

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: P893578

Luminaire Tested: 4MB-5SL-ACL-UNV-L835

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P893578  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-5SL-ACL-UNV-L835  
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 80CRI, 3500K (C)  
Light Source: -  
Ballast/Driver: -

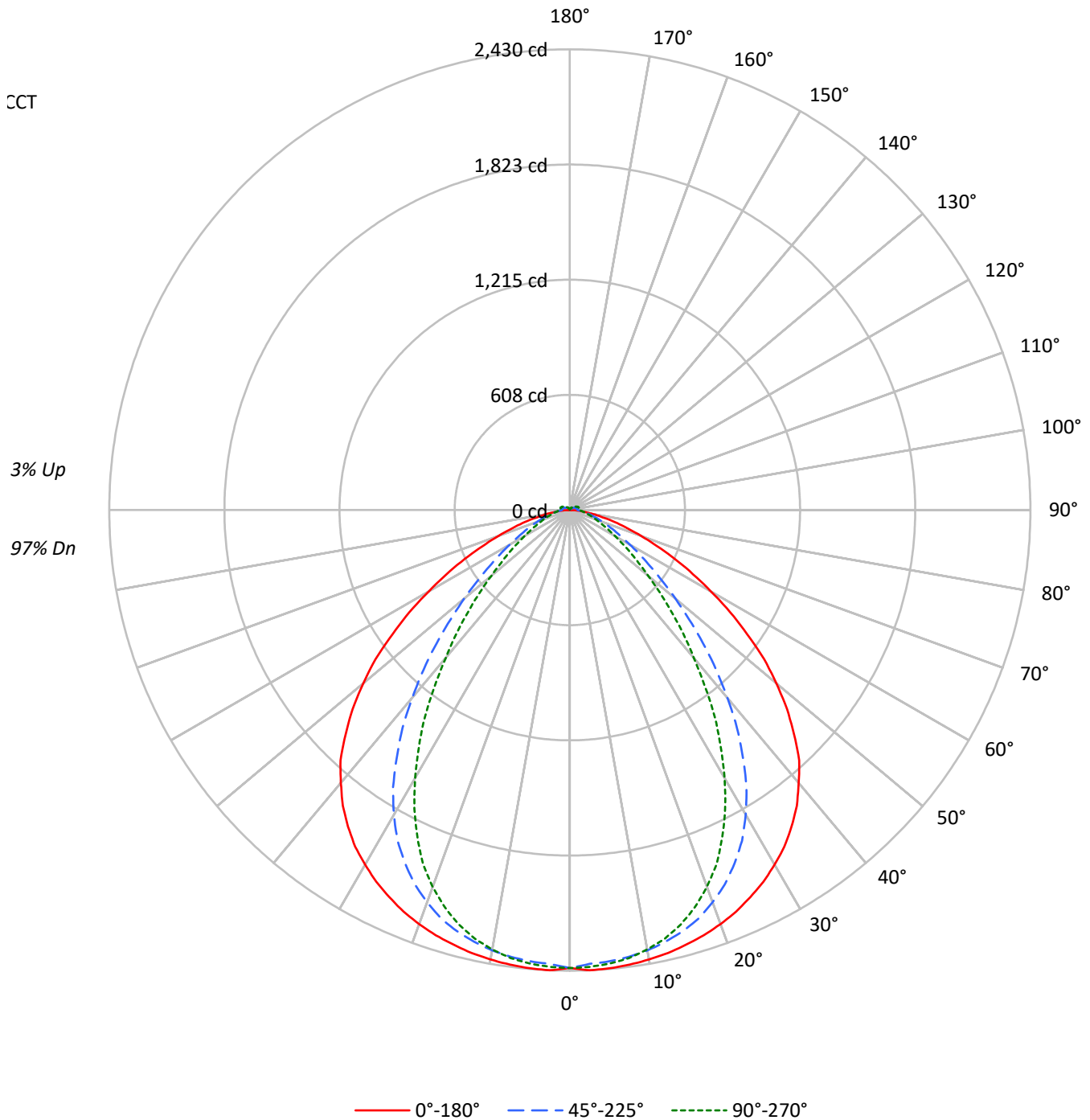
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4956.0 lumens  
Efficiency: N/A  
Efficacy: 141.6 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.08')  
CIE Type: Direct

Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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				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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97				97
1	110	106	102	99	107	103	100	97	99	96	93	94	92	90	90	89	87	85				85
2	101	94	88	84	99	92	87	82	88	84	80	85	81	78	82	79	76	74				74
3	94	85	77	72	91	83	76	71	80	74	69	77	72	68	74	70	66	64				64
4	87	76	68	62	84	75	67	62	72	66	61	69	64	60	67	62	59	57				57
5	80	69	61	55	78	68	60	55	65	59	54	63	58	53	61	56	52	50				50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	47	56	51	47	45				45
7	70	57	50	44	68	57	49	44	55	48	43	53	47	43	52	46	42	40				40
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	42	38	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33				33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	24604	24604	24604
5°	24761	23936	23898
10°	24805	23416	23060
15°	24879	22808	22010
20°	25000	21970	20574
25°	25073	20806	18662
30°	25099	19206	16259
35°	24991	16974	13600
40°	24548	14337	10704
45°	23603	11574	8299
50°	21974	8980	6226
55°	19671	6875	4762
60°	16900	5285	3628
65°	14091	4170	2885
70°	11271	3346	2356
75°	8978	2696	2005
80°	6574	2224	1756
85°	4516	1890	1616

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 23603 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	228.8	4.6
10°-20°	651.9	13.2
20°-30°	950.4	19.2
30°-40°	1021.1	20.6
40°-50°	849.8	17.1
50°-60°	568.4	11.5
60°-70°	325.4	6.6
70°-80°	161.8	3.3
80°-90°	66.2	1.3
90°-100°	38.4	0.8
100°-110°	33.9	0.7
110°-120°	24.9	0.5
120°-130°	16.0	0.3
130°-140°	9.5	0.2
140°-150°	5.4	0.1
150°-160°	2.7	0.1
160°-170°	1.1	0.0
170°-180°	0.3	0.0
0°-30°	1831.1	36.9
0°-40°	2852.2	57.6
0°-60°	4270.5	86.2
0°-90°	4823.8	97.3
90°-120°	97.2	2.0
90°-150°	128.0	2.6
90°-180°	132.0	2.7
0°-180°	4956.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2416	2416	2416	2416	2416	
5°	2426	2419	2390	2410	2402	231
15°	2373	2357	2300	2283	2263	671
25°	2253	2200	2056	1952	1904	1039
35°	2040	1892	1591	1395	1334	1274
45°	1673	1390	994	804	757	1286
55°	1141	823	518	410	388	1022
65°	611	414	261	211	200	611
75°	246	179	129	114	111	264
85°	48	54	60	63	63	56
90°	7	23	41	49	50	7
95°	11	23	40	49	50	8
105°	7	18	36	47	49	7
115°	4	11	28	39	42	3
125°	2	7	19	28	31	2
135°	1	6	13	19	21	1
145°	1	4	8	13	15	1
155°	1	4	6	8	10	1
165°	2	3	4	5	6	1
175°	2	2	3	3	3	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2415.9	2415.9	2415.9	2415.9	2415.9
2.5°	2430.0	2423.7	2396.2	2418.0	2411.7
5°	2426.5	2418.7	2389.8	2409.6	2401.8
7.5°	2418.7	2410.3	2377.2	2392.7	2384.2
10°	2407.5	2396.9	2358.8	2366.6	2353.2
12.5°	2393.4	2380.0	2332.8	2330.6	2315.8
15°	2372.9	2356.7	2300.3	2283.4	2263.0
17.5°	2351.8	2327.8	2258.8	2224.2	2196.0
20°	2324.3	2292.6	2201.7	2150.2	2115.0
22.5°	2292.6	2249.6	2137.5	2058.6	2022.0
25°	2253.1	2199.6	2055.8	1952.2	1903.6
27.5°	2210.8	2139.7	1967.0	1831.0	1775.3
30°	2160.1	2072.0	1856.3	1692.8	1632.9
32.5°	2106.5	1986.0	1735.1	1547.7	1482.1
35°	2039.6	1891.6	1591.4	1395.4	1334.1
37.5°	1967.0	1778.8	1449.0	1239.7	1170.6
40°	1878.9	1659.7	1292.5	1085.3	1017.0
42.5°	1791.5	1530.0	1142.4	945.8	886.6
45°	1673.1	1390.5	993.7	804.1	756.9
47.5°	1554.0	1241.1	851.4	689.3	642.7
50°	1421.5	1094.5	726.6	578.6	539.8
52.5°	1292.5	957.8	613.1	489.1	456.0
55°	1141.0	823.2	518.0	409.5	388.3
57.5°	1004.3	698.4	437.0	346.7	327.0
60°	859.8	592.0	365.8	293.2	274.9
62.5°	733.0	497.6	308.0	248.8	236.1
65°	611.0	414.4	260.8	211.4	200.2
67.5°	499.0	346.0	219.9	180.4	171.3
70°	400.3	280.5	185.4	153.6	147.3
72.5°	315.0	225.5	154.3	132.5	126.9
75°	246.0	179.0	129.0	114.2	110.6
77.5°	177.6	139.5	107.8	98.0	95.8
80°	125.4	105.7	88.8	84.6	83.2
82.5°	83.2	76.8	73.3	73.3	72.6
85°	47.9	53.6	59.9	62.7	63.4
87.5°	24.7	35.9	47.9	53.6	54.3
90°	7.0	22.6	40.9	48.6	50.0
92.5°	10.6	22.6	40.2	48.6	50.0
95°	10.6	22.6	40.2	48.6	50.0
97.5°	9.9	21.8	40.2	48.6	50.0
100°	9.2	20.4	39.5	48.6	50.0
102.5°	7.8	19.7	38.1	47.9	50.0
105°	7.0	18.3	35.9	47.2	49.3
107.5°	6.3	15.5	33.8	45.1	47.9
110°	4.9	13.4	32.4	43.0	46.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.2	12.0	30.3	40.9	44.4
115°	3.5	10.6	28.2	38.8	42.3
117.5°	2.8	9.9	25.4	35.9	39.5
120°	2.1	9.2	23.3	33.8	36.6
122.5°	2.1	8.5	20.4	31.0	33.8
125°	2.1	7.0	19.0	28.2	31.0
127.5°	1.4	6.3	16.9	25.4	28.2
130°	1.4	6.3	15.5	23.3	25.4
132.5°	1.4	5.6	14.1	21.1	23.3
135°	1.4	5.6	12.7	19.0	21.1
137.5°	1.4	4.9	11.3	17.6	19.7
140°	1.4	4.9	10.6	15.5	17.6
142.5°	1.4	4.2	9.2	14.8	16.2
145°	1.4	4.2	8.5	12.7	14.8
147.5°	1.4	4.2	7.8	12.0	13.4
150°	1.4	3.5	7.0	9.9	12.0
152.5°	1.4	3.5	6.3	9.2	11.3
155°	1.4	3.5	5.6	7.8	9.9
157.5°	1.4	3.5	5.6	7.0	8.5
160°	2.1	2.8	4.9	6.3	7.8
162.5°	2.1	2.8	4.2	5.6	7.0
165°	2.1	2.8	4.2	4.9	6.3
167.5°	2.1	2.8	3.5	4.2	4.9
170°	2.1	2.1	3.5	3.5	3.5
172.5°	2.1	2.1	2.8	3.5	2.8
175°	2.1	2.1	2.8	2.8	2.8
177.5°	2.1	2.1	2.8	2.8	2.8
180°	2.1	2.1	2.1	2.1	2.1



