

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: P843326

Luminaire Tested: 24CGSB-50-L850

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843326
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-50-L850
 Description: 2x4 CGSB AT 5000LM 5000K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

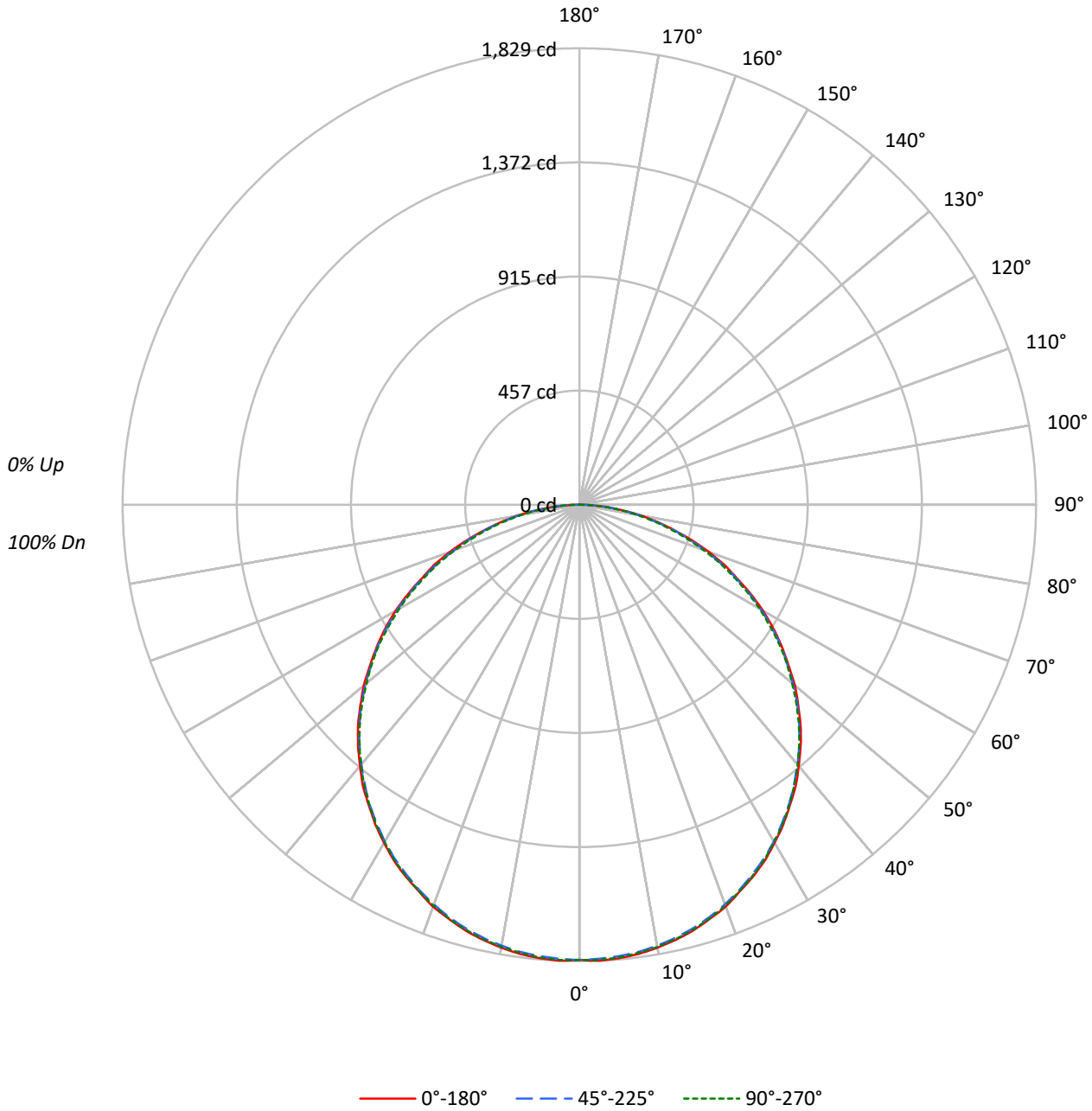
Lumens per Lamp: N/A
 Luminaire Lumens: 5396.7 lumens
 Efficiency: N/A
 Efficacy: 135.3 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 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	
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°	2454	2454	2454
5°	2464	2452	2459
10°	2463	2451	2458
15°	2460	2448	2455
20°	2455	2440	2447
25°	2441	2429	2436
30°	2431	2421	2423
35°	2414	2406	2409
40°	2401	2386	2389
45°	2386	2370	2367
50°	2360	2339	2328
55°	2321	2309	2297
60°	2287	2260	2242
65°	2213	2197	2165
70°	2165	2106	2074
75°	2049	2023	1954
80°	1958	1894	1816
85°	1746	1720	1592

