

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: P843370

Luminaire Tested: 24CGSB-90-L950

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843370
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-90-L950
 Description: 2x4 CGSB AT 9000LM 5000K 90CRI
 Light Source: -
 Ballast/Driver: -

Summary

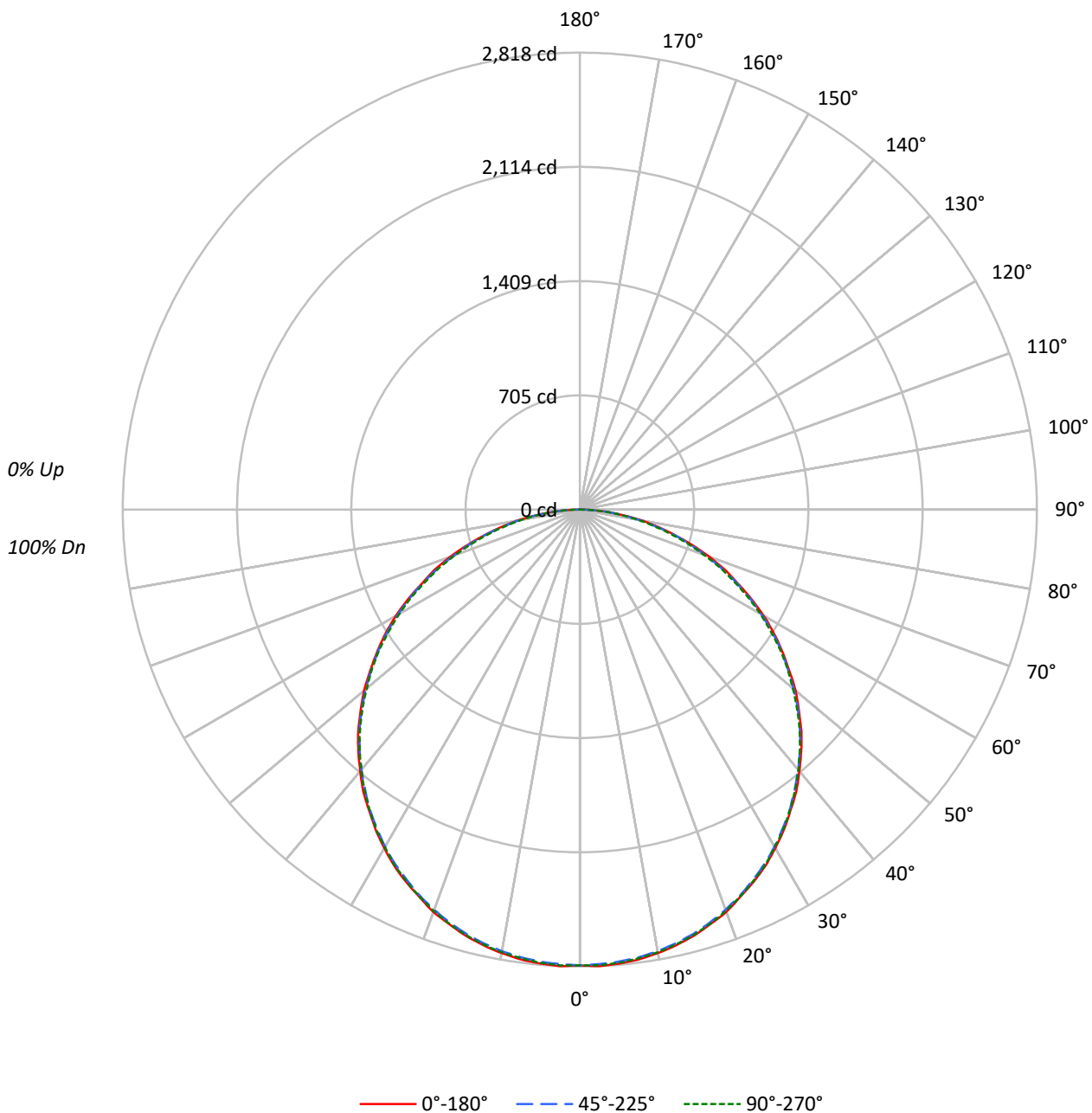
Lumens per Lamp: N/A
 Luminaire Lumens: 8316.3 lumens
 Efficiency: N/A
 Efficacy: 111.0 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 74.9
 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°	3782	3782	3782
5°	3796	3779	3789
10°	3795	3777	3788
15°	3791	3773	3783
20°	3782	3761	3772
25°	3762	3743	3755
30°	3746	3730	3734
35°	3721	3708	3712
40°	3699	3677	3681
45°	3676	3652	3647
50°	3636	3604	3588
55°	3576	3558	3540
60°	3523	3482	3454
65°	3410	3386	3337
70°	3336	3246	3196
75°	3157	3117	3010
80°	3018	2919	2799
85°	2689	2651	2453

