

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: P893697

Luminaire Tested: 4MB-6SL-AOL-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893697
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-L830
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 8
3000K CCT
Light Source: -
Ballast/Driver: -

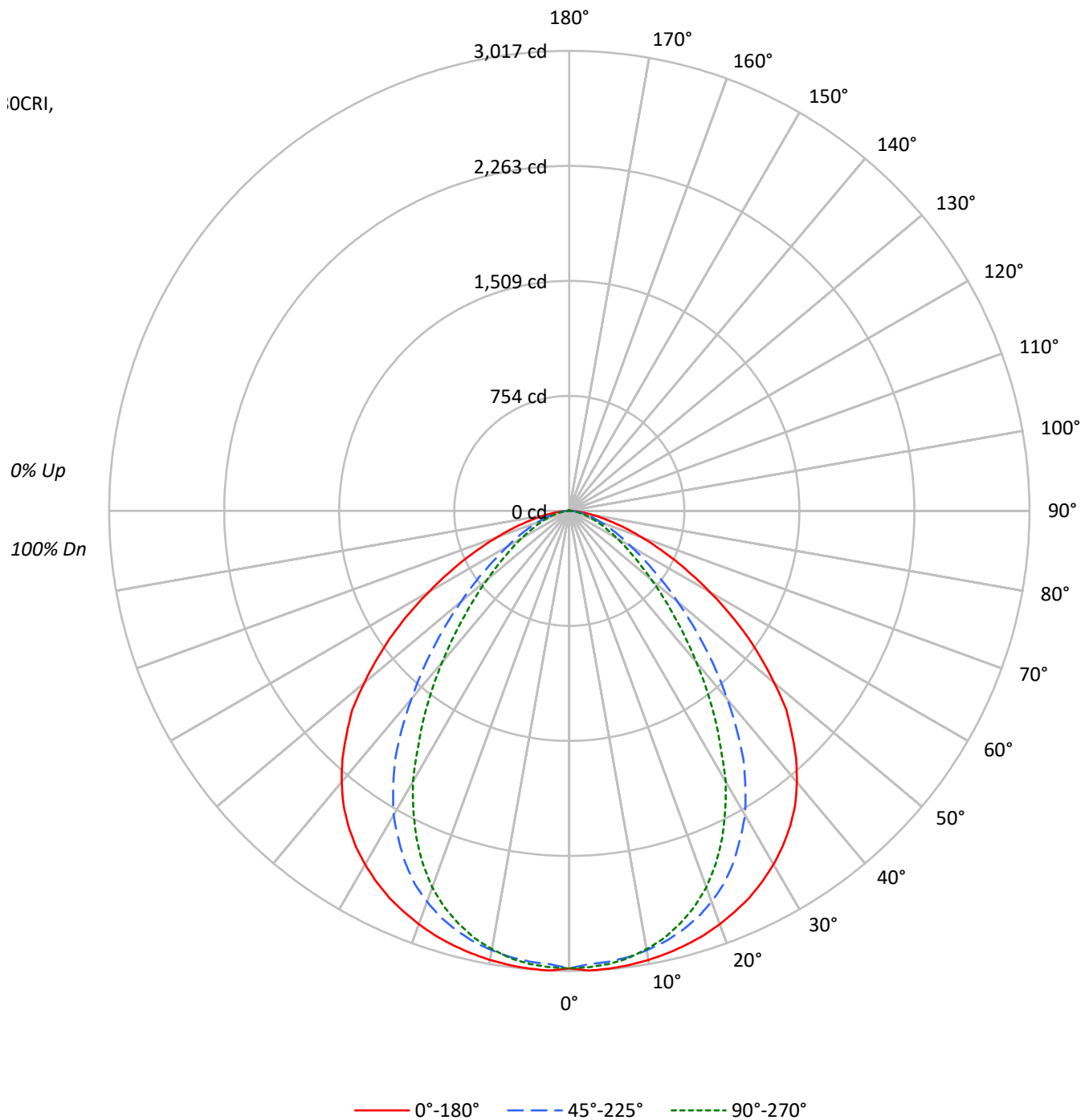
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5993.0 lumens
Efficiency: N/A
Efficacy: 135.0 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				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°	30554	30554	30554
5°	30802	30336	30495
10°	30927	30260	30179
15°	31087	30044	29545
20°	31255	29558	28467
25°	31430	28596	26624
30°	31485	27093	24107
35°	31382	24748	20736
40°	30858	21419	17231
45°	29711	17998	13945
50°	27803	14659	11167
55°	25121	11781	8954
60°	21666	9589	7414
65°	18334	7984	6097
70°	14966	6792	5175
75°	11990	5721	4403
80°	9337	4897	3783
85°	7245	4323	3424

