

Report of Test

LLIA002581-011

Indoor Distribution Photometry Test Report

Catalog Number: RDL6-ADJ-15W-CS 4000K Setting
Recessed mounted, formed white painted aluminum housing,
white interior reflector, diffuse white plastic enclosure.
26 white LEDs, switch set for 4000K.
One Topaz RDL6-ADJ-15W-CS LED driver in formed steel box.



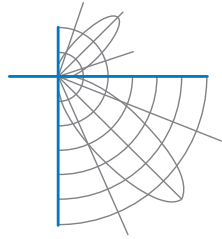
Prepared For:
Topaz Lighting, A Southwire Company
925 Waverly Avenue
Holtsville, NY 11742, USA

Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	1383.6 Lumens
Input Current	0.1215 A	Total Efficacy	96.8 lm/W
Input Power	14.30 W	Downward Flux	1383.5 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.981		
Current THD	11.0 %		

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

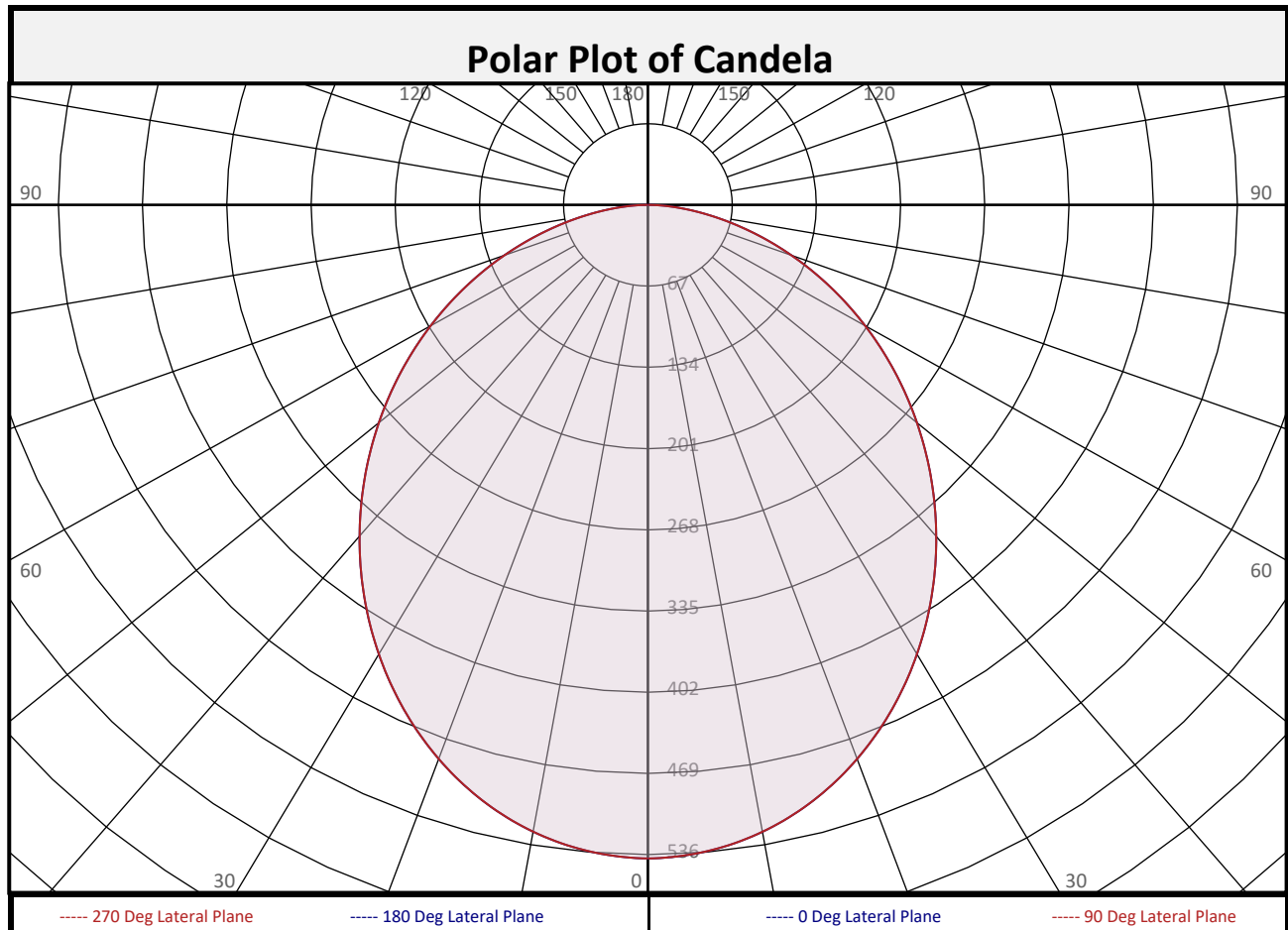
Test date: 01/29/2025
Report date: 02/05/2025

