

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: P893571

Luminaire Tested: 4MB-5SL-A-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893571
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-L840
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

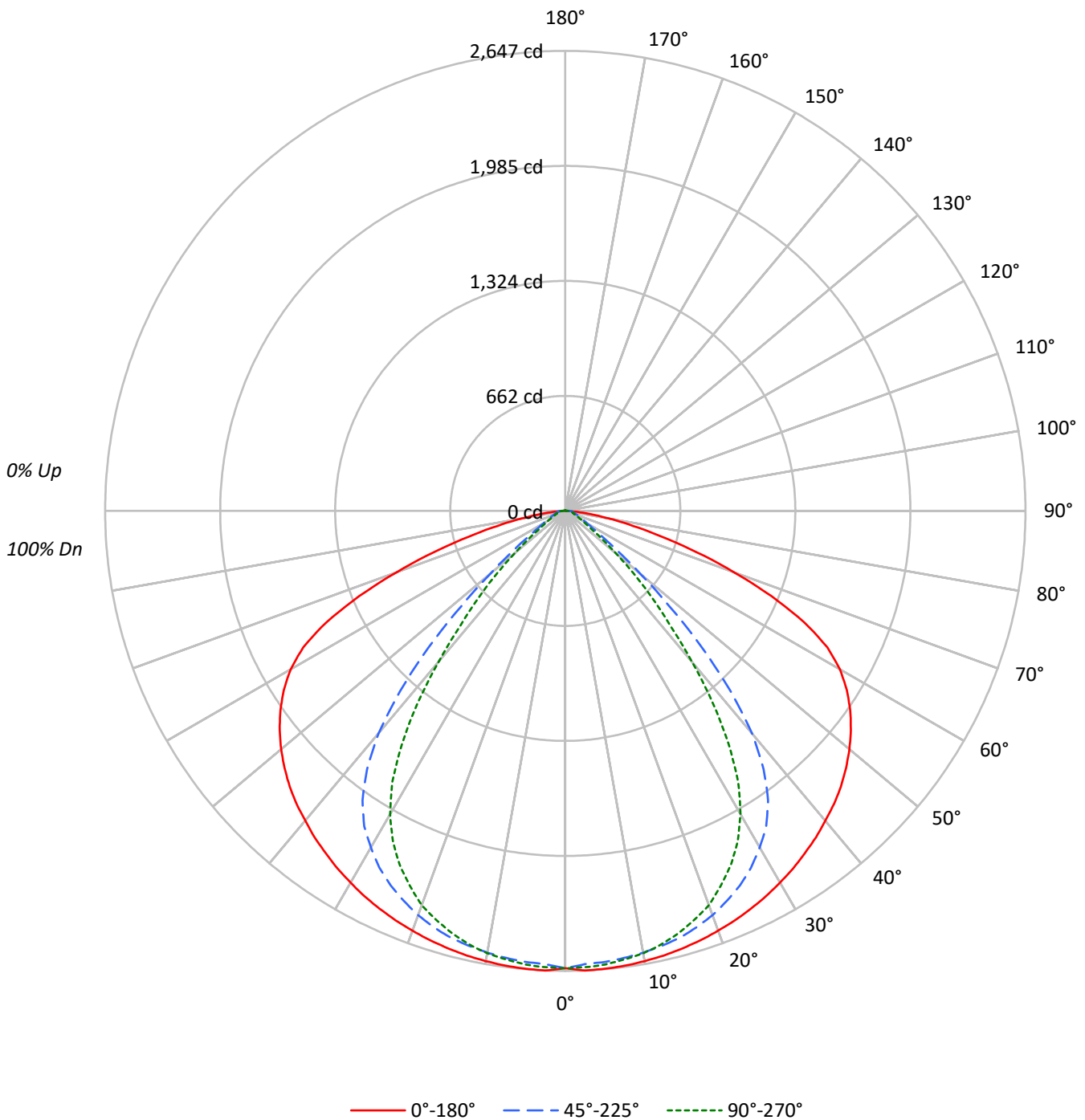
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5394.0 lumens
Efficiency: N/A
Efficacy: 154.1 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 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 (A_{in}): 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°	26798	26798	26798
5°	27034	26632	26789
10°	27204	26692	26729
15°	27474	26807	26531
20°	27863	26829	26174
25°	28381	26713	25289
30°	29043	26294	23699
35°	29872	25282	20376
40°	30936	22205	15061
45°	32298	16023	10129
50°	33800	8952	6044
55°	35525	4629	3310
60°	37164	3010	2342
65°	36530	2475	1860
70°	30807	2275	1733
75°	22661	2322	1861
80°	15114	2733	2346
85°	8250	4429	3576

