

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: P893701

Luminaire Tested: 4MB-6SL-AOL-UNV-L930

Issue Date: 11/11/2024

**Test Information**

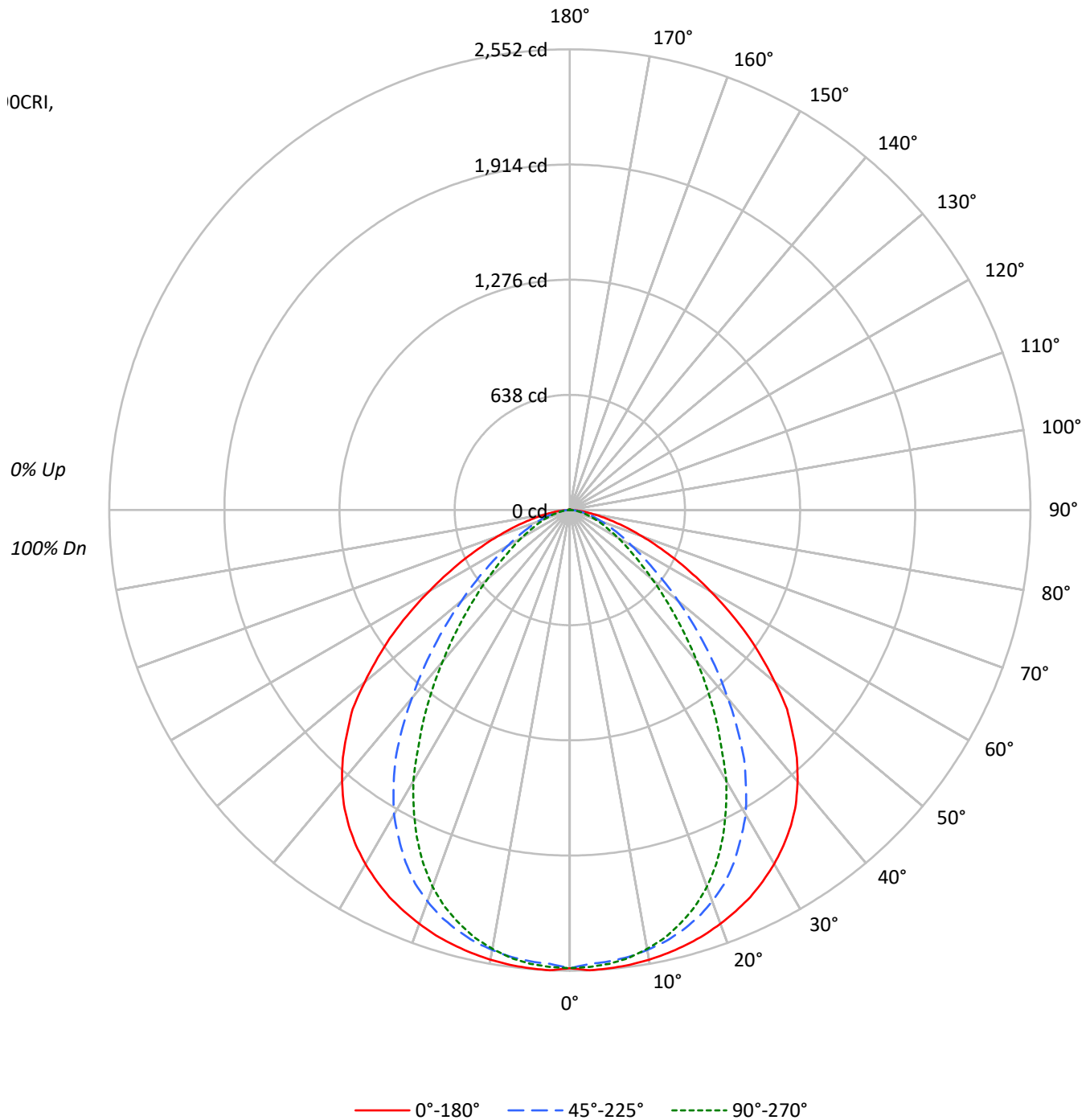
Test Method: LM-79-2019  
Report Number: P893701  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-6SL-AOL-UNV-L930  
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 9  
3000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5069.1 lumens  
Efficiency: N/A  
Efficacy: 114.2 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16  
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 44.4  
Input Voltage (V): 120  
Input Current (Ain): 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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	89	89	89	87
2	102	95	89	85	100	93	88	84	90	85	82	87	83	80	84	81	78	78	78	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	70	76	72	68	68	68	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	60	60	60	58
5	81	70	62	56	79	69	61	55	66	60	55	65	59	54	63	58	54	54	54	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	48	48	48	46
7	70	58	50	45	69	57	50	44	56	49	44	54	48	44	53	48	43	43	43	43	42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	39	39	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	36	36	36	34
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	33	33	33	31

