

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: P843352

Luminaire Tested: 24CGSB-70-L935

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843352
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-70-L935
 Description: 2x4 CGSB AT 7000LM 3500K 90CRI
 Light Source: -
 Ballast/Driver: -

Summary

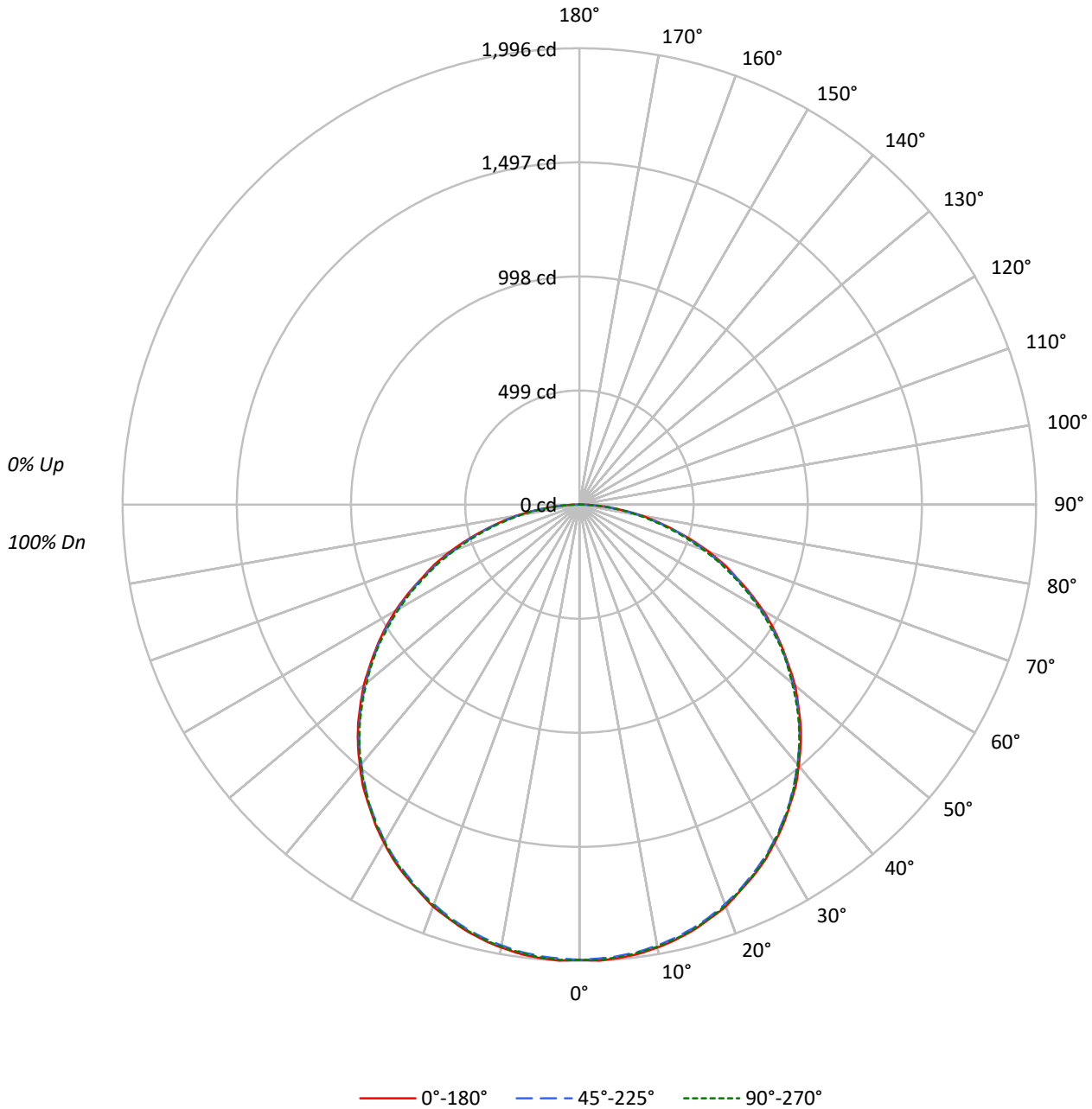
Lumens per Lamp: N/A
 Luminaire Lumens: 5890.4 lumens
 Efficiency: N/A
 Efficacy: 108.5 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

