

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: P843355

Luminaire Tested: 24CGSB-80-L830

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843355
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-80-L830
 Description: 2x4 CGSB AT 8000LM 3000K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

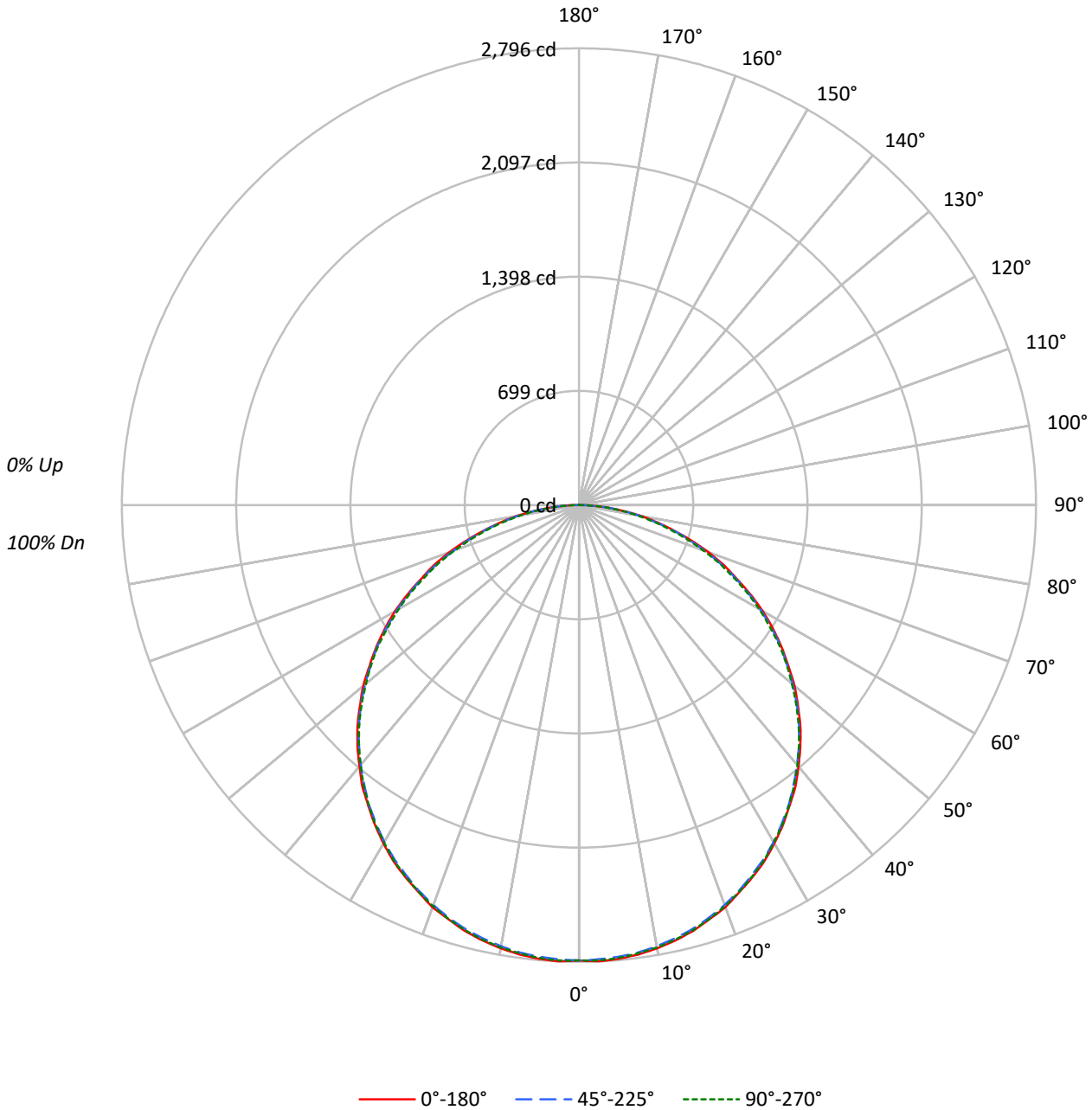
Lumens per Lamp: N/A
 Luminaire Lumens: 8248.4 lumens
 Efficiency: N/A
 Efficacy: 123.3 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

