

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: P843327

Luminaire Tested: 24CGSB-50-L930

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843327
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-50-L930
 Description: 2x4 CGSB AT 5000LM 3000K 90CRI
 Light Source: -
 Ballast/Driver: -

Summary

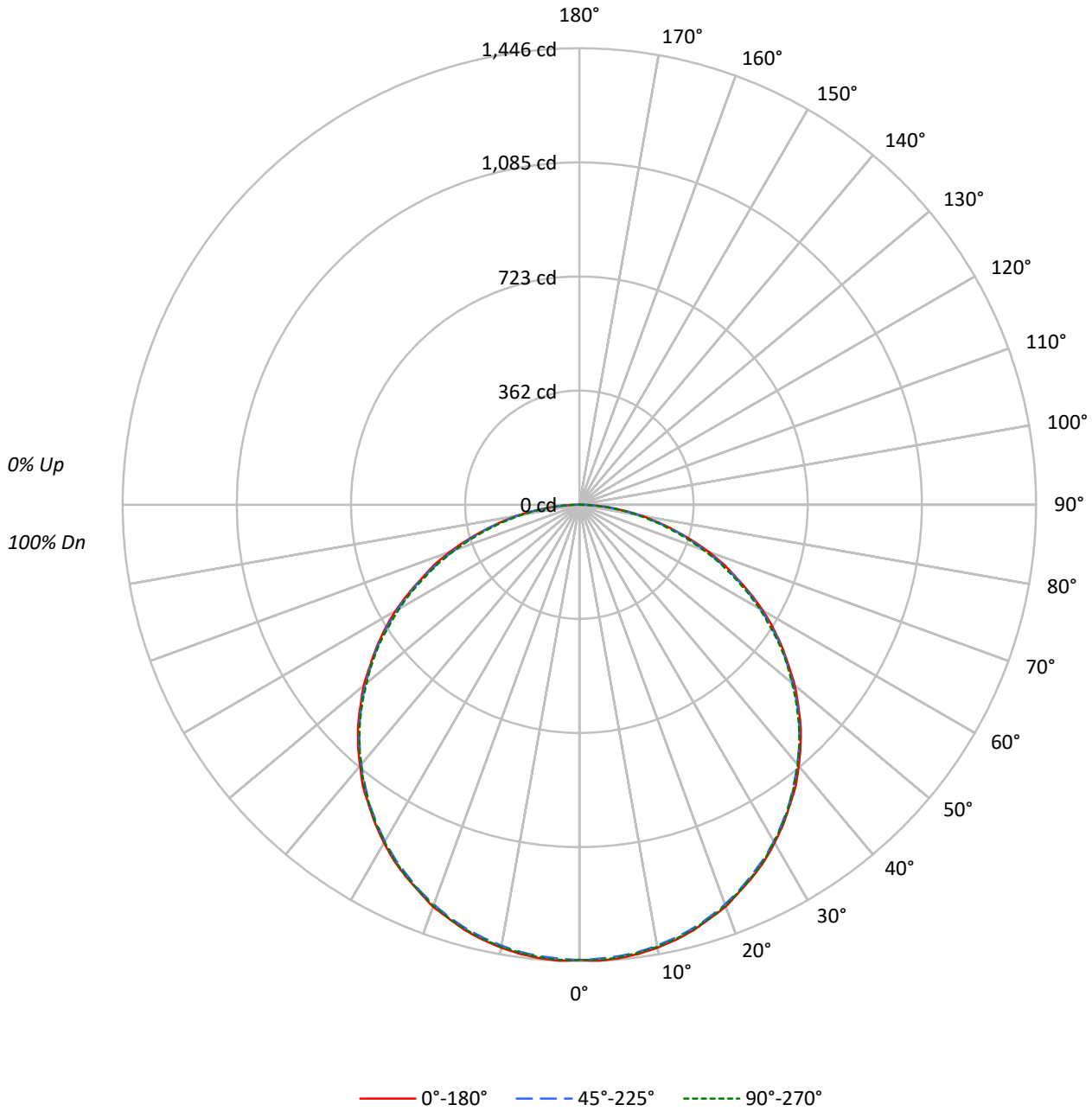
Lumens per Lamp: N/A
 Luminaire Lumens: 4266.0 lumens
 Efficiency: N/A
 Efficacy: 106.9 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