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 29711 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.1	4.7
10°-20°	808.4	13.5
20°-30°	1178.4	19.7
30°-40°	1270.2	21.2
40°-50°	1064.8	17.8
50°-60°	720.9	12.0
60°-70°	411.1	6.9
70°-80°	188.0	3.1
80°-90°	49.2	0.8
90°-100°	6.0	0.1
100°-110°	4.1	0.1
110°-120°	2.3	0.0
120°-130°	1.3	0.0
130°-140°	1.2	0.0
140°-150°	1.1	0.0
150°-160°	0.9	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	2270.9	37.9
0°-40°	3541.1	59.1
0°-60°	5326.8	88.9
0°-90°	5975.1	99.7
90°-120°	12.4	0.2
90°-150°	16.0	0.3
90°-180°	18.0	0.3
0°-180°	5993.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3000	3000	3000	3000	3000	
5°	3013	3004	2967	2992	2983	287
15°	2948	2923	2850	2831	2802	833
25°	2797	2723	2545	2428	2369	1289
35°	2524	2334	1991	1747	1668	1576
45°	2063	1721	1250	1030	968	1588
55°	1415	1035	664	538	504	1260
65°	761	529	331	268	253	759
75°	305	224	145	119	112	332
85°	62	52	37	31	29	72
90°	9	9	5	4	3	9
95°	13	8	4	3	3	10
105°	9	6	3	2	1	9
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	3	3	1
165°	2	3	3	3	3	0
175°	3	3	3	3	3	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3000.1	3000.1	3000.1	3000.1	3000.1
2.5°	3017.3	3009.6	2975.1	3003.5	2994.9
5°	3013.0	3003.5	2967.4	2991.5	2982.9
7.5°	3004.4	2992.4	2951.9	2970.0	2958.8
10°	2990.6	2976.0	2926.1	2936.4	2918.3
12.5°	2971.7	2953.6	2894.2	2891.7	2870.1
15°	2948.5	2922.6	2849.5	2830.6	2802.2
17.5°	2920.1	2887.4	2796.1	2758.3	2723.8
20°	2883.9	2841.7	2727.3	2667.0	2626.6
22.5°	2842.6	2785.8	2647.2	2550.9	2507.0
25°	2797.0	2723.0	2544.8	2427.8	2369.3
27.5°	2740.2	2647.2	2426.1	2274.6	2214.4
30°	2677.4	2559.5	2303.9	2110.2	2050.0
32.5°	2605.9	2458.8	2148.1	1932.9	1848.6
35°	2524.2	2334.0	1990.6	1747.0	1667.9
37.5°	2432.1	2204.0	1802.1	1559.4	1479.4
40°	2321.1	2050.0	1611.1	1371.0	1296.1
42.5°	2201.4	1893.3	1427.8	1191.9	1127.4
45°	2062.9	1721.2	1249.6	1030.2	968.2
47.5°	1929.5	1547.4	1082.7	882.1	831.4
50°	1754.8	1362.4	925.2	747.0	704.8
52.5°	1584.4	1191.1	790.9	638.6	599.0
55°	1414.8	1035.3	663.5	537.9	504.3
57.5°	1235.8	883.0	558.5	455.3	432.9
60°	1063.7	751.3	470.8	382.1	364.0
62.5°	906.2	630.0	398.5	322.7	305.5
65°	760.8	529.3	331.3	268.5	253.0
67.5°	623.1	435.5	276.3	223.8	212.6
70°	502.6	352.9	228.1	184.2	173.8
72.5°	398.5	282.3	182.5	150.6	139.4
75°	304.7	223.8	145.4	118.8	111.9
77.5°	227.2	168.7	111.9	91.2	86.1
80°	159.2	122.2	83.5	68.8	64.5
82.5°	108.4	84.3	58.5	48.2	45.6
85°	62.0	52.5	37.0	31.0	29.3
87.5°	31.8	27.5	19.8	14.6	12.9
90°	8.6	8.6	5.2	4.3	3.4
92.5°	13.8	7.7	5.2	3.4	2.6
95°	12.9	7.7	4.3	2.6	2.6
97.5°	12.0	7.7	3.4	2.6	1.7
100°	11.2	6.9	3.4	1.7	1.7
102.5°	10.3	6.9	3.4	1.7	1.7
105°	8.6	6.0	2.6	1.7	0.9
107.5°	7.7	5.2	2.6	1.7	0.9
110°	6.0	4.3	2.6	1.7	0.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.2	4.3	1.7	1.7	0.9
115°	4.3	3.4	1.7	0.9	0.9
117.5°	3.4	2.6	1.7	0.9	0.9
120°	2.6	2.6	1.7	0.9	0.9
122.5°	2.6	1.7	1.7	0.9	0.9
125°	1.7	1.7	1.7	0.9	0.9
127.5°	1.7	1.7	1.7	0.9	0.9
130°	1.7	1.7	1.7	0.9	0.9
132.5°	1.7	1.7	1.7	1.7	0.9
135°	0.9	1.7	1.7	1.7	0.9
137.5°	1.7	1.7	1.7	1.7	1.7
140°	1.7	1.7	1.7	1.7	1.7
142.5°	1.7	1.7	1.7	1.7	1.7
145°	1.7	1.7	1.7	1.7	1.7
147.5°	1.7	1.7	1.7	1.7	1.7
150°	1.7	1.7	1.7	1.7	1.7
152.5°	1.7	1.7	1.7	1.7	1.7
155°	1.7	1.7	1.7	2.6	2.6
157.5°	1.7	1.7	2.6	2.6	2.6
160°	1.7	1.7	2.6	2.6	2.6
162.5°	1.7	1.7	2.6	2.6	2.6
165°	1.7	2.6	2.6	2.6	2.6
167.5°	1.7	2.6	2.6	2.6	3.4
170°	1.7	2.6	2.6	3.4	3.4
172.5°	1.7	2.6	2.6	3.4	3.4
175°	2.6	2.6	2.6	3.4	3.4
177.5°	2.6	2.6	2.6	3.4	3.4
180°	2.6	2.6	2.6	2.6	2.6



