23.1	20.5	21.8	21.1	22.4	23.1
	3H	23.2	24.4	23.8	25.0	25.7	23.2	24.3	23.8	24.9	25.6
	4H	24.5	25.6	25.2	26.2	26.9	24.5	25.5	25.1	26.1	26.9
	6H	25.4	26.4	26.1	27.0	27.7	25.4	26.3	26.0	27.0	27.7
	8H	25.8	26.6	26.4	27.3	28.0	25.8	26.6	26.4	27.2	28.0
	12H	26.1	26.8	26.7	27.5	28.3	26.0	26.8	26.7	27.5	28.2
8H	4H	25.0	25.8	25.6	26.5	27.2	24.9	25.8	25.6	26.4	27.2
	6H	26.0	26.7	26.7	27.4	28.2	26.0	26.7	26.7	27.4	28.1
	8H	26.5	27.1	27.1	27.8	28.6	26.4	27.1	27.1	27.8	28.5
	12H	26.9	27.4	27.5	28.1	28.9	26.8	27.4	27.5	28.1	28.9
12H	4H	25.0	25.8	25.7	26.5	27.2	25.0	25.8	25.7	26.4	27.2
	6H	26.1	26.8	26.8	27.4	28.2	26.1	26.7	26.8	27.4	28.2
	8H	26.6	27.2	27.3	27.9	28.7	26.6	27.2	27.3	27.8	28.7

Maximum UGR = 28.9

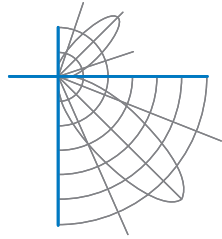


Report of Test LLIA002547-002

Iso-Illuminance Plot

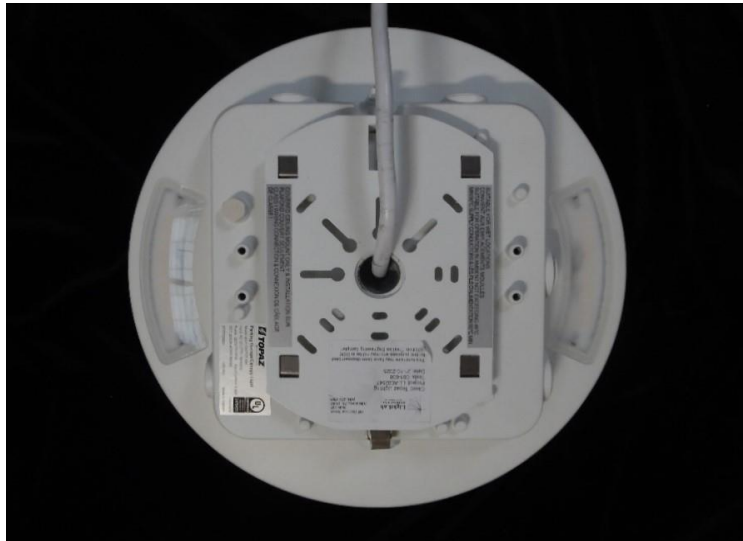


The isofootcandle values shown in the plot above are based on a mounting height of $h = 8.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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



Report of Test LLIA002547-002

Additional Pictures of Test Subject



North America (issuing laboratory)

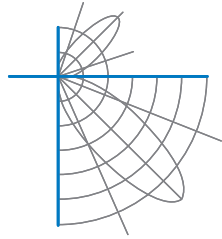
LightLab International Allentown, LLC
905 Harrison Street, Suite 135
Allentown, PA 18103 USA

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



Report of Test

LLIA002547-002

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-41-20 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.

North America (issuing laboratory)

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

Australasia & S.E. Asia

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