LightLab INTERNATIONAL ALLENTOWN LLC

NVLAP TESTING Lab Code: 201079-0

Report of Test

LLIA000901-006

Catalog Number: P61803_S/F11/D61/L411
Pendant mounted, formed white enamel steel frame with white "lumenate" diffuser and decorative steel accents, translucent white acrylic top and bottom enclosures.
One white LED module with clear patterned hemispherical lens below.
One ERP ESS030W-0620-42 LED driver
120.0Vac, 60.00Hz, 0.2103A, 24.62W, 0.976PF, 12.3%THD(i)

Performance Summary

Total Light Output	1654	lm
Luminaire Power	24.6	W
Luminous Efficacy	67.2	lm/W

PREPARED FOR : Lumetta, Inc, 33 Minnesota Avenue, Warwick, RI 02888, USA

USA west coast LightLab International, LLC, 24825 N. 16th Avenue, Suite 125, Phoenix, AZ, 85085, Ph : +1 623-434-1499, Fx : +1 623-434-1492, www.lightlabint.com

USA east coast LightLab Int'l Allentown LLC, 905 Harrison Street, Suite 135, Allentown, PA 18103, Ph: +1 484-273-0705, www.lightlabint.com (issuing laboratory)

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

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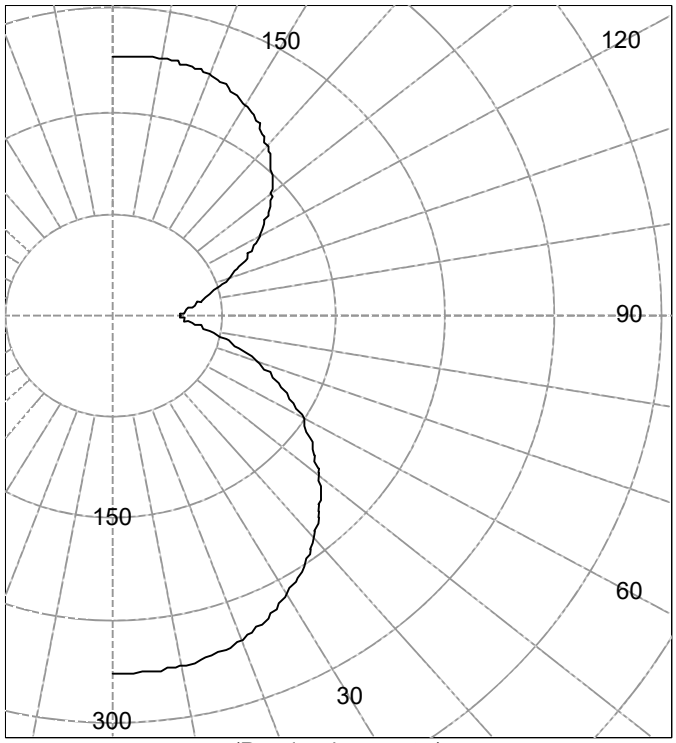
Legend: All planes - Solid (cd)



(Rotational symmetry)

INTENSITY SUMMARY (cd)

Gamma	All Planes	Flux (lm)	Gamma	C0	Flux (lm)
0	264		90	45	
5	264	25	95	50	55
10	263		100	59	
15	260	73	105	72	76
20	254		110	86	
25	247	114	115	100	99
30	237		120	114	
35	226	141	125	128	114
40	213		130	141	
45	198	153	135	152	117
50	182		140	163	
55	165	148	145	172	108
60	147		150	179	
65	127	126	155	185	85
70	106		160	189	
75	86	90	165	192	54
80	66		170	193	
85	51	57	175	192	18
90	45		180	192	

AVERAGE LUMINANCE (cd / m^2)

Gamma	C0
45.0	822
55.0	697
65.0	564
75.0	414
85.0	279

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	%Lamp	%Luminaire
0-30	212	N / A	12.8
0-40	354	N / A	21.4
0-60	654	N / A	39.5
0-90	927	N / A	56.0
40-90	573	N / A	34.7
60-90	273	N / A	16.5
90-180	727	N / A	44.0
0-180	1654	N / A	100.0