Signed: _____

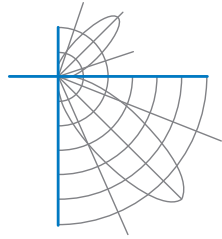


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Zonal Flux Summary										
Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total		Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	50.8	3.7%		90-100	0.0	0.0%		0-20	194.1	14.0%
10-20	143.3	10.4%		100-110	0.0	0.0%		0-30	405.5	29.3%
20-30	211.4	15.3%		110-120	0.0	0.0%		0-40	651.5	47.1%
30-40	246.0	17.8%		120-130	0.0	0.0%		0-60	1111	80.3%
40-50	245.6	17.7%		130-140	0.0	0.0%		0-80	1359	98.2%
50-60	214.0	15.5%		140-150	0.0	0.0%		10-90	1333	96.3%
60-70	158.3	11.4%		150-160	0.0	0.0%		20-90	703.0	50.8%
70-80	89.4	6.5%		160-170	0.0	0.0%		40-90	732.0	52.9%
80-90	24.7	1.8%		170-180	0.0	0.0%		60-90	272.4	19.7%
0-90	1384	100.0%		90-180	0.0	0.0%		0-180	1384	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	539	539	539	539	539	539	539	539	539
	2.5	538	538	538	538	538	538	538	538	538
	5	535	535	535	535	535	535	535	535	535
	7.5	531	531	531	531	531	531	531	531	531
	10	525	525	525	525	525	525	525	525	525
	12.5	518	518	518	518	518	518	518	518	518
	15	509	509	509	509	509	509	509	509	509
	17.5	498	498	498	498	498	498	498	498	498
	20	486	486	486	486	486	486	486	486	486
	22.5	473	473	473	473	473	473	473	473	473
	25	459	459	459	459	459	459	459	459	459
	27.5	444	444	444	444	444	444	444	444	444
	30	428	428	428	428	428	428	428	428	428
	32.5	411	411	411	411	411	411	411	411	411
	35	394	394	394	394	394	394	394	394	394
	37.5	375	375	375	375	375	375	375	375	375
	40	357	357	357	357	357	357	357	357	357
	42.5	338	338	338	338	338	338	338	338	338
	45	318	318	318	318	318	318	318	318	318
	47.5	299	299	299	299	299	299	299	299	299
	50	279	279	279	279	279	279	279	279	279
	52.5	259	259	259	259	259	259	259	259	259
	55	239	239	239	239	239	239	239	239	239
	57.5	219	219	219	219	219	219	219	219	219
	60	199	199	199	199	199	199	199	199	199
	62.5	180	180	180	180	180	180	180	180	180
	65	160	160	160	160	160	160	160	160	160
	67.5	140	140	140	140	140	140	140	140	140
	70	121	121	121	121	121	121	121	121	121
	72.5	103	103	103	103	103	103	103	103	103
	75	84	84	84	84	84	84	84	84	84
	77.5	67	67	67	67	67	67	67	67	67
	80	50	50	50	50	50	50	50	50	50
	82.5	35	35	35	35	35	35	35	35	35
	85	22	22	22	22	22	22	22	22	22
	87.5	9	9	9	9	9	9	9	9	9
	90	1	1	1	1	1	1	1	1	1

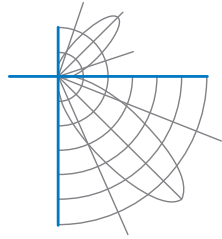
16 lateral half-planes of data were acquired, 22.5 degree increments shown.

