



# Report of Test

## LLIA000901-015

Catalog Number: P2091/F11/D61/L411

Pendant mounted, formed steel and aluminum frame with white outer "trans lumenate" diffuser and white inner "lumenate" diffuser, translucent white plastic 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, 0.2079A, 24.45W, 0.980PF, 11.6%THD(i)



### Performance Summary

Total Light Output	1085 lm
Luminaire Power	24.5 W
Luminous Efficacy	44.3 lm/W

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



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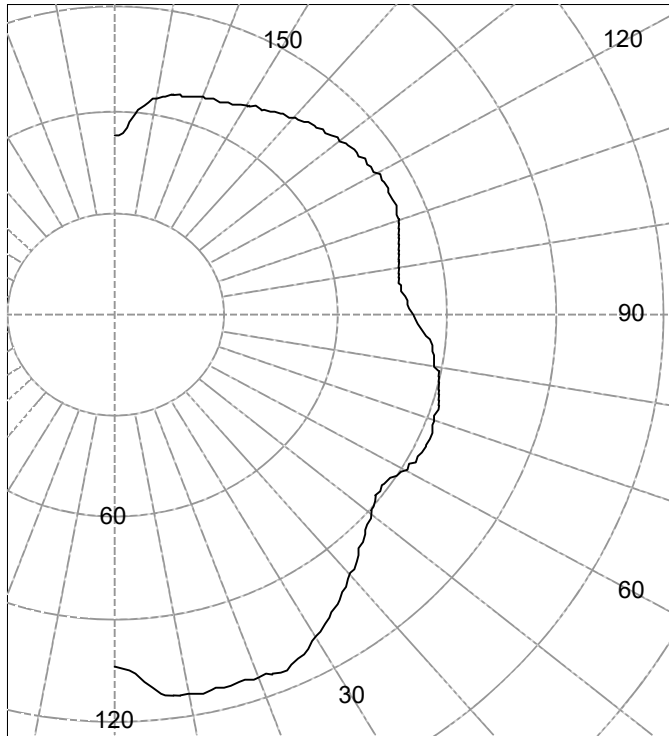
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Legend: All planes - Black (cd)



(Rotational symmetry)

**AVERAGE LUMINANCE (cd / m<sup>2</sup>)**

Gamma	C0
45.0	476
55.0	416
65.0	423
75.0	412
85.0	402

**INTENSITY SUMMARY (cd)**

Gamma	All Planes	Flux (lm)	Gamma	C0	Flux (lm)
0	104		90	81	
5	111	11	95	78	86
10	114		100	78	
15	114	32	105	80	84
20	114		110	82	
25	114	52	115	83	82
30	110		120	83	
35	105	66	125	82	73
40	100		130	80	
45	95	74	135	78	60
50	91		140	76	
55	89	80	145	73	46
60	91		150	71	
65	93	92	155	69	32
70	93		160	68	
75	91	96	165	67	19
80	89		170	65	
85	86	93	175	59	6
90	81		180	53	

**ZONAL FLUX AND PERCENTAGES**

Zone	Flux (lm)	%Lamp	%Luminaire
0-30	95	N / A	8.8
0-40	161	N / A	14.8
0-60	315	N / A	29.0
0-90	596	N / A	55.0
40-90	435	N / A	40.1
60-90	281	N / A	25.9
90-180	489	N / A	45.0
0-180	1085	N / A	100.0

Total Light Output = 1,085 lm

Signed:

Authorized Signatory

Spacing Criterion: 0-180 1.5  
Spacing Criterion: 90-270 1.5

Date of test 20-Dec-2017  
Date of report 21-Dec-2017



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**Intensity (cd) and Flux (lm) data**

Gamma	Intensity	Flux	Gamma	Intensity	Flux
0.0	104		90.0	81	
2.5	106		92.5	79	
5.0	111	11	95.0	78	86
7.5	113		97.5	78	
10.0	114		100.0	78	
12.5	114		102.5	79	
15.0	114	32	105.0	80	84
17.5	114		107.5	81	
20.0	114		110.0	82	
22.5	115		112.5	83	
25.0	114	52	115.0	83	82
27.5	112		117.5	83	
30.0	110		120.0	83	
32.5	107		122.5	82	
35.0	105	66	125.0	82	73
37.5	102		127.5	81	
40.0	100		130.0	80	
42.5	97		132.5	79	
45.0	95	74	135.0	78	60
47.5	93		137.5	77	
50.0	91		140.0	76	
52.5	89		142.5	74	
55.0	89	80	145.0	73	46
57.5	90		147.5	72	
60.0	91		150.0	71	
62.5	93		152.5	70	
65.0	93	92	155.0	69	32
67.5	93		157.5	69	
70.0	93		160.0	68	
72.5	92		162.5	68	
75.0	91	96	165.0	67	19
77.5	90		167.5	66	
80.0	89		170.0	65	
82.5	87		172.5	63	
85.0	86	93	175.0	59	6
87.5	83		177.5	54	
90.0	81		180.0	53	



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**Coefficients Of Utilization - Zonal Cavity Method**

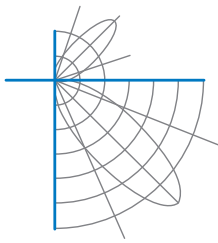
Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
	RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	
0	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	95	89	83	78	87	82	77	73	69	66	62	58	55	52	47	45	43	38
2	85	75	67	61	78	69	63	57	59	53	48	49	44	41	39	36	33	29
3	76	65	56	49	70	60	52	46	51	44	39	42	37	33	34	30	27	23
4	70	57	48	41	64	52	44	38	44	38	32	37	31	27	30	26	22	19
5	64	50	41	34	58	46	38	32	39	33	27	33	27	23	26	22	19	16
6	58	45	36	29	53	41	33	27	35	28	24	29	24	20	24	20	16	13
7	54	40	31	25	49	37	29	24	32	25	20	26	21	17	21	17	14	11
8	50	36	28	22	46	34	26	21	29	22	18	24	19	15	20	16	13	10
9	46	33	25	20	43	31	23	18	26	20	16	22	17	14	18	14	11	9
10	43	30	23	17	40	28	21	16	24	18	14	20	16	12	17	13	10	8

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	2.9	9.09	9.09
8.0	1.6	12.13	12.13
10.0	1.0	15.16	15.16
12.0	0.7	18.19	18.19
14.0	0.5	21.22	21.22
16.0	0.4	24.25	24.25



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**Test Distance** 9.5 m  
**Test Temperature** 24.7 °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.

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