

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: P843348

Luminaire Tested: 24CGSB-70-L835

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843348
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-70-L835
 Description: 2x4 CGSB AT 7000LM 3500K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

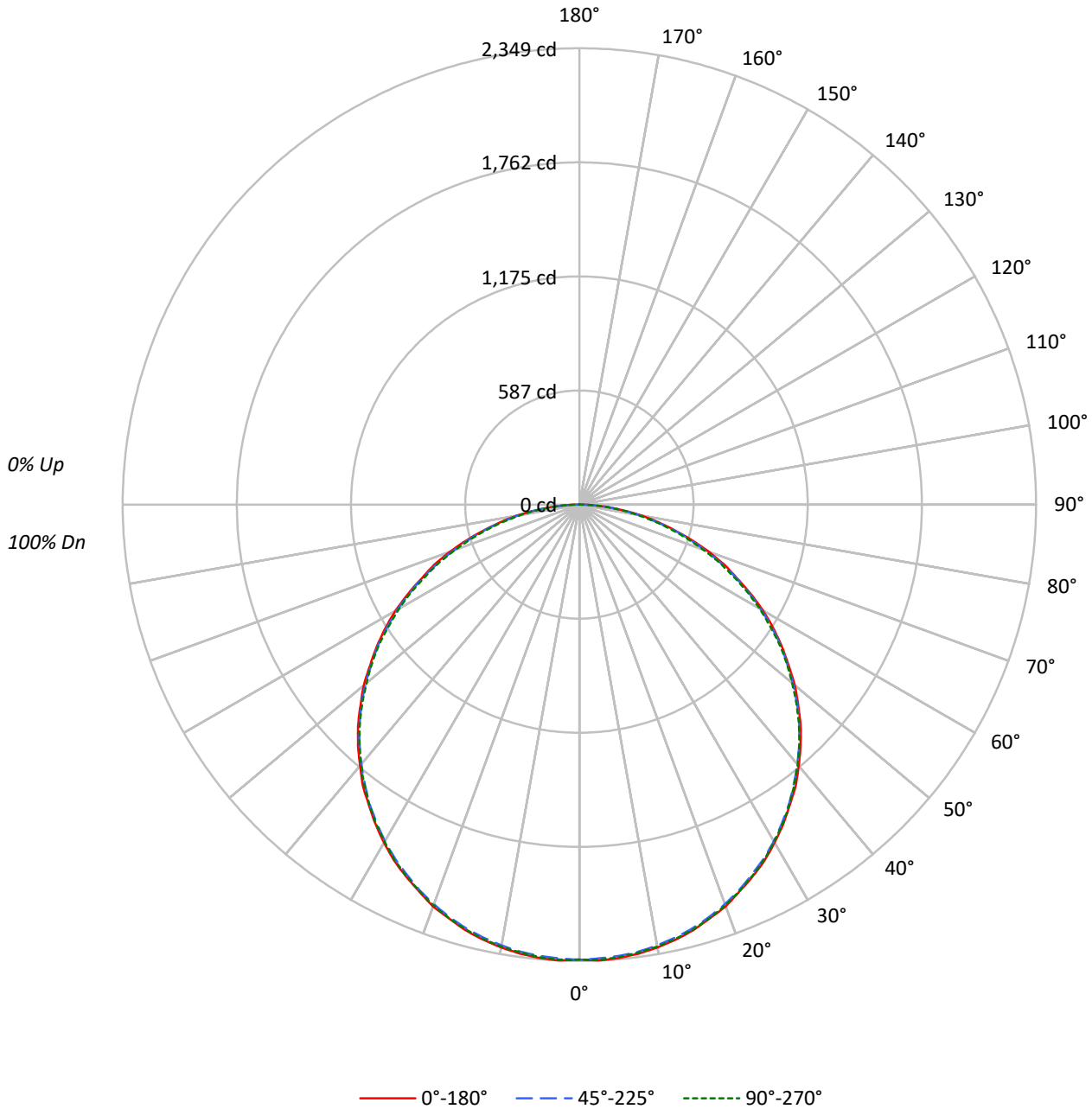
Lumens per Lamp: N/A
 Luminaire Lumens: 6929.8 lumens
 Efficiency: N/A
 Efficacy: 127.6 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 54.3
 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°	3151	3151	3151
5°	3163	3149	3158
10°	3162	3148	3156
15°	3159	3144	3153
20°	3152	3134	3143
25°	3135	3119	3129
30°	3122	3108	3111
35°	3100	3090	3093
40°	3083	3064	3068
45°	3063	3043	3039
50°	3030	3003	2990
55°	2980	2965	2950
60°	2936	2901	2879
65°	2841	2821	2780
70°	2780	2705	2662
75°	2630	2597	2508
80°	2514	2432	2333
85°	2242	2209	2044

