

Report of Test

LLIA000660-004

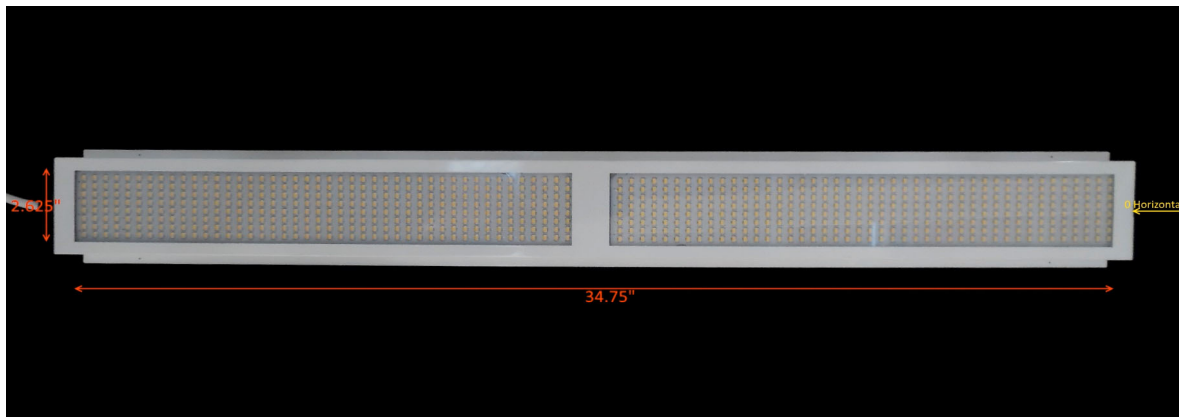
Catalog Number: BBS-436-64-1-4080-J2

Surface mounted luminaire, formed white aluminum housing with plastic enclosure.

704 white LEDs, two boards with 352 LEDs each

Two unmarked AC LED controller

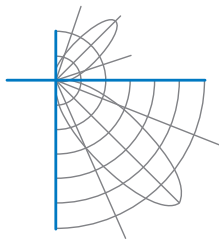
120.0Vac, 60.0Hz, 0.6066A, 66.35W, 0.911PF, 45.01%THD(i)



Performance Summary

Total Light Output	8027 lm
Luminaire Power	66.3 W
Luminous Efficacy	121.1 lm/W

PREPARED FOR : LiteSheet Solutions LLC, 1030 Little Otter Drive, Bedford, VA 24523, USA



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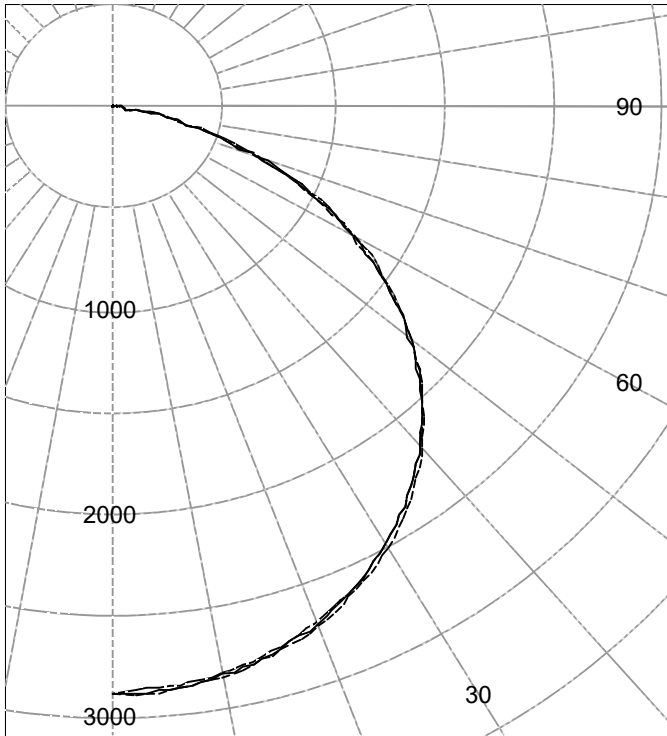
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Legend: C0-Solid, C45-Dashed, C90-Grey (cd)



(Two plane symmetry) C0-C90

AVERAGE LUMINANCE (cd / m²)

Gamma	C0	C45	C90
45.0	47055	47415	47241
55.0	44598	44585	44966
65.0	38528	38392	39528
75.0	25595	25802	26559
85.0	7010	6818	7698

INTENSITY SUMMARY (cd)

