

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
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: P893868

Luminaire Tested: 4MB-7HL-RFLW-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893868
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-RFLW-UNV-L850
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 5000K
Light Source: -
Ballast/Driver: -

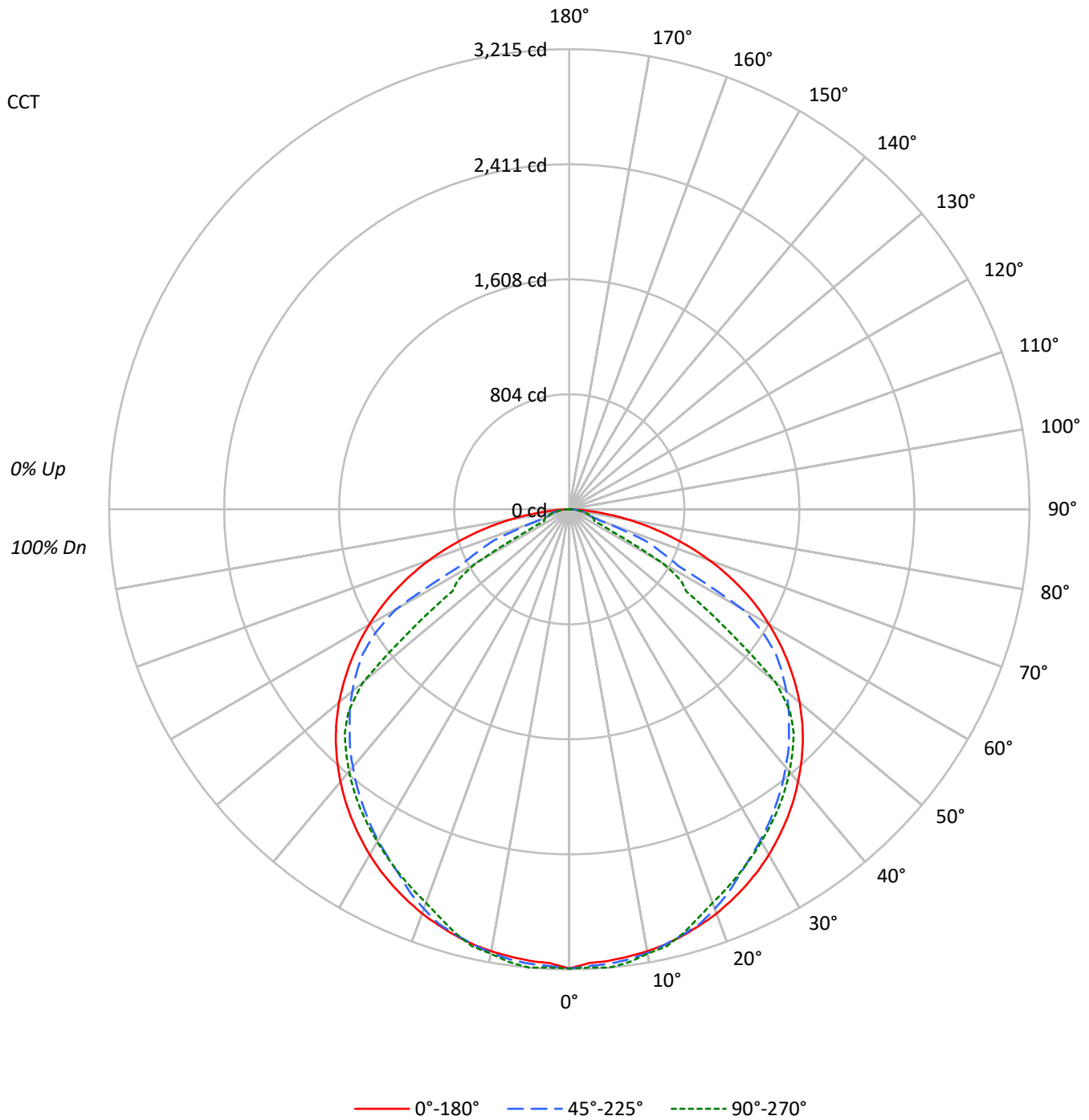
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8366.0 lumens
Efficiency: N/A
Efficacy: 161.5 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 51.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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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	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	85	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	49	49	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	43	43	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	38	38	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	34	34	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	31	31	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	28	28	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	41670	41670	41670
5°	41287	41558	41906
10°	41348	41505	41583
15°	41438	41346	41252
20°	41542	41064	40435
25°	41657	40339	40253
30°	41815	40065	40229
35°	41966	39912	40398
40°	42143	39863	40567
45°	42369	39844	40734
50°	42433	39994	38057
55°	42246	39874	22566
60°	41887	36340	19571
65°	41203	21969	5924
70°	39572	8709	6796
75°	36665	7144	6949
80°	31728	7545	6506
85°	22542	7077	6183