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

	0°	45°	90°
0°	25842	25842	25842
5°	26054	25659	25793
10°	26158	25594	25527
15°	26294	25412	24989
20°	26437	25001	24077
25°	26585	24188	22519
30°	26631	22916	20390
35°	26544	20933	17539
40°	26100	18116	14575
45°	25130	15222	11794
50°	23515	12398	9446
55°	21248	9964	7575
60°	18325	8111	6271
65°	15507	6755	5157
70°	12658	5744	4377
75°	10140	4840	3722
80°	7900	4141	3202
85°	6123	3657	2886

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 25130 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	240.3	4.7
10°-20°	683.8	13.5
20°-30°	996.7	19.7
30°-40°	1074.3	21.2
40°-50°	900.6	17.8
50°-60°	609.7	12.0
60°-70°	347.7	6.9
70°-80°	159.0	3.1
80°-90°	41.6	0.8
90°-100°	5.1	0.1
100°-110°	3.5	0.1
110°-120°	1.9	0.0
120°-130°	1.1	0.0
130°-140°	1.1	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
0°-30°	1920.8	37.9
0°-40°	2995.1	59.1
0°-60°	4505.5	88.9
0°-90°	5053.8	99.7
90°-120°	10.5	0.2
90°-150°	13.7	0.3
90°-180°	15.0	0.3
0°-180°	5069.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2538	2538	2538	2538	2538	
5°	2548	2540	2510	2530	2523	243
15°	2494	2472	2410	2394	2370	705
25°	2366	2303	2152	2054	2004	1090
35°	2135	1974	1684	1478	1411	1333
45°	1745	1456	1057	871	819	1343
55°	1197	876	561	455	427	1066
65°	644	448	280	227	214	642
75°	258	189	123	100	95	281
85°	52	44	31	26	25	61
90°	7	7	4	4	3	7
95°	11	7	4	2	2	9
105°	7	5	2	2	1	8
115°	4	3	2	1	1	4
125°	2	2	2	1	1	2
135°	1	2	2	2	1	1
145°	2	2	2	2	2	1
155°	2	2	2	2	2	1
165°	2	2	2	2	2	0
175°	2	2	2	3	3	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2537.5	2537.5	2537.5	2537.5	2537.5
2.5°	2552.1	2545.6	2516.4	2540.5	2533.2
5°	2548.5	2540.5	2509.9	2530.3	2523.0
7.5°	2541.2	2531.0	2496.8	2512.1	2502.6
10°	2529.5	2517.2	2474.9	2483.7	2468.4
12.5°	2513.5	2498.2	2448.0	2445.8	2427.6
15°	2493.9	2472.0	2410.2	2394.1	2370.1
17.5°	2469.8	2442.2	2365.0	2333.0	2303.9
20°	2439.3	2403.6	2306.8	2255.8	2221.6
22.5°	2404.3	2356.3	2239.1	2157.6	2120.4
25°	2365.8	2303.2	2152.5	2053.5	2004.0
27.5°	2317.7	2239.1	2052.0	1923.9	1872.9
30°	2264.6	2164.8	1948.7	1784.9	1733.9
32.5°	2204.2	2079.7	1816.9	1634.9	1563.6
35°	2135.0	1974.1	1683.7	1477.7	1410.7
37.5°	2057.1	1864.2	1524.3	1319.0	1251.3
40°	1963.2	1733.9	1362.7	1159.6	1096.3
42.5°	1862.0	1601.4	1207.6	1008.2	953.6
45°	1744.8	1455.8	1056.9	871.3	818.9
47.5°	1632.0	1308.8	915.7	746.1	703.2
50°	1484.2	1152.3	782.5	631.8	596.2
52.5°	1340.1	1007.4	669.0	540.1	506.6
55°	1196.7	875.7	561.2	455.0	426.6
57.5°	1045.3	746.9	472.4	385.1	366.1
60°	899.7	635.5	398.2	323.2	307.9
62.5°	766.5	532.8	337.0	273.0	258.4
65°	643.5	447.7	280.3	227.1	214.0
67.5°	527.0	368.3	233.7	189.3	179.8
70°	425.1	298.4	192.9	155.8	147.0
72.5°	337.0	238.8	154.3	127.4	117.9
75°	257.7	189.3	123.0	100.5	94.6
77.5°	192.2	142.7	94.6	77.2	72.8
80°	134.7	103.4	70.6	58.2	54.6
82.5°	91.7	71.3	49.5	40.8	38.6
85°	52.4	44.4	31.3	26.2	24.7
87.5°	26.9	23.3	16.7	12.4	10.9
90°	7.3	7.3	4.4	3.6	2.9
92.5°	11.6	6.6	4.4	2.9	2.2
95°	10.9	6.6	3.6	2.2	2.2
97.5°	10.2	6.6	2.9	2.2	1.5
100°	9.5	5.8	2.9	1.5	1.5
102.5°	8.7	5.8	2.9	1.5	1.5
105°	7.3	5.1	2.2	1.5	0.7
107.5°	6.6	4.4	2.2	1.5	0.7
110°	5.1	3.6	2.2	1.5	0.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.4	3.6	1.5	1.5	0.7
115°	3.6	2.9	1.5	0.7	0.7
117.5°	2.9	2.2	1.5	0.7	0.7
120°	2.2	2.2	1.5	0.7	0.7
122.5°	2.2	1.5	1.5	0.7	0.7
125°	1.5	1.5	1.5	0.7	0.7
127.5°	1.5	1.5	1.5	0.7	0.7
130°	1.5	1.5	1.5	0.7	0.7
132.5°	1.5	1.5	1.5	1.5	0.7
135°	0.7	1.5	1.5	1.5	0.7
137.5°	1.5	1.5	1.5	1.5	1.5
140°	1.5	1.5	1.5	1.5	1.5
142.5°	1.5	1.5	1.5	1.5	1.5
145°	1.5	1.5	1.5	1.5	1.5
147.5°	1.5	1.5	1.5	1.5	1.5
150°	1.5	1.5	1.5	1.5	1.5
152.5°	1.5	1.5	1.5	1.5	1.5
155°	1.5	1.5	1.5	2.2	2.2
157.5°	1.5	1.5	2.2	2.2	2.2
160°	1.5	1.5	2.2	2.2	2.2
162.5°	1.5	1.5	2.2	2.2	2.2
165°	1.5	2.2	2.2	2.2	2.2
167.5°	1.5	2.2	2.2	2.2	2.9
170°	1.5	2.2	2.2	2.9	2.9
172.5°	1.5	2.2	2.2	2.9	2.9
175°	2.2	2.2	2.2	2.9	2.9
177.5°	2.2	2.2	2.2	2.9	2.9
180°	2.2	2.2	2.2	2.2	2.2



