

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: P893703

Luminaire Tested: 4MB-6SL-AOL-UNV-L940

Issue Date: 11/11/2024

**Test Information**

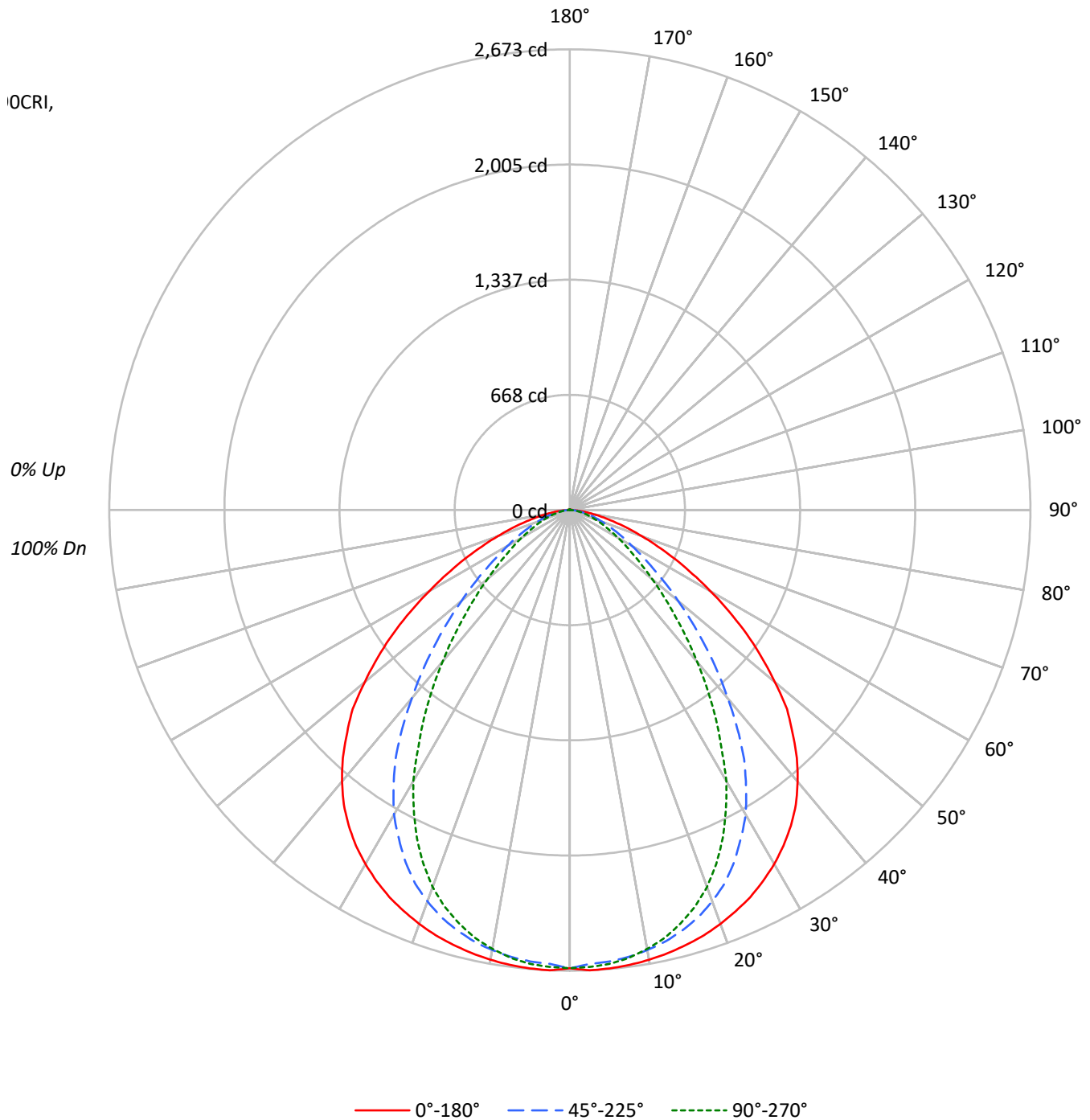
Test Method: LM-79-2019  
Report Number: P893703  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-6SL-AOL-UNV-L940  
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 9  
4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5310.0 lumens  
Efficiency: N/A  
Efficacy: 119.6 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 (A<sub>in</sub>): 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°	27072	27072	27072
5°	27292	26879	27019
10°	27402	26811	26740
15°	27544	26619	26177
20°	27693	26190	25222
25°	27848	25337	23590
30°	27896	24005	21360
35°	27806	21927	18373
40°	27342	18978	15267
45°	26325	15947	12355
50°	24634	12987	9894
55°	22258	10439	7933
60°	19197	8496	6571
65°	16244	7075	5403
70°	13260	6018	4586
75°	10620	5072	3899
80°	8275	4340	3355
85°	6415	3833	3026

