

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: P893700

Luminaire Tested: 4MB-6SL-AOL-UNV-L850

Issue Date: 11/11/2024

**Test Information**

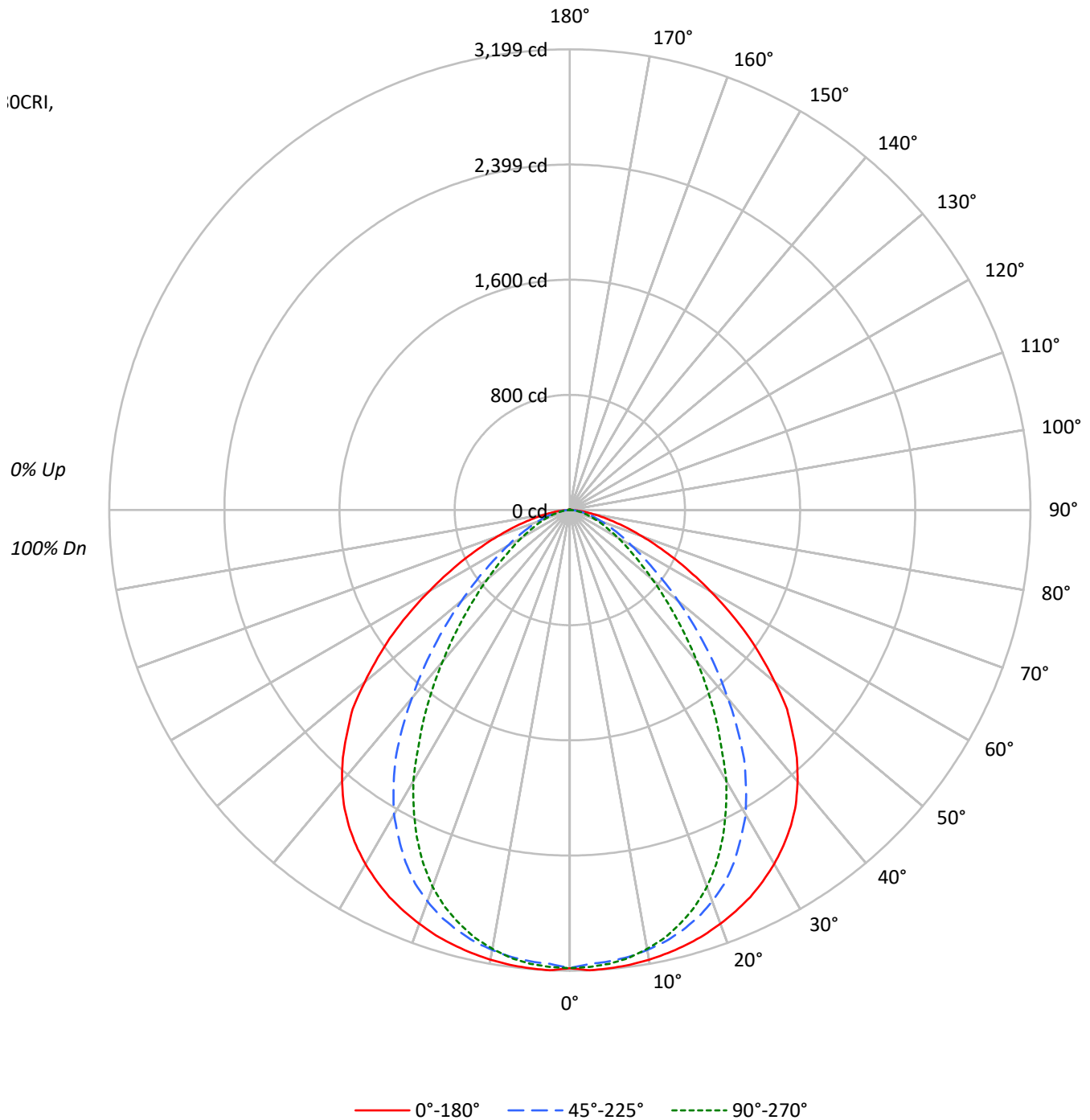
Test Method: LM-79-2019  
Report Number: P893700  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-6SL-AOL-UNV-L850  
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 8  
5000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6353.9 lumens  
Efficiency: N/A  
Efficacy: 143.1 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	67	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°	32394	32394	32394
5°	32658	32163	32332
10°	32790	32082	31997
15°	32960	31853	31325
20°	33138	31339	30181
25°	33323	30319	28227
30°	33381	28724	25560
35°	33272	26239	21985
40°	32717	22708	18269
45°	31501	19082	14784
50°	29477	15541	11840
55°	26635	12491	9494
60°	22972	10166	7862
65°	19437	8466	6465
70°	15868	7200	5488
75°	12710	6068	4667
80°	9900	5190	4012
85°	7677	4581	3622

