

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: P843333

Luminaire Tested: 24CGSB-55-L840

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843333
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-55-L840
 Description: 2x4 CGSB AT 5500LM 4000K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

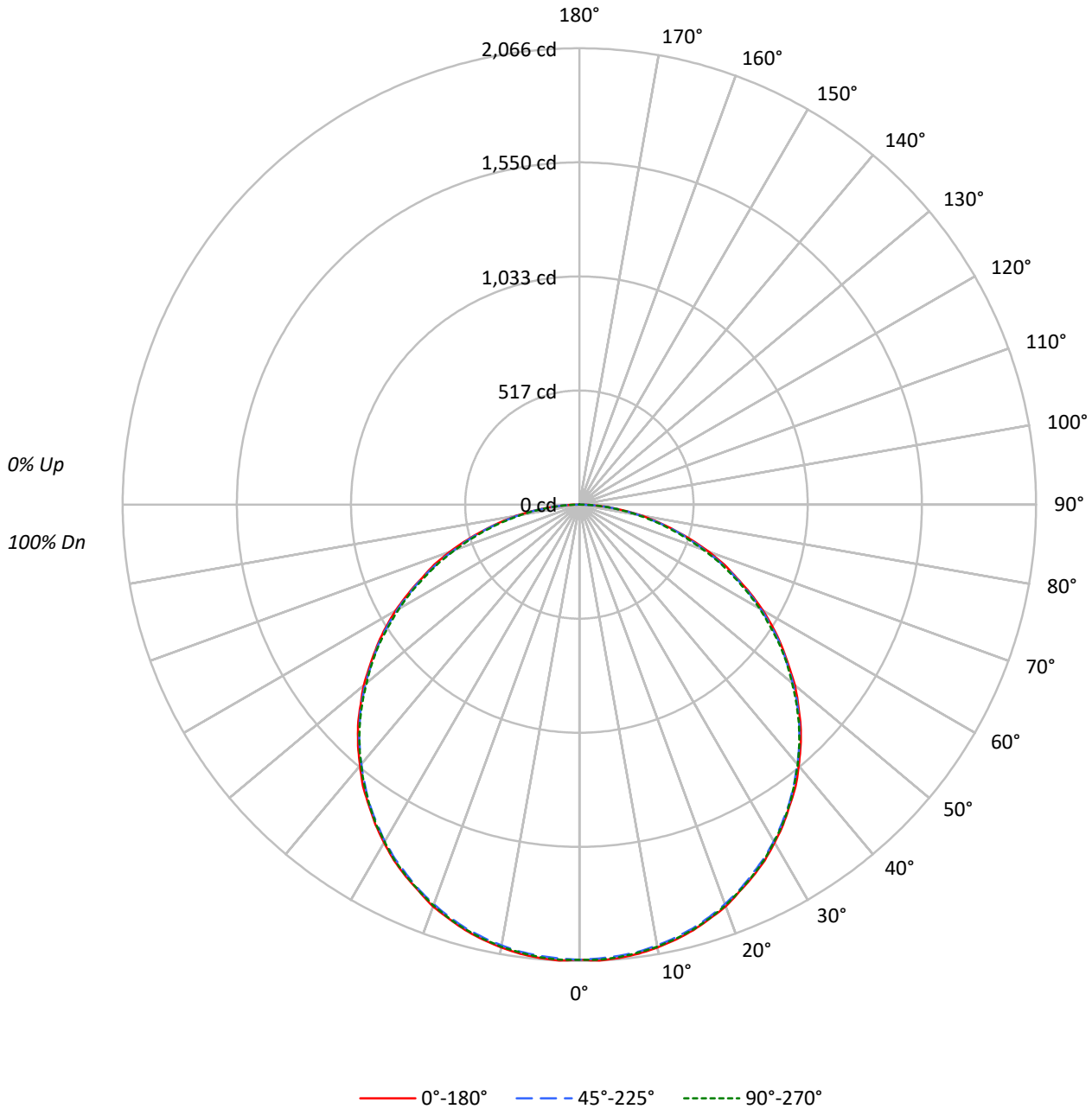
Lumens per Lamp: N/A
 Luminaire Lumens: 6095.9 lumens
 Efficiency: N/A
 Efficacy: 134.3 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 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°	2772	2772	2772
5°	2783	2770	2778
10°	2782	2769	2776
15°	2778	2765	2773
20°	2773	2757	2765
25°	2758	2744	2752
30°	2746	2734	2737
35°	2727	2718	2721
40°	2712	2695	2699
45°	2695	2677	2673
50°	2665	2642	2630
55°	2621	2608	2595
60°	2583	2552	2532
65°	2500	2482	2446
70°	2446	2379	2342
75°	2314	2285	2207
80°	2212	2139	2052
85°	1971	1942	1797

