

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: METALUX

Report Number: P843342

Luminaire Tested: 24CGSB-60-L850

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843342
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-60-L850
 Description: 2x4 CGSB AT 6000LM 5000K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

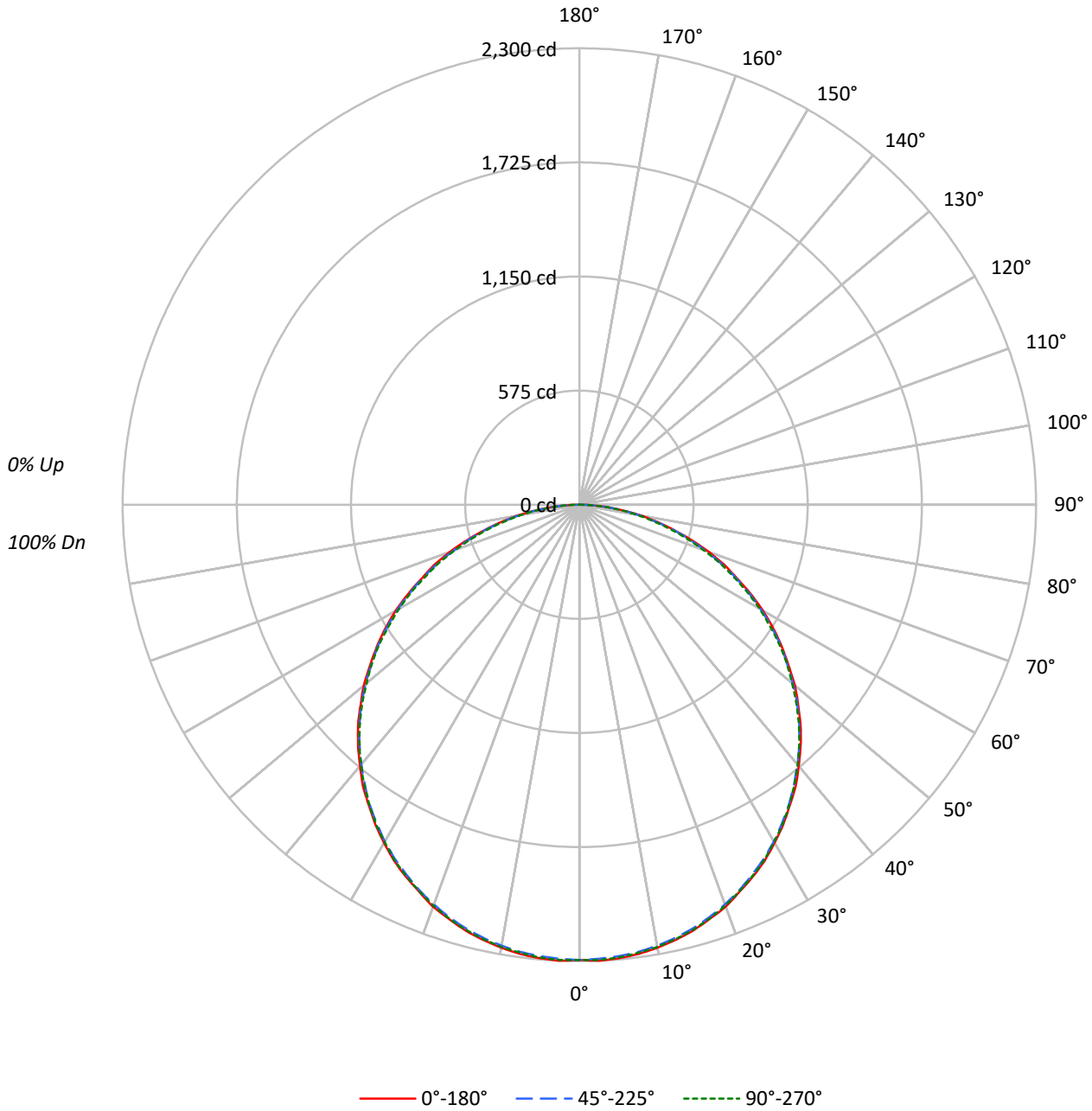
Lumens per Lamp: N/A
 Luminaire Lumens: 6786.4 lumens
 Efficiency: N/A
 Efficacy: 133.1 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 51
 Input Voltage (V): 120
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 24 FT

