LightLab INTERNATIONAL ALLENTOWN LLC

NVLAP TESTING Lab Code: 201079-0

Report of Test

LLIA003089-016

Indoor Distribution Photometry Test Report

Catalog Number: VN-75-R-34-D-B-M-4-515-R-H (Red Setting)
Pendant/highbay mounted, spun black aluminum outer housing, extruded aluminum heatsink and formed aluminum frame, no enclosure.
7 RGBW LED clusters with clear prismatic plastic optics below each.
One MeanWell EPP-150-12 LED driver



Prepared For:
Aquarii
6805 Newbrook Avenue
East Syracuse, NY 13057, USA

Performance Summary					
Input Voltage	120.0	Vac	Luminous Flux	603.2	Lumens
Input Current	0.1601	A	Total Efficacy	35.3	Lm/W
Input Power	17.11	W	Downward Flux	603.2	Lumens
Frequency	60.00	Hz	Downward Flux	100.0	% of Total
Power Factor	0.891				
Current THD	14.9	%			

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

Test date: 09/22/2026
Report date: 09/23/2026

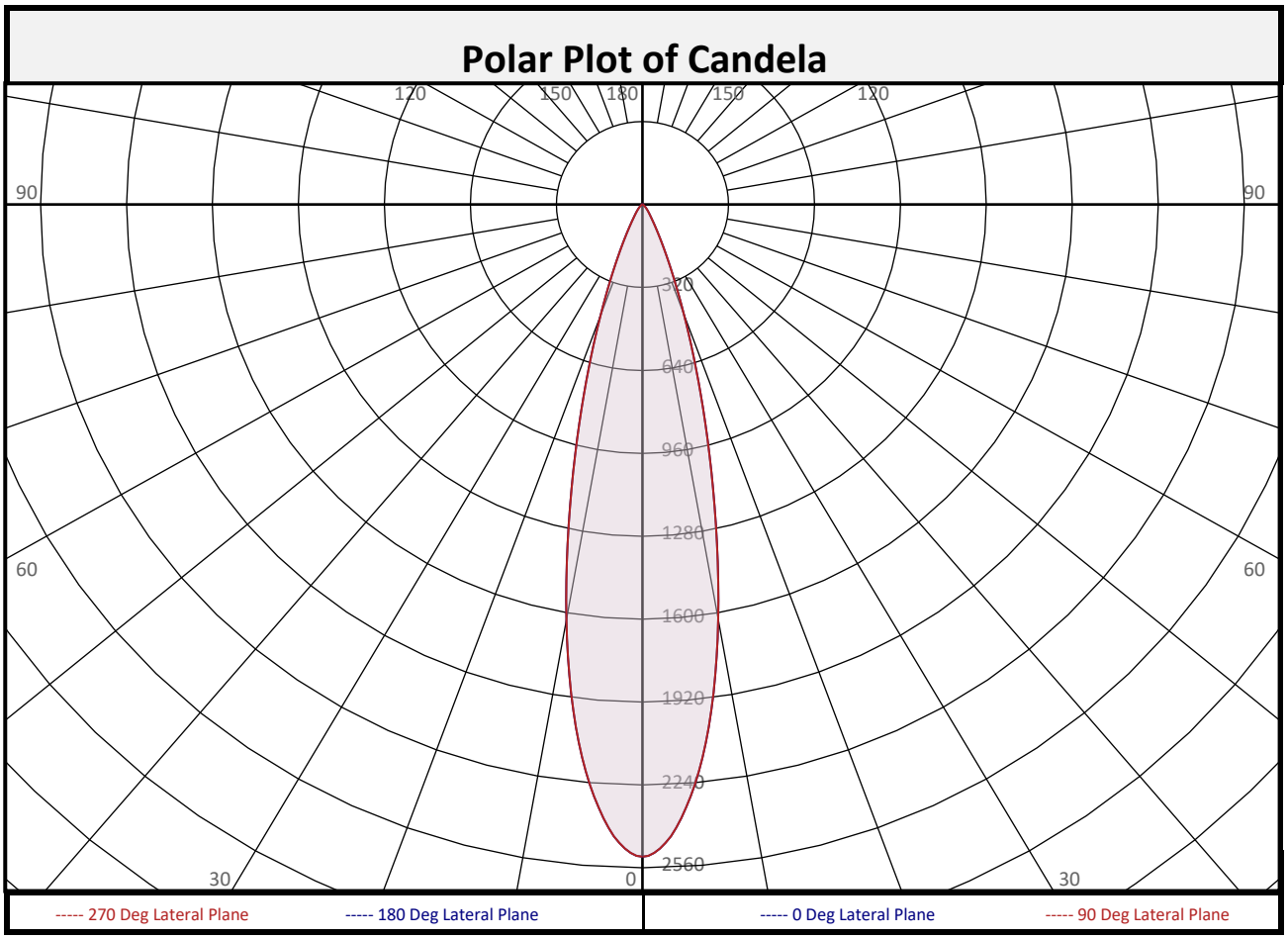
Signed: Michael L. Grather Digitally signed by Michael L. Grather Date: 2026.09.23 14:52:44 -04'00'

