

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: P843358

Luminaire Tested: 24CGSB-80-L850

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843358
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-80-L850
 Description: 2x4 CGSB AT 8000LM 5000K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

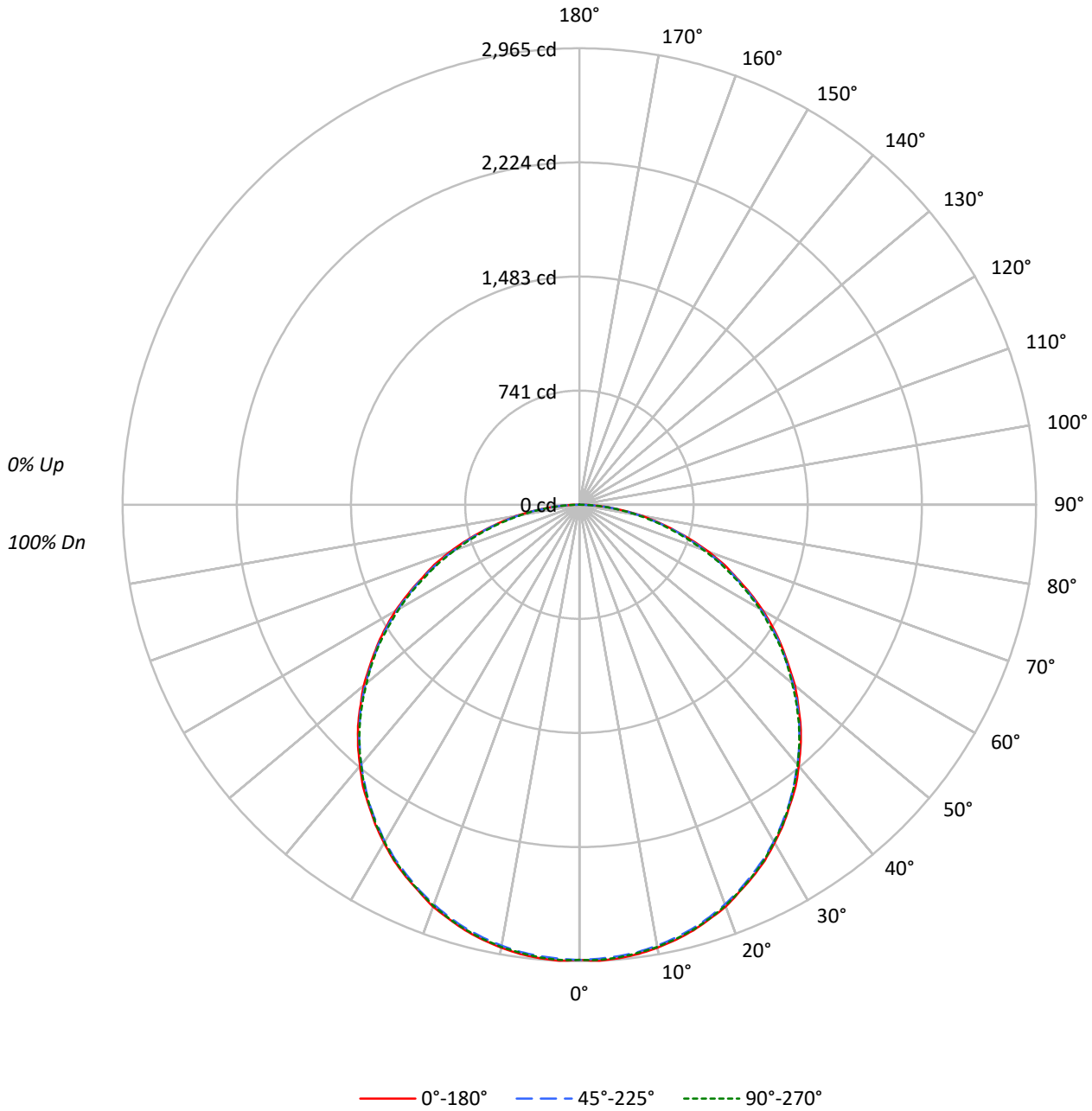
Lumens per Lamp: N/A
 Luminaire Lumens: 8748.3 lumens
 Efficiency: N/A
 Efficacy: 130.8 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