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°	2679	2679	2679
5°	2689	2677	2684
10°	2688	2675	2683
15°	2685	2672	2680
20°	2679	2664	2671
25°	2665	2651	2659
30°	2653	2642	2645
35°	2635	2626	2629
40°	2620	2604	2608
45°	2604	2586	2583
50°	2576	2553	2541
55°	2533	2520	2508
60°	2496	2466	2447
65°	2415	2398	2363
70°	2363	2299	2263
75°	2236	2208	2132
80°	2138	2067	1983
85°	1905	1877	1737

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2604 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.7	3.2
10°-20°	542.0	9.2
20°-30°	824.9	14.0
30°-40°	1001.2	17.0
40°-50°	1048.5	17.8
50°-60°	958.1	16.3
60°-70°	744.6	12.6
70°-80°	446.6	7.6
80°-90°	135.8	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°	1555.6	26.4
0°-40°	2556.7	43.4
0°-60°	4563.4	77.5
0°-90°	5890.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5890.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1991	1991	1991	1991	1991	
5°	1991	1986	1982	1982	1987	189
15°	1927	1920	1918	1918	1924	544
25°	1795	1788	1786	1788	1791	828
35°	1604	1601	1599	1599	1601	1005
45°	1368	1361	1359	1358	1358	1054
55°	1080	1076	1074	1065	1069	966
65°	759	757	753	744	742	755
75°	430	428	425	417	410	457
85°	123	122	122	118	112	139
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1990.9	1990.9	1990.9	1990.9	1990.9
2.5°	1996.3	1989.1	1987.3	1987.3	1992.7
5°	1990.9	1985.5	1981.8	1981.8	1987.3
7.5°	1981.8	1974.6	1972.8	1972.8	1976.4
10°	1967.3	1961.9	1958.2	1958.2	1963.7
12.5°	1949.2	1941.9	1940.1	1941.9	1945.5
15°	1927.4	1920.1	1918.3	1918.3	1923.8
17.5°	1898.3	1892.9	1891.1	1891.1	1896.5
20°	1871.1	1862.0	1860.2	1860.2	1865.7
22.5°	1831.2	1827.6	1825.7	1827.6	1829.4
25°	1794.9	1787.6	1785.8	1787.6	1791.3
27.5°	1755.0	1747.7	1745.9	1745.9	1751.3
30°	1707.8	1702.3	1700.5	1700.5	1702.3
32.5°	1658.8	1655.2	1649.7	1651.5	1655.2
35°	1604.3	1600.7	1598.9	1598.9	1600.7
37.5°	1553.5	1546.3	1540.8	1540.8	1544.4
40°	1491.8	1488.2	1482.7	1484.6	1484.6
42.5°	1431.9	1426.5	1422.8	1421.0	1422.8
45°	1368.4	1361.1	1359.3	1357.5	1357.5
47.5°	1297.6	1297.6	1292.2	1288.5	1286.7
50°	1230.5	1223.2	1219.6	1214.1	1214.1
52.5°	1152.4	1150.6	1145.2	1143.4	1143.4
55°	1079.8	1076.2	1074.4	1065.3	1069.0
57.5°	1005.4	998.2	996.4	990.9	987.3
60°	927.4	923.8	916.5	909.2	909.2
62.5°	843.9	842.1	834.8	829.4	827.6
65°	758.6	756.8	753.2	744.1	742.3
67.5°	686.0	678.8	669.7	662.4	662.4
70°	600.7	591.6	584.4	577.1	575.3
72.5°	513.6	508.2	504.5	497.3	491.8
75°	430.1	428.3	424.7	417.4	410.2
77.5°	352.1	350.3	341.2	335.7	330.3
80°	275.9	268.6	266.8	259.5	255.9
82.5°	194.2	197.8	188.7	186.9	185.1
85°	123.4	121.6	121.6	118.0	112.5
87.5°	54.4	56.3	56.3	56.3	56.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)