

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: P843343

Luminaire Tested: 24CGSB-60-L930

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843343
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-60-L930
 Description: 2x4 CGSB AT 6000LM 3000K 90CRI
 Light Source: -
 Ballast/Driver: -

Summary

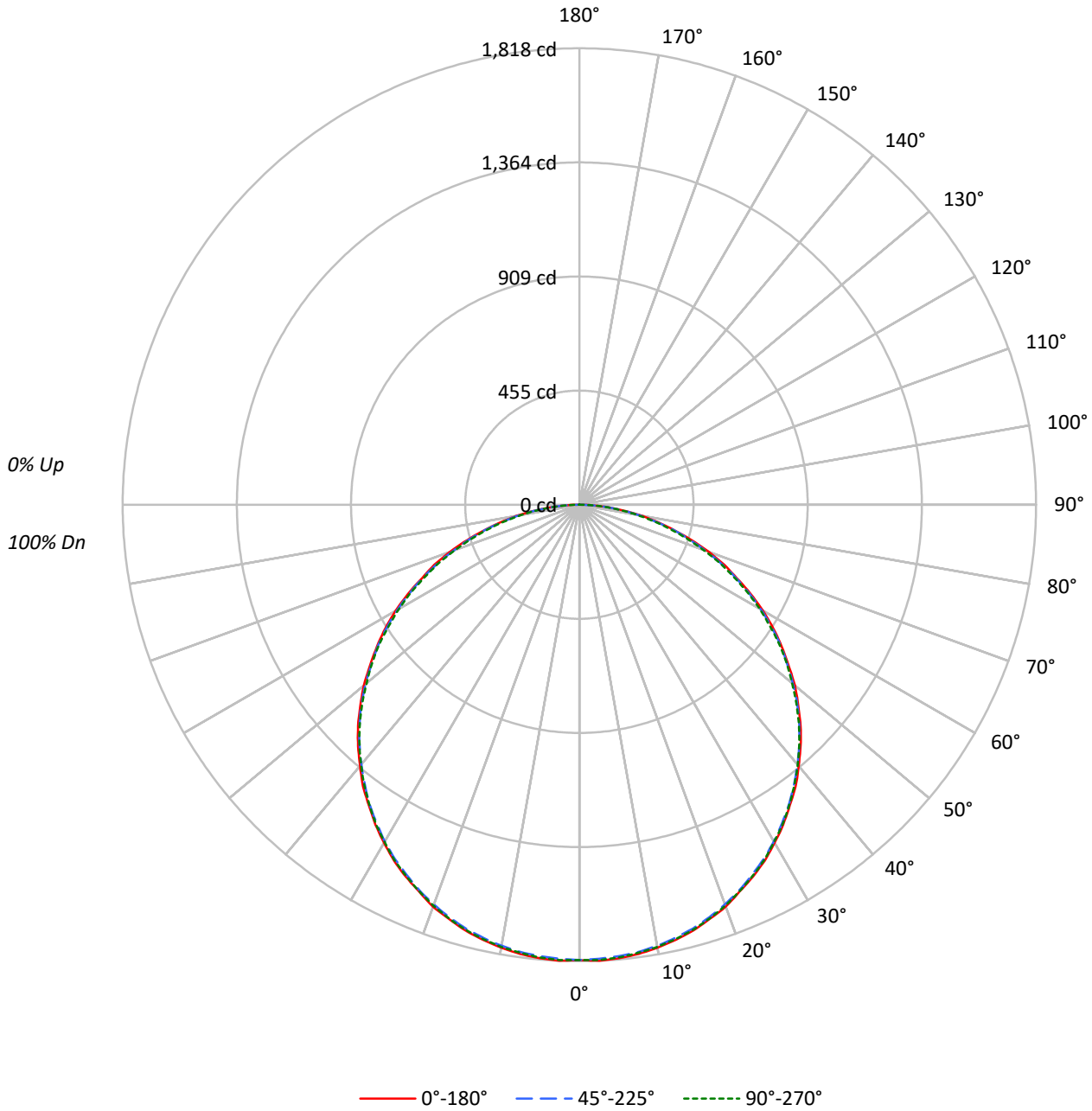
Lumens per Lamp: N/A
 Luminaire Lumens: 5364.5 lumens
 Efficiency: N/A
 Efficacy: 105.2 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 51
 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°	2440	2440	2440
5°	2449	2438	2445
10°	2448	2437	2443
15°	2445	2433	2440
20°	2440	2426	2433
25°	2427	2415	2422
30°	2416	2406	2409
35°	2400	2392	2394
40°	2386	2372	2375
45°	2371	2356	2352
50°	2346	2325	2314
55°	2307	2295	2284
60°	2273	2246	2228
65°	2200	2184	2152
70°	2152	2094	2061
75°	2036	2011	1942
80°	1946	1883	1805
85°	1735	1709	1582

