

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: P843346

Luminaire Tested: 24CGSB-60-L950

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843346  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-60-L950  
 Description: 2x4 CGSB AT 6000LM 5000K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

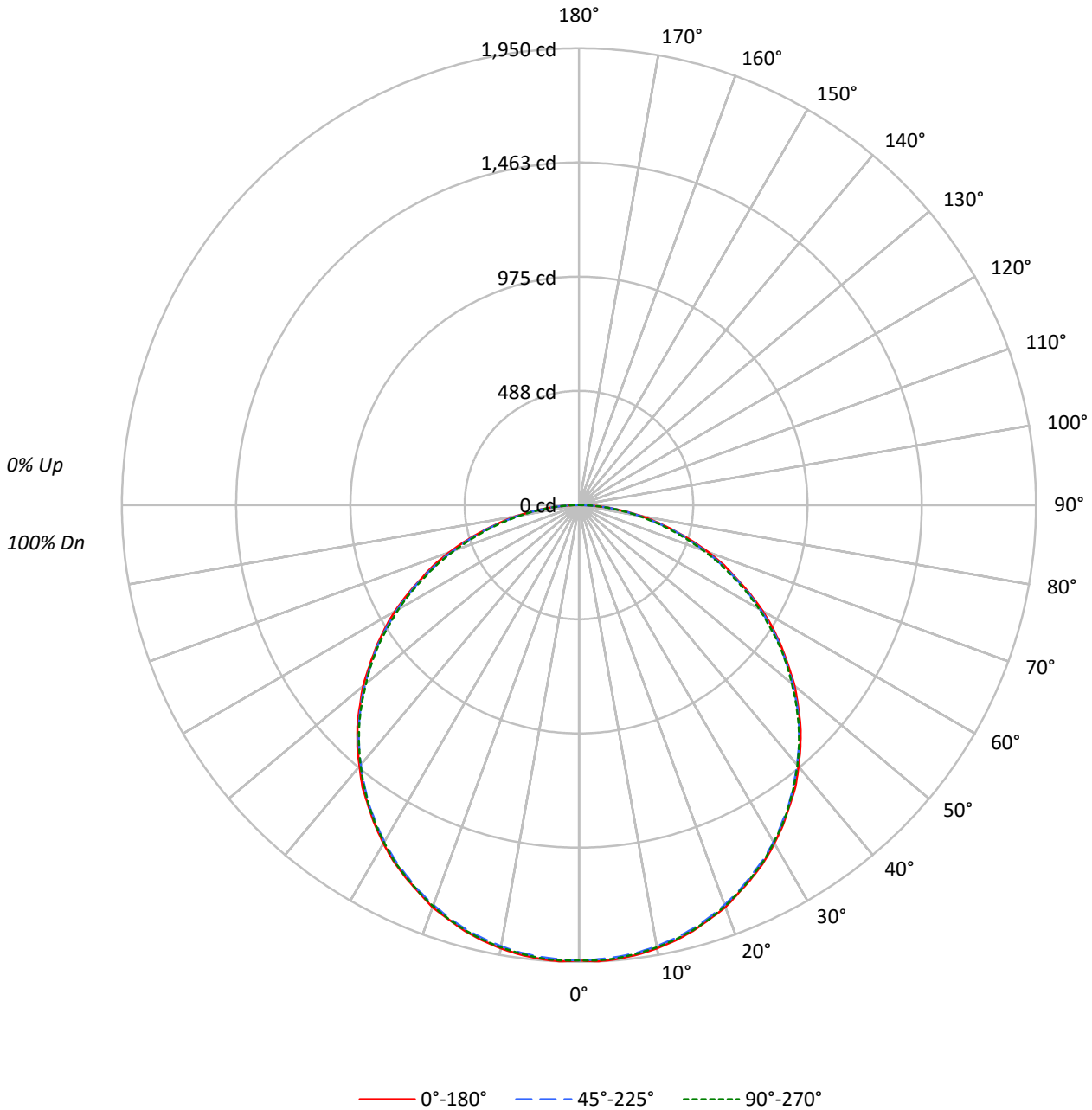
Lumens per Lamp: N/A  
 Luminaire Lumens: 5752.3 lumens  
 Efficiency: N/A  
 Efficacy: 112.8 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

