LightLab INTERNATIONAL ALLENTOWN LLC

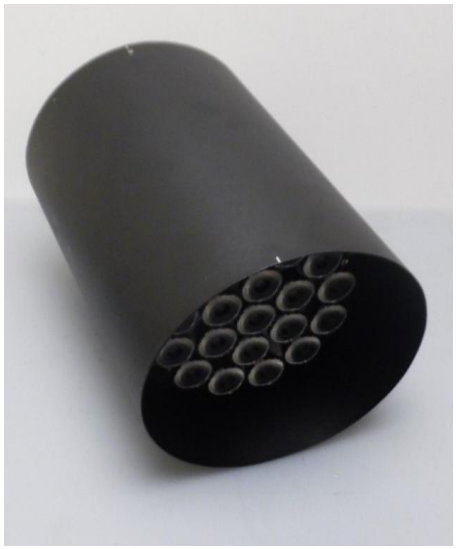
NVLAP TESTING Lab Code: 201079-0

Report of Test

LLIA003089-006

Indoor Distribution Photometry Test Report

Catalog Number: RH-140-34-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.
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	1957.4	Lumens
Input Current	0.3744	A	Total Efficacy	45.8	Lm/W
Input Power	42.76	W	Downward Flux	1957.4	Lumens
Frequency	60.00	Hz	Downward Flux	100.0	% of Total
Power Factor	0.952				
Current THD	6.6	%			

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

Test date: 09/21/2026
Report date: 09/22/2026

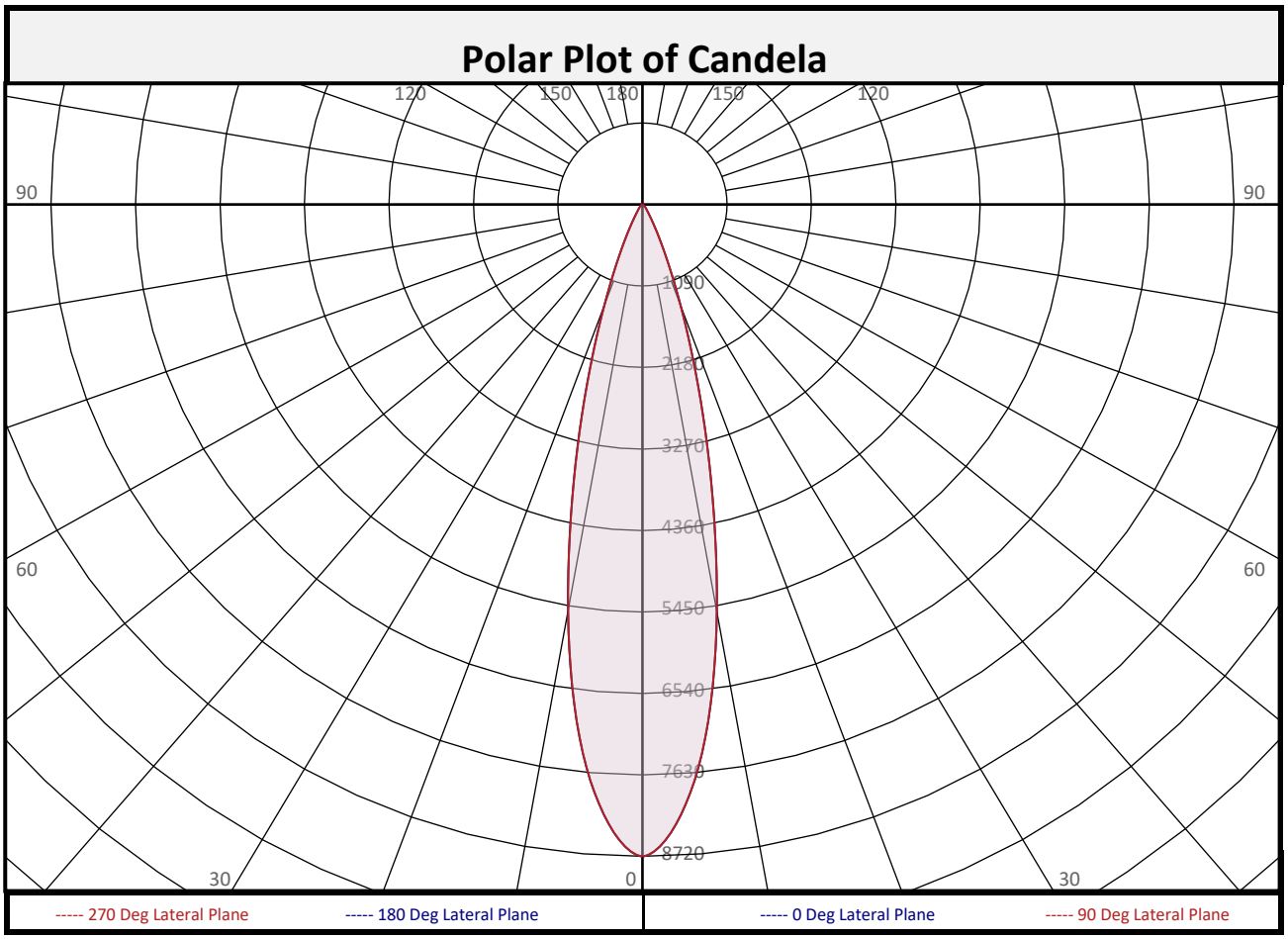
Signed: Michael L. Grather Digitally signed by Michael L. Grather Date: 2026.09.22 16:30:35 -04'00'