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3676 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.4	3.2
10°-20°	765.3	9.2
20°-30°	1164.6	14.0
30°-40°	1413.5	17.0
40°-50°	1480.4	17.8
50°-60°	1352.7	16.3
60°-70°	1051.3	12.6
70°-80°	630.5	7.6
80°-90°	191.7	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°	2196.2	26.4
0°-40°	3609.7	43.4
0°-60°	6442.8	77.5
0°-90°	8316.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8316.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2811	2811	2811	2811	2811	
5°	2811	2803	2798	2798	2806	267
15°	2721	2711	2708	2708	2716	768
25°	2534	2524	2521	2524	2529	1168
35°	2265	2260	2257	2257	2260	1419
45°	1932	1922	1919	1917	1917	1488
55°	1525	1519	1517	1504	1509	1363
65°	1071	1068	1063	1050	1048	1067
75°	607	605	600	589	579	646
85°	174	172	172	166	159	196
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2810.8	2810.8	2810.8	2810.8	2810.8
2.5°	2818.5	2808.3	2805.7	2805.7	2813.4
5°	2810.8	2803.2	2798.0	2798.0	2805.7
7.5°	2798.0	2787.8	2785.2	2785.2	2790.4
10°	2777.5	2769.9	2764.7	2764.7	2772.4
12.5°	2751.9	2741.7	2739.1	2741.7	2746.8
15°	2721.2	2710.9	2708.4	2708.4	2716.0
17.5°	2680.2	2672.5	2669.9	2669.9	2677.6
20°	2641.7	2628.9	2626.4	2628.9	2634.1
22.5°	2585.4	2580.2	2577.7	2580.2	2582.8
25°	2534.1	2523.9	2521.3	2523.9	2529.0
27.5°	2477.7	2467.5	2464.9	2464.9	2472.6
30°	2411.1	2403.4	2400.9	2400.9	2403.4
32.5°	2341.9	2336.8	2329.1	2331.7	2336.8
35°	2265.1	2260.0	2257.4	2257.4	2260.0
37.5°	2193.3	2183.1	2175.4	2175.4	2180.5
40°	2106.2	2101.1	2093.4	2096.0	2096.0
42.5°	2021.7	2014.0	2008.8	2006.3	2008.8
45°	1932.0	1921.7	1919.2	1916.6	1916.6
47.5°	1832.0	1832.0	1824.4	1819.2	1816.7
50°	1737.2	1727.0	1721.9	1714.2	1714.2
52.5°	1627.1	1624.5	1616.8	1614.3	1614.3
55°	1524.6	1519.4	1516.9	1504.1	1509.2
57.5°	1419.5	1409.3	1406.7	1399.0	1393.9
60°	1309.3	1304.2	1294.0	1283.7	1283.7
62.5°	1191.5	1188.9	1178.7	1171.0	1168.4
65°	1071.0	1068.5	1063.4	1050.5	1048.0
67.5°	968.6	958.3	945.5	935.2	935.2
70°	848.1	835.3	825.1	814.8	812.3
72.5°	725.1	717.4	712.3	702.1	694.4
75°	607.3	604.7	599.6	589.3	579.1
77.5°	497.1	494.5	481.7	474.0	466.3
80°	389.5	379.2	376.7	366.4	361.3
82.5°	274.2	279.3	266.5	263.9	261.4
85°	174.2	171.7	171.7	166.5	158.9
87.5°	76.9	79.4	79.4	79.4	79.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)