

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: P843349

Luminaire Tested: 24CGSB-70-L840

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843349
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-70-L840
 Description: 2x4 CGSB AT 7000LM 4000K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

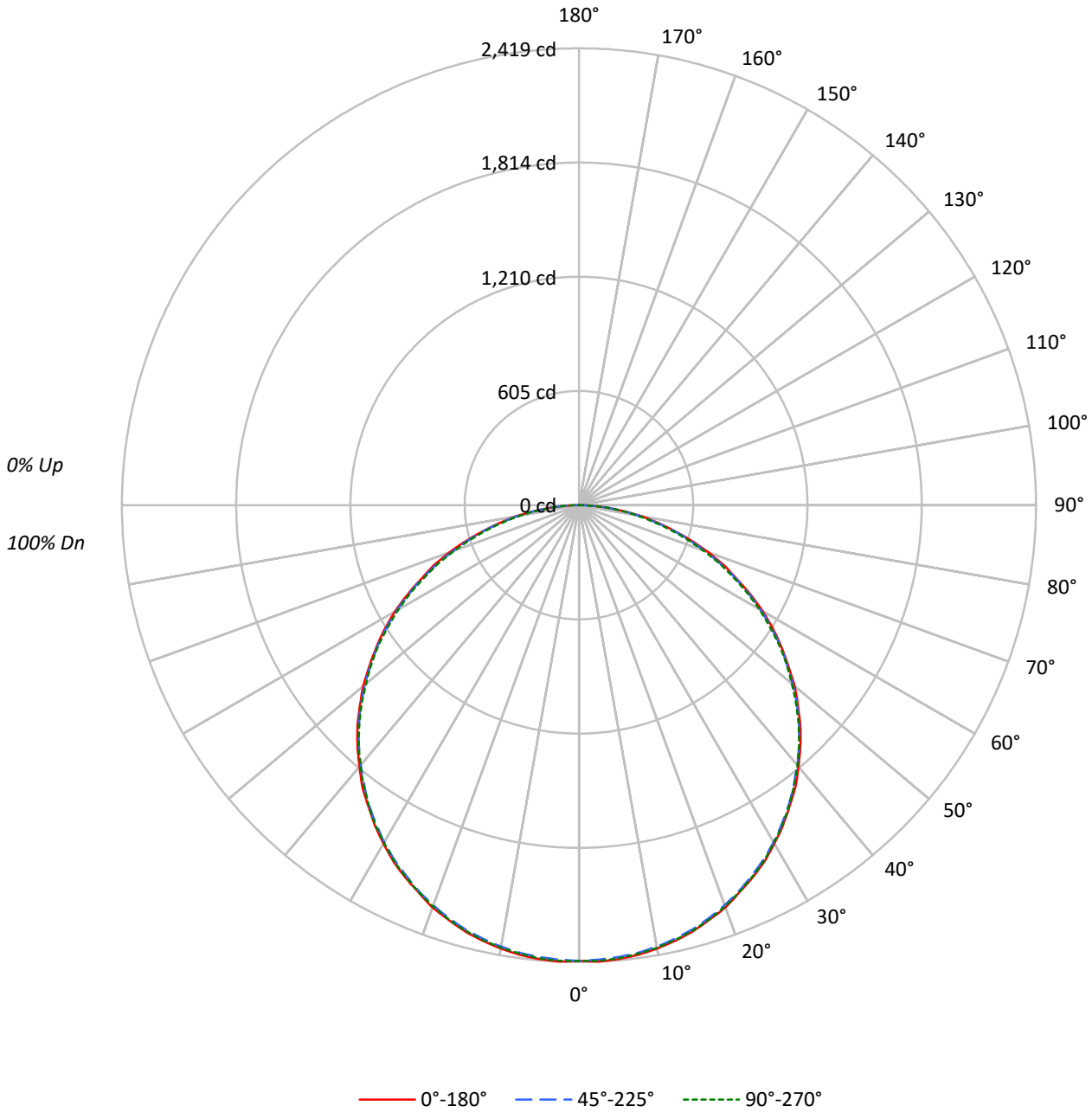
Lumens per Lamp: N/A
 Luminaire Lumens: 7137.7 lumens
 Efficiency: N/A
 Efficacy: 131.4 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 54.3
 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°	3246	3246	3246
5°	3258	3244	3252
10°	3257	3242	3251
15°	3253	3238	3247
20°	3247	3228	3237
25°	3229	3213	3222
30°	3215	3201	3205
35°	3193	3182	3186
40°	3175	3156	3160
45°	3155	3134	3130
50°	3121	3094	3080
55°	3069	3054	3039
60°	3024	2989	2965
65°	2927	2906	2864
70°	2864	2786	2742
75°	2709	2675	2584
80°	2590	2505	2403
85°	2308	2274	2104