North America (issuing laboratory)
LightLab International Allentown, LLC
905 Harrison Street, Suite 135
Allentown, PA 18103 USA
Ph: +1 484-273-0705
Fx: +1 484-209-5779
www.lightlaballentown.com

Australasia & S.E. Asia
LightLab International
50 Redcliffe Gardens Drive
Clontarf - Queensland, 4019, Australia
Ph : +61 7 3283 7862
Fx : +61 7 3283 8751
www.lightlabint.com

Report of Test

LLIA003089-006



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	666.9	34.1%	90-100	0.0	0.0%	0-20	1525	77.9%
10-20	858.3	43.9%	100-110	0.0	0.0%	0-30	1816	92.8%
20-30	290.9	14.9%	110-120	0.0	0.0%	0-40	1894	96.7%
30-40	77.5	4.0%	120-130	0.0	0.0%	0-60	1951	99.7%
40-50	39.1	2.0%	130-140	0.0	0.0%	0-80	1957	100.0%
50-60	18.1	0.9%	140-150	0.0	0.0%	10-90	1290	65.9%
60-70	6.0	0.3%	150-160	0.0	0.0%	20-50	407.5	20.8%
70-80	0.5	0.0%	160-170	0.0	0.0%	40-90	63.8	3.3%
80-90	0.1	0.0%	170-180	0.0	0.0%	60-90	6.6	0.3%
0-90	1957	100.0%	90-180	0.0	0.0%	0-180	1957	100.0%

Report of Test

LLIA003089-006

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	8725	8725	8725	8725	8725	8725	8725	8725	8725
	2.5	8413	8413	8413	8413	8413	8413	8413	8413	8413
	5	7734	7734	7734	7734	7734	7734	7734	7734	7734
	7.5	6744	6744	6744	6744	6744	6744	6744	6744	6744
	10	5530	5530	5530	5530	5530	5530	5530	5530	5530
	12.5	4270	4270	4270	4270	4270	4270	4270	4270	4270
	15	3135	3135	3135	3135	3135	3135	3135	3135	3135
	17.5	2176	2176	2176	2176	2176	2176	2176	2176	2176
	20	1445	1445	1445	1445	1445	1445	1445	1445	1445
	22.5	922	922	922	922	922	922	922	922	922
	25	578	578	578	578	578	578	578	578	578
	27.5	363	363	363	363	363	363	363	363	363
	30	232	232	232	232	232	232	232	232	232
	32.5	156	156	156	156	156	156	156	156	156
	35	114	114	114	114	114	114	114	114	114
	37.5	89	89	89	89	89	89	89	89	89
	40	74	74	74	74	74	74	74	74	74
	42.5	61	61	61	61	61	61	61	61	61
	45	51	51	51	51	51	51	51	51	51
	47.5	40	40	40	40	40	40	40	40	40
	50	32	32	32	32	32	32	32	32	32
	52.5	25	25	25	25	25	25	25	25	25
	55	20	20	20	20	20	20	20	20	20
	57.5	15	15	15	15	15	15	15	15	15
	60	11	11	11	11	11	11	11	11	11
	62.5	8	8	8	8	8	8	8	8	8
	65	6	6	6	6	6	6	6	6	6
	67.5	4	4	4	4	4	4	4	4	4
	70	2	2	2	2	2	2	2	2	2
	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.

Report of Test

LLIA003089-006

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.

LightLab INTERNATIONAL ALLENTOWN LLC

NVLAP TESTING Lab Code: 201079-0

Report of Test

LLIA003089-006

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	95	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	89		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	97	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	80		86	83	80		85	82	80		84	81	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	242.4	2.49	2.49
8.0	136.3	3.32	3.32
10.0	87.3	4.15	4.15
12.0	60.6	4.98	4.98
14.0	44.5	5.81	5.81
16.0	34.1	6.65	6.65

Spacing Criterion

SC: 0.4

Average Luminance (cd/m^2)

	0 deg Plane	45 deg Plane	90 deg Plane
0	190795	190795	190795
45	1562	1562	1562
55	755	755	755
65	308	308	308
75	22	22	22
85	16	16	16

