LightLab INTERNATIONAL ALLENTOWN LLC

NVLAP TESTING Lab Code: 201079-0

Report of Test

LLIA003089-014

Indoor Distribution Photometry Test Report

Catalog Number: VN-75-R-60-D-B-M-4-515-R-H (White Setting)
Pendant/highbay mounted, spun black aluminum outer housing, extruded aluminum heatsink and formed aluminum frame, frosted plastic enclosure below LEDs
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	568.4	Lumens
Input Current	0.1841	A	Total Efficacy	28.2	Lm/W
Input Power	20.19	W	Downward Flux	568.4	Lumens
Frequency	60.00	Hz	Downward Flux	100.0	% of Total
Power Factor	0.914				
Current THD	13.2	%			

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

Test date: 09/21/2026
Report date: 09/23/2026

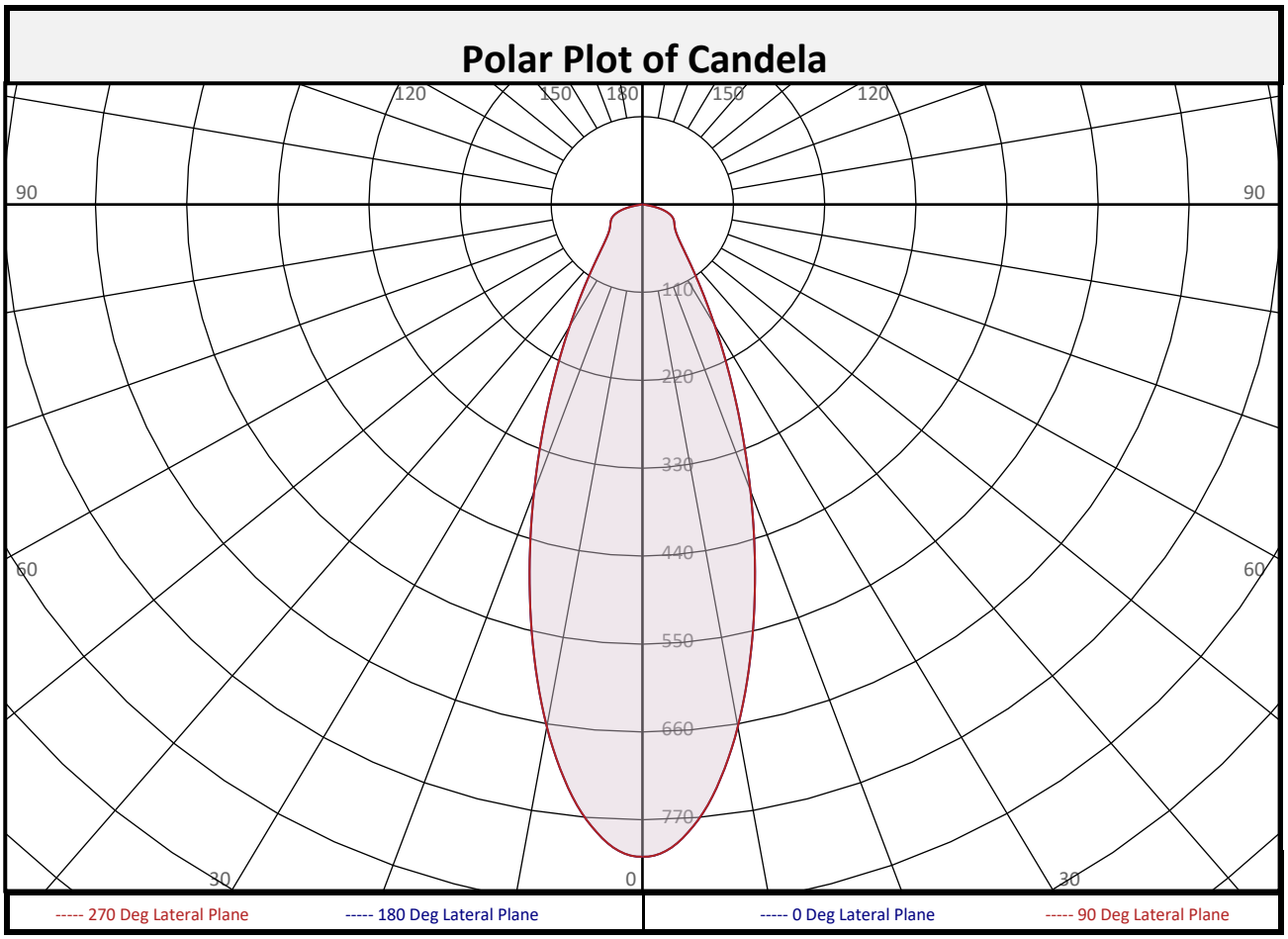
Signed: Michael L. Grather Digitally signed by Michael L. Grather Date: 2026.09.23 14:51:45 -04'00'