Gamma	C-Plane					Flux (lm)
	C0	C22.5	C45	C67.5	C90	
0.0	2877	2877	2877	2877	2877	
5.0	2873	2846	2880	2873	2858	272
10.0	2838	2810	2846	2839	2825	
15.0	2781	2753	2791	2782	2771	784
20.0	2701	2673	2714	2703	2693	
25.0	2597	2573	2615	2602	2594	1197
30.0	2473	2451	2494	2479	2474	
35.0	2328	2308	2349	2334	2331	1457
40.0	2159	2143	2179	2165	2165	
45.0	1968	1955	1984	1975	1976	1519
50.0	1753	1745	1761	1761	1763	
55.0	1513	1508	1513	1523	1526	1352
60.0	1250	1246	1243	1265	1267	
65.0	963	962	960	987	988	958
70.0	669	667	672	696	695	
75.0	392	391	395	410	407	429
80.0	168	171	165	172	172	
85.0	36	37	35	38	40	59
90.0	2	2	2	3	3	

ZONAL FLUX AND PERCENTAGES

Zone	Flux (lm)	% Lamp	% Luminaire
0-30	2253	N / A	28.1
0-40	3710	N / A	46.2
0-60	6581	N / A	82.0
0-90	8027	N / A	100.0
40-90	4317	N / A	53.8
60-90	1446	N / A	18.0
90-180	0	N / A	0.0
0-180	8027	N / A	100.0

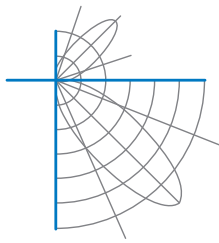
Total Light Output = 8,027 lm

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

Signed:

Michael L. Grather
Authorized Signatory

Date of test 14-Oct-2016
Date of report 17-Oct-2016



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Surface mounted luminaire, formed white aluminum housing with plastic enclosure.

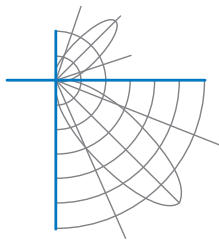
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Intensity data (cd)

Gamma	C-Plane				
	C0	C22.5	C45	C67.5	C90
0.0	2877	2877	2877	2877	2877
2.5	2882	2855	2888	2881	2866
5.0	2873	2846	2880	2873	2858
7.5	2858	2831	2866	2858	2844
10.0	2838	2810	2846	2839	2825
12.5	2812	2784	2821	2813	2801
15.0	2781	2753	2791	2782	2771
17.5	2743	2715	2755	2745	2735
20.0	2701	2673	2714	2703	2693
22.5	2652	2625	2667	2655	2646
25.0	2597	2573	2615	2602	2594
27.5	2538	2514	2558	2543	2537
30.0	2473	2451	2494	2479	2474
32.5	2403	2382	2425	2409	2405
35.0	2328	2308	2349	2334	2331
37.5	2246	2228	2267	2253	2251
40.0	2159	2143	2179	2165	2165
42.5	2067	2052	2085	2073	2074
45.0	1968	1955	1984	1975	1976
47.5	1864	1853	1876	1871	1873
50.0	1753	1745	1761	1761	1763
52.5	1636	1629	1640	1645	1647
55.0	1513	1508	1513	1523	1526
57.5	1385	1380	1381	1397	1399
60.0	1250	1246	1243	1265	1267
62.5	1109	1106	1102	1127	1130
65.0	963	962	960	987	988
67.5	815	814	816	842	843
70.0	669	667	672	696	695
72.5	527	525	531	551	548
75.0	392	391	395	410	407
77.5	271	271	271	281	278
80.0	168	171	165	172	172
82.5	89	90	85	90	91
85.0	36	37	35	38	40
87.5	9	10	11	12	12
90.0	2	2	2	3	3



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Coefficients Of Utilization - Zonal Cavity Method

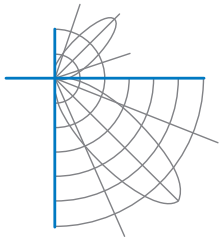
Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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	79.9	7.66	7.66
8.0	45.0	10.21	10.22
10.0	28.8	12.77	12.77
12.0	20.0	15.32	15.33
14.0	14.7	17.87	17.88
16.0	11.2	20.42	20.44



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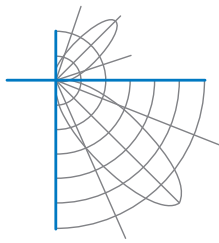
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Test Distance 9.5 m
Test Temperature 24.4 °C

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 C78.377:2011, ANSI C82.77:2002.

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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