

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: P893574

Luminaire Tested: 4MB-5SL-A-UNV-L935

Issue Date: 11/11/2024

**Test Information**

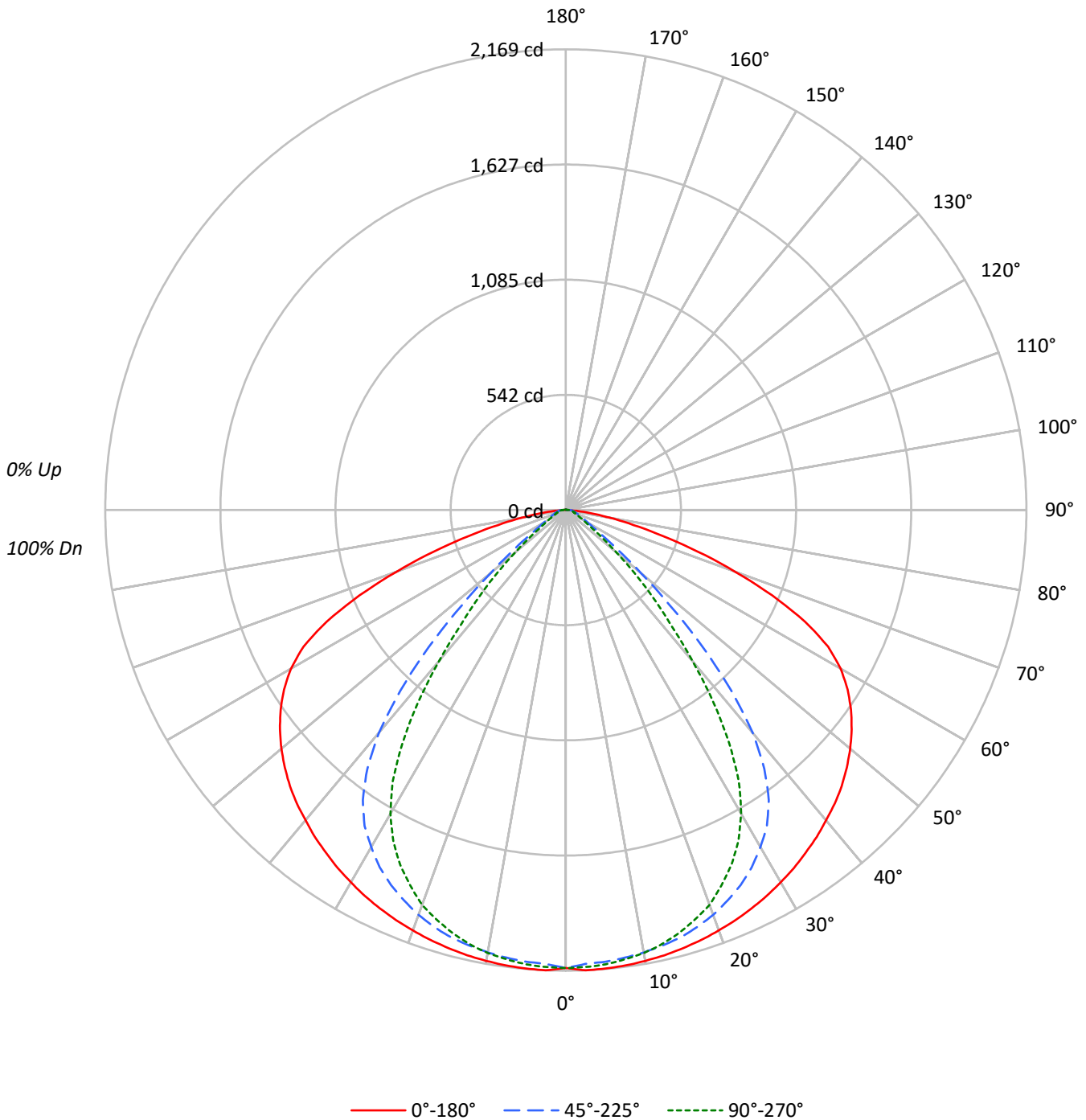
Test Method: LM-79-2019  
Report Number: P893574  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-5SL-A-UNV-L935  
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 3500K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4420.0 lumens  
Efficiency: N/A  
Efficacy: 126.3 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 (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				
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°	21959	21959	21959
5°	22152	21823	21951
10°	22292	21872	21903
15°	22513	21966	21740
20°	22831	21984	21448
25°	23256	21889	20722
30°	23798	21546	19420
35°	24477	20716	16697
40°	25350	18195	12341
45°	26466	13129	8300
50°	27697	7336	4953
55°	29110	3793	2711
60°	30453	2467	1921
65°	29932	2027	1523
70°	25245	1864	1420
75°	18569	1901	1527
80°	12387	2240	1924
85°	6766	3622	2933

