LightLab INTERNATIONAL ALLENTOWN LLC

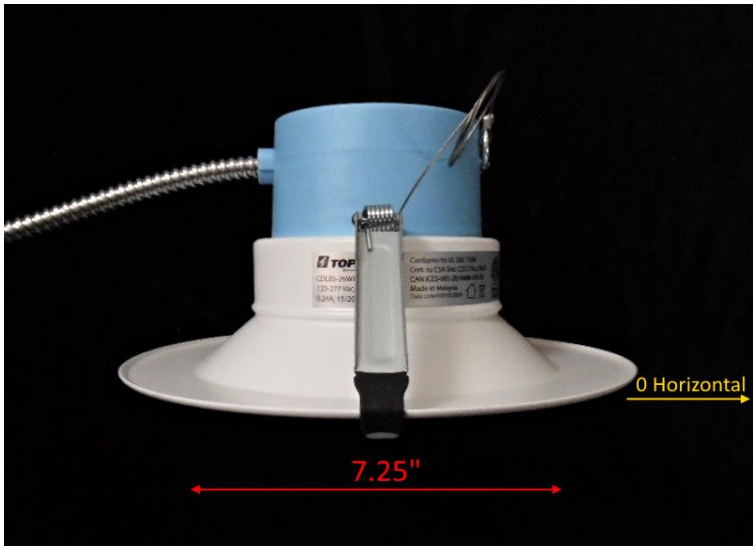
NVLAP TESTING Lab Code: 201079-0

Report of Test

LLIA002379-009

Indoor Distribution Photometry Test Report

Catalog Number: CDL8S-26WPCS-U - 26W Setting - 4000K Setting
Recessed mounted, formed white painted aluminum housing,
white interior reflector, diffuse white plastic enclosure.
white LEDs
One unmarked PCB type LED driver mounted on top of fixture housing



Prepared For:
Topaz Lighting, A Southwire Company
925 Waverly Avenue
Holtsville, NY 11742, USA

Performance Summary					
Input Voltage	120.0	Vac	Luminous Flux	2798.6	Lumens
Input Current	0.2125	A	Total Efficacy	111.0	Lm/W
Input Power	25.21	W	Downward Flux	2798.6	Lumens
Frequency	60.00	Hz	Downward Flux	100.0	% of Total
Power Factor	0.989				
Current THD	8.9	%			

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

Test date: 05/02/2024
Report date: 05/16/2024

Signed: Michael L. Grather Digitally signed by Michael L. Grather Date: 2024.05.16 15:16:05 -04'00'

