

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: P843324

Luminaire Tested: 24CGSB-50-L835

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843324
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-50-L835
 Description: 2x4 CGSB AT 5000LM 3500K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

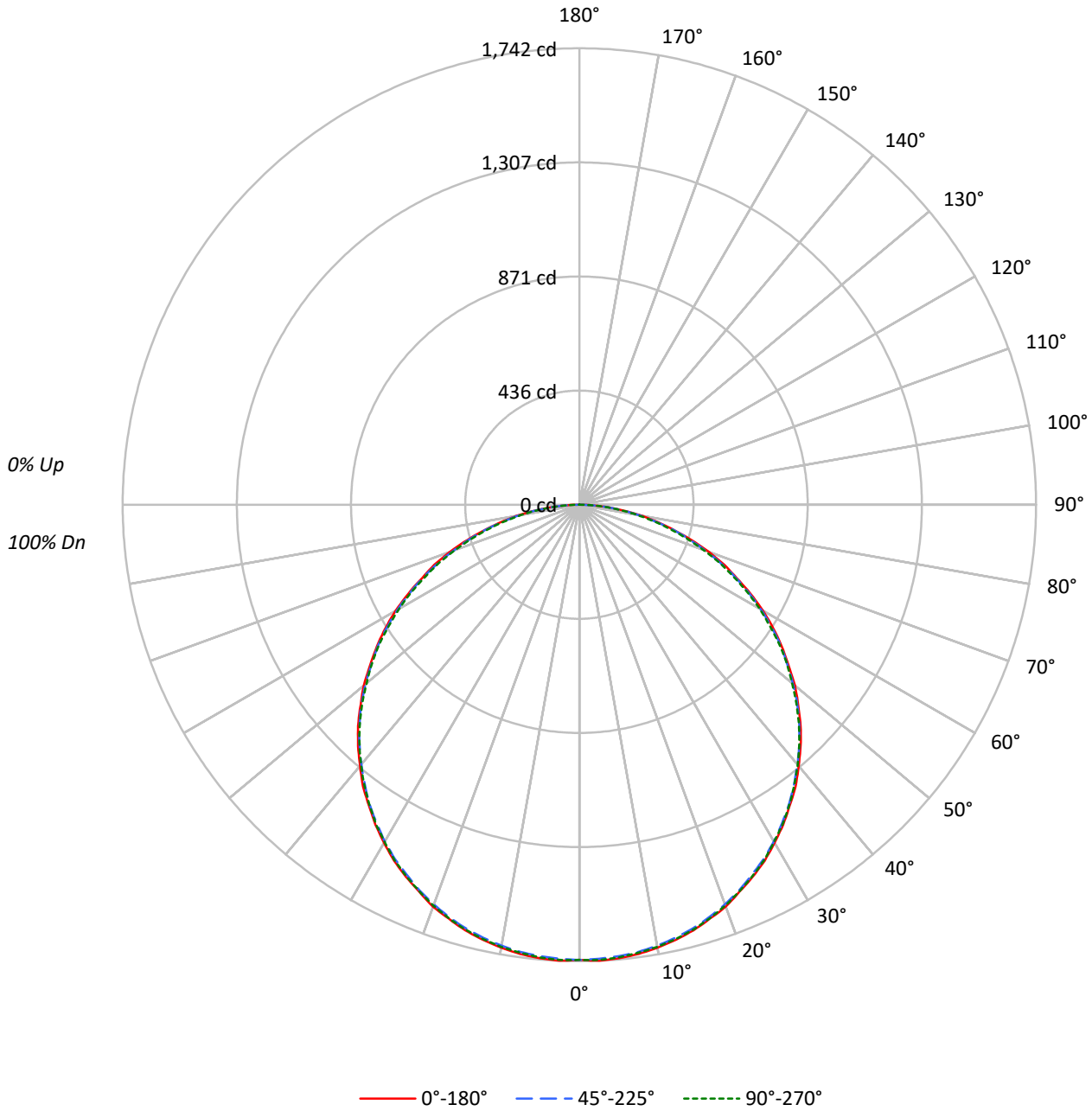
Lumens per Lamp: N/A
 Luminaire Lumens: 5139.7 lumens
 Efficiency: N/A
 Efficacy: 128.8 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 39.9
 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°	2337	2337	2337
5°	2346	2336	2342
10°	2345	2335	2341
15°	2343	2332	2338
20°	2338	2324	2331
25°	2325	2313	2320
30°	2315	2305	2308
35°	2299	2292	2294
40°	2286	2272	2275
45°	2272	2257	2254
50°	2247	2228	2218
55°	2210	2199	2188
60°	2178	2152	2135
65°	2107	2092	2062
70°	2062	2006	1975
75°	1951	1927	1861
80°	1865	1804	1730
85°	1663	1638	1516