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2371 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.8	3.2
10°-20°	493.6	9.2
20°-30°	751.2	14.0
30°-40°	911.8	17.0
40°-50°	954.9	17.8
50°-60°	872.5	16.3
60°-70°	678.1	12.6
70°-80°	406.7	7.6
80°-90°	123.7	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°	1416.7	26.4
0°-40°	2328.5	43.4
0°-60°	4156.0	77.5
0°-90°	5364.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5364.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1813	1813	1813	1813	1813	
5°	1813	1808	1805	1805	1810	172
15°	1755	1749	1747	1747	1752	495
25°	1635	1628	1626	1628	1631	754
35°	1461	1458	1456	1456	1458	915
45°	1246	1240	1238	1236	1236	960
55°	983	980	978	970	974	879
65°	691	689	686	678	676	688
75°	392	390	387	380	374	417
85°	112	111	111	107	102	126
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1813.2	1813.2	1813.2	1813.2	1813.2
2.5°	1818.1	1811.5	1809.9	1809.9	1814.8
5°	1813.2	1808.2	1804.9	1804.9	1809.9
7.5°	1804.9	1798.3	1796.6	1796.6	1799.9
10°	1791.7	1786.7	1783.4	1783.4	1788.4
12.5°	1775.1	1768.5	1766.9	1768.5	1771.8
15°	1755.3	1748.7	1747.0	1747.0	1752.0
17.5°	1728.9	1723.9	1722.3	1722.3	1727.2
20°	1704.1	1695.8	1694.2	1695.8	1699.1
22.5°	1667.7	1664.4	1662.8	1664.4	1666.1
25°	1634.7	1628.0	1626.4	1628.0	1631.3
27.5°	1598.3	1591.7	1590.0	1590.0	1595.0
30°	1555.3	1550.4	1548.7	1548.7	1550.4
32.5°	1510.7	1507.4	1502.4	1504.1	1507.4
35°	1461.1	1457.8	1456.1	1456.1	1457.8
37.5°	1414.8	1408.2	1403.3	1403.3	1406.6
40°	1358.6	1355.3	1350.4	1352.0	1352.0
42.5°	1304.1	1299.1	1295.8	1294.2	1295.8
45°	1246.2	1239.6	1238.0	1236.3	1236.3
47.5°	1181.8	1181.8	1176.8	1173.5	1171.9
50°	1120.6	1114.0	1110.7	1105.7	1105.7
52.5°	1049.6	1047.9	1042.9	1041.3	1041.3
55°	983.4	980.1	978.5	970.2	973.5
57.5°	915.7	909.1	907.4	902.4	899.1
60°	844.6	841.3	834.7	828.1	828.1
62.5°	768.6	766.9	760.3	755.3	753.7
65°	690.9	689.2	685.9	677.7	676.0
67.5°	624.8	618.2	609.9	603.3	603.3
70°	547.1	538.8	532.2	525.6	523.9
72.5°	467.8	462.8	459.5	452.9	447.9
75°	391.7	390.1	386.8	380.2	373.5
77.5°	320.7	319.0	310.7	305.8	300.8
80°	251.2	244.6	243.0	236.4	233.0
82.5°	176.9	180.2	171.9	170.2	168.6
85°	112.4	110.7	110.7	107.4	102.5
87.5°	49.6	51.2	51.2	51.2	51.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)