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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	70.3	12.4%	90-100	0.0	0.0%	0-20	214.0	37.7%
10-20	143.7	25.3%	100-110	0.0	0.0%	0-30	335.1	59.0%
20-30	121.1	21.3%	110-120	0.0	0.0%	0-40	409.6	72.1%
30-40	74.5	13.1%	120-130	0.0	0.0%	0-60	501.9	88.3%
40-50	49.4	8.7%	130-140	0.0	0.0%	0-80	566.8	99.7%
50-60	42.8	7.5%	140-150	0.0	0.0%	10-90	498.1	87.6%
60-70	40.0	7.0%	150-160	0.0	0.0%	20-50	245.0	43.1%
70-80	25.0	4.4%	160-170	0.0	0.0%	40-90	158.7	27.9%
80-90	1.5	0.3%	170-180	0.0	0.0%	60-90	66.5	11.7%
0-90	568.4	100.0%	90-180	0.0	0.0%	0-180	568.4	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	816	816	816	816	816	816	816	816	816
	2.5	806	806	806	806	806	806	806	806	806
	5	773	773	773	773	773	773	773	773	773
	7.5	724	724	724	724	724	724	724	724	724
	10	664	664	664	664	664	664	664	664	664
	12.5	595	595	595	595	595	595	595	595	595
	15	523	523	523	523	523	523	523	523	523
	17.5	450	450	450	450	450	450	450	450	450
	20	382	382	382	382	382	382	382	382	382
	22.5	319	319	319	319	319	319	319	319	319
	25	263	263	263	263	263	263	263	263	263
	27.5	215	215	215	215	215	215	215	215	215
	30	175	175	175	175	175	175	175	175	175
	32.5	142	142	142	142	142	142	142	142	142
	35	117	117	117	117	117	117	117	117	117
	37.5	97	97	97	97	97	97	97	97	97
	40	82	82	82	82	82	82	82	82	82
	42.5	71	71	71	71	71	71	71	71	71
	45	63	63	63	63	63	63	63	63	63
	47.5	57	57	57	57	57	57	57	57	57
	50	53	53	53	53	53	53	53	53	53
	52.5	50	50	50	50	50	50	50	50	50
	55	47	47	47	47	47	47	47	47	47
	57.5	46	46	46	46	46	46	46	46	46
	60	44	44	44	44	44	44	44	44	44
	62.5	43	43	43	43	43	43	43	43	43
	65	41	41	41	41	41	41	41	41	41
	67.5	38	38	38	38	38	38	38	38	38
	70	35	35	35	35	35	35	35	35	35
	72.5	30	30	30	30	30	30	30	30	30
	75	25	25	25	25	25	25	25	25	25
	77.5	18	18	18	18	18	18	18	18	18
	80	9	9	9	9	9	9	9	9	9
	82.5	1	1	1	1	1	1	1	1	1
	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	112	108	105	102		109	106	103	100		102	99	97		98	96	94		94	93	92	90
2	104	98	93	89		102	96	92	88		93	89	86		90	87	84		87	84	82	80
3	98	90	84	79		96	88	83	78		86	81	77		83	79	75		81	77	74	72
4	92	83	76	71		90	82	75	70		79	74	70		77	73	69		75	71	68	66
5	87	77	70	65		85	76	69	64		74	68	64		72	67	63		70	66	63	61
6	82	72	65	60		80	71	64	60		69	63	59		68	63	59		66	62	58	57
7	78	67	60	56		76	66	60	55		65	59	55		64	59	55		63	58	54	53
8	74	63	57	52		73	63	56	52		61	56	52		60	55	51		59	55	51	50
9	70	60	53	49		69	59	53	49		58	53	49		57	52	48		56	52	48	47
10	67	57	50	46		66	56	50	46		55	50	46		55	49	46		54	49	46	44

