

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: P843367

Luminaire Tested: 24CGSB-90-L930

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843367
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-90-L930
 Description: 2x4 CGSB AT 9000LM 3000K 90CRI
 Light Source: -
 Ballast/Driver: -

Summary

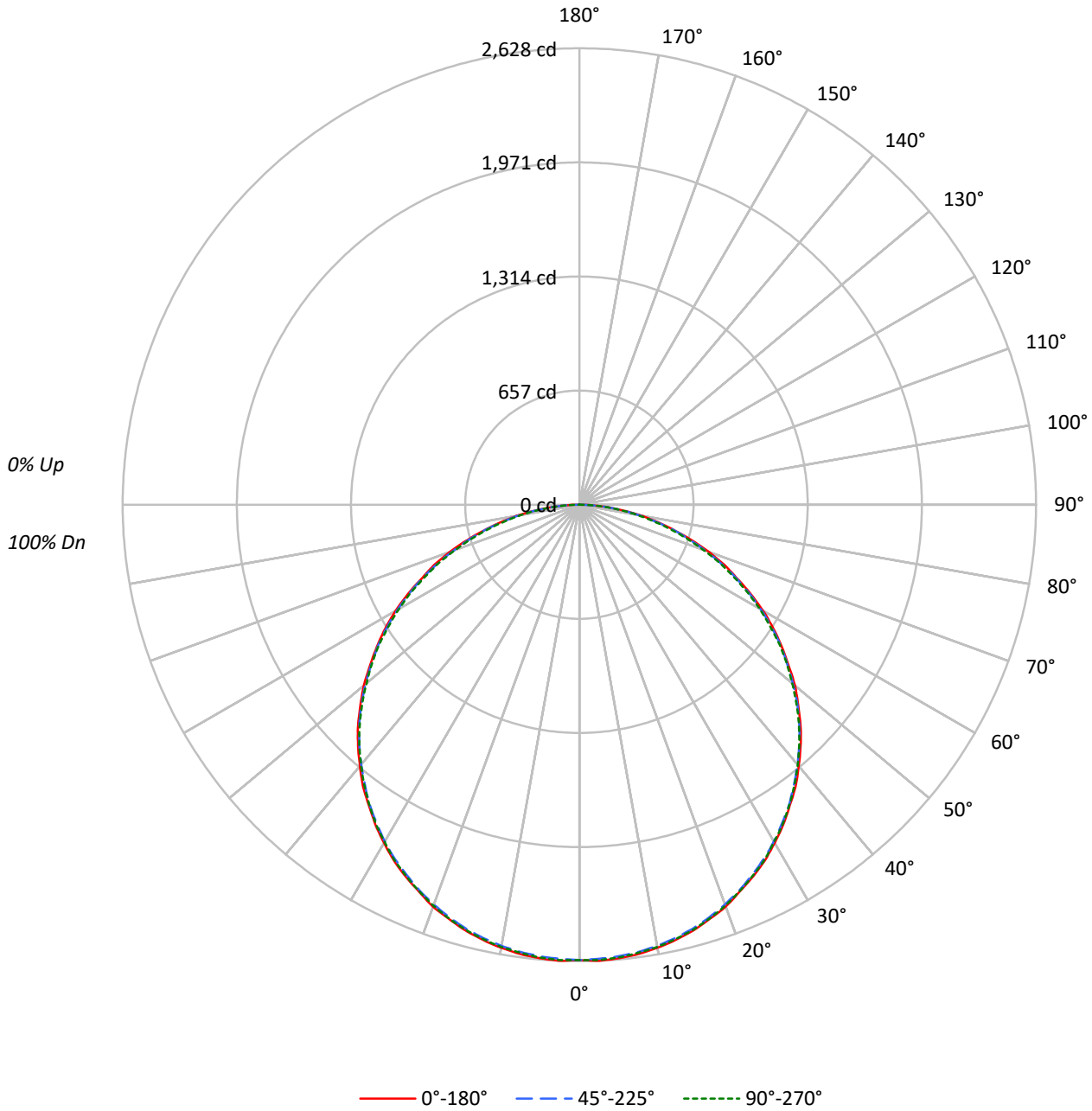
Lumens per Lamp: N/A
 Luminaire Lumens: 7755.6 lumens
 Efficiency: N/A
 Efficacy: 103.5 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 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°	3527	3527	3527
5°	3541	3524	3534
10°	3539	3523	3532
15°	3535	3518	3528
20°	3527	3507	3517
25°	3509	3491	3501
30°	3494	3479	3482
35°	3470	3458	3462
40°	3450	3429	3433
45°	3428	3406	3401
50°	3391	3361	3346
55°	3335	3318	3302
60°	3286	3247	3222
65°	3180	3157	3111
70°	3111	3027	2980
75°	2944	2907	2807
80°	2814	2722	2610
85°	2509	2472	2288