North America (issuing laboratory)

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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 shown.	90	1	1	1	1	1	1	1	1	1
	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.

North America (issuing laboratory)

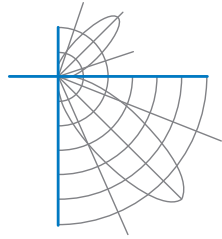
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Coefficients of Utilization/Room Utilization - Zonal Cavity Method

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	109	104	100	96		106	102	98	95		98	95	92			94	91	89			90	88	86			84
2	99	91	84	79		97	89	83	78		86	81	76			83	78	74			79	76	73			71
3	91	80	72	66		88	79	71	65		76	69	64			73	68	63			70	66	62			60
4	83	71	63	56		81	70	62	56		68	60	55			65	59	54			63	58	53			51
5	77	64	55	48		75	63	54	48		61	53	48			59	52	47			57	51	47			45
6	71	58	49	42		69	57	48	42		55	47	42			53	47	42			52	46	41			39
7	66	52	44	38		64	52	43	38		50	43	37			49	42	37			47	41	37			35
8	61	48	39	34		60	47	39	34		46	39	33			45	38	33			43	37	33			31
9	57	44	36	30		56	43	36	30		42	35	30			41	35	30			40	34	30			28
10	54	41	33	28		52	40	33	28		39	32	27			38	32	27			37	31	27			25

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	15.0	7.11	7.11
8.0	8.4	9.48	9.48
10.0	5.4	11.86	11.86
12.0	3.7	14.23	14.23
14.0	2.8	16.60	16.60
16.0	2.1	18.97	18.97

Spacing Criterion

SC: 1.2

Average Luminance (cd/m²)

	0 deg Plane	45 deg Plane	90 deg Plane
0	118241	118241	118241
45	98739	98739	98739
55	91510	91510	91510
65	82946	82946	82946
75	71380	71380	71380
85	54233	54233	54233

Beam and Field Angle

0-180 Degree Plane

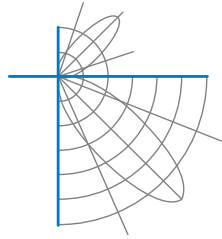
Beam Angle: 102.4°

Field Angle: 158.9°

90-270 Degree Plane

Beam Angle: 102.4°

Field Angle: 158.9°



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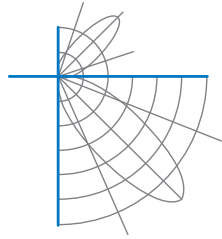
UGR Table - Corrected