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	22.7	3.66	3.66
8.0	12.8	4.88	4.88
10.0	8.2	6.10	6.10
12.0	5.7	7.31	7.31
14.0	4.2	8.53	8.53
16.0	3.2	9.75	9.75

Spacing Criterion

SC: 0.6

Average Luminance (cd/m^2)

	0 deg Plane	45 deg Plane	90 deg Plane
0	38126	38126	38126
45	4140	4140	4140
55	3867	3867	3867
65	4512	4512	4512
75	4450	4450	4450
85	126	126	126

Beam and Field Angle

0-180 Degree Plane

Beam Angle: 38.0°

Field Angle: 80.1°

90-270 Degree Plane

Beam Angle: 38.0°

Field Angle: 80.1°

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UGR Table - Corrected

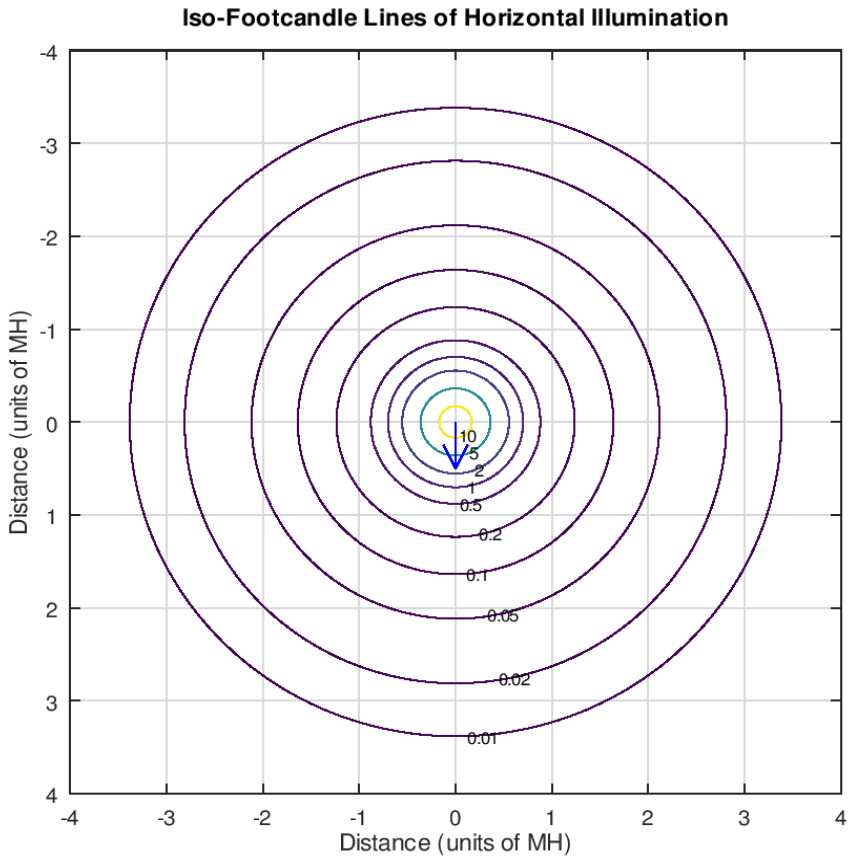
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	14.1	15.4	14.5	15.7	16.0	14.1	15.4	14.5	15.7	16.0
	3H	16.8	18.0	17.2	18.3	18.6	16.8	18.0	17.2	18.3	18.6
	4H	17.7	18.8	18.1	19.1	19.5	17.7	18.8	18.1	19.1	19.5
	6H	18.1	19.1	18.5	19.5	19.9	18.1	19.1	18.5	19.5	19.9
	8H	18.1	19.0	18.5	19.4	19.8	18.1	19.0	18.5	19.4	19.8
	12H	18.1	19.0	18.5	19.3	19.8	18.1	19.0	18.5	19.3	19.8
4H	2H	15.0	16.1	15.4	16.4	16.8	15.0	16.1	15.4	16.4	16.8