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3063 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.0	3.2
10°-20°	637.7	9.2
20°-30°	970.4	14.0
30°-40°	1177.8	17.0
40°-50°	1233.6	17.8
50°-60°	1127.2	16.3
60°-70°	876.0	12.6
70°-80°	525.4	7.6
80°-90°	159.8	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°	1830.1	26.4
0°-40°	3007.9	43.4
0°-60°	5368.7	77.5
0°-90°	6929.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6929.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2342	2342	2342	2342	2342	
5°	2342	2336	2332	2332	2338	223
15°	2268	2259	2257	2257	2263	640
25°	2112	2103	2101	2103	2107	974
35°	1888	1883	1881	1881	1883	1182
45°	1610	1601	1599	1597	1597	1240
55°	1270	1266	1264	1253	1258	1136
65°	892	890	886	875	873	889
75°	506	504	500	491	482	538
85°	145	143	143	139	132	163
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2342.2	2342.2	2342.2	2342.2	2342.2
2.5°	2348.6	2340.1	2338.0	2338.0	2344.4
5°	2342.2	2335.8	2331.6	2331.6	2338.0
7.5°	2331.6	2323.0	2320.9	2320.9	2325.2
10°	2314.5	2308.1	2303.8	2303.8	2310.2
12.5°	2293.1	2284.6	2282.5	2284.6	2288.9
15°	2267.5	2259.0	2256.8	2256.8	2263.2
17.5°	2233.3	2226.9	2224.8	2224.8	2231.2
20°	2201.3	2190.6	2188.5	2190.6	2194.9
22.5°	2154.3	2150.1	2147.9	2150.1	2152.2
25°	2111.6	2103.1	2101.0	2103.1	2107.4
27.5°	2064.7	2056.1	2054.0	2054.0	2060.4
30°	2009.2	2002.7	2000.6	2000.6	2002.7
32.5°	1951.5	1947.2	1940.8	1943.0	1947.2
35°	1887.5	1883.2	1881.0	1881.0	1883.2
37.5°	1827.7	1819.1	1812.7	1812.7	1817.0
40°	1755.1	1750.8	1744.4	1746.5	1746.5
42.5°	1684.6	1678.2	1673.9	1671.8	1673.9
45°	1609.9	1601.3	1599.2	1597.1	1597.1
47.5°	1526.6	1526.6	1520.2	1515.9	1513.8
50°	1447.6	1439.1	1434.8	1428.4	1428.4
52.5°	1355.8	1353.7	1347.3	1345.1	1345.1
55°	1270.4	1266.1	1264.0	1253.3	1257.6
57.5°	1182.9	1174.3	1172.2	1165.8	1161.5
60°	1091.1	1086.8	1078.2	1069.7	1069.7
62.5°	992.8	990.7	982.2	975.8	973.6
65°	892.5	890.3	886.1	875.4	873.3
67.5°	807.1	798.5	787.9	779.3	779.3
70°	706.7	696.1	687.5	679.0	676.8
72.5°	604.2	597.8	593.6	585.0	578.6
75°	506.0	503.9	499.6	491.1	482.5
77.5°	414.2	412.1	401.4	395.0	388.6
80°	324.5	316.0	313.9	305.3	301.1
82.5°	228.5	232.7	222.1	219.9	217.8
85°	145.2	143.1	143.1	138.8	132.4
87.5°	64.1	66.2	66.2	66.2	66.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)