

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: P893572

Luminaire Tested: 4MB-5SL-A-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893572
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-5SL-A-UNV-L850
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

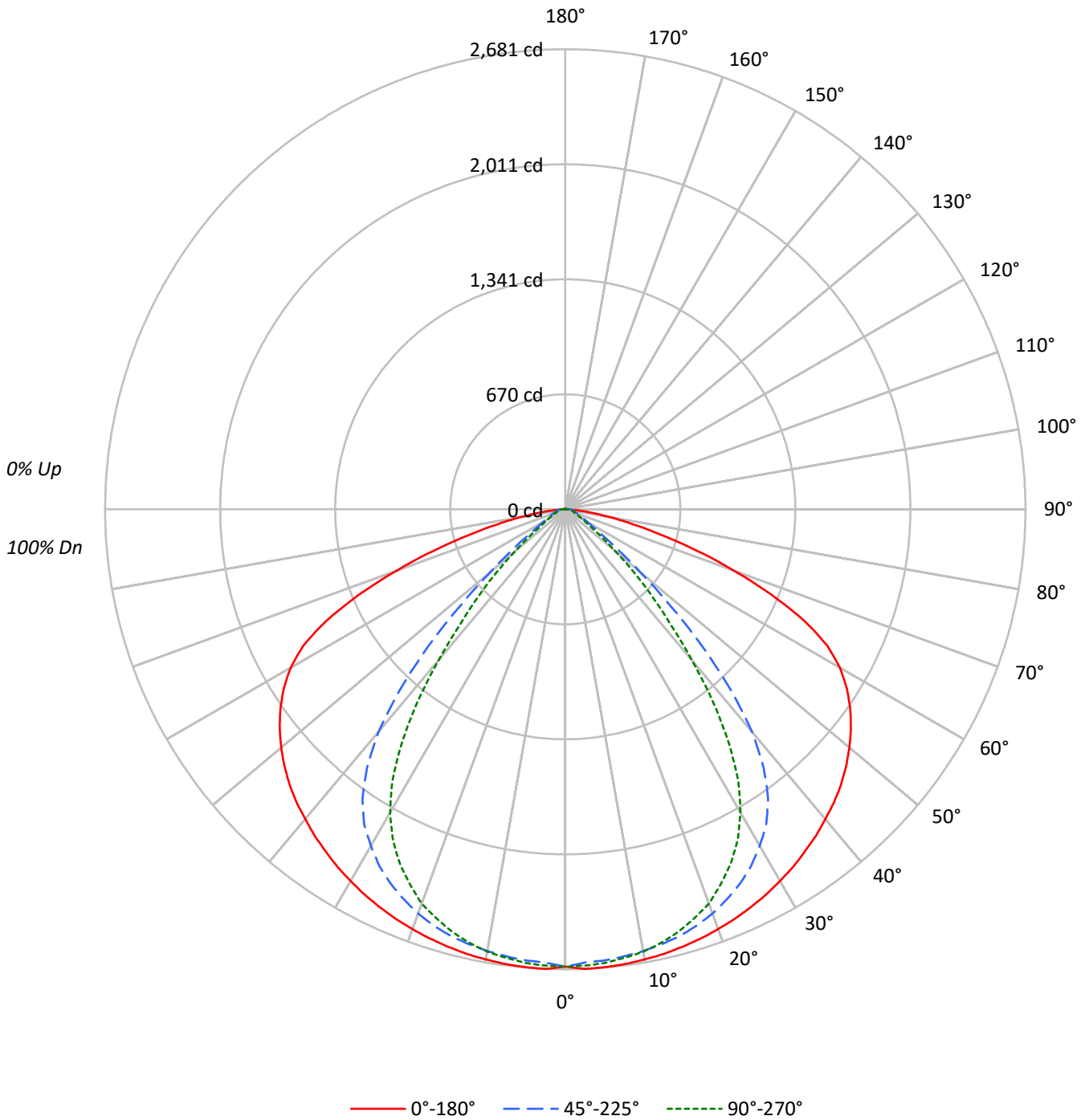
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5462.9 lumens
Efficiency: N/A
Efficacy: 156.1 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.15 / 1.23
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 9.55
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	111	107	103	100	108	105	102	99	100	98	96	97	95	93	93	91	90	93	91	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	84	81	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	77	73	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	70	65	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	64	59	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	59	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	54	49	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	50	44	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	46	41	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27141	27141	27141
5°	27380	26973	27131
10°	27551	27033	27072
15°	27825	27149	26869
20°	28218	27173	26508
25°	28744	27054	25613
30°	29415	26630	24003
35°	30254	25606	20637
40°	31331	22489	15254
45°	32711	16227	10259
50°	34232	9066	6122
55°	35980	4687	3352
60°	37639	3049	2373
65°	36997	2506	1884
70°	31200	2305	1757
75°	22952	2349	1885
80°	15307	2768	2381
85°	8355	4475	3622