Beam and Field Angle

0-180 Degree Plane

Beam Angle: 24.6°

Field Angle: 45.6°

90-270 Degree Plane

Beam Angle: 24.6°

Field Angle: 45.6°

North America (issuing laboratory)
LightLab International Allentown, LLC
905 Harrison Street, Suite 135
Allentown, PA 18103 USA
Ph: +1 484-273-0705
Fx: +1 484-209-5779
www.lightlaballentown.com

Australasia & S.E. Asia
LightLab International
50 Redcliffe Gardens Drive
Clontarf - Queensland, 4019, Australia
Ph : +61 7 3283 7862
Fx : +61 7 3283 8751
www.lightlabint.com

Report of Test

LLIA003089-006

UGR Table - Corrected

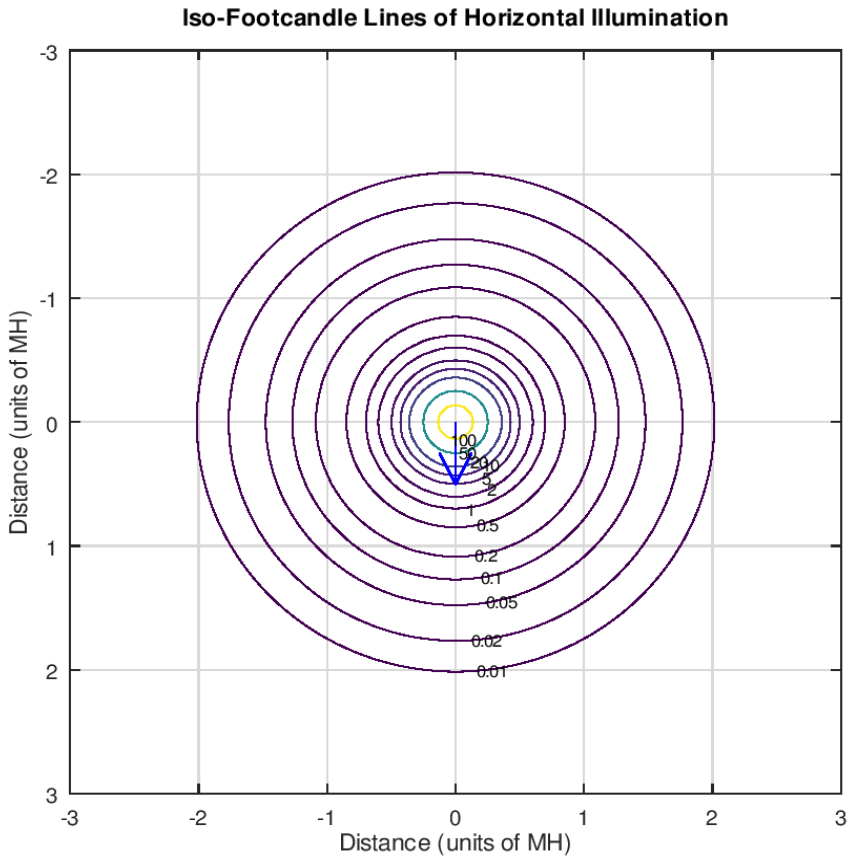
Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	3H	<10	<10	<10	<10	<10	<10	<10	<10	<10	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

Report of Test

LLIA003089-006

Iso-Illuminance Plot

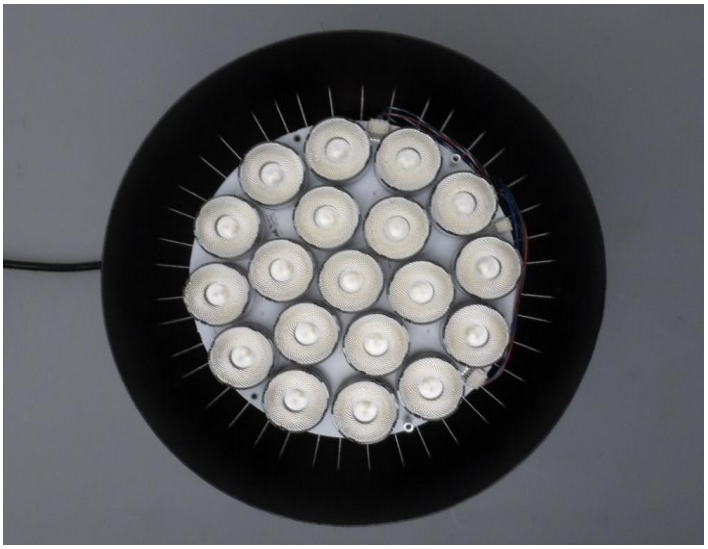


The isofootcandle values shown in the plot above are based on a mounting height of h = 8.0 feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution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

Report of Test

LLIA003089-006

Additional Pictures of Test Subject





Report of Test

LLIA003089-006

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.