

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: P843357

Luminaire Tested: 24CGSB-80-L840

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843357
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-80-L840
 Description: 2x4 CGSB AT 8000LM 4000K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

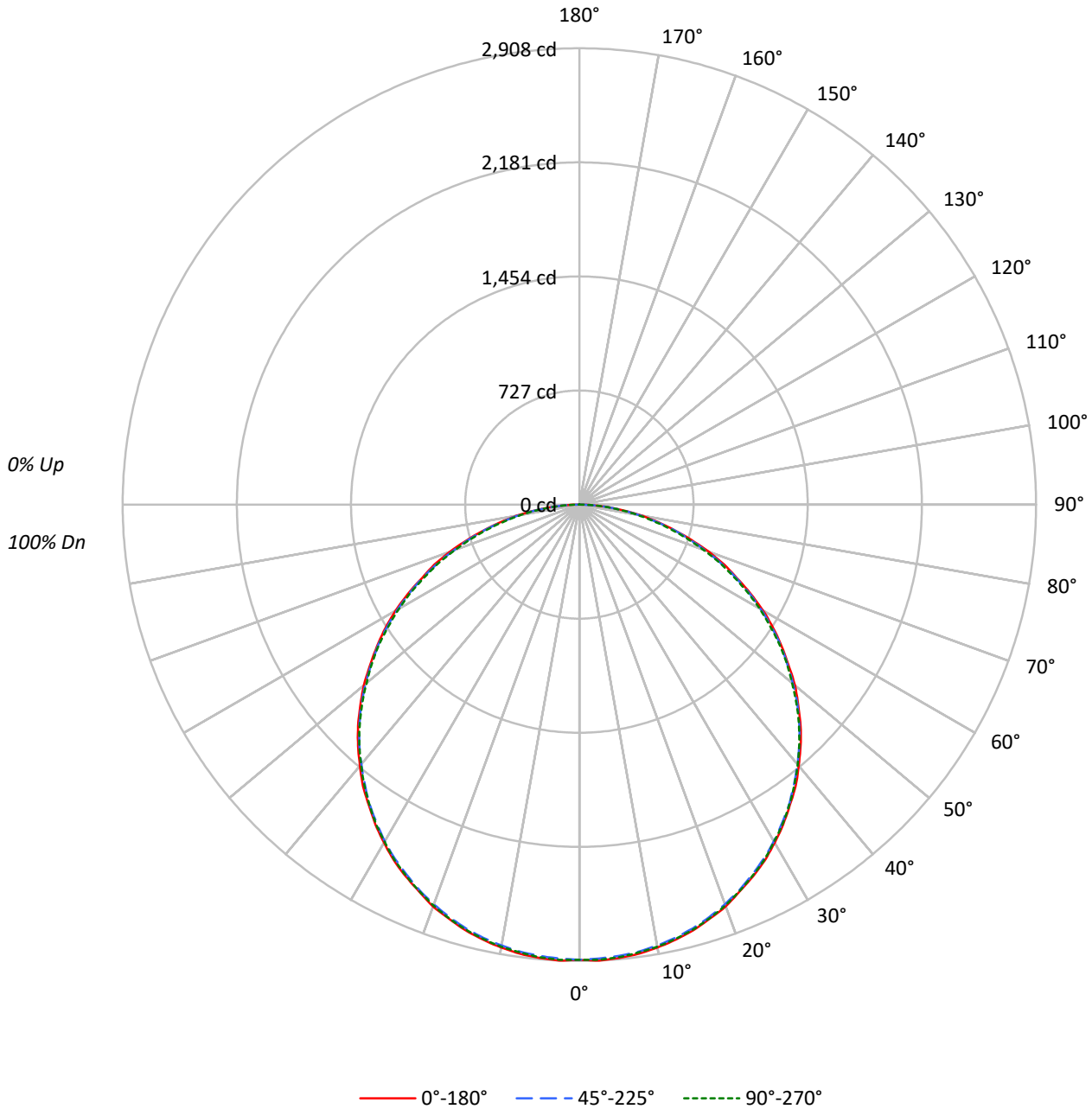
Lumens per Lamp: N/A
 Luminaire Lumens: 8581.7 lumens
 Efficiency: N/A
 Efficacy: 128.3 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