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 42433 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.0	3.6
10°-20°	870.5	10.4
20°-30°	1315.5	15.7
30°-40°	1605.0	19.2
40°-50°	1697.8	20.3
50°-60°	1406.2	16.8
60°-70°	781.7	9.3
70°-80°	316.9	3.8
80°-90°	68.3	0.8
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°	2490.0	29.8
0°-40°	4095.0	48.9
0°-60°	7199.1	86.1
0°-90°	8366.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8366.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3209	3209	3209	3209	3209	
5°	3168	3224	3188	3193	3215	301
15°	3082	3130	3076	3074	3069	871
25°	2908	2928	2816	2798	2810	1341
35°	2647	2615	2518	2528	2548	1657
45°	2307	2188	2170	2196	2218	1779
55°	1866	1740	1761	1208	997	1667
65°	1341	1229	715	240	193	1322
75°	731	407	142	140	138	772
85°	151	50	48	44	42	190
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3209.1	3209.1	3209.1	3209.1	3209.1
2.5°	3174.5	3229.8	3195.2	3202.2	3205.1
5°	3167.5	3223.9	3188.3	3193.3	3215.0
7.5°	3152.7	3210.1	3172.5	3175.5	3192.3
10°	3135.9	3188.3	3147.8	3142.8	3153.7
12.5°	3113.2	3160.6	3113.2	3115.1	3129.0
15°	3082.5	3130.0	3075.6	3073.6	3068.6
17.5°	3045.9	3090.4	3037.0	3005.4	2994.5
20°	3006.3	3041.0	2971.7	2923.3	2926.2
22.5°	2958.9	2988.5	2901.5	2857.0	2869.9
25°	2907.5	2928.2	2815.5	2797.7	2809.5
27.5°	2851.1	2866.9	2741.3	2737.4	2747.2
30°	2788.8	2794.7	2672.1	2670.1	2683.0
32.5°	2719.6	2709.7	2597.9	2599.9	2616.7
35°	2647.4	2614.7	2517.8	2527.7	2548.5
37.5°	2571.2	2512.9	2438.7	2451.6	2474.3
40°	2486.2	2407.1	2351.7	2371.5	2393.2
42.5°	2399.1	2296.3	2267.6	2286.4	2307.2
45°	2307.2	2188.5	2169.7	2196.4	2218.2
47.5°	2207.3	2082.7	2079.7	2100.5	2090.6
50°	2100.5	1972.9	1979.8	1952.1	1883.9
52.5°	1985.8	1859.2	1873.0	1753.4	1417.1
55°	1866.1	1739.5	1761.3	1208.5	996.8
57.5°	1743.5	1616.9	1603.1	924.6	923.7
60°	1612.9	1492.3	1399.3	816.9	753.6
62.5°	1481.4	1362.7	859.4	615.1	346.1
65°	1341.0	1229.2	715.0	240.3	192.8
67.5°	1193.6	1093.8	572.6	181.0	187.9
70°	1042.3	953.3	229.4	175.0	179.0
72.5°	888.1	735.8	152.3	162.2	162.2
75°	730.8	407.4	142.4	140.4	138.5
77.5°	574.6	272.9	124.6	115.7	112.7
80°	424.3	97.9	100.9	90.0	87.0
82.5°	280.9	76.1	72.2	65.3	63.3
85°	151.3	50.4	47.5	43.5	41.5
87.5°	54.4	25.7	25.7	20.8	18.8
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	25.64	27.21	26.00	27.52	27.84	21.63	23.20	21.99	23.51	23.83
	3H	27.64	29.05	28.02	29.38	29.74	21.76	23.17	22.14	23.49	23.85
	4H	28.25	29.57	28.65	29.92	30.30	21.88	23.20	22.28	23.54	23.92
	6H	28.66	29.87	29.07	30.24	30.63	21.98	23.20	22.40	23.57	23.96
	8H	28.77	29.93	29.20	30.32	30.72	22.02	23.18	22.44	23.57	23.97
	12H	28.84	29.95	29.27	30.34	30.77	22.04	23.15	22.47	23.53	23.96
4H	2H	25.77	27.08	26.16	27.43	27.81	22.35	23.67	22.75	24.02	24.40
	3H	27.93	29.01	28.34	29.41	29.81	22.55	23.64	22.96	24.04	24.44
	4H	28.58	29.56	29.01	29.97	30.41	22.70	23.68	23.14	24.10	24.53
	6H	29.03	29.87	29.48	30.32	30.78	22.87	23.72	23.33	24.16	24.62
	8H	29.17	29.96	29.63	30.40	30.87	22.92	23.71	23.38	24.16	24.63
	12H	29.27	29.98	29.75	30.46	30.93	22.97	23.68	23.45	24.15	24.63
8H	4H	28.52	29.31	28.98	29.75	30.22	22.98	23.77	23.44	24.21	24.68
	6H	28.96	29.61	29.46	30.11	30.58	23.18	23.84	23.68	24.33	24.81
	8H	29.11	29.70	29.62	30.21	30.69	23.27	23.86	23.78	24.36	24.85
	12H	29.24	29.76	29.75	30.25	30.82	23.35	23.87	23.86	24.37	24.93
12H	4H	28.49	29.20	28.97	29.68	30.15	22.99	23.70	23.47	24.18	24.65
	6H	28.92	29.51	29.43	30.02	30.50	23.20	23.79	23.71	24.30	24.79
	8H	29.09	29.61	29.60	30.10	30.67	23.32	23.85	23.83	24.34	24.90