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 37479 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.8	4.6
10°-20°	722.0	13.4
20°-30°	1098.3	20.4
30°-40°	1254.3	23.3
40°-50°	1011.9	18.8
50°-60°	553.9	10.3
60°-70°	292.0	5.4
70°-80°	143.2	2.7
80°-90°	50.5	0.9
90°-100°	10.8	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°	2070.2	38.4
0°-40°	3324.5	61.6
0°-60°	4890.4	90.7
0°-90°	5376.1	99.7
90°-120°	13.2	0.2
90°-150°	16.0	0.3
90°-180°	18.0	0.3
0°-180°	5394.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2631	2631	2631	2631	2631	
5°	2644	2636	2605	2628	2620	252
15°	2606	2590	2542	2538	2516	737
25°	2526	2489	2377	2296	2250	1167
35°	2403	2302	2034	1757	1639	1507
45°	2242	1926	1112	760	703	1731
55°	2001	824	261	202	186	1785
65°	1516	190	103	83	77	1466
75°	576	107	59	50	47	636
85°	71	56	38	34	31	97
90°	3	29	23	20	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°	2631.3	2631.3	2631.3	2631.3	2631.3
2.5°	2647.3	2640.0	2610.2	2635.7	2628.4
5°	2644.4	2636.4	2605.1	2628.4	2620.4
7.5°	2639.3	2629.1	2594.9	2616.0	2603.6
10°	2630.6	2620.4	2581.1	2597.8	2584.7
12.5°	2620.4	2606.5	2562.9	2571.6	2554.8
15°	2605.8	2589.8	2542.5	2538.1	2516.3
17.5°	2589.8	2570.1	2512.6	2493.7	2467.5
20°	2570.9	2546.8	2475.5	2438.4	2415.1
22.5°	2549.7	2518.4	2428.9	2372.1	2335.7
25°	2525.7	2489.3	2377.2	2296.4	2250.5
27.5°	2500.2	2450.7	2314.6	2208.3	2146.4
30°	2469.7	2410.0	2235.9	2092.5	2015.3
32.5°	2439.1	2359.0	2151.5	1943.3	1851.5
35°	2402.7	2301.5	2033.5	1756.9	1638.9
37.5°	2368.5	2232.3	1874.1	1523.2	1396.5
40°	2327.0	2150.8	1670.2	1254.5	1132.9
42.5°	2287.6	2056.1	1405.9	995.3	889.7
45°	2242.5	1926.5	1112.5	760.1	703.3
47.5°	2190.1	1749.6	808.9	565.7	530.0
50°	2133.3	1506.4	565.0	410.6	381.5
52.5°	2070.7	1178.0	380.8	285.4	269.4
55°	2000.8	823.5	260.7	201.7	186.4
57.5°	1920.0	535.9	189.3	152.2	142.0
60°	1824.6	342.2	147.8	120.9	115.0
62.5°	1699.3	240.3	121.6	99.7	94.7
65°	1515.9	190.0	102.7	83.0	77.2
67.5°	1283.6	160.9	88.1	69.9	66.3
70°	1034.6	139.8	76.4	60.4	58.2
72.5°	795.1	122.3	66.3	53.9	52.4
75°	575.9	107.0	59.0	49.5	47.3
77.5°	399.0	92.5	52.4	44.4	43.0
80°	257.7	80.1	46.6	40.8	40.0
82.5°	147.8	67.0	42.2	39.3	38.6
85°	70.6	56.1	37.9	34.2	30.6
87.5°	22.6	41.5	29.9	26.2	23.3
90°	2.9	29.1	23.3	20.4	18.9
92.5°	2.9	16.0	16.7	16.7	16.0
95°	2.2	3.6	8.0	12.4	11.6
97.5°	2.2	1.5	5.1	8.7	8.7
100°	1.5	0.7	2.2	5.8	5.8
102.5°	1.5	0.7	0.7	3.6	3.6
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	3.6	2.9
170°	2.2	2.2	2.9	3.6	2.9
172.5°	2.2	2.2	2.9	3.6	2.9
175°	2.2	2.2	2.9	3.6	2.9
177.5°	2.2	2.2	2.9	3.6	3.6
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	21.33	22.73	21.70	23.05	23.37	9.85	11.25	10.22	11.57	11.89
	3H	24.24	25.49	24.63	25.82	26.19	10.78	12.03	11.17	12.36	12.73
	4H	25.13	26.30	25.54	26.65	27.04	11.30	12.46	11.71	12.82	13.21
	6H	25.63	26.70	26.05	27.08	27.48	11.93	13.00	12.35	13.38	13.78
	8H	25.74	26.76	26.18	27.16	27.57	12.35	13.37	12.79	13.77	14.18
	12H	25.79	26.76	26.22	27.15	27.59	12.80	13.77	13.24	14.16	14.60
4H	2H	21.15	22.31	21.55	22.67	23.05	10.37	11.53	10.77	11.88	12.27
	3H	24.08	25.03	24.49	25.44	25.85	11.56	12.51	11.97	12.92	13.33
	4H	24.98	25.83	25.42	26.26	26.71	12.22	13.08	12.66	13.50	13.95
	6H	25.57	26.31	26.04	26.76	27.23	13.05	13.79	13.51	14.24	14.71
	8H	25.73	26.42	26.20	26.88	27.35	13.58	14.27	14.05	14.72	15.20
	12H	25.82	26.44	26.31	26.93	27.41	14.16	14.77	14.65	15.26	15.74
8H	4H	24.87	25.56	25.34	26.01	26.49	12.81	13.51	13.29	13.96	14.44
	6H	25.47	26.04	25.97	26.54	27.03	13.82	14.39	14.33	14.89	15.38
	8H	25.65	26.17	26.18	26.69	27.19	14.49	15.01	15.02	15.53	16.02
	12H	25.80	26.26	26.32	26.76	27.33	15.26	15.72	15.78	16.22	16.79
12H	4H	24.83	25.44	25.32	25.93	26.41	13.08	13.69	13.57	14.18	14.66
	6H	25.42	25.93	25.94	26.45	26.95	14.13	14.64	14.65	15.16	15.66
	8H	25.63	26.09	26.15	26.59	27.16	14.89	15.35	15.41	15.85	16.42