LightLab INTERNATIONAL ALLENTOWN LLC

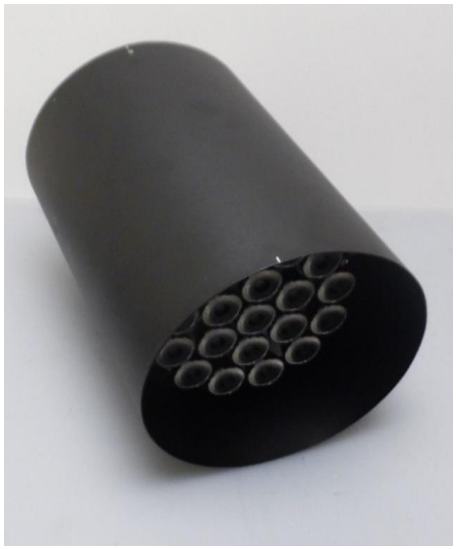
NVLAP TESTING Lab Code: 201079-0

Report of Test

LLIA003089-010

Indoor Distribution Photometry Test Report

Catalog Number: RH-140-34-D-B-M-4-515-R-H (All On Setting)
Pendant/highbay mounted, spun black aluminum outer housing,
extruded aluminum heatsink and formed aluminum frame, no enclosure.
19 RGBW LED clusters with clear prismatic plastic optics below each.
One MeanWell XLG-200-24-A LED driver



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

Performance Summary			
Input Voltage	120.0 Vac	Luminous Flux	5733.3 Lumens
Input Current	1.141 A	Total Efficacy	42.1 Lm/W
Input Power	136.1 W	Downward Flux	5733.3 Lumens
Frequency	60.00 Hz	Downward Flux	100.0 % of Total
Power Factor	0.995		
Current THD	4.7 %		

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

Test date: 09/18/2026
Report date: 09/22/2026

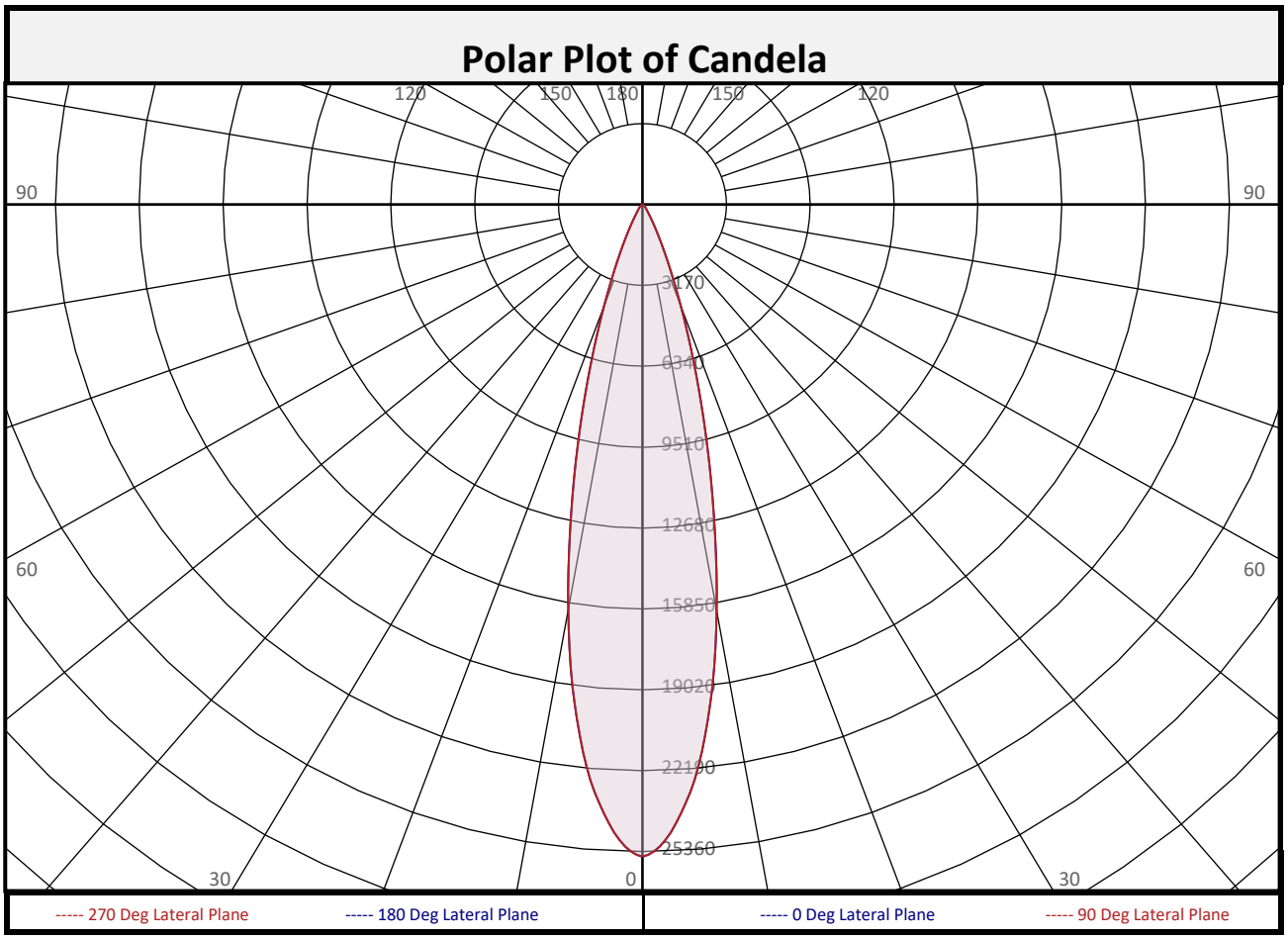
Signed: Michael L. Grather Digitally signed by Michael L. Grather Date: 2026.09.22 16:33:15 -04'00'