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 37960 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.0	4.6
10°-20°	731.3	13.4
20°-30°	1112.4	20.4
30°-40°	1270.4	23.3
40°-50°	1024.9	18.8
50°-60°	561.0	10.3
60°-70°	295.8	5.4
70°-80°	145.0	2.7
80°-90°	51.1	0.9
90°-100°	11.0	0.2
100°-110°	1.5	0.0
110°-120°	0.9	0.0
120°-130°	0.8	0.0
130°-140°	0.9	0.0
140°-150°	1.1	0.0
150°-160°	1.0	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	2096.7	38.4
0°-40°	3367.0	61.6
0°-60°	4952.9	90.7
0°-90°	5444.8	99.7
90°-120°	13.4	0.2
90°-150°	16.2	0.3
90°-180°	18.0	0.3
0°-180°	5462.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2665	2665	2665	2665	2665	
5°	2678	2670	2638	2662	2654	255
15°	2639	2623	2575	2571	2548	747
25°	2558	2521	2408	2326	2279	1182
35°	2433	2331	2060	1779	1660	1527
45°	2271	1951	1127	770	712	1753
55°	2026	834	264	204	189	1808
65°	1535	192	104	84	78	1485
75°	583	108	60	50	48	644
85°	72	57	38	35	31	99
90°	3	30	24	21	19	4
95°	2	4	8	12	12	2
105°	1	0	1	2	2	1
115°	1	1	1	2	1	1
125°	1	1	1	2	1	1
135°	1	1	2	2	1	1
145°	2	2	2	2	2	1
155°	2	2	2	3	2	1
165°	2	2	3	3	3	0
175°	2	2	3	4	3	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2665.0	2665.0	2665.0	2665.0	2665.0
2.5°	2681.2	2673.8	2643.6	2669.4	2662.0
5°	2678.2	2670.1	2638.4	2662.0	2653.9
7.5°	2673.1	2662.7	2628.1	2649.5	2636.9
10°	2664.2	2653.9	2614.1	2631.0	2617.8
12.5°	2653.9	2639.9	2595.6	2604.5	2587.5
15°	2639.1	2622.9	2575.0	2570.6	2548.4
17.5°	2622.9	2603.0	2544.8	2525.6	2499.0
20°	2603.7	2579.4	2507.2	2469.5	2445.9
22.5°	2582.4	2550.7	2460.0	2402.4	2365.6
25°	2558.0	2521.2	2407.6	2325.8	2279.3
27.5°	2532.2	2482.1	2344.2	2236.5	2173.8
30°	2501.3	2440.8	2264.5	2119.3	2041.1
32.5°	2470.3	2389.2	2179.0	1968.1	1875.2
35°	2433.4	2330.9	2059.6	1779.3	1659.9
37.5°	2398.8	2260.9	1898.1	1542.6	1414.3
40°	2356.7	2178.3	1691.6	1270.5	1147.4
42.5°	2316.9	2082.4	1423.9	1008.0	901.1
45°	2271.2	1951.2	1126.7	769.8	712.3
47.5°	2218.1	1772.0	819.2	573.0	536.8
50°	2160.6	1525.7	572.2	415.9	386.4
52.5°	2097.2	1193.1	385.7	289.1	272.8
55°	2026.4	834.0	264.0	204.3	188.8
57.5°	1944.5	542.7	191.7	154.1	143.8
60°	1847.9	346.6	149.7	122.4	116.5
62.5°	1721.1	243.3	123.1	101.0	95.9
65°	1535.3	192.5	104.0	84.1	78.2
67.5°	1300.0	163.0	89.2	70.8	67.1
70°	1047.8	141.6	77.4	61.2	59.0
72.5°	805.2	123.9	67.1	54.6	53.1
75°	583.3	108.4	59.7	50.1	47.9
77.5°	404.1	93.6	53.1	45.0	43.5
80°	261.0	81.1	47.2	41.3	40.6
82.5°	149.7	67.8	42.8	39.8	39.1
85°	71.5	56.8	38.3	34.7	31.0
87.5°	22.9	42.0	30.2	26.5	23.6
90°	2.9	29.5	23.6	20.6	19.2
92.5°	2.9	16.2	17.0	17.0	16.2
95°	2.2	3.7	8.1	12.5	11.8
97.5°	2.2	1.5	5.2	8.8	8.8
100°	1.5	0.7	2.2	5.9	5.9
102.5°	1.5	0.7	0.7	3.7	3.7
105°	0.7	0.0	0.7	1.5	1.5
107.5°	0.7	0.7	0.7	1.5	0.7
110°	0.7	0.7	0.7	1.5	0.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.7	0.7	0.7	1.5	0.7
115°	0.7	0.7	0.7	1.5	0.7
117.5°	0.7	0.7	0.7	1.5	0.7
120°	0.7	0.7	0.7	1.5	0.7
122.5°	0.7	0.7	0.7	1.5	0.7
125°	0.7	0.7	0.7	1.5	0.7
127.5°	0.7	0.7	0.7	1.5	0.7
130°	0.7	0.7	1.5	1.5	0.7
132.5°	0.7	0.7	1.5	1.5	0.7
135°	0.7	0.7	1.5	1.5	0.7
137.5°	0.7	0.7	1.5	1.5	1.5
140°	1.5	0.7	1.5	1.5	1.5
142.5°	1.5	1.5	1.5	2.2	1.5
145°	1.5	1.5	1.5	2.2	1.5
147.5°	1.5	1.5	2.2	2.2	1.5
150°	1.5	1.5	2.2	2.2	1.5
152.5°	1.5	1.5	2.2	2.2	2.2
155°	1.5	1.5	2.2	2.9	2.2
157.5°	1.5	1.5	2.2	2.9	2.2
160°	1.5	2.2	2.9	2.9	2.2
162.5°	1.5	2.2	2.9	2.9	2.9
165°	1.5	2.2	2.9	2.9	2.9
167.5°	2.2	2.2	2.9	3.7	2.9
170°	2.2	2.2	2.9	3.7	2.9
172.5°	2.2	2.2	2.9	3.7	2.9
175°	2.2	2.2	2.9	3.7	2.9
177.5°	2.2	2.2	2.9	3.7	3.7
180°	2.9	2.9	2.9	2.9	2.9