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2695 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.3	3.2
10°-20°	560.9	9.2
20°-30°	853.7	14.0
30°-40°	1036.1	17.0
40°-50°	1085.1	17.8
50°-60°	991.5	16.3
60°-70°	770.6	12.6
70°-80°	462.2	7.6
80°-90°	140.5	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°	1609.9	26.4
0°-40°	2646.0	43.4
0°-60°	4722.6	77.5
0°-90°	6095.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6095.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2060	2060	2060	2060	2060	
5°	2060	2055	2051	2051	2057	196
15°	1995	1987	1985	1985	1991	563
25°	1858	1850	1848	1850	1854	856
35°	1660	1657	1655	1655	1657	1040
45°	1416	1409	1407	1405	1405	1091
55°	1118	1114	1112	1102	1106	999
65°	785	783	780	770	768	782
75°	445	443	440	432	424	473
85°	128	126	126	122	116	144
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2060.4	2060.4	2060.4	2060.4	2060.4
2.5°	2066.0	2058.5	2056.6	2056.6	2062.3
5°	2060.4	2054.7	2051.0	2051.0	2056.6
7.5°	2051.0	2043.5	2041.6	2041.6	2045.4
10°	2036.0	2030.3	2026.6	2026.6	2032.2
12.5°	2017.2	2009.7	2007.8	2009.7	2013.4
15°	1994.6	1987.1	1985.3	1985.3	1990.9
17.5°	1964.6	1959.0	1957.1	1957.1	1962.7
20°	1936.4	1927.0	1925.2	1927.0	1930.8
22.5°	1895.1	1891.3	1889.5	1891.3	1893.2
25°	1857.5	1850.0	1848.1	1850.0	1853.8
27.5°	1816.2	1808.7	1806.8	1806.8	1812.5
30°	1767.4	1761.7	1759.9	1759.9	1761.7
32.5°	1716.7	1712.9	1707.3	1709.2	1712.9
35°	1660.3	1656.6	1654.7	1654.7	1656.6
37.5°	1607.7	1600.2	1594.6	1594.6	1598.3
40°	1543.9	1540.1	1534.5	1536.4	1536.4
42.5°	1481.9	1476.3	1472.5	1470.6	1472.5
45°	1416.2	1408.6	1406.8	1404.9	1404.9
47.5°	1342.9	1342.9	1337.3	1333.5	1331.6
50°	1273.4	1265.9	1262.1	1256.5	1256.5
52.5°	1192.7	1190.8	1185.1	1183.3	1183.3
55°	1117.5	1113.8	1111.9	1102.5	1106.3
57.5°	1040.5	1033.0	1031.1	1025.5	1021.7
60°	959.8	956.0	948.5	941.0	941.0
62.5°	873.4	871.5	864.0	858.3	856.5
65°	785.1	783.2	779.5	770.1	768.2
67.5°	710.0	702.4	693.1	685.5	685.5
70°	621.7	612.3	604.8	597.3	595.4
72.5°	531.5	525.9	522.1	514.6	509.0
75°	445.1	443.3	439.5	432.0	424.5
77.5°	364.4	362.5	353.1	347.5	341.8
80°	285.5	278.0	276.1	268.6	264.8
82.5°	201.0	204.7	195.3	193.5	191.6
85°	127.7	125.8	125.8	122.1	116.4
87.5°	56.3	58.2	58.2	58.2	58.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)