

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: P843329

Luminaire Tested: 24CGSB-50-L940

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843329
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-50-L940
 Description: 2x4 CGSB AT 5000LM 4000K 90CRI
 Light Source: -
 Ballast/Driver: -

Summary

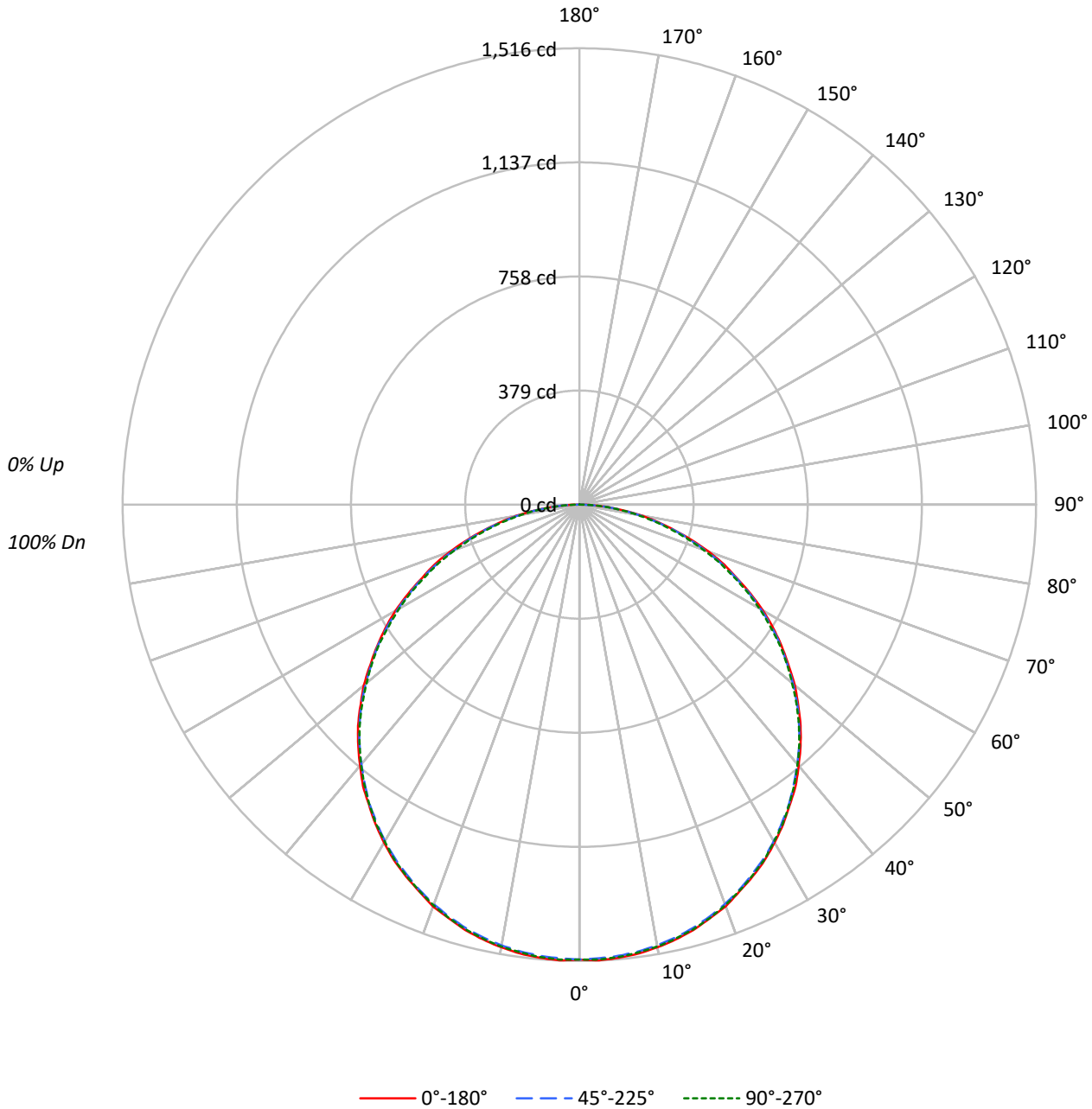
Lumens per Lamp: N/A
 Luminaire Lumens: 4471.5 lumens
 Efficiency: N/A
 Efficacy: 112.1 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 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°	2033	2033	2033
5°	2041	2032	2038
10°	2040	2031	2037
15°	2038	2028	2034
20°	2034	2022	2028
25°	2023	2013	2019
30°	2014	2006	2008
35°	2000	1994	1996
40°	1989	1977	1979
45°	1977	1964	1961
50°	1955	1938	1929
55°	1923	1913	1904
60°	1894	1872	1857
65°	1833	1820	1794
70°	1794	1745	1718
75°	1697	1676	1619
80°	1623	1569	1506
85°	1447	1425	1318

