

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: P843339

Luminaire Tested: 24CGSB-60-L830

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843339
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-60-L830
 Description: 2x4 CGSB AT 6000LM 3000K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

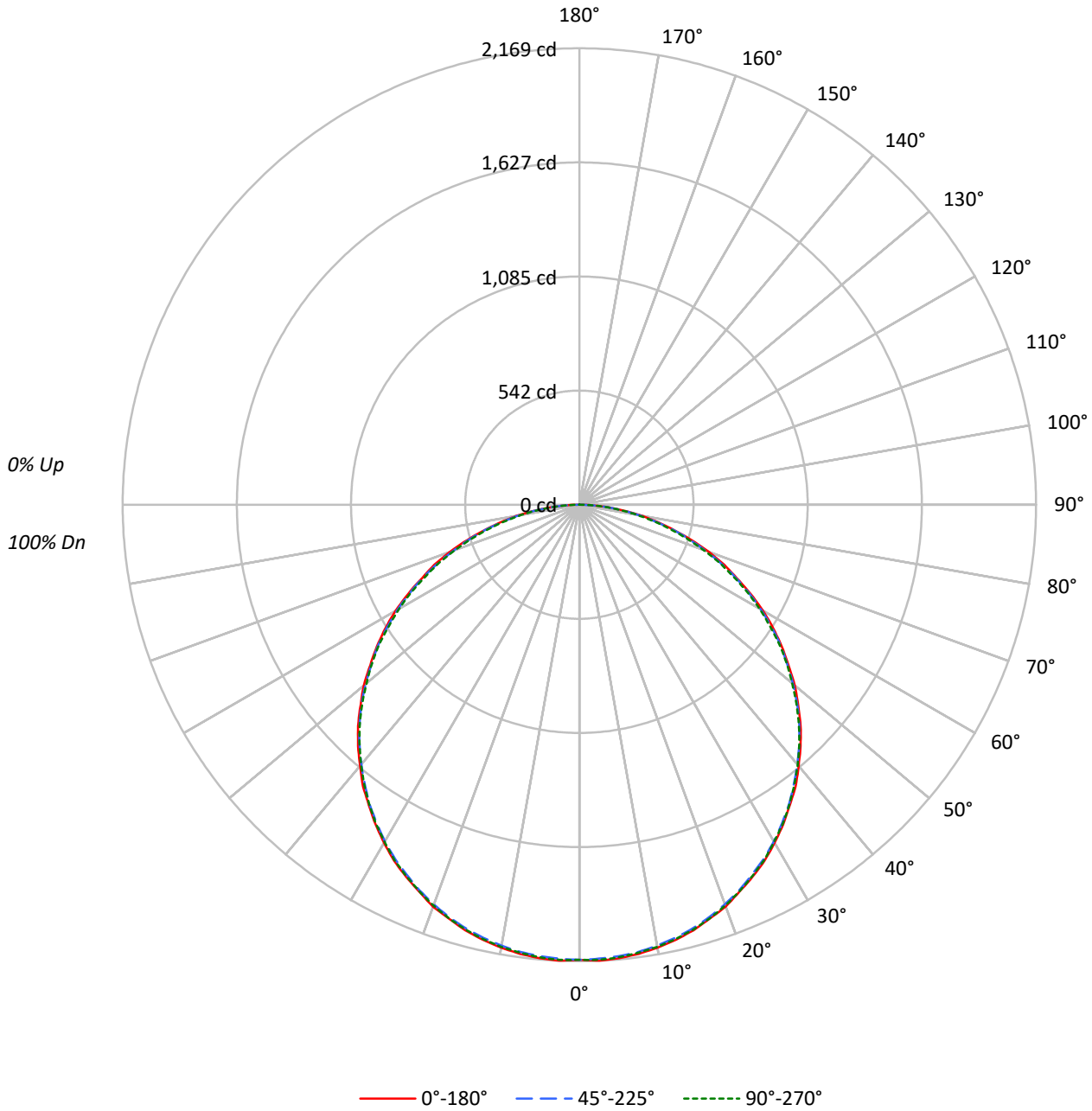
Lumens per Lamp: N/A
 Luminaire Lumens: 6398.6 lumens
 Efficiency: N/A
 Efficacy: 125.5 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

