

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: P843360

Luminaire Tested: 24CGSB-80-L935

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843360
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-80-L935
 Description: 2x4 CGSB AT 8000LM 3500K 90CRI
 Light Source: -
 Ballast/Driver: -

Summary

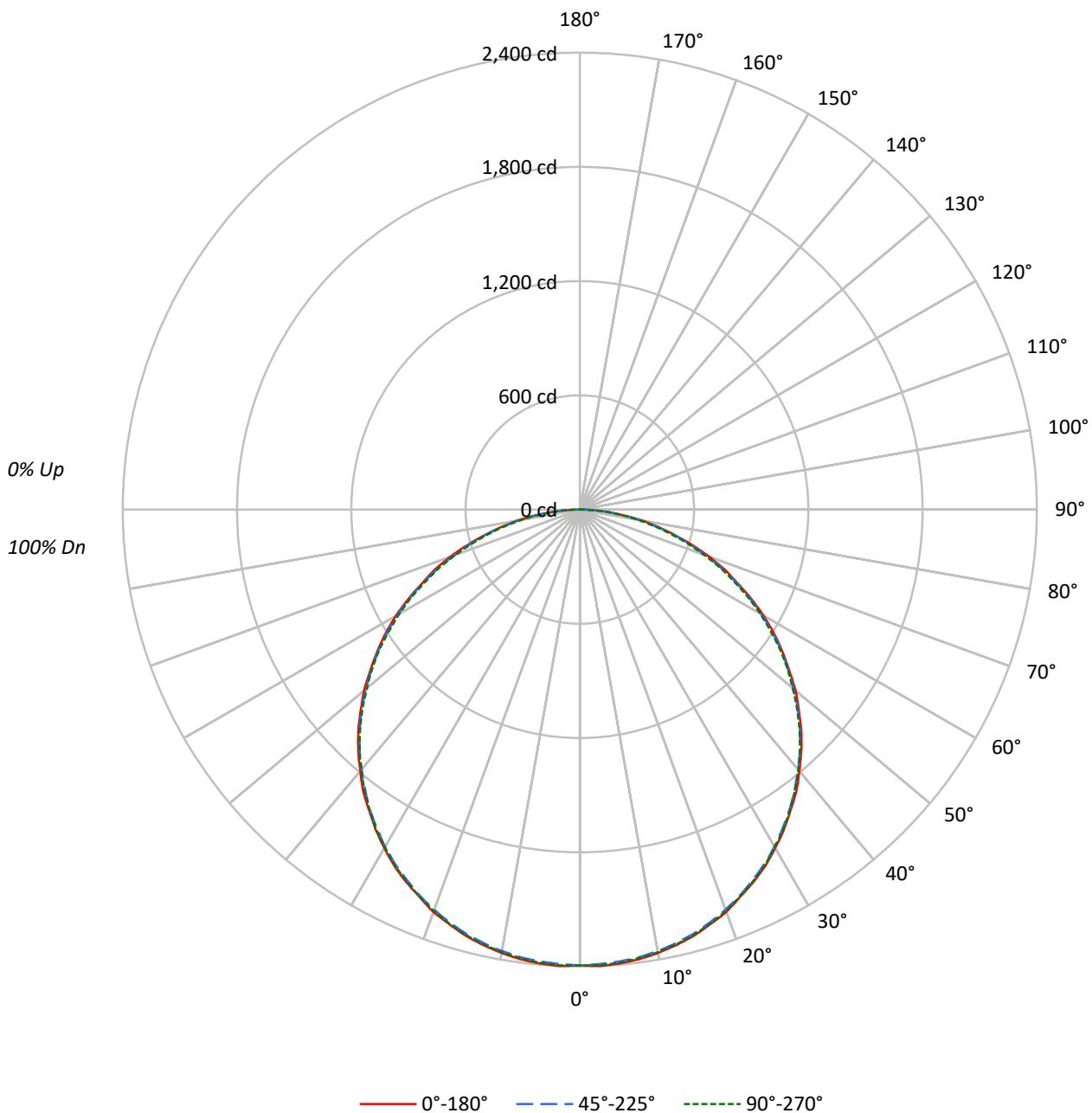
Lumens per Lamp: N/A
 Luminaire Lumens: 7081.9 lumens
 Efficiency: N/A
 Efficacy: 105.9 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

