

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: P843334

Luminaire Tested: 24CGSB-55-L850

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843334
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-55-L850
 Description: 2x4 CGSB AT 5500LM 5000K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

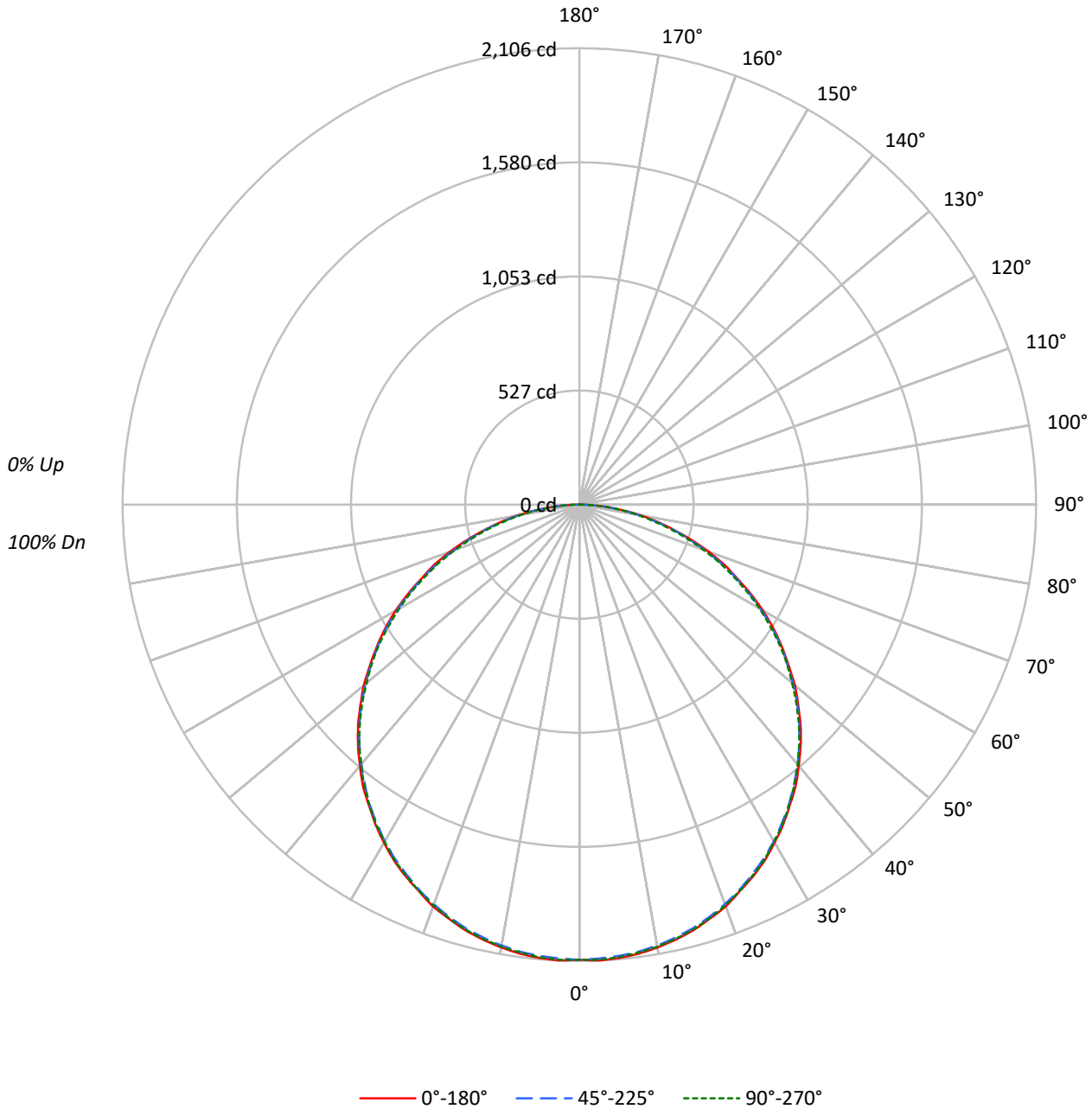
Lumens per Lamp: N/A
 Luminaire Lumens: 6214.3 lumens
 Efficiency: N/A
 Efficacy: 136.9 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 45.4
 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	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
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°	2826	2826	2826
5°	2837	2824	2832
10°	2836	2823	2830
15°	2832	2819	2827
20°	2826	2810	2818
25°	2811	2797	2806
30°	2799	2787	2790
35°	2780	2771	2774
40°	2764	2748	2751
45°	2747	2729	2725
50°	2717	2693	2681
55°	2672	2659	2645
60°	2633	2602	2581
65°	2548	2530	2493
70°	2493	2425	2388
75°	2359	2329	2249
80°	2255	2181	2092
85°	2010	1981	1832