Total Light Output = 1,654 lm

Spacing Criterion: 0-180 1.3
Spacing Criterion: 90-270 1.3

Signed: Michael L. Grather

Authorized Signatory

Date of test 30-Nov-2017
Date of report 1-Dec-2017

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One ERP ESS030W-0620-42 LED driver

120.0Vac, 60.00Hz, 0.2103A, 24.62W, 0.976PF, 12.3%THD(i)

Intensity (cd) and Flux (lm) data

Gamma	Intensity	Flux	Gamma	Intensity	Flux
0.0	264		90.0	45	
2.5	264		92.5	47	
5.0	264	25	95.0	50	
7.5	264		97.5	54	55
10.0	263		100.0	59	
12.5	261		102.5	65	
15.0	260	73	105.0	72	
17.5	257		107.5	79	76
20.0	254		110.0	86	
22.5	251		112.5	93	
25.0	247	114	115.0	100	
27.5	242		117.5	107	99
30.0	237		120.0	114	
32.5	232		122.5	121	
35.0	226	141	125.0	128	
37.5	219		127.5	134	114
40.0	213		130.0	141	
42.5	206		132.5	147	
45.0	198	153	135.0	152	
47.5	190		137.5	158	117
50.0	182		140.0	163	
52.5	174		142.5	167	
55.0	165	148	145.0	172	
57.5	156		147.5	176	108
60.0	147		150.0	179	
62.5	137		152.5	182	
65.0	127	126	155.0	185	
67.5	117		157.5	187	85
70.0	106		160.0	189	
72.5	96		162.5	191	
75.0	86	90	165.0	192	
77.5	75		167.5	192	54
80.0	66		170.0	193	
82.5	57		172.5	193	
85.0	51	57	175.0	192	
87.5	46		177.5	192	18
90.0	45		180.0	192	

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Coefficients Of 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
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	98	93	88	84	90	86	82	79	74	71	68	63	60	58	52	51	49	44
2	88	80	73	68	82	74	68	63	64	59	55	54	51	48	45	43	40	36
3	80	70	62	55	74	65	58	52	56	50	46	47	43	40	39	36	34	30
4	73	61	53	46	67	57	50	44	49	43	39	42	37	33	35	31	28	25
5	67	55	46	39	62	51	43	37	44	38	33	37	32	29	31	27	24	21
6	62	49	40	34	57	46	38	32	39	33	28	34	29	25	28	24	21	18
7	57	44	36	30	53	41	33	28	36	29	25	30	26	22	26	22	19	16
8	53	40	32	26	49	37	30	25	32	26	22	28	23	19	23	20	17	14
9	49	36	28	23	45	34	27	22	30	24	20	25	21	17	22	18	15	13
10	46	33	26	21	42	31	24	20	27	22	18	24	19	16	20	16	14	12

For absolute test reports, CUs are expressed as a percentage of total lumen 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)	Beam Width (across 50% Nadir Illum) 0-180	90-270
6.0	7.3	7.99	7.99
8.0	4.1	10.65	10.65
10.0	2.6	13.32	13.32
12.0	1.8	15.98	15.98
14.0	1.3	18.64	18.64
16.0	1.0	21.31	21.31

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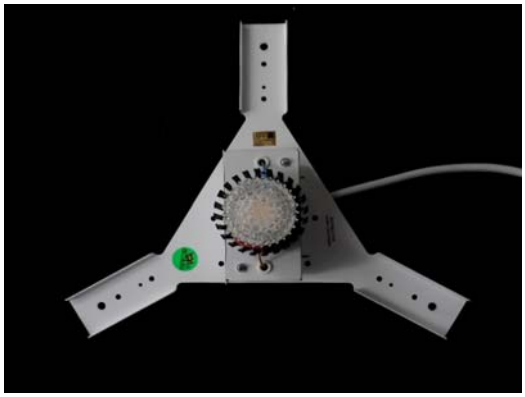

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Test Distance	9.5 m
Test Temperature	25.1 °C

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 publications: IES LM-79-08 (Sec. 12), IES LM-16-93, IES LM-58-13, CIE 13.3:1995, CIE 15:2004, ANSI C78.377:2015, ANSI C82.77-10:2014.

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 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.

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