	3H	17.8	18.7	18.2	19.1	19.5	17.8	18.7	18.2	19.1	19.5
	4H	18.8	19.6	19.2	20.0	20.5	18.8	19.6	19.2	20.0	20.5
	6H	19.3	20.0	19.7	20.4	20.9	19.3	20.0	19.7	20.4	20.9
	8H	19.3	19.9	19.7	20.3	20.8	19.3	19.9	19.7	20.3	20.8
	12H	19.2	19.8	19.7	20.3	20.7	19.2	19.8	19.7	20.3	20.7
8H	4H	19.1	19.8	19.6	20.2	20.7	19.1	19.8	19.6	20.2	20.7
	6H	19.6	20.1	20.1	20.6	21.1	19.6	20.1	20.1	20.6	21.1
	8H	19.6	20.1	20.1	20.6	21.1	19.6	20.1	20.1	20.6	21.1
	12H	19.6	20.0	20.1	20.4	21.0	19.6	20.0	20.1	20.4	21.0
12H	4H	19.1	19.7	19.6	20.2	20.6	19.1	19.7	19.6	20.2	20.6
	6H	19.6	20.1	20.1	20.5	21.1	19.6	20.1	20.1	20.5	21.1
	8H	19.6	20.0	20.1	20.5	21.1	19.6	20.0	20.1	20.5	21.1

Maximum UGR = 21.1

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Iso-Illuminance Plot

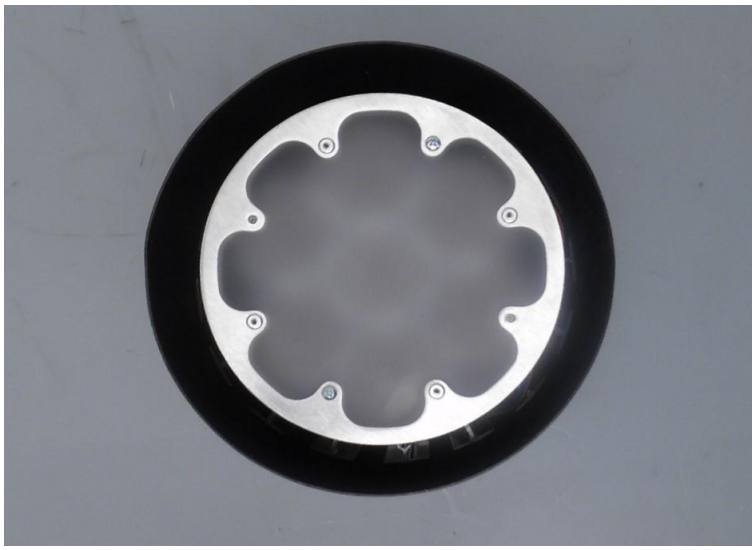


The isofootcandle values shown in the plot above are based on a mounting height of h = 8.0 feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution 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-79-24. 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.