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°	2910	2910	2910
5°	2921	2908	2916
10°	2920	2906	2914
15°	2916	2903	2911
20°	2910	2893	2902
25°	2895	2880	2889
30°	2882	2870	2873
35°	2863	2853	2856
40°	2846	2829	2832
45°	2829	2810	2806
50°	2798	2773	2761
55°	2752	2738	2724
60°	2711	2679	2658
65°	2624	2605	2567
70°	2567	2497	2459
75°	2429	2398	2316
80°	2322	2245	2154
85°	2070	2039	1886

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2829 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.0	3.2
10°-20°	588.8	9.2
20°-30°	896.0	14.0
30°-40°	1087.6	17.0
40°-50°	1139.0	17.8
50°-60°	1040.7	16.3
60°-70°	808.9	12.6
70°-80°	485.1	7.6
80°-90°	147.5	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°	1689.8	26.4
0°-40°	2777.4	43.4
0°-60°	4957.1	77.5
0°-90°	6398.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6398.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2163	2163	2163	2163	2163	
5°	2163	2157	2153	2153	2159	206
15°	2094	2086	2084	2084	2090	591
25°	1950	1942	1940	1942	1946	899
35°	1743	1739	1737	1737	1739	1092
45°	1486	1479	1477	1475	1475	1145
55°	1173	1169	1167	1157	1161	1049
65°	824	822	818	808	806	821
75°	467	465	461	453	446	497
85°	134	132	132	128	122	151
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2162.7	2162.7	2162.7	2162.7	2162.7
2.5°	2168.6	2160.7	2158.7	2158.7	2164.7
5°	2162.7	2156.8	2152.8	2152.8	2158.7
7.5°	2152.8	2144.9	2143.0	2143.0	2146.9
10°	2137.1	2131.1	2127.2	2127.2	2133.1
12.5°	2117.3	2109.5	2107.5	2109.5	2113.4
15°	2093.7	2085.8	2083.8	2083.8	2089.7
17.5°	2062.1	2056.2	2054.3	2054.3	2060.2
20°	2032.6	2022.7	2020.7	2022.7	2026.7
22.5°	1989.2	1985.3	1983.3	1985.3	1987.2
25°	1949.8	1941.9	1939.9	1941.9	1945.8
27.5°	1906.4	1898.5	1896.5	1896.5	1902.5
30°	1855.1	1849.2	1847.3	1847.3	1849.2
32.5°	1801.9	1798.0	1792.1	1794.0	1798.0
35°	1742.8	1738.8	1736.9	1736.9	1738.8
37.5°	1687.6	1679.7	1673.8	1673.8	1677.7
40°	1620.5	1616.6	1610.7	1612.6	1612.6
42.5°	1555.5	1549.6	1545.6	1543.6	1545.6
45°	1486.5	1478.6	1476.6	1474.6	1474.6
47.5°	1409.6	1409.6	1403.7	1399.7	1397.8
50°	1336.6	1328.8	1324.8	1318.9	1318.9
52.5°	1251.9	1249.9	1244.0	1242.0	1242.0
55°	1173.0	1169.1	1167.1	1157.2	1161.2
57.5°	1092.2	1084.3	1082.3	1076.4	1072.5
60°	1007.4	1003.5	995.6	987.7	987.7
62.5°	916.7	914.8	906.9	901.0	899.0
65°	824.1	822.1	818.2	808.3	806.3
67.5°	745.2	737.3	727.5	719.6	719.6
70°	652.6	642.7	634.8	626.9	625.0
72.5°	557.9	552.0	548.1	540.2	534.3
75°	467.2	465.3	461.3	453.4	445.5
77.5°	382.5	380.5	370.6	364.7	358.8
80°	299.7	291.8	289.8	281.9	278.0
82.5°	210.9	214.9	205.0	203.1	201.1
85°	134.1	132.1	132.1	128.1	122.2
87.5°	59.1	61.1	61.1	61.1	61.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)