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2747 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.1	3.2
10°-20°	571.8	9.2
20°-30°	870.2	14.0
30°-40°	1056.2	17.0
40°-50°	1106.2	17.8
50°-60°	1010.8	16.3
60°-70°	785.6	12.6
70°-80°	471.1	7.6
80°-90°	143.3	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°	1641.1	26.4
0°-40°	2697.4	43.4
0°-60°	4814.3	77.5
0°-90°	6214.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6214.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2100	2100	2100	2100	2100	
5°	2100	2095	2091	2091	2097	200
15°	2033	2026	2024	2024	2030	574
25°	1894	1886	1884	1886	1890	873
35°	1693	1689	1687	1687	1689	1060
45°	1444	1436	1434	1432	1432	1112
55°	1139	1135	1134	1124	1128	1019
65°	800	798	795	785	783	797
75°	454	452	448	440	433	483
85°	130	128	128	124	119	146
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2100.4	2100.4	2100.4	2100.4	2100.4
2.5°	2106.1	2098.5	2096.6	2096.6	2102.3
5°	2100.4	2094.6	2090.8	2090.8	2096.6
7.5°	2090.8	2083.2	2081.2	2081.2	2085.1
10°	2075.5	2069.8	2065.9	2065.9	2071.7
12.5°	2056.4	2048.7	2046.8	2048.7	2052.5
15°	2033.4	2025.7	2023.8	2023.8	2029.5
17.5°	2002.7	1997.0	1995.1	1995.1	2000.8
20°	1974.0	1964.4	1962.5	1964.4	1968.3
22.5°	1931.9	1928.1	1926.2	1928.1	1930.0
25°	1893.6	1885.9	1884.0	1885.9	1889.8
27.5°	1851.5	1843.8	1841.9	1841.9	1847.7
30°	1801.7	1796.0	1794.0	1794.0	1796.0
32.5°	1750.0	1746.2	1740.4	1742.3	1746.2
35°	1692.6	1688.7	1686.8	1686.8	1688.7
37.5°	1639.0	1631.3	1625.6	1625.6	1629.4
40°	1573.9	1570.0	1564.3	1566.2	1566.2
42.5°	1510.7	1504.9	1501.1	1499.2	1501.1
45°	1443.7	1436.0	1434.1	1432.2	1432.2
47.5°	1369.0	1369.0	1363.2	1359.4	1357.5
50°	1298.1	1290.5	1286.7	1280.9	1280.9
52.5°	1215.8	1213.9	1208.2	1206.2	1206.2
55°	1139.2	1135.4	1133.5	1123.9	1127.7
57.5°	1060.7	1053.1	1051.2	1045.4	1041.6
60°	978.4	974.6	966.9	959.2	959.2
62.5°	890.3	888.4	880.7	875.0	873.1
65°	800.3	798.4	794.6	785.0	783.1
67.5°	723.7	716.1	706.5	698.9	698.9
70°	633.8	624.2	616.5	608.9	606.9
72.5°	541.9	536.1	532.3	524.6	518.9
75°	453.8	451.9	448.0	440.4	432.7
77.5°	371.4	369.5	360.0	354.2	348.5
80°	291.0	283.4	281.5	273.8	270.0
82.5°	204.9	208.7	199.1	197.2	195.3
85°	130.2	128.3	128.3	124.5	118.7
87.5°	57.4	59.4	59.4	59.4	59.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)