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2386 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.9	3.2
10°-20°	496.6	9.2
20°-30°	755.7	14.0
30°-40°	917.3	17.0
40°-50°	960.7	17.8
50°-60°	877.8	16.3
60°-70°	682.2	12.6
70°-80°	409.1	7.6
80°-90°	124.4	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°	1425.2	26.4
0°-40°	2342.5	43.4
0°-60°	4180.9	77.5
0°-90°	5396.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5396.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1824	1824	1824	1824	1824	
5°	1824	1819	1816	1816	1821	173
15°	1766	1759	1758	1758	1762	498
25°	1644	1638	1636	1638	1641	758
35°	1470	1466	1465	1465	1466	921
45°	1254	1247	1245	1244	1244	966
55°	989	986	984	976	979	885
65°	695	693	690	682	680	692
75°	394	392	389	382	376	419
85°	113	111	111	108	103	127
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1824.0	1824.0	1824.0	1824.0	1824.0
2.5°	1829.0	1822.4	1820.7	1820.7	1825.7
5°	1824.0	1819.1	1815.7	1815.7	1820.7
7.5°	1815.7	1809.1	1807.4	1807.4	1810.7
10°	1802.4	1797.4	1794.1	1794.1	1799.1
12.5°	1785.8	1779.1	1777.5	1779.1	1782.5
15°	1765.8	1759.2	1757.5	1757.5	1762.5
17.5°	1739.2	1734.3	1732.6	1732.6	1737.6
20°	1714.3	1706.0	1704.3	1706.0	1709.3
22.5°	1677.7	1674.4	1672.7	1674.4	1676.1
25°	1644.5	1637.8	1636.1	1637.8	1641.1
27.5°	1607.9	1601.2	1599.6	1599.6	1604.6
30°	1564.7	1559.7	1558.0	1558.0	1559.7
32.5°	1519.8	1516.4	1511.4	1513.1	1516.4
35°	1469.9	1466.5	1464.9	1464.9	1466.5
37.5°	1423.3	1416.7	1411.7	1411.7	1415.0
40°	1366.8	1363.5	1358.5	1360.1	1360.1
42.5°	1311.9	1306.9	1303.6	1301.9	1303.6
45°	1253.7	1247.1	1245.4	1243.7	1243.7
47.5°	1188.9	1188.9	1183.9	1180.6	1178.9
50°	1127.3	1120.7	1117.4	1112.4	1112.4
52.5°	1055.8	1054.2	1049.2	1047.5	1047.5
55°	989.3	986.0	984.3	976.0	979.4
57.5°	921.2	914.5	912.9	907.9	904.5
60°	849.7	846.3	839.7	833.0	833.0
62.5°	773.2	771.5	764.9	759.9	758.2
65°	695.0	693.4	690.0	681.7	680.1
67.5°	628.5	621.9	613.6	606.9	606.9
70°	550.4	542.1	535.4	528.8	527.1
72.5°	470.6	465.6	462.2	455.6	450.6
75°	394.1	392.4	389.1	382.4	375.8
77.5°	322.6	320.9	312.6	307.6	302.6
80°	252.7	246.1	244.4	237.8	234.4
82.5°	177.9	181.2	172.9	171.3	169.6
85°	113.1	111.4	111.4	108.1	103.1
87.5°	49.9	51.5	51.5	51.5	51.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)