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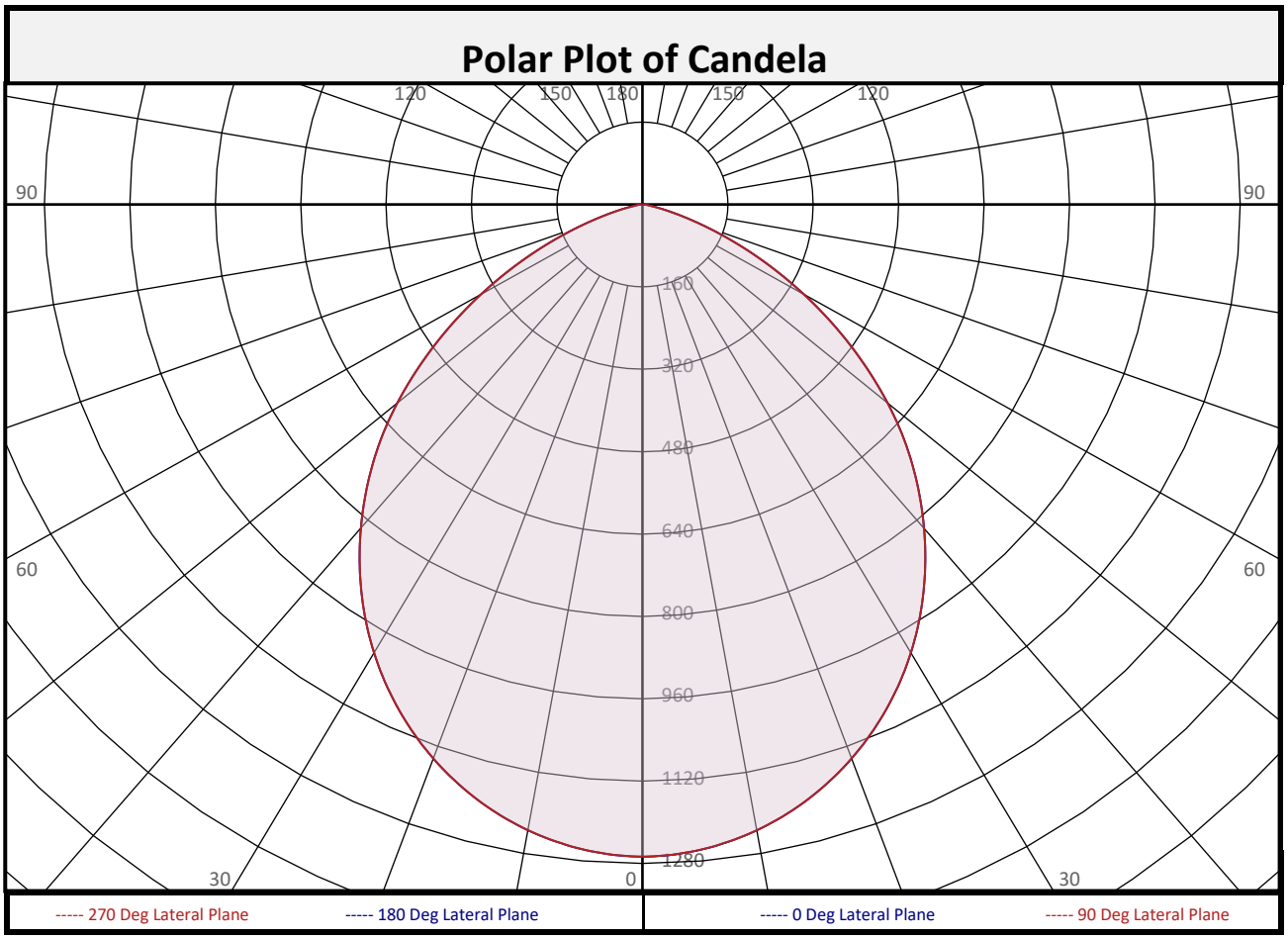

Zonal Flux Summary

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	119.4	4.3%	90-100	0.0	0.0%	0-20	456.5	16.3%
10-20	337.1	12.0%	100-110	0.0	0.0%	0-30	954.0	34.1%
20-30	497.5	17.8%	110-120	0.0	0.0%	0-40	1527	54.6%
30-40	573.2	20.5%	120-130	0.0	0.0%	0-60	2500	89.3%
40-50	550.0	19.7%	130-140	0.0	0.0%	0-80	2791	99.7%
50-60	423.0	15.1%	140-150	0.0	0.0%	10-90	2679	95.7%
60-70	229.7	8.2%	150-160	0.0	0.0%	20-50	1621	57.9%
70-80	61.6	2.2%	160-170	0.0	0.0%	40-90	1271	45.4%
80-90	7.1	0.3%	170-180	0.0	0.0%	60-90	298.4	10.7%
0-90	2799	100.0%	90-180	0.0	0.0%	0-180	2799	100.0%

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Luminous Intensity (Candela) Table

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	Lateral (C-Plane) Angles									
	0	22.5	45	67.5	90	112.5	135	157.5	180
0	1267	1267	1267	1267	1267	1267	1267	1267	1267
2.5	1264	1264	1264	1264	1264	1264	1264	1264	1264
5	1258	1258	1258	1258	1258	1258	1258	1258	1258
7.5	1248	1248	1248	1248	1248	1248	1248	1248	1248
10	1234	1234	1234	1234	1234	1234	1234	1234	1234
12.5	1217	1217	1217	1217	1217	1217	1217	1217	1217
15	1196	1196	1196	1196	1196	1196	1196	1196	1196
17.5	1172	1172	1172	1172	1172	1172	1172	1172	1172
20	1145	1145	1145	1145	1145	1145	1145	1145	1145
22.5	1115	1115	1115	1115	1115	1115	1115	1115	1115
25	1081	1081	1081	1081	1081	1081	1081	1081	1081
27.5	1045	1045	1045	1045	1045	1045	1045	1045	1045
30	1005	1005	1005	1005	1005	1005	1005	1005	1005
32.5	963	963	963	963	963	963	963	963	963
35	918	918	918	918	918	918	918	918	918
37.5	870	870	870	870	870	870	870	870	870
40	820	820	820	820	820	820	820	820	820
42.5	769	769	769	769	769	769	769	769	769
45	715	715	715	715	715	715	715	715	715
47.5	659	659	659	659	659	659	659	659	659
50	599	599	599	599	599	599	599	599	599
52.5	537	537	537	537	537	537	537	537	537
55	474	474	474	474	474	474	474	474	474
57.5	411	411	411	411	411	411	411	411	411
60	349	349	349	349	349	349	349	349	349
62.5	288	288	288	288	288	288	288	288	288
65	231	231	231	231	231	231	231	231	231
67.5	176	176	176	176	176	176	176	176	176
70	127	127	127	127	127	127	127	127	127
72.5	85	85	85	85	85	85	85	85	85
75	53	53	53	53	53	53	53	53	53
77.5	29	29	29	29	29	29	29	29	29
80	15	15	15	15	15	15	15	15	15
82.5	10	10	10	10	10	10	10	10	10
85	6	6	6	6	6	6	6	6	6
87.5	2	2	2	2	2	2	2	2	2
90	0	0	0	0	0	0	0	0	0