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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	19.86	21.25	20.27	21.63	22.01	15.16	16.55	15.57	16.92	17.30
	3H	20.96	22.20	21.38	22.59	23.01	16.30	17.54	16.72	17.93	18.36
	4H	21.26	22.43	21.71	22.83	23.28	16.80	17.96	17.24	18.37	18.81
	6H	21.41	22.48	21.87	22.90	23.36	17.30	18.37	17.76	18.79	19.25
	8H	21.43	22.45	21.90	22.89	23.36	17.56	18.58	18.03	19.02	19.49
	12H	21.42	22.40	21.90	22.83	23.33	17.85	18.83	18.33	19.27	19.76
4H	2H	19.84	21.01	20.29	21.41	21.86	15.65	16.82	16.10	17.22	17.67
	3H	21.08	22.04	21.54	22.50	22.96	16.97	17.93	17.43	18.38	18.85
	4H	21.47	22.33	21.94	22.80	23.30	17.56	18.43	18.04	18.89	19.40
	6H	21.70	22.45	22.20	22.94	23.47	18.18	18.93	18.69	19.43	19.95
	8H	21.74	22.44	22.25	22.93	23.47	18.50	19.21	19.01	19.70	20.23
	12H	21.75	22.38	22.28	22.90	23.44	18.88	19.50	19.41	20.03	20.57
8H	4H	21.45	22.15	21.96	22.65	23.18	17.80	18.50	18.31	19.00	19.53
	6H	21.73	22.31	22.27	22.85	23.39	18.53	19.11	19.07	19.65	20.19
	8H	21.80	22.32	22.36	22.88	23.43	18.93	19.45	19.49	20.01	20.56
	12H	21.85	22.31	22.40	22.85	23.48	19.42	19.88	19.98	20.42	21.05
12H	4H	21.43	22.06	21.96	22.58	23.12	17.82	18.44	18.35	18.97	19.51
	6H	21.71	22.23	22.27	22.79	23.34	18.56	19.08	19.12	19.64	20.19
	8H	21.82	22.28	22.37	22.82	23.44	19.02	19.49	19.58	20.03	20.65