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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	1950	34.0%	90-100	0.0	0.0%	0-20	4467	77.9%
10-20	2517	43.9%	100-110	0.0	0.0%	0-30	5326	92.9%
20-30	858.9	15.0%	110-120	0.0	0.0%	0-40	5552	96.8%
30-40	226.0	3.9%	120-130	0.0	0.0%	0-60	5715	99.7%
40-50	112.1	2.0%	130-140	0.0	0.0%	0-80	5733	100.0%
50-60	51.1	0.9%	140-150	0.0	0.0%	10-90	3783	66.0%
60-70	16.6	0.3%	150-160	0.0	0.0%	20-50	1197	20.9%
70-80	1.4	0.0%	160-170	0.0	0.0%	40-90	181.4	3.2%
80-90	0.2	0.0%	170-180	0.0	0.0%	60-90	18.2	0.3%
0-90	5733	100.0%	90-180	0.0	0.0%	0-180	5733	100.0%

Report of Test

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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	25565	25565	25565	25565	25565	25565	25565	25565	25565
2.5	24638	24638	24638	24638	24638	24638	24638	24638	24638
5	22643	22643	22643	22643	22643	22643	22643	22643	22643
7.5	19694	19694	19694	19694	19694	19694	19694	19694	19694
10	16154	16154	16154	16154	16154	16154	16154	16154	16154
12.5	12486	12486	12486	12486	12486	12486	12486	12486	12486
15	9190	9190	9190	9190	9190	9190	9190	9190	9190
17.5	6406	6406	6406	6406	6406	6406	6406	6406	6406
20	4264	4264	4264	4264	4264	4264	4264	4264	4264
22.5	2724	2724	2724	2724	2724	2724	2724	2724	2724
25	1710	1710	1710	1710	1710	1710	1710	1710	1710
27.5	1072	1072	1072	1072	1072	1072	1072	1072	1072
30	686	686	686	686	686	686	686	686	686
32.5	460	460	460	460	460	460	460	460	460
35	330	330	330	330	330	330	330	330	330
37.5	258	258	258	258	258	258	258	258	258
40	212	212	212	212	212	212	212	212	212
42.5	176	176	176	176	176	176	176	176	176
45	145	145	145	145	145	145	145	145	145
47.5	115	115	115	115	115	115	115	115	115
50	91	91	91	91	91	91	91	91	91
52.5	71	71	71	71	71	71	71	71	71
55	56	56	56	56	56	56	56	56	56
57.5	43	43	43	43	43	43	43	43	43
60	32	32	32	32	32	32	32	32	32
62.5	23	23	23	23	23	23	23	23	23
65	17	17	17	17	17	17	17	17	17
67.5	10	10	10	10	10	10	10	10	10
70	5	5	5	5	5	5	5	5	5
72.5	1	1	1	1	1	1	1	1	1
75	1	1	1	1	1	1	1	1	1
77.5	1	1	1	1	1	1	1	1	1
80	1	1	1	1	1	1	1	1	1
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.

Report of Test

LLIA003089-010

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		113	111	109	107		107	105	104		103	102	101		100	99	98	96
2	111	107	104	102		109	106	103	100		102	100	98		100	98	96		97	96	94	93
3	107	102	99	96		105	101	98	95		99	96	94		96	94	92		94	92	91	89
4	104	98	94	91		102	97	93	91		95	92	90		93	91	89		92	89	88	86
5	101	94	90	87		99	94	90	87		92	89	86		90	88	85		89	87	85	83
6	98	91	87	84		96	90	86	83		89	86	83		88	85	82		87	84	82	81
7	95	88	84	81		94	87	83	81		86	83	80		85	82	80		84	82	79	78
8	92	85	81	78		91	85	81	78		84	80	78		83	80	77		82	79	77	76
9	89	83	78	76		89	82	78	75		81	78	75		81	77	75		80	77	75	74
10	87	80	76	73		86	80	76	73		79	76	73		79	75	73		78	75	73	72