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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	21.37	22.77	21.74	23.09	23.42	9.89	11.29	10.26	11.61	11.93
	3H	24.29	25.53	24.67	25.87	26.24	10.82	12.07	11.21	12.41	12.78
	4H	25.18	26.34	25.59	26.70	27.09	11.34	12.51	11.75	12.86	13.25
	6H	25.68	26.75	26.10	27.12	27.52	11.98	13.05	12.40	13.42	13.82
	8H	25.79	26.80	26.22	27.20	27.61	12.40	13.41	12.83	13.81	14.22
	12H	25.83	26.80	26.27	27.19	27.63	12.84	13.82	13.28	14.21	14.64
4H	2H	21.19	22.35	21.60	22.71	23.10	10.41	11.57	10.81	11.93	12.32
	3H	24.12	25.07	24.54	25.48	25.89	11.60	12.55	12.02	12.96	13.37
	4H	25.02	25.88	25.46	26.30	26.75	12.27	13.12	12.71	13.55	14.00
	6H	25.61	26.36	26.08	26.81	27.28	13.09	13.83	13.56	14.28	14.75
	8H	25.78	26.47	26.25	26.92	27.40	13.62	14.32	14.10	14.77	15.24
	12H	25.87	26.48	26.36	26.97	27.45	14.20	14.82	14.69	15.31	15.79
8H	4H	24.91	25.60	25.38	26.06	26.53	12.86	13.55	13.33	14.00	14.48
	6H	25.51	26.08	26.02	26.58	27.07	13.86	14.43	14.37	14.93	15.42
	8H	25.70	26.21	26.22	26.73	27.23	14.54	15.05	15.06	15.57	16.07
	12H	25.84	26.30	26.36	26.80	27.38	15.31	15.76	15.82	16.26	16.84
12H	4H	24.87	25.49	25.36	25.98	26.46	13.12	13.73	13.61	14.22	14.70
	6H	25.46	25.97	25.98	26.49	26.99	14.17	14.69	14.70	15.21	15.70
	8H	25.68	26.13	26.19	26.63	27.21	14.94	15.39	15.46	15.89	16.47