

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: P843328

Luminaire Tested: 24CGSB-50-L935

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843328  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-50-L935  
 Description: 2x4 CGSB AT 5000LM 3500K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

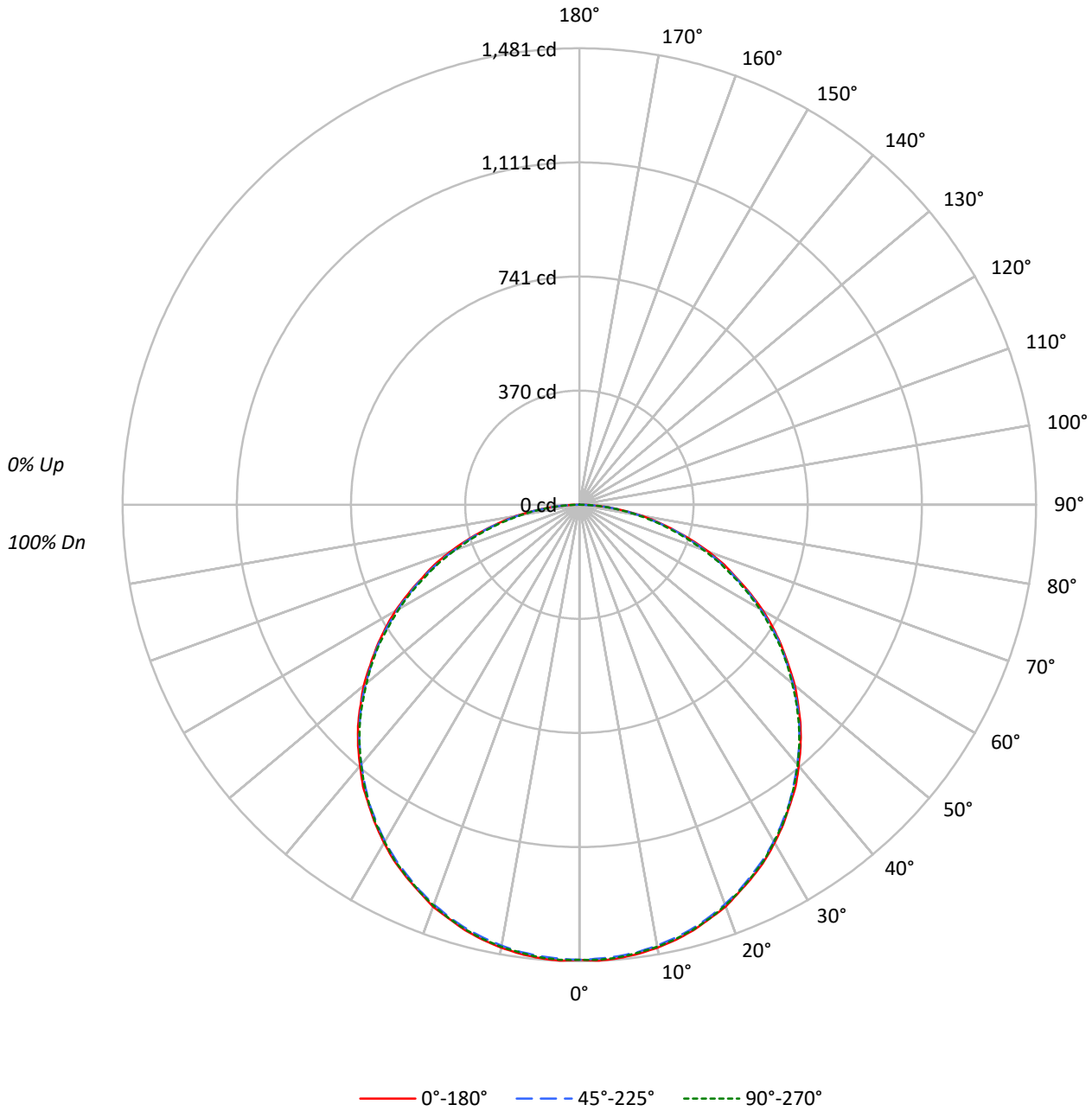
Lumens per Lamp: N/A  
 Luminaire Lumens: 4368.7 lumens  
 Efficiency: N/A  
 Efficacy: 109.5 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