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 62.5°  
 Luminance: 30713 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.7	4.6
10°-20°	591.6	13.4
20°-30°	900.0	20.4
30°-40°	1027.8	23.3
40°-50°	829.2	18.8
50°-60°	453.9	10.3
60°-70°	239.3	5.4
70°-80°	117.3	2.7
80°-90°	41.3	0.9
90°-100°	8.9	0.2
100°-110°	1.2	0.0
110°-120°	0.7	0.0
120°-130°	0.7	0.0
130°-140°	0.7	0.0
140°-150°	0.9	0.0
150°-160°	0.8	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
<b>0°-30°</b>	<b>1696.4</b>	<b>38.4</b>
<b>0°-40°</b>	<b>2724.2</b>	<b>61.6</b>
<b>0°-60°</b>	<b>4007.3</b>	<b>90.7</b>
<b>0°-90°</b>	<b>4405.3</b>	<b>99.7</b>
90°-120°	10.9	0.2
90°-150°	13.1	0.3
<b>90°-180°</b>	<b>15.0</b>	<b>0.3</b>
<b>0°-180°</b>	<b>4420.0</b>	<b>100.0</b>

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2156	2156	2156	2156	2156	
5°	2167	2160	2135	2154	2147	206
15°	2135	2122	2083	2080	2062	604
25°	2070	2040	1948	1882	1844	956
35°	1969	1886	1666	1440	1343	1235
45°	1838	1579	912	623	576	1418
55°	1640	675	214	165	153	1463
65°	1242	156	84	68	63	1201
75°	472	88	48	41	39	521
85°	58	46	31	28	25	80
90°	2	24	19	17	16	4
95°	2	3	7	10	10	1
105°	1	0	1	1	1	1
115°	1	1	1	1	1	1
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	1	1	1	2	1	1
155°	1	1	2	2	2	1
165°	1	2	2	2	2	0
175°	2	2	2	3	2	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2156.2	2156.2	2156.2	2156.2	2156.2
2.5°	2169.3	2163.3	2138.9	2159.7	2153.8
5°	2166.9	2160.3	2134.7	2153.8	2147.2
7.5°	2162.7	2154.4	2126.3	2143.6	2133.5
10°	2155.6	2147.2	2115.0	2128.7	2118.0
12.5°	2147.2	2135.9	2100.1	2107.2	2093.5
15°	2135.3	2122.2	2083.4	2079.8	2061.9
17.5°	2122.2	2106.0	2058.9	2043.4	2021.9
20°	2106.6	2087.0	2028.5	1998.1	1979.0
22.5°	2089.3	2063.7	1990.3	1943.8	1913.9
25°	2069.6	2039.8	1947.9	1881.7	1844.1
27.5°	2048.8	2008.2	1896.6	1809.5	1758.8
30°	2023.7	1974.8	1832.2	1714.7	1651.4
32.5°	1998.7	1933.0	1763.0	1592.4	1517.2
35°	1968.8	1885.9	1666.3	1439.6	1343.0
37.5°	1940.8	1829.2	1535.7	1248.1	1144.3
40°	1906.8	1762.4	1368.6	1028.0	928.3
42.5°	1874.6	1684.8	1152.1	815.6	729.1
45°	1837.6	1578.6	911.6	622.9	576.3
47.5°	1794.6	1433.7	662.8	463.6	434.3
50°	1748.1	1234.4	463.0	336.5	312.6
52.5°	1696.8	965.3	312.0	233.9	220.7
55°	1639.5	674.8	213.6	165.3	152.7
57.5°	1573.3	439.1	155.1	124.7	116.3
60°	1495.1	280.4	121.1	99.0	94.3
62.5°	1392.5	196.9	99.6	81.7	77.6
65°	1242.1	155.7	84.1	68.0	63.2
67.5°	1051.8	131.9	72.2	57.3	54.3
70°	847.8	114.5	62.6	49.5	47.7
72.5°	651.5	100.2	54.3	44.1	43.0
75°	471.9	87.7	48.3	40.6	38.8
77.5°	326.9	75.8	43.0	36.4	35.2
80°	211.2	65.6	38.2	33.4	32.8
82.5°	121.1	54.9	34.6	32.2	31.6
85°	57.9	45.9	31.0	28.0	25.1
87.5°	18.5	34.0	24.5	21.5	19.1
90°	2.4	23.9	19.1	16.7	15.5
92.5°	2.4	13.1	13.7	13.7	13.1
95°	1.8	3.0	6.6	10.1	9.5
97.5°	1.8	1.2	4.2	7.2	7.2
100°	1.2	0.6	1.8	4.8	4.8
102.5°	1.2	0.6	0.6	3.0	3.0
105°	0.6	0.0	0.6	1.2	1.2
107.5°	0.6	0.6	0.6	1.2	0.6
110°	0.6	0.6	0.6	1.2	0.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.6	0.6	0.6	1.2	0.6
115°	0.6	0.6	0.6	1.2	0.6
117.5°	0.6	0.6	0.6	1.2	0.6
120°	0.6	0.6	0.6	1.2	0.6
122.5°	0.6	0.6	0.6	1.2	0.6
125°	0.6	0.6	0.6	1.2	0.6
127.5°	0.6	0.6	0.6	1.2	0.6
130°	0.6	0.6	1.2	1.2	0.6
132.5°	0.6	0.6	1.2	1.2	0.6
135°	0.6	0.6	1.2	1.2	0.6
137.5°	0.6	0.6	1.2	1.2	1.2
140°	1.2	0.6	1.2	1.2	1.2
142.5°	1.2	1.2	1.2	1.8	1.2
145°	1.2	1.2	1.2	1.8	1.2
147.5°	1.2	1.2	1.8	1.8	1.2
150°	1.2	1.2	1.8	1.8	1.2
152.5°	1.2	1.2	1.8	1.8	1.8
155°	1.2	1.2	1.8	2.4	1.8
157.5°	1.2	1.2	1.8	2.4	1.8
160°	1.2	1.8	2.4	2.4	1.8
162.5°	1.2	1.8	2.4	2.4	2.4
165°	1.2	1.8	2.4	2.4	2.4
167.5°	1.8	1.8	2.4	3.0	2.4
170°	1.8	1.8	2.4	3.0	2.4
172.5°	1.8	1.8	2.4	3.0	2.4
175°	1.8	1.8	2.4	3.0	2.4
177.5°	1.8	1.8	2.4	3.0	3.0
180°	2.4	2.4	2.4	2.4	2.4