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	P3	10/30/2015	4/30/2016
Power Meter	IN0214	1/12/2016	1/12/2017
AC Power Source	IN0062	1/12/2016	1/12/2017
DC Power Supply	--	--	--
Room Thermometer	IN0145	1/13/2016	1/13/2017

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	108	103	99	95	106	101	97	93	97	94	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	62	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3086	3086	3086
5°	3098	3084	3092
10°	3097	3082	3091
15°	3093	3079	3087
20°	3087	3069	3078
25°	3070	3055	3064
30°	3057	3044	3047
35°	3036	3026	3029
40°	3019	3000	3004
45°	3000	2980	2976
50°	2968	2941	2928
55°	2918	2904	2889
60°	2875	2841	2819
65°	2783	2762	2723
70°	2723	2649	2607
75°	2576	2544	2457
80°	2462	2382	2284
85°	2195	2163	2001

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3000 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.4	3.2
10°-20°	624.5	9.2
20°-30°	950.4	14.0
30°-40°	1153.5	17.0
40°-50°	1208.0	17.8
50°-60°	1103.8	16.3
60°-70°	857.9	12.6
70°-80°	514.5	7.6
80°-90°	156.5	2.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1792.2	26.4
0°-40°	2945.7	43.4
0°-60°	5257.6	77.5
0°-90°	6786.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6786.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2294	2294	2294	2294	2294	
5°	2294	2288	2283	2283	2290	218
15°	2221	2212	2210	2210	2216	627
25°	2068	2060	2058	2060	2064	953
35°	1848	1844	1842	1842	1844	1158
45°	1577	1568	1566	1564	1564	1215
55°	1244	1240	1238	1227	1232	1113
65°	874	872	868	857	855	870
75°	496	494	489	481	473	527
85°	142	140	140	136	130	160
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2293.8	2293.8	2293.8	2293.8	2293.8
2.5°	2300.0	2291.7	2289.6	2289.6	2295.8
5°	2293.8	2287.5	2283.3	2283.3	2289.6
7.5°	2283.3	2274.9	2272.8	2272.8	2277.0
10°	2266.6	2260.3	2256.1	2256.1	2262.4
12.5°	2245.7	2237.3	2235.2	2237.3	2241.5
15°	2220.6	2212.2	2210.1	2210.1	2216.4
17.5°	2187.1	2180.8	2178.8	2178.8	2185.0
20°	2155.8	2145.3	2143.2	2145.3	2149.5
22.5°	2109.8	2105.6	2103.5	2105.6	2107.7
25°	2067.9	2059.6	2057.5	2059.6	2063.8
27.5°	2021.9	2013.6	2011.5	2011.5	2017.8
30°	1967.6	1961.3	1959.2	1959.2	1961.3
32.5°	1911.1	1906.9	1900.7	1902.8	1906.9
35°	1848.4	1844.2	1842.1	1842.1	1844.2
37.5°	1789.8	1781.5	1775.2	1775.2	1779.4
40°	1718.8	1714.6	1708.3	1710.4	1710.4
42.5°	1649.7	1643.5	1639.3	1637.2	1639.3
45°	1576.6	1568.2	1566.1	1564.0	1564.0
47.5°	1495.0	1495.0	1488.7	1484.6	1482.5
50°	1417.7	1409.3	1405.1	1398.8	1398.8
52.5°	1327.7	1325.7	1319.4	1317.3	1317.3
55°	1244.1	1239.9	1237.8	1227.4	1231.6
57.5°	1158.4	1150.0	1147.9	1141.7	1137.5
60°	1068.5	1064.3	1055.9	1047.6	1047.6
62.5°	972.3	970.2	961.8	955.6	953.5
65°	874.0	871.9	867.7	857.3	855.2
67.5°	790.4	782.0	771.6	763.2	763.2
70°	692.1	681.6	673.3	664.9	662.8
72.5°	591.7	585.5	581.3	572.9	566.6
75°	495.6	493.5	489.3	480.9	472.6
77.5°	405.6	403.6	393.1	386.8	380.6
80°	317.8	309.5	307.4	299.0	294.8
82.5°	223.7	227.9	217.5	215.4	213.3
85°	142.2	140.1	140.1	135.9	129.6
87.5°	62.7	64.8	64.8	64.8	64.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)