Input Watts (W): 39.9  
 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°	1987	1987	1987
5°	1994	1985	1991
10°	1993	1984	1990
15°	1991	1982	1987
20°	1987	1976	1981
25°	1976	1966	1972
30°	1968	1959	1962
35°	1954	1948	1950
40°	1943	1932	1934
45°	1931	1918	1916
50°	1910	1893	1885
55°	1879	1869	1860
60°	1851	1829	1815
65°	1791	1778	1753
70°	1753	1705	1679
75°	1658	1638	1581
80°	1585	1533	1471
85°	1413	1392	1289

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1931 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.9	3.2
10°-20°	402.0	9.2
20°-30°	611.8	14.0
30°-40°	742.6	17.0
40°-50°	777.7	17.8
50°-60°	710.6	16.3
60°-70°	552.3	12.6
70°-80°	331.2	7.6
80°-90°	100.7	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°	1153.7	26.4
0°-40°	1896.3	43.4
0°-60°	3384.5	77.5
0°-90°	4368.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4368.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1477	1477	1477	1477	1477	
5°	1477	1473	1470	1470	1474	140
15°	1430	1424	1423	1423	1427	403
25°	1331	1326	1324	1326	1328	614
35°	1190	1187	1186	1186	1187	745
45°	1015	1010	1008	1007	1007	782
55°	801	798	797	790	793	716
65°	563	561	559	552	550	560
75°	319	318	315	310	304	339
85°	92	90	90	88	84	103
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1476.6	1476.6	1476.6	1476.6	1476.6
2.5°	1480.6	1475.3	1473.9	1473.9	1477.9
5°	1476.6	1472.6	1469.9	1469.9	1473.9
7.5°	1469.9	1464.5	1463.1	1463.1	1465.8
10°	1459.1	1455.1	1452.4	1452.4	1456.4
12.5°	1445.6	1440.3	1438.9	1440.3	1443.0
15°	1429.5	1424.1	1422.8	1422.8	1426.8
17.5°	1408.0	1403.9	1402.6	1402.6	1406.6
20°	1387.8	1381.0	1379.7	1381.0	1383.7
22.5°	1358.2	1355.5	1354.1	1355.5	1356.8
25°	1331.2	1325.8	1324.5	1325.8	1328.5
27.5°	1301.6	1296.2	1294.9	1294.9	1298.9
30°	1266.6	1262.6	1261.2	1261.2	1262.6
32.5°	1230.3	1227.6	1223.5	1224.9	1227.6
35°	1189.9	1187.2	1185.9	1185.9	1187.2
37.5°	1152.2	1146.8	1142.8	1142.8	1145.5
40°	1106.4	1103.8	1099.7	1101.1	1101.1
42.5°	1062.0	1058.0	1055.3	1053.9	1055.3
45°	1014.9	1009.5	1008.2	1006.8	1006.8
47.5°	962.4	962.4	958.4	955.7	954.3
50°	912.6	907.2	904.5	900.5	900.5
52.5°	854.7	853.4	849.4	848.0	848.0
55°	800.9	798.2	796.9	790.1	792.8
57.5°	745.7	740.3	739.0	734.9	732.2
60°	687.8	685.1	679.7	674.4	674.4
62.5°	625.9	624.6	619.2	615.1	613.8
65°	562.6	561.3	558.6	551.9	550.5
67.5°	508.8	503.4	496.7	491.3	491.3
70°	445.5	438.8	433.4	428.0	426.7
72.5°	380.9	376.9	374.2	368.8	364.8
75°	319.0	317.7	315.0	309.6	304.2
77.5°	261.1	259.8	253.1	249.0	245.0
80°	204.6	199.2	197.9	192.5	189.8
82.5°	144.0	146.7	140.0	138.6	137.3
85°	91.5	90.2	90.2	87.5	83.5
87.5°	40.4	41.7	41.7	41.7	41.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)