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°	3751	3751	3751
5°	3765	3748	3759
10°	3764	3746	3757
15°	3759	3742	3752
20°	3752	3730	3741
25°	3731	3712	3724
30°	3715	3700	3704
35°	3690	3677	3682
40°	3669	3647	3651
45°	3646	3622	3617
50°	3607	3575	3559
55°	3547	3529	3511
60°	3495	3454	3426
65°	3382	3358	3309
70°	3309	3219	3169
75°	3131	3092	2986
80°	2993	2895	2776
85°	2668	2629	2433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3646 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.2	3.2
10°-20°	759.0	9.2
20°-30°	1155.1	14.0
30°-40°	1402.0	17.0
40°-50°	1468.3	17.8
50°-60°	1341.6	16.3
60°-70°	1042.7	12.6
70°-80°	625.3	7.6
80°-90°	190.2	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°	2178.3	26.4
0°-40°	3580.2	43.4
0°-60°	6390.1	77.5
0°-90°	8248.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8248.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2788	2788	2788	2788	2788	
5°	2788	2780	2775	2775	2783	265
15°	2699	2689	2686	2686	2694	762
25°	2513	2503	2501	2503	2508	1159
35°	2247	2242	2239	2239	2242	1407
45°	1916	1906	1904	1901	1901	1476
55°	1512	1507	1504	1492	1497	1352
65°	1062	1060	1055	1042	1039	1058
75°	602	600	595	584	574	640
85°	173	170	170	165	158	194
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2787.9	2787.9	2787.9	2787.9	2787.9
2.5°	2795.5	2785.3	2782.8	2782.8	2790.4
5°	2787.9	2780.3	2775.2	2775.2	2782.8
7.5°	2775.2	2765.0	2762.5	2762.5	2767.6
10°	2754.8	2747.2	2742.1	2742.1	2749.8
12.5°	2729.4	2719.3	2716.7	2719.3	2724.3
15°	2698.9	2688.8	2686.2	2686.2	2693.9
17.5°	2658.3	2650.6	2648.1	2648.1	2655.7
20°	2620.2	2607.4	2604.9	2607.4	2612.5
22.5°	2564.2	2559.2	2556.6	2559.2	2561.7
25°	2513.4	2503.2	2500.7	2503.2	2508.3
27.5°	2457.5	2447.3	2444.8	2444.8	2452.4
30°	2391.4	2383.8	2381.3	2381.3	2383.8
32.5°	2322.8	2317.7	2310.1	2312.6	2317.7
35°	2246.6	2241.5	2238.9	2238.9	2241.5
37.5°	2175.4	2165.2	2157.6	2157.6	2162.7
40°	2089.0	2083.9	2076.3	2078.8	2078.8
42.5°	2005.1	1997.5	1992.4	1989.9	1992.4
45°	1916.2	1906.0	1903.5	1900.9	1900.9
47.5°	1817.1	1817.1	1809.5	1804.4	1801.8
50°	1723.0	1712.9	1707.8	1700.2	1700.2
52.5°	1613.8	1611.2	1603.6	1601.1	1601.1
55°	1512.1	1507.0	1504.5	1491.8	1496.9
57.5°	1407.9	1397.8	1395.2	1387.6	1382.5
60°	1298.6	1293.6	1283.4	1273.2	1273.2
62.5°	1181.7	1179.2	1169.0	1161.4	1158.9
65°	1062.3	1059.8	1054.7	1042.0	1039.4
67.5°	960.6	950.5	937.8	927.6	927.6
70°	841.2	828.5	818.3	808.2	805.6
72.5°	719.2	711.6	706.5	696.3	688.7
75°	602.3	599.8	594.7	584.5	574.3
77.5°	493.0	490.5	477.8	470.2	462.5
80°	386.3	376.1	373.6	363.4	358.3
82.5°	271.9	277.0	264.3	261.8	259.2
85°	172.8	170.3	170.3	165.2	157.6
87.5°	76.2	78.8	78.8	78.8	78.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)