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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	194.4	32.2%	90-100	0.0	0.0%	0-20	451.9	74.9%
10-20	257.5	42.7%	100-110	0.0	0.0%	0-30	548.6	90.9%
20-30	96.7	16.0%	110-120	0.0	0.0%	0-40	579.2	96.0%
30-40	30.7	5.1%	120-130	0.0	0.0%	0-60	600.5	99.6%
40-50	14.4	2.4%	130-140	0.0	0.0%	0-80	603.2	100.0%
50-60	6.9	1.1%	140-150	0.0	0.0%	10-90	408.8	67.8%
60-70	2.4	0.4%	150-160	0.0	0.0%	20-50	141.7	23.5%
70-80	0.3	0.0%	160-170	0.0	0.0%	40-90	24.0	4.0%
80-90	0.0	0.0%	170-180	0.0	0.0%	60-90	2.7	0.4%
0-90	603.2	100.0%	90-180	0.0	0.0%	0-180	603.2	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	2517	2517	2517	2517	2517	2517	2517	2517	2517
2.5	2440	2440	2440	2440	2440	2440	2440	2440	2440
5	2246	2246	2246	2246	2246	2246	2246	2246	2246
7.5	1968	1968	1968	1968	1968	1968	1968	1968	1968
10	1626	1626	1626	1626	1626	1626	1626	1626	1626
12.5	1266	1266	1266	1266	1266	1266	1266	1266	1266
15	938	938	938	938	938	938	938	938	938
17.5	664	664	664	664	664	664	664	664	664
20	453	453	453	453	453	453	453	453	453
22.5	299	299	299	299	299	299	299	299	299
25	195	195	195	195	195	195	195	195	195
27.5	128	128	128	128	128	128	128	128	128
30	86	86	86	86	86	86	86	86	86
32.5	61	61	61	61	61	61	61	61	61
35	46	46	46	46	46	46	46	46	46
37.5	36	36	36	36	36	36	36	36	36
40	29	29	29	29	29	29	29	29	29
42.5	23	23	23	23	23	23	23	23	23
45	18	18	18	18	18	18	18	18	18
47.5	15	15	15	15	15	15	15	15	15
50	12	12	12	12	12	12	12	12	12
52.5	10	10	10	10	10	10	10	10	10
55	8	8	8	8	8	8	8	8	8
57.5	6	6	6	6	6	6	6	6	6
60	4	4	4	4	4	4	4	4	4
62.5	3	3	3	3	3	3	3	3	3
65	2	2	2	2	2	2	2	2	2
67.5	2	2	2	2	2	2	2	2	2
70	1	1	1	1	1	1	1	1	1
72.5	0	0	0	0	0	0	0	0	0
75	0	0	0	0	0	0	0	0	0
77.5	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0
82.5	0	0	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0	0	0
87.5	0	0	0	0	0	0	0	0	0
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	115	113	111	109		112	110	109	107		106	105	104		103	102	101		99	99	98	96
2	111	107	104	101		109	105	102	100		102	100	98		99	97	96		96	95	94	92
3	107	102	98	95		105	101	97	94		98	95	93		96	93	91		94	92	90	89
4	103	97	93	90		102	96	93	90		94	91	89		93	90	88		91	88	87	85
5	100	94	89	86		98	93	89	86		91	88	85		90	87	84		88	86	83	82
6	97	90	86	82		95	89	85	82		88	84	82		87	84	81		86	83	81	79
7	94	87	82	79		93	86	82	79		85	81	79		84	81	78		83	80	78	77
8	91	84	79	76		90	83	79	76		82	79	76		82	78	76		81	78	75	74
9	88	81	77	74		87	81	77	74		80	76	74		79	76	73		79	75	73	72
10	86	79	74	72		85	78	74	72		78	74	71		77	74	71		76	73	71	70

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	69.9	2.54	2.54
8.0	39.3	3.39	3.39
10.0	25.2	4.23	4.23
12.0	17.5	5.08	5.08
14.0	12.8	5.93	5.93
16.0	9.8	6.77	6.77

Spacing Criterion

SC: 0.4

Average Luminance (cd/m^2)