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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	20.64	22.04	21.01	22.36	22.68	9.15	10.55	9.52	10.87	11.20
	3H	23.55	24.79	23.93	25.13	25.50	10.09	11.33	10.47	11.67	12.04
	4H	24.44	25.60	24.85	25.96	26.35	10.61	11.77	11.01	12.13	12.52
	6H	24.94	26.01	25.36	26.39	26.79	11.24	12.31	11.66	12.69	13.09
	8H	25.05	26.07	25.49	26.46	26.88	11.66	12.67	12.09	13.07	13.48
	12H	25.10	26.07	25.53	26.46	26.89	12.11	13.08	12.54	13.47	13.91
4H	2H	20.45	21.62	20.86	21.97	22.36	9.67	10.83	10.08	11.19	11.58
	3H	23.38	24.34	23.80	24.75	25.16	10.86	11.82	11.28	12.23	12.64
	4H	24.28	25.14	24.72	25.56	26.01	11.53	12.39	11.97	12.81	13.26
	6H	24.88	25.62	25.34	26.07	26.54	12.35	13.10	12.82	13.55	14.02
	8H	25.04	25.73	25.51	26.18	26.66	12.89	13.58	13.36	14.03	14.51
	12H	25.13	25.75	25.62	26.23	26.72	13.47	14.08	13.96	14.57	15.05
8H	4H	24.18	24.87	24.65	25.32	25.80	12.12	12.82	12.60	13.27	13.75
	6H	24.78	25.35	25.28	25.85	26.33	13.13	13.70	13.63	14.20	14.69
	8H	24.96	25.48	25.49	26.00	26.49	13.80	14.32	14.33	14.83	15.33
	12H	25.11	25.56	25.63	26.06	26.64	14.57	15.02	15.09	15.52	16.10
12H	4H	24.14	24.75	24.63	25.24	25.72	12.38	13.00	12.87	13.49	13.97
	6H	24.72	25.24	25.25	25.76	26.26	13.44	13.95	13.96	14.47	14.97
	8H	24.94	25.40	25.46	25.90	26.47	14.20	14.66	14.72	15.16	15.73