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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	21.67	23.11	22.04	23.43	23.75	16.51	17.95	16.88	18.27	18.59
	3H	22.98	24.26	23.36	24.59	24.96	17.52	18.81	17.91	19.14	19.51
	4H	23.40	24.60	23.81	24.96	25.34	17.86	19.06	18.26	19.41	19.80
	6H	23.67	24.77	24.08	25.15	25.55	18.08	19.19	18.50	19.56	19.96
	8H	23.74	24.79	24.17	25.18	25.59	18.15	19.20	18.58	19.60	20.01
	12H	23.78	24.78	24.21	25.17	25.61	18.19	19.20	18.63	19.59	20.02
4H	2H	21.67	22.86	22.07	23.22	23.61	17.13	18.33	17.54	18.69	19.08
	3H	23.13	24.12	23.55	24.53	24.94	18.33	19.32	18.75	19.73	20.14
	4H	23.66	24.54	24.09	24.96	25.41	18.75	19.63	19.19	20.06	20.50
	6H	24.03	24.80	24.50	25.25	25.72	19.06	19.82	19.52	20.27	20.74
	8H	24.15	24.86	24.62	25.31	25.79	19.15	19.87	19.62	20.32	20.79
	12H	24.22	24.86	24.71	25.34	25.82	19.22	19.86	19.71	20.35	20.83
8H	4H	23.64	24.35	24.11	24.81	25.28	19.08	19.80	19.55	20.25	20.72
	6H	24.07	24.66	24.57	25.16	25.64	19.47	20.06	19.98	20.56	21.05
	8H	24.23	24.75	24.75	25.27	25.77	19.61	20.14	20.14	20.66	21.16
	12H	24.36	24.82	24.87	25.32	25.90	19.74	20.21	20.25	20.71	21.28
12H	4H	23.61	24.25	24.10	24.73	25.21	19.13	19.76	19.62	20.25	20.73
	6H	24.04	24.57	24.56	25.08	25.58	19.54	20.07	20.06	20.59	21.09
	8H	24.23	24.70	24.74	25.19	25.77	19.73	20.20	20.25	20.70	21.27