

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: P843340

Luminaire Tested: 24CGSB-60-L835

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843340  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-60-L835  
 Description: 2x4 CGSB AT 6000LM 3500K 80CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

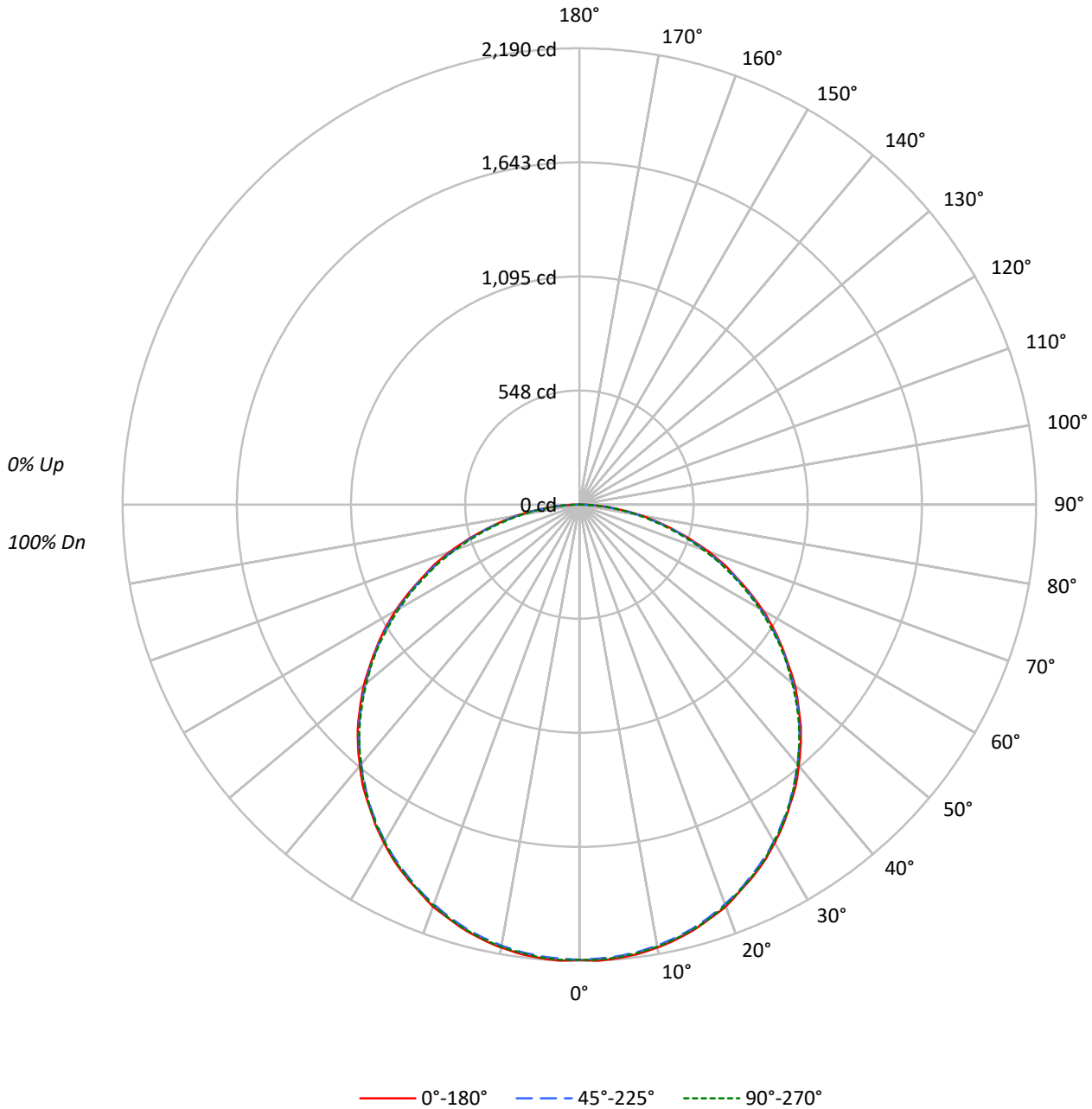
Lumens per Lamp: N/A  
 Luminaire Lumens: 6463.2 lumens  
 Efficiency: N/A  
 Efficacy: 126.7 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