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1977 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.2	3.2
10°-20°	411.5	9.2
20°-30°	626.2	14.0
30°-40°	760.0	17.0
40°-50°	796.0	17.8
50°-60°	727.3	16.3
60°-70°	565.3	12.6
70°-80°	339.0	7.6
80°-90°	103.1	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°	1180.9	26.4
0°-40°	1940.9	43.4
0°-60°	3464.2	77.5
0°-90°	4471.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4471.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1511	1511	1511	1511	1511	
5°	1511	1507	1504	1504	1509	144
15°	1463	1458	1456	1456	1460	413
25°	1363	1357	1356	1357	1360	628
35°	1218	1215	1214	1214	1215	763
45°	1039	1033	1032	1030	1030	800
55°	820	817	816	809	812	733
65°	576	574	572	565	564	574
75°	326	325	322	317	311	347
85°	94	92	92	90	85	105
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1511.3	1511.3	1511.3	1511.3	1511.3
2.5°	1515.5	1510.0	1508.6	1508.6	1512.7
5°	1511.3	1507.2	1504.5	1504.5	1508.6
7.5°	1504.5	1498.9	1497.6	1497.6	1500.3
10°	1493.4	1489.3	1486.5	1486.5	1490.7
12.5°	1479.7	1474.1	1472.8	1474.1	1476.9
15°	1463.1	1457.6	1456.2	1456.2	1460.4
17.5°	1441.1	1437.0	1435.6	1435.6	1439.7
20°	1420.4	1413.5	1412.2	1413.5	1416.3
22.5°	1390.1	1387.4	1386.0	1387.4	1388.7
25°	1362.6	1357.0	1355.7	1357.0	1359.8
27.5°	1332.2	1326.7	1325.4	1325.4	1329.5
30°	1296.4	1292.3	1290.9	1290.9	1292.3
32.5°	1259.2	1256.5	1252.3	1253.7	1256.5
35°	1217.9	1215.1	1213.8	1213.8	1215.1
37.5°	1179.3	1173.8	1169.7	1169.7	1172.4
40°	1132.5	1129.7	1125.6	1127.0	1127.0
42.5°	1087.0	1082.9	1080.1	1078.7	1080.1
45°	1038.8	1033.3	1031.9	1030.5	1030.5
47.5°	985.1	985.1	980.9	978.2	976.8
50°	934.1	928.6	925.8	921.7	921.7
52.5°	874.8	873.5	869.3	868.0	868.0
55°	819.7	817.0	815.6	808.7	811.5
57.5°	763.3	757.7	756.4	752.2	749.5
60°	704.0	701.3	695.7	690.2	690.2
62.5°	640.6	639.3	633.7	629.6	628.2
65°	575.9	574.5	571.7	564.9	563.5
67.5°	520.8	515.3	508.4	502.9	502.9
70°	456.0	449.1	443.6	438.1	436.7
72.5°	389.9	385.8	383.0	377.5	373.4
75°	326.5	325.1	322.4	316.9	311.4
77.5°	267.3	265.9	259.0	254.9	250.7
80°	209.4	203.9	202.5	197.0	194.3
82.5°	147.4	150.2	143.3	141.9	140.5
85°	93.7	92.3	92.3	89.6	85.4
87.5°	41.3	42.7	42.7	42.7	42.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)