

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: P843331

Luminaire Tested: 24CGSB-55-L830

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843331
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-55-L830
 Description: 2x4 CGSB AT 5500LM 3000K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

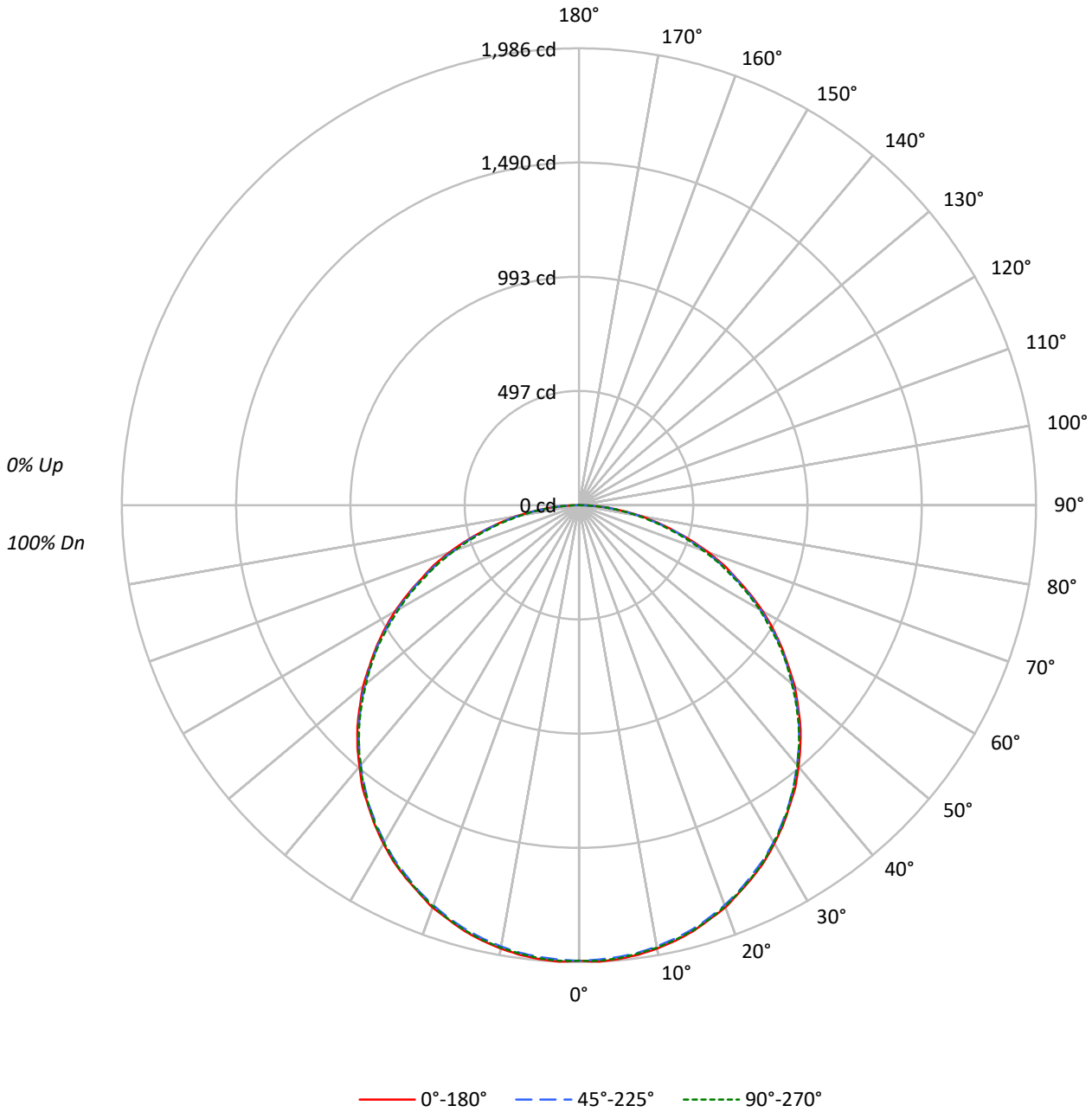
Lumens per Lamp: N/A
 Luminaire Lumens: 5859.2 lumens
 Efficiency: N/A
 Efficacy: 129.1 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 45.4
 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	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
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°	2665	2665	2665
5°	2675	2662	2670
10°	2674	2661	2669
15°	2671	2658	2666
20°	2665	2649	2657
25°	2651	2637	2645
30°	2639	2628	2631
35°	2621	2612	2615
40°	2606	2591	2594
45°	2590	2573	2569
50°	2562	2539	2528
55°	2520	2507	2494
60°	2482	2453	2434
65°	2402	2385	2351
70°	2351	2287	2251
75°	2224	2196	2121
80°	2126	2056	1972
85°	1896	1868	1727

