

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: P843332

Luminaire Tested: 24CGSB-55-L835

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843332
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-55-L835
 Description: 2x4 CGSB AT 5500LM 3500K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

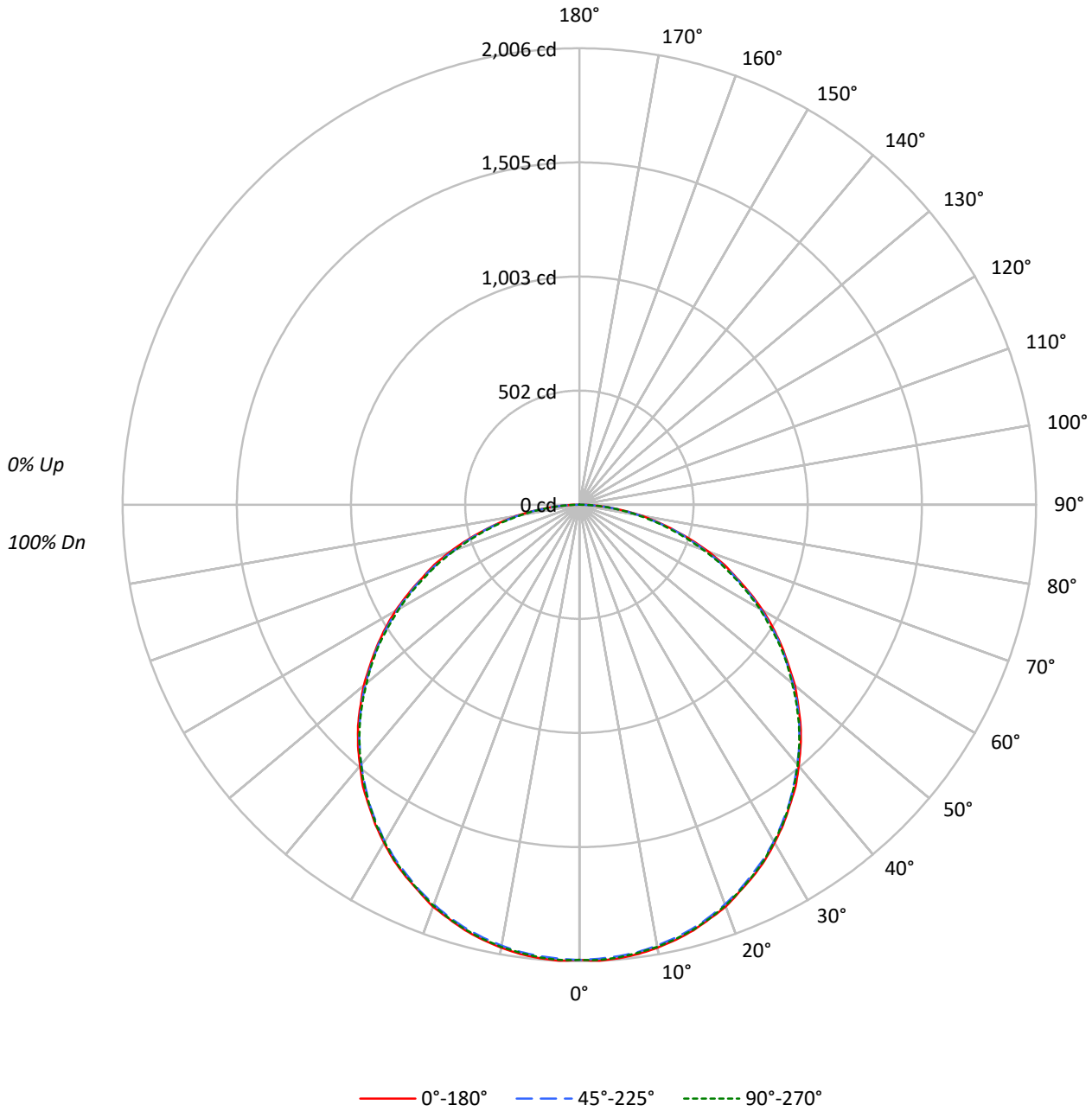
Lumens per Lamp: N/A
 Luminaire Lumens: 5918.4 lumens
 Efficiency: N/A
 Efficacy: 130.4 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

