

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: P843330

Luminaire Tested: 24CGSB-50-L950

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843330  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-50-L950  
 Description: 2x4 CGSB AT 5000LM 5000K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

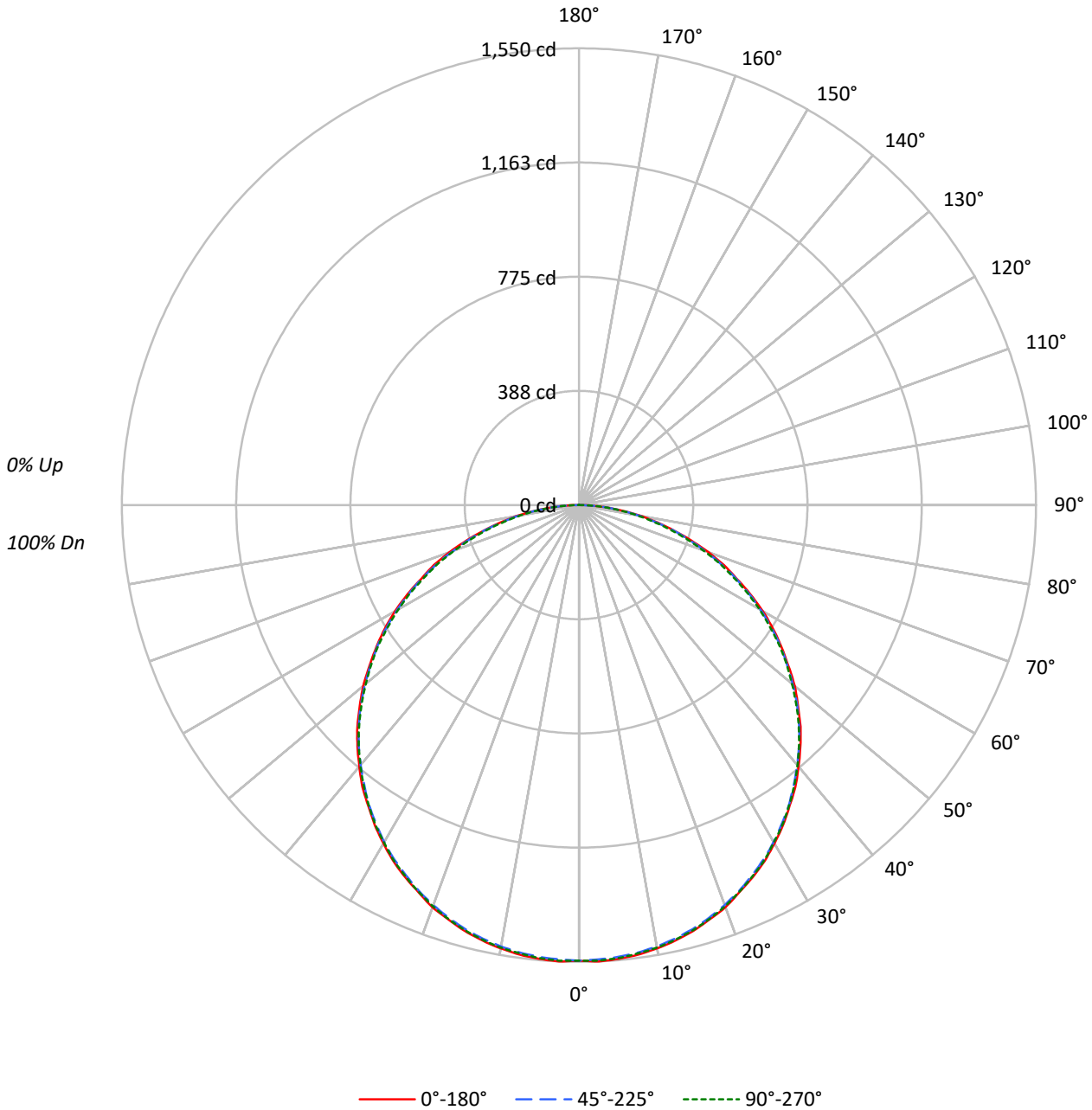
Lumens per Lamp: N/A  
 Luminaire Lumens: 4574.3 lumens  
 Efficiency: N/A  
 Efficacy: 114.6 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