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	710.2	2.49	2.49
8.0	399.5	3.32	3.32
10.0	255.7	4.15	4.15
12.0	177.5	4.98	4.98
14.0	130.4	5.81	5.81
16.0	99.9	6.64	6.64

Spacing Criterion

SC: 0.4

Average Luminance (cd/m^2)

	0 deg Plane	45 deg Plane	90 deg Plane
0	559048	559048	559048
45	4478	4478	4478
55	2124	2124	2124
65	858	858	858
75	74	74	74
85	59	59	59

Beam and Field Angle

0-180 Degree Plane

Beam Angle: 24.6°

Field Angle: 45.7°

90-270 Degree Plane

Beam Angle: 24.6°

Field Angle: 45.7°

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Report of Test

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UGR Table - Corrected

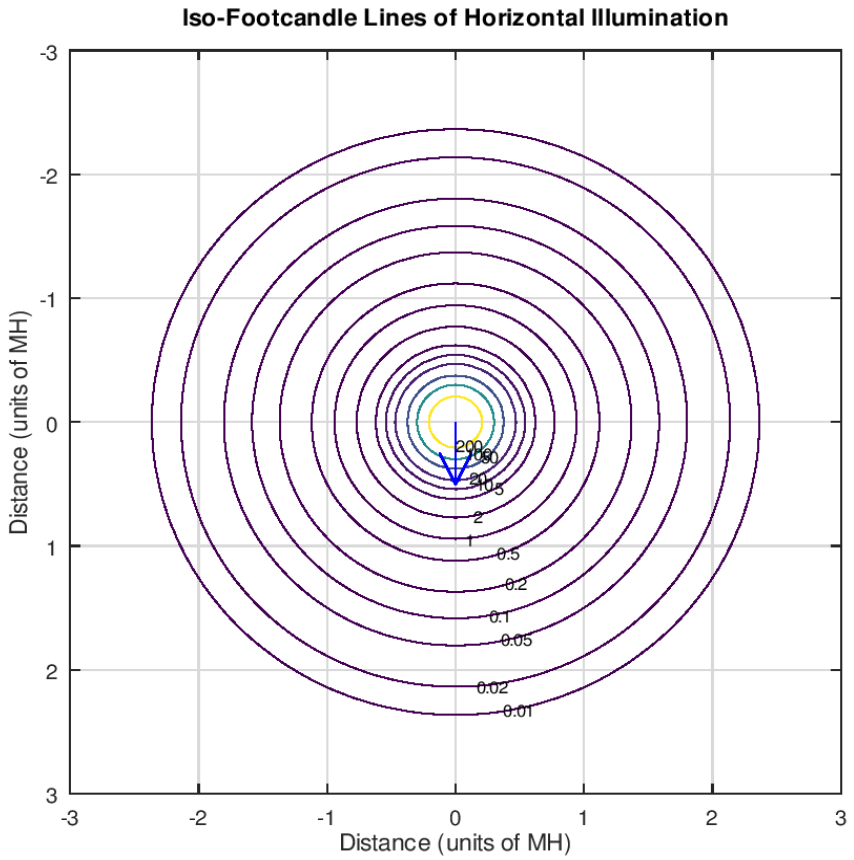
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	3H	<10	<10	<10	<10	<10	<10	<10	<10	<10	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

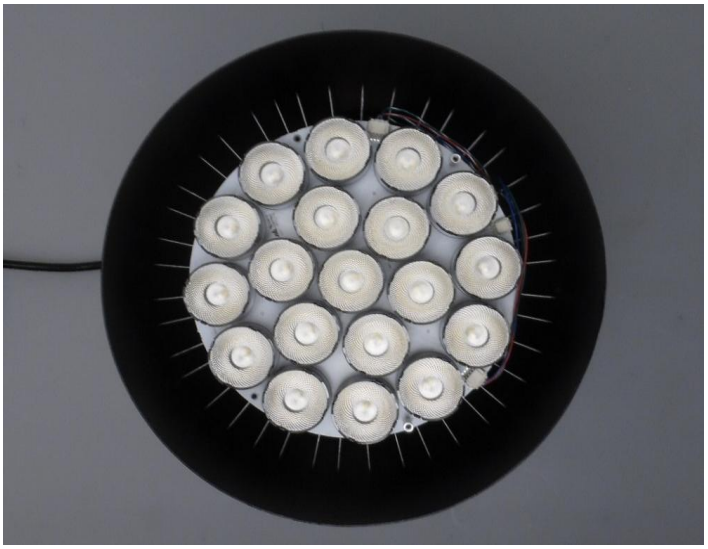


The isofootcandle values shown in the plot above are based on a mounting height of h = 8.0 feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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

Report of Test

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Additional Pictures of Test Subject





Report of Test

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Test Distance	9.5 m
Ambient Temperature	25.5 °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.