

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: P843362

Luminaire Tested: 24CGSB-80-L950

Issue Date: 5/31/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-2019  
 Report Number: P843362  
 Test Lab: INNOVATION CENTER  
 Issue Date: 5/31/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: METALUX  
 Catalog Number: 24CGSB-80-L950  
 Description: 2x4 CGSB AT 8000LM 5000K 90CRI  
 Light Source: -  
 Ballast/Driver: -

**Summary**

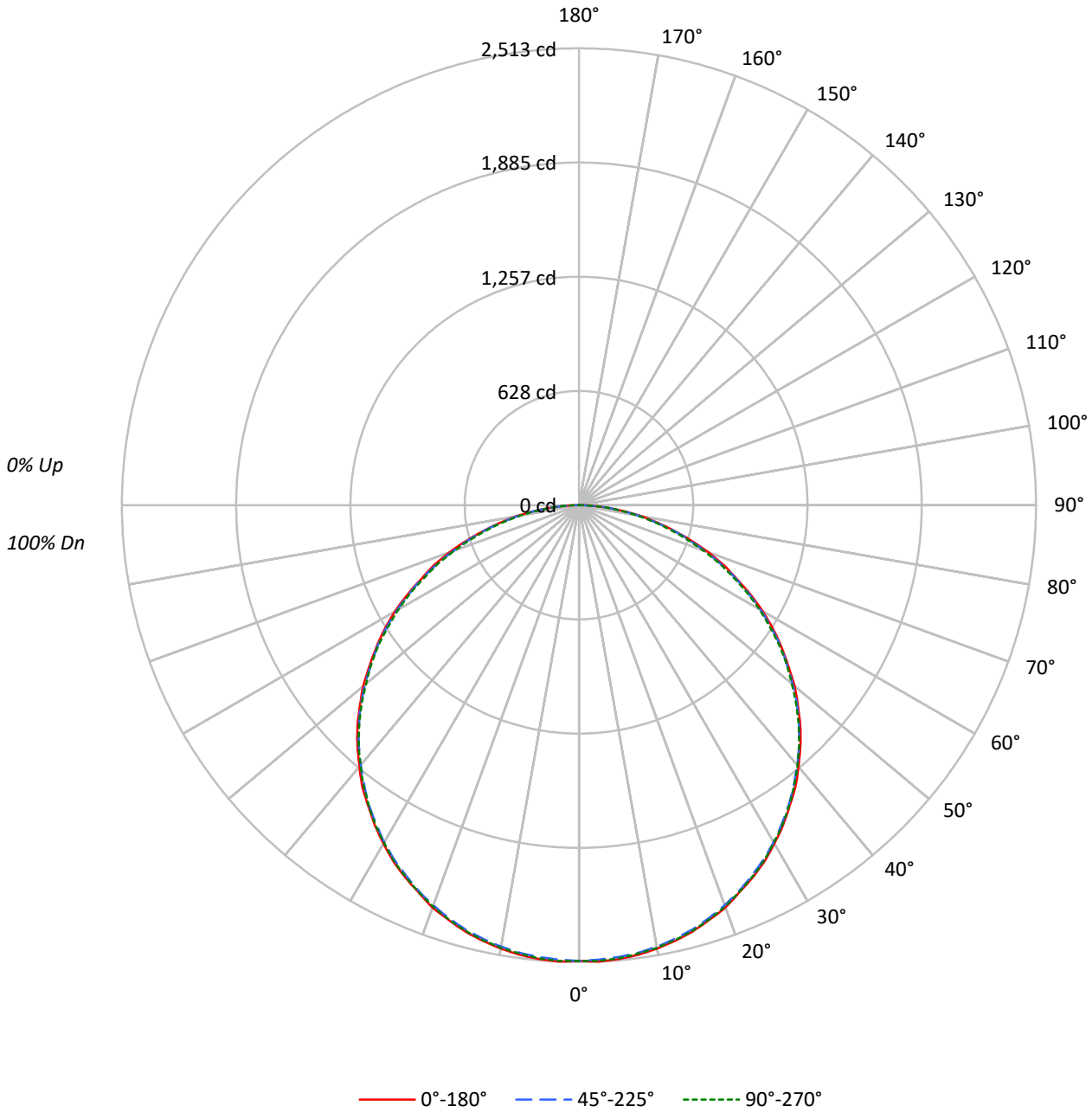
Lumens per Lamp: N/A  
 Luminaire Lumens: 7415.2 lumens  
 Efficiency: N/A  
 Efficacy: 110.8 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
 CIE Type: Direct