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2272 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.6	3.2
10°-20°	472.9	9.2
20°-30°	719.7	14.0
30°-40°	873.6	17.0
40°-50°	914.9	17.8
50°-60°	836.0	16.3
60°-70°	649.7	12.6
70°-80°	389.6	7.6
80°-90°	118.5	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°	1357.3	26.4
0°-40°	2230.9	43.4
0°-60°	3981.8	77.5
0°-90°	5139.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5139.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1737	1737	1737	1737	1737	
5°	1737	1732	1729	1729	1734	165
15°	1682	1675	1674	1674	1679	475
25°	1566	1560	1558	1560	1563	722
35°	1400	1397	1395	1395	1397	877
45°	1194	1188	1186	1184	1184	920
55°	942	939	938	930	933	843
65°	662	660	657	649	648	659
75°	375	374	371	364	358	399
85°	108	106	106	103	98	121
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1737.2	1737.2	1737.2	1737.2	1737.2
2.5°	1741.9	1735.6	1734.0	1734.0	1738.8
5°	1737.2	1732.4	1729.3	1729.3	1734.0
7.5°	1729.3	1722.9	1721.3	1721.3	1724.5
10°	1716.6	1711.8	1708.7	1708.7	1713.4
12.5°	1700.8	1694.4	1692.8	1694.4	1697.6
15°	1681.8	1675.4	1673.8	1673.8	1678.6
17.5°	1656.4	1651.7	1650.1	1650.1	1654.8
20°	1632.7	1624.7	1623.2	1624.7	1627.9
22.5°	1597.8	1594.7	1593.1	1594.7	1596.2
25°	1566.2	1559.8	1558.2	1559.8	1563.0
27.5°	1531.3	1525.0	1523.4	1523.4	1528.1
30°	1490.1	1485.4	1483.8	1483.8	1485.4
32.5°	1447.4	1444.2	1439.5	1441.1	1444.2
35°	1399.9	1396.7	1395.1	1395.1	1396.7
37.5°	1355.5	1349.2	1344.5	1344.5	1347.6
40°	1301.7	1298.5	1293.8	1295.4	1295.4
42.5°	1249.4	1244.7	1241.5	1239.9	1241.5
45°	1194.0	1187.7	1186.1	1184.5	1184.5
47.5°	1132.3	1132.3	1127.5	1124.3	1122.8
50°	1073.7	1067.3	1064.2	1059.4	1059.4
52.5°	1005.6	1004.0	999.2	997.7	997.7
55°	942.2	939.1	937.5	929.6	932.7
57.5°	877.3	871.0	869.4	864.6	861.5
60°	809.2	806.0	799.7	793.4	793.4
62.5°	736.4	734.8	728.4	723.7	722.1
65°	661.9	660.4	657.2	649.3	647.7
67.5°	598.6	592.3	584.3	578.0	578.0
70°	524.2	516.2	509.9	503.6	502.0
72.5°	448.2	443.4	440.2	433.9	429.1
75°	375.3	373.7	370.6	364.2	357.9
77.5°	307.2	305.6	297.7	293.0	288.2
80°	240.7	234.4	232.8	226.5	223.3
82.5°	169.4	172.6	164.7	163.1	161.5
85°	107.7	106.1	106.1	102.9	98.2
87.5°	47.5	49.1	49.1	49.1	49.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)