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

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Luminous Intensity (Candela) Table

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	Lateral (C-Plane) Angles								
	0	22.5	45	67.5	90	112.5	135	157.5	180
90	0	0	0	0	0	0	0	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.

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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	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102	100
1	111	107	103	100		108	105	101	98		100	98	95		97	94	92		93	91	90	88
2	102	95	89	84		100	93	88	83		90	85	81		86	83	79		84	80	78	76
3	94	85	77	72		92	83	76	71		80	75	70		78	73	69		75	71	68	65
4	87	76	68	62		84	74	67	61		72	66	61		70	64	60		68	63	59	57
5	80	68	60	54		78	67	59	54		65	58	53		63	57	53		61	56	52	50
6	74	62	54	48		72	61	53	47		59	52	47		58	51	47		56	51	46	44
7	69	56	48	42		67	56	48	42		54	47	42		53	46	42		51	46	41	40
8	64	52	44	38		63	51	43	38		50	43	38		48	42	38		47	42	37	36
9	60	48	40	34		59	47	39	34		46	39	34		45	39	34		44	38	34	32
10	57	44	36	31		55	43	36	31		42	36	31		42	35	31		41	35	31	29

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	35.2	7.11	7.11
8.0	19.8	9.48	9.48
10.0	12.7	11.85	11.85
12.0	8.8	14.22	14.22
14.0	6.5	16.59	16.59
16.0	4.9	18.96	18.96

Spacing Criterion

SC: 1.2

Average Luminance (cd/m^2)

	0 deg Plane	45 deg Plane	90 deg Plane
0	47563	47563	47563
45	37974	37974	37974
55	31021	31021	31021
65	20481	20481	20481
75	7620	7620	7620
85	2631	2631	2631

Beam and Field Angle

0-180 Degree Plane

Beam Angle: 97.2°

Field Angle: 140.0°

90-270 Degree Plane

Beam Angle: 97.2°

Field Angle: 140.0°

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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	22.7	24.2	23.1	24.6	24.9	22.7	24.2	23.1	24.6	24.9
	3H	23.5	24.8	23.8	25.1	25.5	23.5	24.8	23.8	25.1	25.5
	4H	23.6	24.8	24.0	25.1	25.5	23.6	24.8	24.0	25.1	25.5
	6H	23.5	24.7	23.9	25.0	25.4	23.5	24.7	23.9	25.0	25.4
	8H	23.5	24.6	23.9	25.0	25.4	23.5	24.6	23.9	25.0	25.4
	12H	23.4	24.5	23.9	24.9	25.3	23.4	24.5	23.9	24.9	25.3
4H	2H	23.1	24.3	23.5	24.7	25.0	23.1	24.3	23.5	24.7	25.0
	3H	23.9	24.9	24.3	25.3	25.7	23.9	24.9	24.3	25.3	25.7
	4H	24.0	24.9	24.4	25.3	25.8	24.0	24.9	24.4	25.3	25.8
	6H	24.0	24.8	24.4	25.2	25.7	24.0	24.8	24.4	25.2	25.7
	8H	23.9	24.7	24.4	25.1	25.6	23.9	24.7	24.4	25.1	25.6
	12H	23.9	24.6	24.4	25.1	25.5	23.9	24.6	24.4	25.1	25.5
8H	4H	24.0	24.7	24.4	25.1	25.6	24.0	24.7	24.4	25.1	25.6
	6H	23.9	24.6	24.4	25.0	25.5	23.9	24.6	24.4	25.0	25.5
	8H	23.9	24.5	24.4	25.0	25.5	23.9	24.5	24.4	25.0	25.5
	12H	23.9	24.4	24.4	24.9	25.4	23.9	24.4	24.4	24.9	25.4
12H	4H	23.9	24.6	24.4	25.1	25.5	23.9	24.6	24.4	25.1	25.5
	6H	23.9	24.5	24.4	24.9	25.5	23.9	24.5	24.4	24.9	25.5
	8H	23.9	24.4	24.4	24.9	25.4	23.9	24.4	24.4	24.9	25.4