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°	1940	1940	1940
5°	1947	1939	1944
10°	1947	1938	1943
15°	1944	1935	1941
20°	1940	1929	1935
25°	1930	1920	1926
30°	1922	1913	1915
35°	1908	1902	1904
40°	1898	1886	1888
45°	1886	1873	1871
50°	1865	1849	1841
55°	1834	1825	1816
60°	1807	1786	1772
65°	1749	1737	1712
70°	1712	1665	1639
75°	1619	1599	1544
80°	1548	1497	1436
85°	1380	1360	1258

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1886 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.6	3.2
10°-20°	392.6	9.2
20°-30°	597.4	14.0
30°-40°	725.1	17.0
40°-50°	759.4	17.8
50°-60°	693.9	16.3
60°-70°	539.3	12.6
70°-80°	323.4	7.6
80°-90°	98.4	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°	1126.6	26.4
0°-40°	1851.7	43.4
0°-60°	3304.9	77.5
0°-90°	4266.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4266.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1442	1442	1442	1442	1442	
5°	1442	1438	1435	1435	1439	137
15°	1396	1391	1389	1389	1393	394
25°	1300	1295	1293	1295	1297	599
35°	1162	1159	1158	1158	1159	728
45°	991	986	984	983	983	763
55°	782	779	778	772	774	699
65°	549	548	546	539	538	547
75°	312	310	308	302	297	331
85°	89	88	88	85	82	100
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1441.9	1441.9	1441.9	1441.9	1441.9
2.5°	1445.8	1440.5	1439.2	1439.2	1443.2
5°	1441.9	1437.9	1435.3	1435.3	1439.2
7.5°	1435.3	1430.0	1428.7	1428.7	1431.3
10°	1424.8	1420.8	1418.2	1418.2	1422.1
12.5°	1411.6	1406.4	1405.1	1406.4	1409.0
15°	1395.9	1390.6	1389.3	1389.3	1393.2
17.5°	1374.8	1370.9	1369.6	1369.6	1373.5
20°	1355.1	1348.5	1347.2	1348.5	1351.2
22.5°	1326.2	1323.6	1322.3	1323.6	1324.9
25°	1299.9	1294.7	1293.3	1294.7	1297.3
27.5°	1271.0	1265.7	1264.4	1264.4	1268.4
30°	1236.8	1232.9	1231.6	1231.6	1232.9
32.5°	1201.3	1198.7	1194.8	1196.1	1198.7
35°	1161.9	1159.3	1158.0	1158.0	1159.3
37.5°	1125.1	1119.8	1115.9	1115.9	1118.5
40°	1080.4	1077.8	1073.8	1075.2	1075.2
42.5°	1037.0	1033.1	1030.5	1029.1	1030.5
45°	991.0	985.8	984.5	983.1	983.1
47.5°	939.8	939.8	935.8	933.2	931.9
50°	891.1	885.9	883.3	879.3	879.3
52.5°	834.6	833.3	829.4	828.1	828.1
55°	782.0	779.4	778.1	771.5	774.2
57.5°	728.2	722.9	721.6	717.6	715.0
60°	671.6	669.0	663.8	658.5	658.5
62.5°	611.2	609.9	604.6	600.7	599.4
65°	549.4	548.1	545.5	538.9	537.6
67.5°	496.8	491.6	485.0	479.7	479.7
70°	435.1	428.5	423.2	418.0	416.7
72.5°	372.0	368.0	365.4	360.1	356.2
75°	311.5	310.2	307.6	302.3	297.0
77.5°	255.0	253.7	247.1	243.2	239.2
80°	199.8	194.5	193.2	188.0	185.3
82.5°	140.6	143.3	136.7	135.4	134.1
85°	89.4	88.1	88.1	85.4	81.5
87.5°	39.4	40.7	40.7	40.7	40.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)