Input Watts (W): 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°	2616	2616	2616
5°	2626	2614	2621
10°	2625	2613	2620
15°	2622	2609	2617
20°	2616	2601	2609
25°	2602	2589	2597
30°	2591	2580	2583
35°	2573	2565	2568
40°	2559	2543	2546
45°	2543	2526	2523
50°	2515	2493	2482
55°	2474	2461	2449
60°	2437	2408	2389
65°	2358	2342	2308
70°	2308	2245	2210
75°	2183	2156	2082
80°	2087	2018	1936
85°	1860	1832	1697

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2543 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.3	3.2
10°-20°	529.3	9.2
20°-30°	805.5	14.0
30°-40°	977.7	17.0
40°-50°	1024.0	17.8
50°-60°	935.6	16.3
60°-70°	727.2	12.6
70°-80°	436.1	7.6
80°-90°	132.6	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°	1519.1	26.4
0°-40°	2496.8	43.4
0°-60°	4456.4	77.5
0°-90°	5752.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5752.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1944	1944	1944	1944	1944	
5°	1944	1939	1935	1935	1941	185
15°	1882	1875	1873	1873	1879	531
25°	1753	1746	1744	1746	1749	808
35°	1567	1563	1561	1561	1563	982
45°	1336	1329	1328	1326	1326	1029
55°	1054	1051	1049	1040	1044	943
65°	741	739	736	727	725	738
75°	420	418	415	408	400	447
85°	120	119	119	115	110	135
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1944.2	1944.2	1944.2	1944.2	1944.2
2.5°	1949.5	1942.5	1940.7	1940.7	1946.0
5°	1944.2	1938.9	1935.4	1935.4	1940.7
7.5°	1935.4	1928.3	1926.5	1926.5	1930.1
10°	1921.2	1915.9	1912.3	1912.3	1917.6
12.5°	1903.5	1896.4	1894.6	1896.4	1899.9
15°	1882.2	1875.1	1873.3	1873.3	1878.7
17.5°	1853.8	1848.5	1846.8	1846.8	1852.1
20°	1827.3	1818.4	1816.6	1818.4	1821.9
22.5°	1788.3	1784.7	1783.0	1784.7	1786.5
25°	1752.8	1745.7	1744.0	1745.7	1749.3
27.5°	1713.8	1706.7	1705.0	1705.0	1710.3
30°	1667.8	1662.4	1660.7	1660.7	1662.4
32.5°	1619.9	1616.4	1611.0	1612.8	1616.4
35°	1566.7	1563.2	1561.4	1561.4	1563.2
37.5°	1517.1	1510.0	1504.7	1504.7	1508.2
40°	1456.8	1453.3	1448.0	1449.8	1449.8
42.5°	1398.4	1393.0	1389.5	1387.7	1389.5
45°	1336.3	1329.2	1327.5	1325.7	1325.7
47.5°	1267.2	1267.2	1261.9	1258.3	1256.6
50°	1201.6	1194.5	1191.0	1185.7	1185.7
52.5°	1125.4	1123.6	1118.3	1116.6	1116.6
55°	1054.5	1051.0	1049.2	1040.4	1043.9
57.5°	981.9	974.8	973.0	967.7	964.1
60°	905.7	902.1	895.0	887.9	887.9
62.5°	824.1	822.4	815.3	809.9	808.2
65°	740.8	739.1	735.5	726.7	724.9
67.5°	669.9	662.8	654.0	646.9	646.9
70°	586.6	577.8	570.7	563.6	561.8
72.5°	501.6	496.2	492.7	485.6	480.3
75°	420.0	418.3	414.7	407.6	400.5
77.5°	343.8	342.1	333.2	327.9	322.6
80°	269.4	262.3	260.5	253.4	249.9
82.5°	189.6	193.2	184.3	182.5	180.8
85°	120.5	118.7	118.7	115.2	109.9
87.5°	53.2	54.9	54.9	54.9	54.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)