Input Watts (W): 66.9  
 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°	3372	3372	3372
5°	3385	3370	3379
10°	3384	3368	3377
15°	3380	3364	3373
20°	3373	3353	3363
25°	3354	3337	3348
30°	3340	3326	3329
35°	3317	3306	3310
40°	3299	3279	3283
45°	3278	3256	3252
50°	3242	3214	3199
55°	3189	3173	3157
60°	3142	3105	3080
65°	3040	3018	2975
70°	2975	2894	2849
75°	2815	2779	2684
80°	2691	2602	2496
85°	2399	2364	2186

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3278 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	237.5	3.2
10°-20°	682.3	9.2
20°-30°	1038.4	14.0
30°-40°	1260.4	17.0
40°-50°	1320.0	17.8
50°-60°	1206.1	16.3
60°-70°	937.4	12.6
70°-80°	562.2	7.6
80°-90°	171.0	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°	1958.3	26.4
0°-40°	3218.6	43.4
0°-60°	5744.7	77.5
0°-90°	7415.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7415.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2506	2506	2506	2506	2506	
5°	2506	2499	2495	2495	2502	238
15°	2426	2417	2415	2415	2422	685
25°	2260	2250	2248	2250	2255	1042
35°	2020	2015	2013	2013	2015	1265
45°	1723	1714	1711	1709	1709	1327
55°	1359	1355	1352	1341	1346	1216
65°	955	953	948	937	934	951
75°	542	539	535	526	516	576
85°	155	153	153	148	142	175
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2506.3	2506.3	2506.3	2506.3	2506.3
2.5°	2513.1	2504.0	2501.7	2501.7	2508.6
5°	2506.3	2499.4	2494.9	2494.9	2501.7
7.5°	2494.9	2485.7	2483.4	2483.4	2488.0
10°	2476.6	2469.7	2465.2	2465.2	2472.0
12.5°	2453.7	2444.6	2442.3	2444.6	2449.2
15°	2426.3	2417.2	2414.9	2414.9	2421.7
17.5°	2389.8	2382.9	2380.6	2380.6	2387.5
20°	2355.5	2344.1	2341.8	2344.1	2348.6
22.5°	2305.2	2300.7	2298.4	2300.7	2302.9
25°	2259.5	2250.4	2248.1	2250.4	2255.0
27.5°	2209.3	2200.1	2197.8	2197.8	2204.7
30°	2149.9	2143.0	2140.7	2140.7	2143.0
32.5°	2088.2	2083.6	2076.8	2079.0	2083.6
35°	2019.6	2015.1	2012.8	2012.8	2015.1
37.5°	1955.7	1946.5	1939.7	1939.7	1944.3
40°	1878.0	1873.4	1866.6	1868.9	1868.9
42.5°	1802.6	1795.7	1791.2	1788.9	1791.2
45°	1722.6	1713.5	1711.2	1708.9	1708.9
47.5°	1633.5	1633.5	1626.7	1622.1	1619.8
50°	1549.0	1539.9	1535.3	1528.4	1528.4
52.5°	1450.8	1448.5	1441.6	1439.3	1439.3
55°	1359.4	1354.8	1352.5	1341.1	1345.7
57.5°	1265.7	1256.6	1254.3	1247.4	1242.9
60°	1167.5	1162.9	1153.8	1144.6	1144.6
62.5°	1062.4	1060.1	1050.9	1044.1	1041.8
65°	955.0	952.7	948.1	936.7	934.4
67.5°	863.6	854.5	843.0	833.9	833.9
70°	756.2	744.8	735.7	726.5	724.2
72.5°	646.6	639.7	635.1	626.0	619.1
75°	541.5	539.2	534.6	525.5	516.3
77.5°	443.2	440.9	429.5	422.7	415.8
80°	347.3	338.1	335.8	326.7	322.1
82.5°	244.5	249.0	237.6	235.3	233.0
85°	155.4	153.1	153.1	148.5	141.6
87.5°	68.5	70.8	70.8	70.8	70.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)