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 26325 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	251.7	4.7
10°-20°	716.3	13.5
20°-30°	1044.1	19.7
30°-40°	1125.4	21.2
40°-50°	943.4	17.8
50°-60°	638.7	12.0
60°-70°	364.2	6.9
70°-80°	166.6	3.1
80°-90°	43.6	0.8
90°-100°	5.4	0.1
100°-110°	3.7	0.1
110°-120°	2.0	0.0
120°-130°	1.2	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°	2012.1	37.9
0°-40°	3137.5	59.1
0°-60°	4719.7	88.9
0°-90°	5294.1	99.7
90°-120°	11.0	0.2
90°-150°	14.2	0.3
90°-180°	16.0	0.3
0°-180°	5310.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2658	2658	2658	2658	2658	
5°	2670	2661	2629	2651	2643	254
15°	2612	2590	2525	2508	2483	738
25°	2478	2413	2255	2151	2099	1142
35°	2236	2068	1764	1548	1478	1396
45°	1828	1525	1107	913	858	1407
55°	1254	917	588	477	447	1116
65°	674	469	294	238	224	673
75°	270	198	129	105	99	294
85°	55	46	33	28	26	64
90°	8	8	5	4	3	8
95°	11	7	4	2	2	9
105°	8	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°	2658.2	2658.2	2658.2	2658.2	2658.2
2.5°	2673.4	2666.6	2636.1	2661.2	2653.6
5°	2669.6	2661.2	2629.2	2650.6	2642.9
7.5°	2662.0	2651.3	2615.5	2631.5	2621.6
10°	2649.8	2636.8	2592.6	2601.8	2585.7
12.5°	2633.0	2617.0	2564.4	2562.1	2543.0
15°	2612.4	2589.6	2524.7	2508.0	2482.8
17.5°	2587.3	2558.3	2477.5	2443.9	2413.4
20°	2555.2	2517.9	2416.5	2363.1	2327.2
22.5°	2518.6	2468.3	2345.6	2260.1	2221.3
25°	2478.2	2412.7	2254.8	2151.1	2099.3
27.5°	2427.9	2345.6	2149.6	2015.4	1962.0
30°	2372.2	2267.8	2041.3	1869.7	1816.4
32.5°	2308.9	2178.6	1903.3	1712.6	1637.9
35°	2236.5	2068.0	1763.7	1547.9	1477.8
37.5°	2154.9	1952.8	1596.7	1381.7	1310.8
40°	2056.6	1816.4	1427.5	1214.7	1148.4
42.5°	1950.6	1677.6	1265.0	1056.1	998.9
45°	1827.8	1525.1	1107.2	912.8	857.8
47.5°	1709.6	1371.0	959.3	781.6	736.6
50°	1554.8	1207.1	819.7	661.9	624.5
52.5°	1403.8	1055.3	700.8	565.8	530.7
55°	1253.6	917.3	587.9	476.6	446.8
57.5°	1095.0	782.4	494.9	403.4	383.6
60°	942.5	665.7	417.1	338.6	322.6
62.5°	802.9	558.2	353.1	285.9	270.7
65°	674.1	469.0	293.6	237.9	224.2
67.5°	552.1	385.8	244.8	198.3	188.3
70°	445.3	312.6	202.1	163.2	154.0
72.5°	353.1	250.1	161.7	133.4	123.5
75°	269.9	198.3	128.9	105.2	99.1
77.5°	201.3	149.5	99.1	80.8	76.3
80°	141.1	108.3	74.0	61.0	57.2
82.5°	96.1	74.7	51.9	42.7	40.4
85°	54.9	46.5	32.8	27.5	25.9
87.5°	28.2	24.4	17.5	13.0	11.4
90°	7.6	7.6	4.6	3.8	3.1
92.5°	12.2	6.9	4.6	3.1	2.3
95°	11.4	6.9	3.8	2.3	2.3
97.5°	10.7	6.9	3.1	2.3	1.5
100°	9.9	6.1	3.1	1.5	1.5
102.5°	9.2	6.1	3.1	1.5	1.5
105°	7.6	5.3	2.3	1.5	0.8
107.5°	6.9	4.6	2.3	1.5	0.8
110°	5.3	3.8	2.3	1.5	0.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	4.6	3.8	1.5	1.5	0.8
115°	3.8	3.1	1.5	0.8	0.8
117.5°	3.1	2.3	1.5	0.8	0.8
120°	2.3	2.3	1.5	0.8	0.8
122.5°	2.3	1.5	1.5	0.8	0.8
125°	1.5	1.5	1.5	0.8	0.8
127.5°	1.5	1.5	1.5	0.8	0.8
130°	1.5	1.5	1.5	0.8	0.8
132.5°	1.5	1.5	1.5	1.5	0.8
135°	0.8	1.5	1.5	1.5	0.8
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	2.3	2.3
157.5°	1.5	1.5	2.3	2.3	2.3
160°	1.5	1.5	2.3	2.3	2.3
162.5°	1.5	1.5	2.3	2.3	2.3
165°	1.5	2.3	2.3	2.3	2.3
167.5°	1.5	2.3	2.3	2.3	3.1
170°	1.5	2.3	2.3	3.1	3.1
172.5°	1.5	2.3	2.3	3.1	3.1
175°	2.3	2.3	2.3	3.1	3.1
177.5°	2.3	2.3	2.3	3.1	3.1
180°	2.3	2.3	2.3	2.3	2.3