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°	3221	3221	3221
5°	3233	3218	3227
10°	3232	3217	3226
15°	3228	3213	3222
20°	3221	3202	3212
25°	3204	3188	3197
30°	3190	3176	3180
35°	3168	3157	3161
40°	3150	3131	3135
45°	3131	3110	3106
50°	3097	3069	3055
55°	3046	3030	3015
60°	3000	2965	2942
65°	2904	2883	2841
70°	2841	2764	2721
75°	2688	2654	2563
80°	2570	2486	2384
85°	2291	2257	2089

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3131 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.8	3.2
10°-20°	651.7	9.2
20°-30°	991.7	14.0
30°-40°	1203.7	17.0
40°-50°	1260.6	17.8
50°-60°	1151.9	16.3
60°-70°	895.2	12.6
70°-80°	536.9	7.6
80°-90°	163.3	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°	1870.3	26.4
0°-40°	3074.0	43.4
0°-60°	5486.5	77.5
0°-90°	7081.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7081.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2394	2394	2394	2394	2394	
5°	2394	2387	2383	2383	2389	228
15°	2317	2308	2306	2306	2313	654
25°	2158	2149	2147	2149	2154	995
35°	1929	1924	1922	1922	1924	1208
45°	1645	1636	1634	1632	1632	1267
55°	1298	1294	1292	1281	1285	1161
65°	912	910	906	895	892	908
75°	517	515	511	502	493	550
85°	148	146	146	142	135	167
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2393.6	2393.6	2393.6	2393.6	2393.6
2.5°	2400.2	2391.5	2389.3	2389.3	2395.8
5°	2393.6	2387.1	2382.7	2382.7	2389.3
7.5°	2382.7	2374.0	2371.8	2371.8	2376.2
10°	2365.3	2358.7	2354.4	2354.4	2360.9
12.5°	2343.5	2334.7	2332.5	2334.7	2339.1
15°	2317.3	2308.5	2306.4	2306.4	2312.9
17.5°	2282.4	2275.8	2273.6	2273.6	2280.2
20°	2249.6	2238.7	2236.5	2238.7	2243.1
22.5°	2201.6	2197.3	2195.1	2197.3	2199.4
25°	2158.0	2149.3	2147.1	2149.3	2153.6
27.5°	2110.0	2101.3	2099.1	2099.1	2105.6
30°	2053.2	2046.7	2044.5	2044.5	2046.7
32.5°	1994.3	1990.0	1983.4	1985.6	1990.0
35°	1928.9	1924.5	1922.3	1922.3	1924.5
37.5°	1867.8	1859.1	1852.5	1852.5	1856.9
40°	1793.6	1789.2	1782.7	1784.9	1784.9
42.5°	1721.6	1715.0	1710.7	1708.5	1710.7
45°	1645.2	1636.5	1634.3	1632.1	1632.1
47.5°	1560.1	1560.1	1553.6	1549.2	1547.0
50°	1479.4	1470.7	1466.3	1459.7	1459.7
52.5°	1385.6	1383.4	1376.8	1374.7	1374.7
55°	1298.3	1293.9	1291.7	1280.8	1285.2
57.5°	1208.8	1200.1	1197.9	1191.4	1187.0
60°	1115.0	1110.6	1101.9	1093.2	1093.2
62.5°	1014.6	1012.4	1003.7	997.2	995.0
65°	912.1	909.9	905.5	894.6	892.4
67.5°	824.8	816.1	805.2	796.4	796.4
70°	722.2	711.3	702.6	693.9	691.7
72.5°	617.5	611.0	606.6	597.9	591.3
75°	517.1	514.9	510.6	501.9	493.1
77.5°	423.3	421.1	410.2	403.7	397.1
80°	331.7	322.9	320.8	312.0	307.7
82.5°	233.5	237.8	226.9	224.7	222.6
85°	148.4	146.2	146.2	141.8	135.3
87.5°	65.5	67.6	67.6	67.6	67.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)