

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: P843336

Luminaire Tested: 24CGSB-55-L935

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843336  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-55-L935  
 Description: 2x4 CGSB AT 5500LM 3500K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

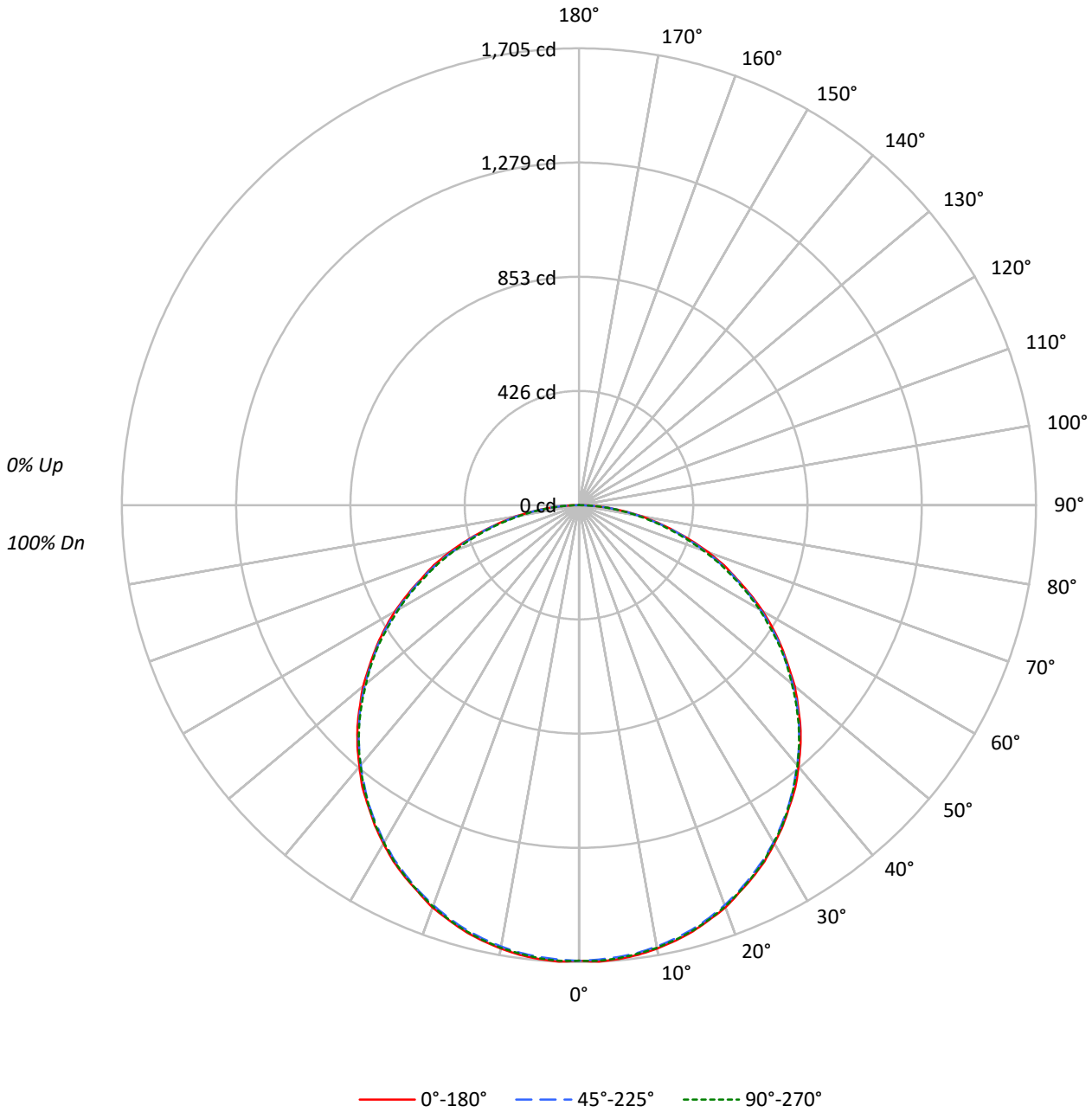
Lumens per Lamp: N/A  
 Luminaire Lumens: 5030.6 lumens  
 Efficiency: N/A  
 Efficacy: 110.8 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