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3155 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.6	3.2
10°-20°	656.8	9.2
20°-30°	999.5	14.0
30°-40°	1213.2	17.0
40°-50°	1270.6	17.8
50°-60°	1161.0	16.3
60°-70°	902.3	12.6
70°-80°	541.1	7.6
80°-90°	164.6	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°	1885.0	26.4
0°-40°	3098.2	43.4
0°-60°	5529.7	77.5
0°-90°	7137.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7137.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2412	2412	2412	2412	2412	
5°	2412	2406	2402	2402	2408	229
15°	2336	2327	2324	2324	2331	659
25°	2175	2166	2164	2166	2171	1003
35°	1944	1940	1938	1938	1940	1218
45°	1658	1649	1647	1645	1645	1277
55°	1308	1304	1302	1291	1295	1170
65°	919	917	913	902	900	915
75°	521	519	515	506	497	554
85°	150	147	147	143	136	168
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2412.5	2412.5	2412.5	2412.5	2412.5
2.5°	2419.1	2410.3	2408.1	2408.1	2414.7
5°	2412.5	2405.9	2401.5	2401.5	2408.1
7.5°	2401.5	2392.7	2390.5	2390.5	2394.9
10°	2383.9	2377.3	2372.9	2372.9	2379.5
12.5°	2361.9	2353.1	2350.9	2353.1	2357.5
15°	2335.5	2326.7	2324.5	2324.5	2331.1
17.5°	2300.3	2293.7	2291.5	2291.5	2298.1
20°	2267.4	2256.4	2254.2	2256.4	2260.8
22.5°	2219.0	2214.6	2212.4	2214.6	2216.8
25°	2175.0	2166.2	2164.0	2166.2	2170.6
27.5°	2126.6	2117.8	2115.6	2115.6	2122.2
30°	2069.4	2062.8	2060.6	2060.6	2062.8
32.5°	2010.1	2005.7	1999.1	2001.3	2005.7
35°	1944.1	1939.7	1937.5	1937.5	1939.7
37.5°	1882.5	1873.7	1867.1	1867.1	1871.5
40°	1807.7	1803.3	1796.7	1798.9	1798.9
42.5°	1735.2	1728.6	1724.2	1722.0	1724.2
45°	1658.2	1649.4	1647.2	1645.0	1645.0
47.5°	1572.4	1572.4	1565.8	1561.4	1559.2
50°	1491.0	1482.2	1477.9	1471.3	1471.3
52.5°	1396.5	1394.3	1387.7	1385.5	1385.5
55°	1308.5	1304.1	1301.9	1290.9	1295.3
57.5°	1218.3	1209.5	1207.4	1200.8	1196.4
60°	1123.8	1119.4	1110.6	1101.8	1101.8
62.5°	1022.6	1020.4	1011.6	1005.0	1002.8
65°	919.3	917.1	912.7	901.7	899.5
67.5°	831.3	822.5	811.5	802.7	802.7
70°	727.9	716.9	708.1	699.3	697.1
72.5°	622.4	615.8	611.4	602.6	596.0
75°	521.2	519.0	514.6	505.8	497.0
77.5°	426.6	424.4	413.4	406.8	400.3
80°	334.3	325.5	323.3	314.5	310.1
82.5°	235.3	239.7	228.7	226.5	224.3
85°	149.5	147.3	147.3	142.9	136.3
87.5°	66.0	68.2	68.2	68.2	68.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)