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2590 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.7	3.2
10°-20°	539.2	9.2
20°-30°	820.5	14.0
30°-40°	995.9	17.0
40°-50°	1043.0	17.8
50°-60°	953.0	16.3
60°-70°	740.7	12.6
70°-80°	444.2	7.6
80°-90°	135.1	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°	1547.3	26.4
0°-40°	2543.2	43.4
0°-60°	4539.2	77.5
0°-90°	5859.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5859.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1980	1980	1980	1980	1980	
5°	1980	1975	1971	1971	1977	188
15°	1917	1910	1908	1908	1914	541
25°	1785	1778	1776	1778	1782	823
35°	1596	1592	1590	1590	1592	1000
45°	1361	1354	1352	1350	1350	1049
55°	1074	1070	1069	1060	1063	960
65°	755	753	749	740	738	751
75°	428	426	422	415	408	455
85°	123	121	121	117	112	138
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1980.4	1980.4	1980.4	1980.4	1980.4
2.5°	1985.8	1978.6	1976.8	1976.8	1982.2
5°	1980.4	1974.9	1971.3	1971.3	1976.8
7.5°	1971.3	1964.1	1962.3	1962.3	1965.9
10°	1956.9	1951.5	1947.9	1947.9	1953.3
12.5°	1938.8	1931.6	1929.8	1931.6	1935.2
15°	1917.2	1910.0	1908.2	1908.2	1913.6
17.5°	1888.3	1882.9	1881.1	1881.1	1886.5
20°	1861.2	1852.2	1850.4	1852.2	1855.8
22.5°	1821.5	1817.9	1816.1	1817.9	1819.7
25°	1785.4	1778.2	1776.4	1778.2	1781.8
27.5°	1745.7	1738.5	1736.7	1736.7	1742.1
30°	1698.7	1693.3	1691.5	1691.5	1693.3
32.5°	1650.0	1646.4	1641.0	1642.8	1646.4
35°	1595.8	1592.2	1590.4	1590.4	1592.2
37.5°	1545.3	1538.1	1532.7	1532.7	1536.3
40°	1483.9	1480.3	1474.9	1476.7	1476.7
42.5°	1424.3	1418.9	1415.3	1413.5	1415.3
45°	1361.2	1353.9	1352.1	1350.3	1350.3
47.5°	1290.8	1290.8	1285.3	1281.7	1279.9
50°	1224.0	1216.7	1213.1	1207.7	1207.7
52.5°	1146.3	1144.5	1139.1	1137.3	1137.3
55°	1074.1	1070.5	1068.7	1059.7	1063.3
57.5°	1000.1	992.9	991.1	985.7	982.1
60°	922.5	918.9	911.7	904.4	904.4
62.5°	839.4	837.6	830.4	825.0	823.2
65°	754.6	752.8	749.2	740.2	738.3
67.5°	682.4	675.2	666.1	658.9	658.9
70°	597.5	588.5	581.3	574.1	572.3
72.5°	510.9	505.5	501.9	494.6	489.2
75°	427.8	426.0	422.4	415.2	408.0
77.5°	350.2	348.4	339.4	334.0	328.6
80°	274.4	267.2	265.4	258.2	254.5
82.5°	193.2	196.8	187.7	185.9	184.1
85°	122.8	121.0	121.0	117.3	111.9
87.5°	54.2	56.0	56.0	56.0	56.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)