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	
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°	2080	2080	2080
5°	2088	2079	2084
10°	2087	2078	2084
15°	2085	2075	2081
20°	2081	2068	2074
25°	2069	2059	2065
30°	2060	2052	2054
35°	2046	2040	2042
40°	2035	2023	2025
45°	2022	2009	2006
50°	2000	1982	1974
55°	1967	1957	1947
60°	1938	1915	1900
65°	1876	1862	1835
70°	1835	1785	1758
75°	1736	1714	1656
80°	1660	1605	1540
85°	1479	1457	1349

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2022 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.5	3.2
10°-20°	420.9	9.2
20°-30°	640.6	14.0
30°-40°	777.5	17.0
40°-50°	814.3	17.8
50°-60°	744.0	16.3
60°-70°	578.3	12.6
70°-80°	346.8	7.6
80°-90°	105.5	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°	1208.0	26.4
0°-40°	1985.5	43.4
0°-60°	3543.8	77.5
0°-90°	4574.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4574.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1546	1546	1546	1546	1546	
5°	1546	1542	1539	1539	1543	147
15°	1497	1491	1490	1490	1494	422
25°	1394	1388	1387	1388	1391	643
35°	1246	1243	1242	1242	1243	781
45°	1063	1057	1056	1054	1054	819
55°	839	836	834	827	830	750
65°	589	588	585	578	576	587
75°	334	333	330	324	318	355
85°	96	94	94	92	87	108
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1546.1	1546.1	1546.1	1546.1	1546.1
2.5°	1550.3	1544.7	1543.3	1543.3	1547.5
5°	1546.1	1541.9	1539.0	1539.0	1543.3
7.5°	1539.0	1533.4	1532.0	1532.0	1534.8
10°	1527.8	1523.5	1520.7	1520.7	1525.0
12.5°	1513.7	1508.0	1506.6	1508.0	1510.9
15°	1496.8	1491.1	1489.7	1489.7	1493.9
17.5°	1474.2	1470.0	1468.6	1468.6	1472.8
20°	1453.1	1446.0	1444.6	1446.0	1448.8
22.5°	1422.1	1419.2	1417.8	1419.2	1420.7
25°	1393.9	1388.2	1386.8	1388.2	1391.1
27.5°	1362.9	1357.2	1355.8	1355.8	1360.1
30°	1326.2	1322.0	1320.6	1320.6	1322.0
32.5°	1288.2	1285.4	1281.1	1282.5	1285.4
35°	1245.9	1243.1	1241.7	1241.7	1243.1
37.5°	1206.4	1200.8	1196.6	1196.6	1199.4
40°	1158.5	1155.7	1151.5	1152.9	1152.9
42.5°	1112.0	1107.8	1105.0	1103.5	1105.0
45°	1062.7	1057.0	1055.6	1054.2	1054.2
47.5°	1007.7	1007.7	1003.5	1000.7	999.3
50°	955.6	949.9	947.1	942.9	942.9
52.5°	895.0	893.5	889.3	887.9	887.9
55°	838.6	835.8	834.4	827.3	830.1
57.5°	780.8	775.2	773.8	769.5	766.7
60°	720.2	717.4	711.7	706.1	706.1
62.5°	655.4	654.0	648.3	644.1	642.7
65°	589.1	587.7	584.9	577.8	576.4
67.5°	532.7	527.1	520.1	514.4	514.4
70°	466.5	459.5	453.8	448.2	446.8
72.5°	398.9	394.6	391.8	386.2	381.9
75°	334.0	332.6	329.8	324.2	318.5
77.5°	273.4	272.0	265.0	260.7	256.5
80°	214.2	208.6	207.2	201.5	198.7
82.5°	150.8	153.6	146.6	145.2	143.8
85°	95.8	94.4	94.4	91.6	87.4
87.5°	42.3	43.7	43.7	43.7	43.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)