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°	2288	2288	2288
5°	2296	2286	2292
10°	2296	2285	2291
15°	2293	2282	2289
20°	2288	2275	2281
25°	2276	2264	2271
30°	2266	2256	2259
35°	2251	2243	2246
40°	2238	2224	2227
45°	2224	2209	2206
50°	2200	2180	2170
55°	2163	2152	2141
60°	2131	2106	2090
65°	2063	2048	2018
70°	2018	1963	1933
75°	1909	1886	1821
80°	1826	1765	1693
85°	1627	1602	1484

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2224 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.1	3.2
10°-20°	462.9	9.2
20°-30°	704.5	14.0
30°-40°	855.1	17.0
40°-50°	895.5	17.8
50°-60°	818.2	16.3
60°-70°	635.9	12.6
70°-80°	381.4	7.6
80°-90°	116.0	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°	1328.5	26.4
0°-40°	2183.6	43.4
0°-60°	3897.3	77.5
0°-90°	5030.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5030.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1700	1696	1693	1693	1697	162
15°	1646	1640	1638	1638	1643	464
25°	1533	1527	1525	1527	1530	707
35°	1370	1367	1366	1366	1367	858
45°	1169	1162	1161	1159	1159	900
55°	922	919	918	910	913	825
65°	648	646	643	636	634	645
75°	367	366	363	356	350	391
85°	105	104	104	101	96	118
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1700.3	1700.3	1700.3	1700.3	1700.3
2.5°	1705.0	1698.8	1697.2	1697.2	1701.9
5°	1700.3	1695.7	1692.6	1692.6	1697.2
7.5°	1692.6	1686.4	1684.8	1684.8	1687.9
10°	1680.2	1675.5	1672.4	1672.4	1677.1
12.5°	1664.7	1658.5	1656.9	1658.5	1661.6
15°	1646.1	1639.9	1638.3	1638.3	1643.0
17.5°	1621.3	1616.6	1615.1	1615.1	1619.7
20°	1598.0	1590.3	1588.7	1590.3	1593.4
22.5°	1563.9	1560.8	1559.3	1560.8	1562.4
25°	1532.9	1526.7	1525.2	1526.7	1529.8
27.5°	1498.8	1492.6	1491.1	1491.1	1495.7
30°	1458.5	1453.9	1452.3	1452.3	1453.9
32.5°	1416.7	1413.6	1408.9	1410.5	1413.6
35°	1370.2	1367.1	1365.5	1365.5	1367.1
37.5°	1326.8	1320.6	1315.9	1315.9	1319.0
40°	1274.1	1271.0	1266.3	1267.9	1267.9
42.5°	1222.9	1218.3	1215.2	1213.6	1215.2
45°	1168.7	1162.5	1160.9	1159.4	1159.4
47.5°	1108.2	1108.2	1103.6	1100.5	1098.9
50°	1050.9	1044.7	1041.6	1036.9	1036.9
52.5°	984.2	982.7	978.0	976.5	976.5
55°	922.2	919.1	917.6	909.8	912.9
57.5°	858.7	852.5	850.9	846.3	843.2
60°	792.0	788.9	782.7	776.5	776.5
62.5°	720.7	719.2	713.0	708.3	706.8
65°	647.9	646.3	643.2	635.5	633.9
67.5°	585.9	579.7	571.9	565.7	565.7
70°	513.0	505.3	499.1	492.9	491.3
72.5°	438.6	434.0	430.9	424.7	420.0
75°	367.3	365.8	362.7	356.5	350.3
77.5°	300.7	299.1	291.4	286.7	282.1
80°	235.6	229.4	227.8	221.6	218.5
82.5°	165.8	168.9	161.2	159.6	158.1
85°	105.4	103.8	103.8	100.7	96.1
87.5°	46.5	48.0	48.0	48.0	48.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)