Maximum UGR = 25.8

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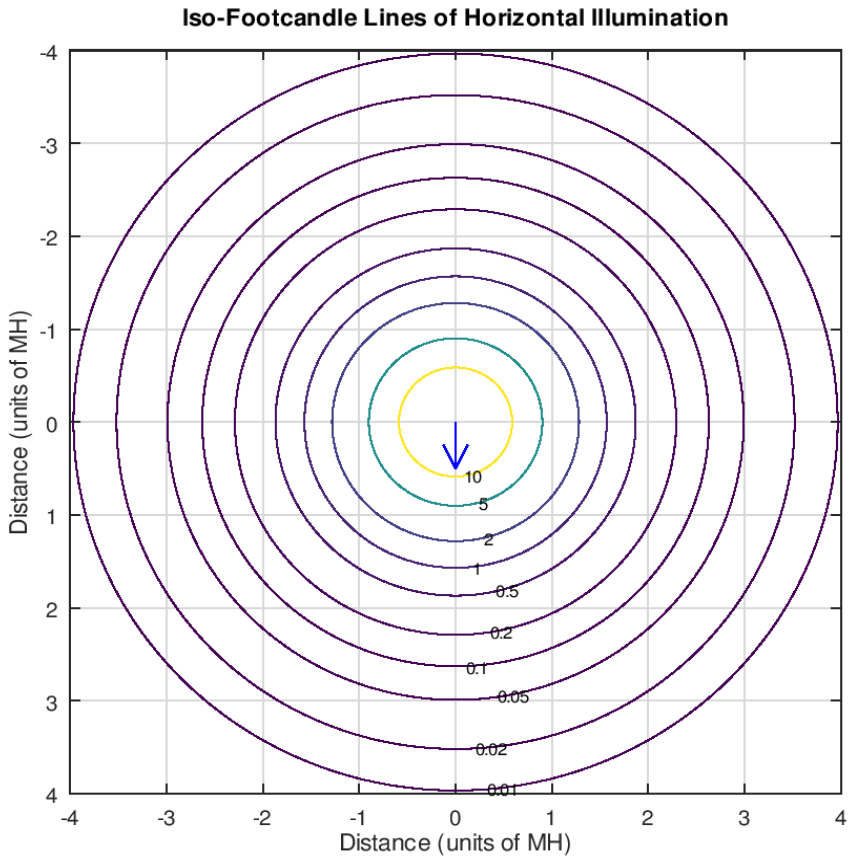
Iso-Illuminance Plot



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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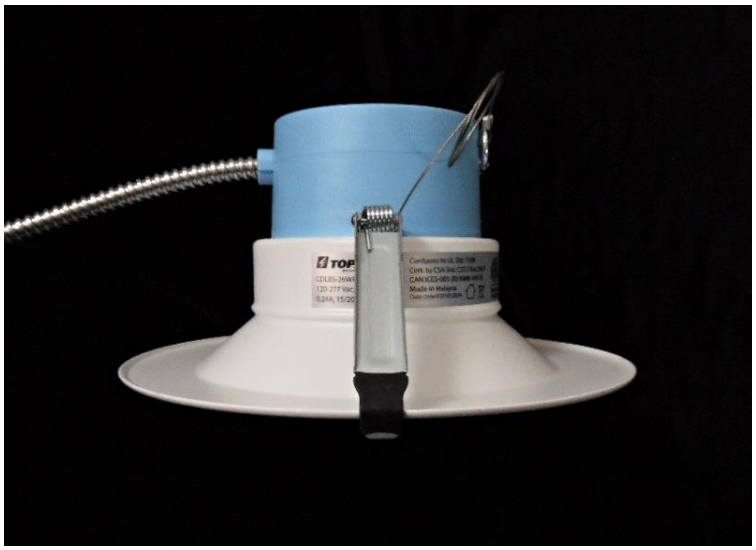
Additional Pictures of Test Subject



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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.