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	
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°	2939	2939	2939
5°	2950	2937	2945
10°	2949	2936	2944
15°	2946	2932	2940
20°	2940	2923	2931
25°	2924	2909	2918
30°	2911	2899	2902
35°	2892	2882	2885
40°	2875	2858	2861
45°	2857	2838	2834
50°	2826	2801	2789
55°	2780	2765	2751
60°	2738	2706	2685
65°	2650	2631	2593
70°	2593	2522	2484
75°	2454	2423	2339
80°	2345	2268	2176
85°	2090	2059	1907

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2857 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.0	3.2
10°-20°	594.7	9.2
20°-30°	905.1	14.0
30°-40°	1098.5	17.0
40°-50°	1150.5	17.8
50°-60°	1051.3	16.3
60°-70°	817.0	12.6
70°-80°	490.0	7.6
80°-90°	149.0	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°	1706.9	26.4
0°-40°	2805.4	43.4
0°-60°	5007.2	77.5
0°-90°	6463.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6463.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2184	2184	2184	2184	2184	
5°	2184	2179	2175	2175	2180	208
15°	2115	2107	2105	2105	2111	597
25°	1970	1962	1960	1962	1966	908
35°	1760	1756	1754	1754	1756	1103
45°	1502	1494	1492	1490	1490	1157
55°	1185	1181	1179	1169	1173	1060
65°	832	830	826	816	814	829
75°	472	470	466	458	450	502
85°	135	133	133	129	124	152
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2184.5	2184.5	2184.5	2184.5	2184.5
2.5°	2190.5	2182.5	2180.5	2180.5	2186.5
5°	2184.5	2178.6	2174.6	2174.6	2180.5
7.5°	2174.6	2166.6	2164.6	2164.6	2168.6
10°	2158.6	2152.7	2148.7	2148.7	2154.7
12.5°	2138.7	2130.8	2128.8	2130.8	2134.7
15°	2114.8	2106.9	2104.9	2104.9	2110.9
17.5°	2083.0	2077.0	2075.0	2075.0	2081.0
20°	2053.1	2043.1	2041.2	2043.1	2047.1
22.5°	2009.3	2005.3	2003.3	2005.3	2007.3
25°	1969.5	1961.5	1959.5	1961.5	1965.5
27.5°	1925.7	1917.7	1915.7	1915.7	1921.7
30°	1873.9	1867.9	1865.9	1865.9	1867.9
32.5°	1820.1	1816.1	1810.2	1812.1	1816.1
35°	1760.4	1756.4	1754.4	1754.4	1756.4
37.5°	1704.6	1696.6	1690.7	1690.7	1694.7
40°	1636.9	1632.9	1626.9	1628.9	1628.9
42.5°	1571.2	1565.2	1561.2	1559.2	1561.2
45°	1501.5	1493.5	1491.5	1489.5	1489.5
47.5°	1423.8	1423.8	1417.9	1413.9	1411.9
50°	1350.1	1342.2	1338.2	1332.2	1332.2
52.5°	1264.5	1262.5	1256.6	1254.6	1254.6
55°	1184.9	1180.9	1178.9	1168.9	1172.9
57.5°	1103.2	1095.3	1093.3	1087.3	1083.3
60°	1017.6	1013.6	1005.6	997.7	997.7
62.5°	926.0	924.0	916.0	910.1	908.1
65°	832.4	830.4	826.4	816.5	814.5
67.5°	752.7	744.8	734.8	726.8	726.8
70°	659.1	649.2	641.2	633.3	631.3
72.5°	563.6	557.6	553.6	545.6	539.7
75°	472.0	470.0	466.0	458.0	450.0
77.5°	386.3	384.3	374.4	368.4	362.4
80°	302.7	294.7	292.7	284.8	280.8
82.5°	213.1	217.1	207.1	205.1	203.1
85°	135.4	133.4	133.4	129.4	123.5
87.5°	59.7	61.7	61.7	61.7	61.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)