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°	3903	3903	3903
5°	3917	3900	3910
10°	3916	3898	3909
15°	3911	3893	3904
20°	3903	3881	3892
25°	3882	3862	3874
30°	3866	3849	3853
35°	3839	3826	3831
40°	3817	3794	3799
45°	3793	3768	3763
50°	3752	3719	3703
55°	3690	3672	3653
60°	3636	3593	3565
65°	3519	3493	3443
70°	3443	3349	3297
75°	3257	3216	3107
80°	3114	3012	2889
85°	2776	2736	2530

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3793 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.9	3.2
10°-20°	789.7	9.2
20°-30°	1201.7	14.0
30°-40°	1458.6	17.0
40°-50°	1527.6	17.8
50°-60°	1395.8	16.3
60°-70°	1084.8	12.6
70°-80°	650.6	7.6
80°-90°	197.9	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°	2266.3	26.4
0°-40°	3724.9	43.4
0°-60°	6648.3	77.5
0°-90°	8581.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8581.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2900	2900	2900	2900	2900	
5°	2900	2893	2887	2887	2895	276
15°	2808	2797	2795	2795	2803	792
25°	2615	2604	2602	2604	2610	1206
35°	2337	2332	2329	2329	2332	1464
45°	1994	1983	1980	1978	1978	1536
55°	1573	1568	1565	1552	1557	1407
65°	1105	1103	1097	1084	1081	1101
75°	627	624	619	608	598	666
85°	180	177	177	172	164	202
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2900.5	2900.5	2900.5	2900.5	2900.5
2.5°	2908.5	2897.9	2895.2	2895.2	2903.2
5°	2900.5	2892.6	2887.3	2887.3	2895.2
7.5°	2887.3	2876.7	2874.1	2874.1	2879.4
10°	2866.2	2858.2	2852.9	2852.9	2860.9
12.5°	2839.7	2829.1	2826.5	2829.1	2834.4
15°	2808.0	2797.4	2794.8	2794.8	2802.7
17.5°	2765.7	2757.7	2755.1	2755.1	2763.0
20°	2726.0	2712.8	2710.2	2712.8	2718.1
22.5°	2667.8	2662.6	2659.9	2662.6	2665.2
25°	2615.0	2604.4	2601.7	2604.4	2609.7
27.5°	2556.8	2546.2	2543.6	2543.6	2551.5
30°	2488.1	2480.1	2477.5	2477.5	2480.1
32.5°	2416.7	2411.4	2403.4	2406.1	2411.4
35°	2337.3	2332.1	2329.4	2329.4	2332.1
37.5°	2263.3	2252.7	2244.8	2244.8	2250.1
40°	2173.4	2168.1	2160.2	2162.8	2162.8
42.5°	2086.2	2078.2	2072.9	2070.3	2072.9
45°	1993.6	1983.0	1980.4	1977.8	1977.8
47.5°	1890.5	1890.5	1882.6	1877.3	1874.6
50°	1792.7	1782.1	1776.8	1768.9	1768.9
52.5°	1679.0	1676.3	1668.4	1665.8	1665.8
55°	1573.2	1567.9	1565.3	1552.1	1557.3
57.5°	1464.8	1454.2	1451.6	1443.7	1438.4
60°	1351.1	1345.8	1335.2	1324.7	1324.7
62.5°	1229.5	1226.8	1216.3	1208.3	1205.7
65°	1105.2	1102.6	1097.3	1084.1	1081.4
67.5°	999.5	988.9	975.7	965.1	965.1
70°	875.2	862.0	851.4	840.8	838.2
72.5°	748.3	740.3	735.0	724.5	716.5
75°	626.6	624.0	618.7	608.1	597.6
77.5°	512.9	510.3	497.1	489.1	481.2
80°	401.9	391.3	388.7	378.1	372.8
82.5°	282.9	288.2	275.0	272.3	269.7
85°	179.8	177.2	177.2	171.9	163.9
87.5°	79.3	82.0	82.0	82.0	82.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)