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	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°	2692	2692	2692
5°	2702	2690	2697
10°	2701	2688	2696
15°	2697	2685	2692
20°	2692	2676	2684
25°	2677	2664	2672
30°	2666	2655	2657
35°	2648	2639	2642
40°	2633	2617	2620
45°	2616	2599	2595
50°	2588	2565	2554
55°	2545	2532	2519
60°	2507	2478	2458
65°	2427	2409	2374
70°	2375	2310	2274
75°	2247	2218	2142
80°	2148	2077	1992
85°	1914	1886	1746

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2616 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.6	3.2
10°-20°	544.6	9.2
20°-30°	828.8	14.0
30°-40°	1005.9	17.0
40°-50°	1053.5	17.8
50°-60°	962.6	16.3
60°-70°	748.2	12.6
70°-80°	448.7	7.6
80°-90°	136.5	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°	1563.0	26.4
0°-40°	2568.9	43.4
0°-60°	4585.1	77.5
0°-90°	5918.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5918.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2000	2000	2000	2000	2000	
5°	2000	1995	1991	1991	1997	190
15°	1936	1929	1927	1927	1933	546
25°	1803	1796	1794	1796	1800	832
35°	1612	1608	1606	1606	1608	1010
45°	1375	1368	1366	1364	1364	1059
55°	1085	1081	1080	1070	1074	970
65°	762	760	757	748	746	759
75°	432	430	427	419	412	460
85°	124	122	122	118	113	139
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2000.4	2000.4	2000.4	2000.4	2000.4
2.5°	2005.8	1998.5	1996.7	1996.7	2002.2
5°	2000.4	1994.9	1991.3	1991.3	1996.7
7.5°	1991.3	1984.0	1982.1	1982.1	1985.8
10°	1976.7	1971.2	1967.5	1967.5	1973.0
12.5°	1958.4	1951.1	1949.3	1951.1	1954.8
15°	1936.5	1929.3	1927.4	1927.4	1932.9
17.5°	1907.4	1901.9	1900.1	1900.1	1905.5
20°	1880.0	1870.9	1869.1	1870.9	1874.5
22.5°	1839.9	1836.3	1834.4	1836.3	1838.1
25°	1803.4	1796.1	1794.3	1796.1	1799.8
27.5°	1763.3	1756.0	1754.2	1754.2	1759.7
30°	1715.9	1710.4	1708.6	1708.6	1710.4
32.5°	1666.7	1663.0	1657.6	1659.4	1663.0
35°	1612.0	1608.3	1606.5	1606.5	1608.3
37.5°	1560.9	1553.6	1548.1	1548.1	1551.8
40°	1498.9	1495.3	1489.8	1491.6	1491.6
42.5°	1438.7	1433.3	1429.6	1427.8	1429.6
45°	1374.9	1367.6	1365.8	1364.0	1364.0
47.5°	1303.8	1303.8	1298.3	1294.7	1292.9
50°	1236.3	1229.0	1225.4	1219.9	1219.9
52.5°	1157.9	1156.1	1150.6	1148.8	1148.8
55°	1085.0	1081.3	1079.5	1070.4	1074.0
57.5°	1010.2	1002.9	1001.1	995.6	992.0
60°	931.8	928.2	920.9	913.6	913.6
62.5°	847.9	846.1	838.8	833.3	831.5
65°	762.2	760.4	756.7	747.6	745.8
67.5°	689.3	682.0	672.9	665.6	665.6
70°	603.6	594.5	587.2	579.9	578.0
72.5°	516.0	510.6	506.9	499.6	494.2
75°	432.2	430.3	426.7	419.4	412.1
77.5°	353.8	351.9	342.8	337.3	331.9
80°	277.2	269.9	268.1	260.8	257.1
82.5°	195.1	198.8	189.6	187.8	186.0
85°	124.0	122.2	122.2	118.5	113.1
87.5°	54.7	56.5	56.5	56.5	56.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)