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 31501 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	301.2	4.7
10°-20°	857.1	13.5
20°-30°	1249.3	19.7
30°-40°	1346.7	21.2
40°-50°	1128.9	17.8
50°-60°	764.3	12.0
60°-70°	435.8	6.9
70°-80°	199.3	3.1
80°-90°	52.2	0.8
90°-100°	6.4	0.1
100°-110°	4.3	0.1
110°-120°	2.4	0.0
120°-130°	1.4	0.0
130°-140°	1.3	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°	2407.7	37.9
0°-40°	3754.4	59.1
0°-60°	5647.6	88.9
0°-90°	6335.0	99.7
90°-120°	13.1	0.2
90°-150°	16.9	0.3
90°-180°	19.0	0.3
0°-180°	6353.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3181	3181	3181	3181	3181	
5°	3194	3184	3146	3172	3163	304
15°	3126	3099	3021	3001	2971	883
25°	2966	2887	2698	2574	2512	1366
35°	2676	2475	2110	1852	1768	1671
45°	2187	1825	1325	1092	1026	1684
55°	1500	1098	704	570	535	1336
65°	807	561	351	285	268	805
75°	323	237	154	126	119	352
85°	66	56	39	33	31	77
90°	9	9	6	5	4	9
95°	14	8	5	3	3	11
105°	9	6	3	2	1	10
115°	5	4	2	1	1	5
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	3	3	1
165°	2	3	3	3	3	1
175°	3	3	3	4	4	0
180°	3	3	3	3	3	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3180.8	3180.8	3180.8	3180.8	3180.8
2.5°	3199.1	3190.9	3154.4	3184.5	3175.3
5°	3194.5	3184.5	3146.1	3171.7	3162.6
7.5°	3185.4	3172.6	3129.7	3148.9	3137.0
10°	3170.8	3155.3	3102.3	3113.3	3094.1
12.5°	3150.7	3131.5	3068.6	3065.8	3043.0
15°	3126.1	3098.7	3021.1	3001.1	2971.0
17.5°	3096.0	3061.3	2964.6	2924.4	2887.9
20°	3057.6	3012.9	2891.6	2827.7	2784.8
22.5°	3013.8	2953.6	2806.7	2704.5	2658.0
25°	2965.5	2887.0	2698.1	2574.0	2512.0
27.5°	2905.3	2806.7	2572.2	2411.6	2347.7
30°	2838.6	2713.6	2442.6	2237.3	2173.5
32.5°	2762.9	2606.9	2277.5	2049.4	1960.0
35°	2676.2	2474.6	2110.5	1852.3	1768.3
37.5°	2578.6	2336.8	1910.7	1653.4	1568.5
40°	2460.9	2173.5	1708.1	1453.5	1374.2
42.5°	2334.1	2007.4	1513.8	1263.7	1195.3
45°	2187.2	1824.9	1324.9	1092.2	1026.5
47.5°	2045.7	1640.6	1147.9	935.3	881.4
50°	1860.5	1444.4	980.9	792.0	747.3
52.5°	1679.8	1262.8	838.5	677.0	635.1
55°	1500.1	1097.7	703.5	570.3	534.7
57.5°	1310.3	936.2	592.2	482.7	459.0
60°	1127.8	796.6	499.1	405.1	386.0
62.5°	960.8	667.9	422.5	342.2	323.9
65°	806.6	561.2	351.3	284.7	268.3
67.5°	660.6	461.7	292.9	237.2	225.4
70°	532.9	374.1	241.8	195.3	184.3
72.5°	422.5	299.3	193.4	159.7	147.8
75°	323.0	237.2	154.2	125.9	118.6
77.5°	240.9	178.8	118.6	96.7	91.2
80°	168.8	129.6	88.5	73.0	68.4
82.5°	115.0	89.4	62.0	51.1	48.4
85°	65.7	55.7	39.2	32.8	31.0
87.5°	33.8	29.2	21.0	15.5	13.7
90°	9.1	9.1	5.5	4.6	3.6
92.5°	14.6	8.2	5.5	3.6	2.7
95°	13.7	8.2	4.6	2.7	2.7
97.5°	12.8	8.2	3.6	2.7	1.8
100°	11.9	7.3	3.6	1.8	1.8
102.5°	10.9	7.3	3.6	1.8	1.8
105°	9.1	6.4	2.7	1.8	0.9
107.5°	8.2	5.5	2.7	1.8	0.9
110°	6.4	4.6	2.7	1.8	0.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	5.5	4.6	1.8	1.8	0.9
115°	4.6	3.6	1.8	0.9	0.9
117.5°	3.6	2.7	1.8	0.9	0.9
120°	2.7	2.7	1.8	0.9	0.9
122.5°	2.7	1.8	1.8	0.9	0.9
125°	1.8	1.8	1.8	0.9	0.9
127.5°	1.8	1.8	1.8	0.9	0.9
130°	1.8	1.8	1.8	0.9	0.9
132.5°	1.8	1.8	1.8	1.8	0.9
135°	0.9	1.8	1.8	1.8	0.9
137.5°	1.8	1.8	1.8	1.8	1.8
140°	1.8	1.8	1.8	1.8	1.8
142.5°	1.8	1.8	1.8	1.8	1.8
145°	1.8	1.8	1.8	1.8	1.8
147.5°	1.8	1.8	1.8	1.8	1.8
150°	1.8	1.8	1.8	1.8	1.8
152.5°	1.8	1.8	1.8	1.8	1.8
155°	1.8	1.8	1.8	2.7	2.7
157.5°	1.8	1.8	2.7	2.7	2.7
160°	1.8	1.8	2.7	2.7	2.7
162.5°	1.8	1.8	2.7	2.7	2.7
165°	1.8	2.7	2.7	2.7	2.7
167.5°	1.8	2.7	2.7	2.7	3.6
170°	1.8	2.7	2.7	3.6	3.6
172.5°	1.8	2.7	2.7	3.6	3.6
175°	2.7	2.7	2.7	3.6	3.6
177.5°	2.7	2.7	2.7	3.6	3.6
180°	2.7	2.7	2.7	2.7	2.7