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°	3978	3978	3978
5°	3994	3975	3986
10°	3992	3973	3985
15°	3987	3969	3980
20°	3979	3956	3967
25°	3957	3938	3950
30°	3941	3924	3928
35°	3914	3900	3905
40°	3892	3868	3873
45°	3867	3841	3836
50°	3825	3791	3774
55°	3762	3743	3724
60°	3706	3663	3634
65°	3587	3561	3510
70°	3510	3414	3361
75°	3321	3279	3167
80°	3175	3070	2945
85°	2830	2788	2580

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3867 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.2	3.2
10°-20°	805.0	9.2
20°-30°	1225.1	14.0
30°-40°	1486.9	17.0
40°-50°	1557.3	17.8
50°-60°	1422.9	16.3
60°-70°	1105.9	12.6
70°-80°	663.2	7.6
80°-90°	201.7	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°	2310.3	26.4
0°-40°	3797.2	43.4
0°-60°	6777.5	77.5
0°-90°	8748.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8748.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2957	2957	2957	2957	2957	
5°	2957	2949	2943	2943	2952	281
15°	2862	2852	2849	2849	2857	808
25°	2666	2655	2652	2655	2660	1229
35°	2383	2377	2375	2375	2377	1493
45°	2032	2022	2019	2016	2016	1566
55°	1604	1598	1596	1582	1588	1434
65°	1127	1124	1119	1105	1102	1122
75°	639	636	631	620	609	679
85°	183	181	181	175	167	206
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2956.8	2956.8	2956.8	2956.8	2956.8
2.5°	2964.9	2954.2	2951.5	2951.5	2959.5
5°	2956.8	2948.8	2943.4	2943.4	2951.5
7.5°	2943.4	2932.6	2929.9	2929.9	2935.3
10°	2921.8	2913.7	2908.3	2908.3	2916.4
12.5°	2894.9	2884.1	2881.4	2884.1	2889.5
15°	2862.5	2851.7	2849.0	2849.0	2857.1
17.5°	2819.4	2811.3	2808.6	2808.6	2816.7
20°	2778.9	2765.5	2762.8	2765.5	2770.9
22.5°	2719.7	2714.3	2711.6	2714.3	2717.0
25°	2665.7	2655.0	2652.3	2655.0	2660.4
27.5°	2606.4	2595.7	2593.0	2593.0	2601.1
30°	2536.4	2528.3	2525.6	2525.6	2528.3
32.5°	2463.6	2458.2	2450.1	2452.8	2458.2
35°	2382.7	2377.3	2374.6	2374.6	2377.3
37.5°	2307.3	2296.5	2288.4	2288.4	2293.8
40°	2215.6	2210.2	2202.1	2204.8	2204.8
42.5°	2126.7	2118.6	2113.2	2110.5	2113.2
45°	2032.3	2021.5	2018.8	2016.2	2016.2
47.5°	1927.2	1927.2	1919.1	1913.7	1911.0
50°	1827.5	1816.7	1811.3	1803.2	1803.2
52.5°	1711.6	1708.9	1700.8	1698.1	1698.1
55°	1603.8	1598.4	1595.7	1582.2	1587.6
57.5°	1493.2	1482.5	1479.8	1471.7	1466.3
60°	1377.3	1372.0	1361.2	1350.4	1350.4
62.5°	1253.4	1250.7	1239.9	1231.8	1229.1
65°	1126.7	1124.0	1118.6	1105.1	1102.4
67.5°	1018.9	1008.1	994.6	983.8	983.8
70°	892.2	878.7	867.9	857.1	854.4
72.5°	762.8	754.7	749.3	738.5	730.5
75°	638.8	636.1	630.7	619.9	609.2
77.5°	522.9	520.2	506.7	498.6	490.6
80°	409.7	398.9	396.2	385.4	380.1
82.5°	288.4	293.8	280.3	277.6	274.9
85°	183.3	180.6	180.6	175.2	167.1
87.5°	80.9	83.6	83.6	83.6	83.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)