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3428 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.4	3.2
10°-20°	713.7	9.2
20°-30°	1086.1	14.0
30°-40°	1318.2	17.0
40°-50°	1380.6	17.8
50°-60°	1261.5	16.3
60°-70°	980.4	12.6
70°-80°	588.0	7.6
80°-90°	178.8	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°	2048.2	26.4
0°-40°	3366.4	43.4
0°-60°	6008.4	77.5
0°-90°	7755.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7755.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2621	2621	2621	2621	2621	
5°	2621	2614	2609	2609	2617	249
15°	2538	2528	2526	2526	2533	716
25°	2363	2354	2351	2354	2358	1090
35°	2112	2108	2105	2105	2108	1323
45°	1802	1792	1790	1787	1787	1388
55°	1422	1417	1415	1403	1408	1271
65°	999	996	992	980	977	995
75°	566	564	559	550	540	602
85°	162	160	160	155	148	183
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2621.4	2621.4	2621.4	2621.4	2621.4
2.5°	2628.5	2619.0	2616.6	2616.6	2623.7
5°	2621.4	2614.2	2609.4	2609.4	2616.6
7.5°	2609.4	2599.8	2597.5	2597.5	2602.2
10°	2590.3	2583.1	2578.3	2578.3	2585.5
12.5°	2566.4	2556.8	2554.4	2556.8	2561.6
15°	2537.7	2528.2	2525.8	2525.8	2532.9
17.5°	2499.5	2492.3	2489.9	2489.9	2497.1
20°	2463.6	2451.7	2449.3	2451.7	2456.5
22.5°	2411.1	2406.3	2403.9	2406.3	2408.7
25°	2363.3	2353.7	2351.3	2353.7	2358.5
27.5°	2310.7	2301.2	2298.8	2298.8	2305.9
30°	2248.6	2241.4	2239.0	2239.0	2241.4
32.5°	2184.1	2179.3	2172.1	2174.5	2179.3
35°	2112.4	2107.6	2105.2	2105.2	2107.6
37.5°	2045.5	2035.9	2028.7	2028.7	2033.5
40°	1964.2	1959.4	1952.3	1954.7	1954.7
42.5°	1885.4	1878.2	1873.4	1871.0	1873.4
45°	1801.7	1792.2	1789.8	1787.4	1787.4
47.5°	1708.5	1708.5	1701.4	1696.6	1694.2
50°	1620.1	1610.6	1605.8	1598.6	1598.6
52.5°	1517.4	1515.0	1507.8	1505.4	1505.4
55°	1421.8	1417.0	1414.6	1402.7	1407.5
57.5°	1323.8	1314.3	1311.9	1304.7	1299.9
60°	1221.1	1216.3	1206.7	1197.2	1197.2
62.5°	1111.1	1108.8	1099.2	1092.0	1089.6
65°	998.8	996.4	991.7	979.7	977.3
67.5°	903.3	893.7	881.7	872.2	872.2
70°	790.9	779.0	769.4	759.9	757.5
72.5°	676.2	669.1	664.3	654.7	647.6
75°	566.3	563.9	559.2	549.6	540.0
77.5°	463.6	461.2	449.2	442.1	434.9
80°	363.2	353.7	351.3	341.7	336.9
82.5°	255.7	260.5	248.5	246.1	243.7
85°	162.5	160.1	160.1	155.3	148.2
87.5°	71.7	74.1	74.1	74.1	74.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)