	0 deg Plane	45 deg Plane	90 deg Plane
0	117566	117566	117566
45	1196	1196	1196
55	626	626	626
65	255	255	255
75	16	16	16
85	23	23	23

Beam and Field Angle

0-180 Degree Plane

Beam Angle: 25.1°

Field Angle: 47.0°

90-270 Degree Plane

Beam Angle: 25.1°

Field Angle: 47.0°

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UGR Table - Corrected

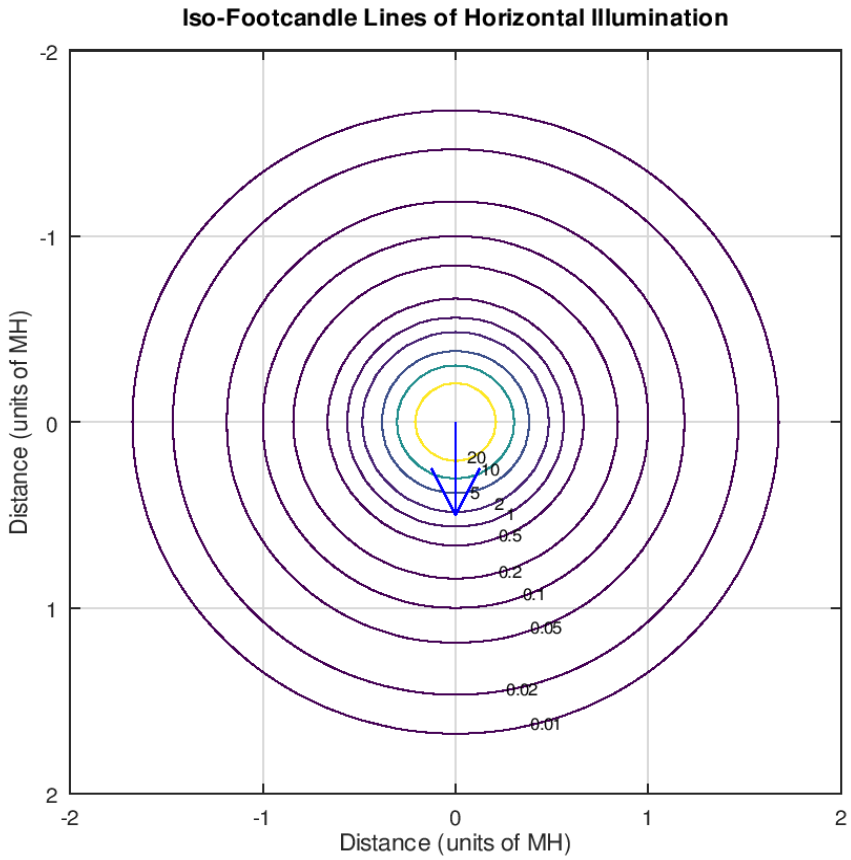
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	3H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	4H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	6H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	8H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	12H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4H	2H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	3H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	4H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	6H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	8H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	12H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
8H	4H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	6H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	8H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	12H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
12H	4H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	6H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	8H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Maximum UGR = <10

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Iso-Illuminance Plot

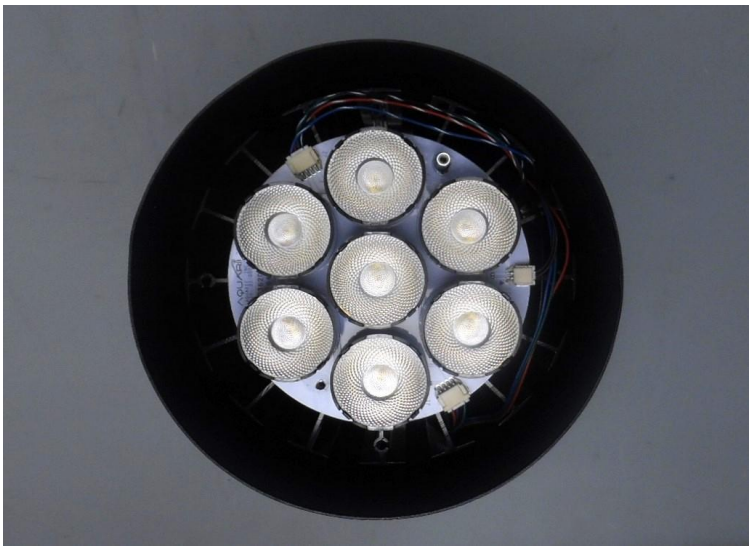


The isofootcandle values shown in the plot above are based on a mounting height of h = 8.0 feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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

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Additional Pictures of Test Subject





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Test Distance	9.5 m
Ambient Temperature	25.2 °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-79-24. 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.