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

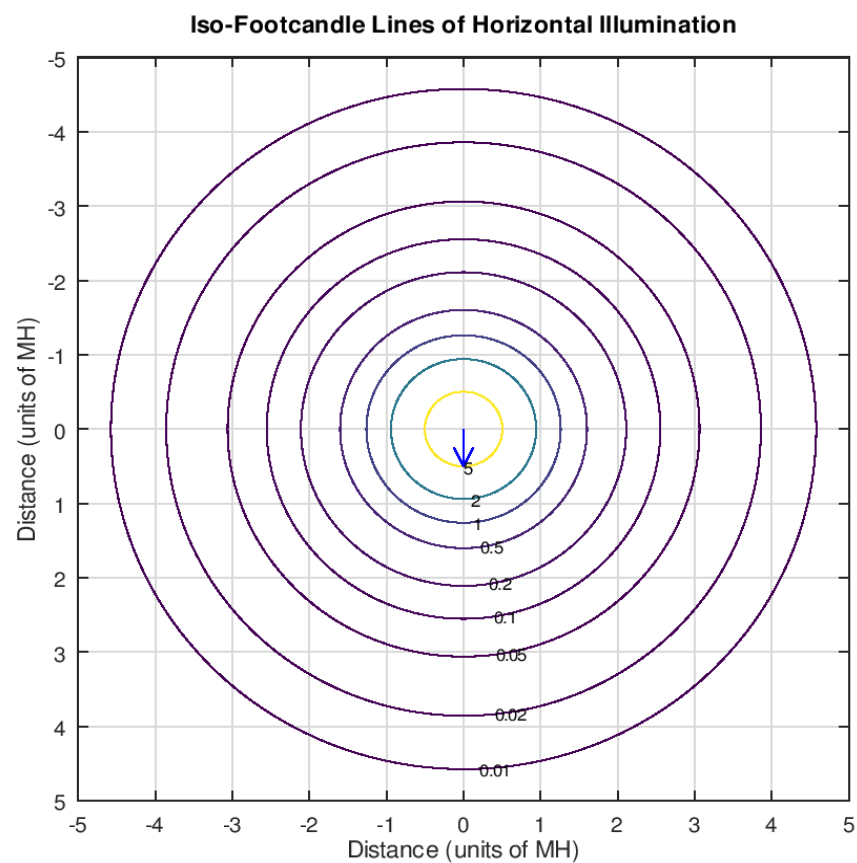
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	23.2	24.8	23.6	25.2	25.5	23.2	24.8	23.6	25.2	25.5
	3H	25.0	26.4	25.4	26.8	27.1	25.0	26.4	25.4	26.8	27.1
	4H	25.6	27.0	26.0	27.3	27.7	25.6	27.0	26.0	27.3	27.7
	6H	26.1	27.4	26.5	27.7	28.1	26.1	27.4	26.5	27.7	28.1
	8H	26.2	27.4	26.7	27.8	28.2	26.2	27.4	26.7	27.8	28.2
	12H	26.3	27.5	26.8	27.9	28.3	26.3	27.5	26.8	27.9	28.3
4H	2H	23.8	25.2	24.2	25.6	25.9	23.8	25.2	24.2	25.6	25.9
	3H	25.8	27.0	26.2	27.4	27.8	25.8	27.0	26.2	27.4	27.8
	4H	26.6	27.6	27.0	28.0	28.5	26.6	27.6	27.0	28.0	28.5
	6H	27.2	28.1	27.6	28.5	29.0	27.2	28.1	27.6	28.5	29.0
	8H	27.4	28.2	27.8	28.7	29.1	27.4	28.2	27.8	28.7	29.1
	12H	27.5	28.3	28.0	28.7	29.2	27.5	28.3	28.0	28.7	29.2
8H	4H	26.9	27.7	27.3	28.2	28.6	26.9	27.7	27.3	28.2	28.6
	6H	27.6	28.3	28.1	28.8	29.3	27.6	28.3	28.1	28.8	29.3
	8H	27.8	28.5	28.3	29.0	29.5	27.8	28.5	28.3	29.0	29.5
	12H	28.1	28.6	28.6	29.1	29.7	28.1	28.6	28.6	29.1	29.7
12H	4H	26.9	27.7	27.4	28.1	28.6	26.9	27.7	27.4	28.1	28.6
	6H	27.6	28.3	28.2	28.7	29.3	27.6	28.3	28.2	28.7	29.3
	8H	28.0	28.5	28.5	29.0	29.6	28.0	28.5	28.5	29.0	29.6

Maximum UGR = 29.7

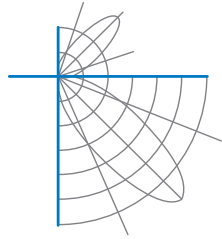


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Iso-Illuminance Plot



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.