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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	21.83	23.27	22.20	23.59	23.91	16.67	18.11	17.04	18.43	18.75
	3H	23.14	24.42	23.52	24.75	25.13	17.68	18.97	18.07	19.30	19.67
	4H	23.56	24.76	23.97	25.12	25.50	18.02	19.22	18.43	19.57	19.96
	6H	23.83	24.93	24.25	25.31	25.71	18.24	19.35	18.66	19.72	20.12
	8H	23.90	24.95	24.33	25.35	25.76	18.31	19.36	18.75	19.76	20.17
	12H	23.94	24.94	24.37	25.33	25.77	18.35	19.36	18.79	19.75	20.18
4H	2H	21.83	23.03	22.23	23.38	23.77	17.30	18.49	17.70	18.85	19.24
	3H	23.29	24.28	23.71	24.69	25.10	18.49	19.48	18.91	19.89	20.30
	4H	23.82	24.70	24.26	25.13	25.57	18.91	19.79	19.35	20.22	20.66
	6H	24.20	24.96	24.66	25.41	25.88	19.22	19.99	19.68	20.44	20.91
	8H	24.31	25.02	24.78	25.47	25.95	19.31	20.03	19.78	20.48	20.96
	12H	24.38	25.02	24.87	25.51	25.99	19.38	20.02	19.87	20.51	20.99
8H	4H	23.80	24.52	24.27	24.97	25.44	19.24	19.96	19.71	20.41	20.89
	6H	24.23	24.82	24.74	25.32	25.81	19.64	20.22	20.14	20.72	21.21
	8H	24.39	24.92	24.91	25.43	25.93	19.78	20.31	20.30	20.82	21.32
	12H	24.52	24.99	25.03	25.48	26.06	19.90	20.37	20.42	20.87	21.44
12H	4H	23.77	24.41	24.26	24.89	25.37	19.29	19.93	19.78	20.41	20.89
	6H	24.20	24.73	24.72	25.25	25.74	19.70	20.23	20.22	20.75	21.25
	8H	24.39	24.86	24.91	25.36	25.93	19.89	20.36	20.41	20.86	21.43