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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	22.45	23.89	22.82	24.21	24.53	17.30	18.73	17.67	19.05	19.38
	3H	23.76	25.04	24.14	25.38	25.75	18.31	19.59	18.69	19.93	20.30
	4H	24.19	25.38	24.59	25.74	26.13	18.64	19.84	19.05	20.20	20.59
	6H	24.45	25.56	24.87	25.93	26.33	18.87	19.97	19.29	20.35	20.75
	8H	24.52	25.57	24.96	25.97	26.38	18.94	19.99	19.37	20.38	20.79
	12H	24.56	25.57	25.00	25.95	26.39	18.98	19.98	19.41	20.37	20.81
4H	2H	22.45	23.65	22.86	24.01	24.39	17.92	19.12	18.33	19.47	19.86
	3H	23.92	24.90	24.33	25.31	25.72	19.12	20.10	19.53	20.51	20.92
	4H	24.44	25.33	24.88	25.75	26.20	19.53	20.42	19.97	20.84	21.29
	6H	24.82	25.59	25.28	26.04	26.51	19.84	20.61	20.31	21.06	21.53
	8H	24.93	25.65	25.40	26.10	26.57	19.94	20.65	20.41	21.10	21.58
	12H	25.01	25.64	25.50	26.13	26.61	20.01	20.64	20.50	21.13	21.61
8H	4H	24.42	25.14	24.89	25.59	26.07	19.87	20.58	20.34	21.03	21.51
	6H	24.85	25.44	25.36	25.94	26.43	20.26	20.85	20.76	21.35	21.83
	8H	25.01	25.54	25.53	26.06	26.55	20.40	20.93	20.92	21.45	21.94
	12H	25.14	25.61	25.66	26.11	26.68	20.52	20.99	21.04	21.49	22.06
12H	4H	24.39	25.03	24.88	25.52	26.00	19.91	20.55	20.40	21.04	21.51
	6H	24.82	25.35	25.34	25.87	26.37	20.33	20.86	20.85	21.37	21.87
	8H	25.01	25.48	25.53	25.98	26.55	20.52	20.98	21.03	21.48	22.06