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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	22.25	23.69	22.62	24.01	24.33	17.09	18.53	17.46	18.85	19.17
	3H	23.56	24.84	23.94	25.18	25.55	18.10	19.39	18.49	19.72	20.09
	4H	23.98	25.18	24.39	25.54	25.93	18.44	19.64	18.85	20.00	20.38
	6H	24.25	25.35	24.67	25.73	26.13	18.67	19.77	19.08	20.14	20.54
	8H	24.32	25.37	24.75	25.77	26.18	18.73	19.78	19.17	20.18	20.59
	12H	24.36	25.36	24.80	25.75	26.19	18.78	19.78	19.21	20.17	20.61
4H	2H	22.25	23.45	22.65	23.80	24.19	17.72	18.91	18.12	19.27	19.66
	3H	23.71	24.70	24.13	25.11	25.52	18.91	19.90	19.33	20.31	20.72
	4H	24.24	25.12	24.68	25.55	25.99	19.33	20.21	19.77	20.64	21.08
	6H	24.62	25.38	25.08	25.83	26.30	19.64	20.41	20.10	20.86	21.33
	8H	24.73	25.44	25.20	25.89	26.37	19.73	20.45	20.20	20.90	21.38
	12H	24.80	25.44	25.29	25.93	26.41	19.80	20.44	20.29	20.93	21.41
8H	4H	24.22	24.94	24.69	25.39	25.86	19.66	20.38	20.13	20.83	21.31
	6H	24.65	25.24	25.16	25.74	26.23	20.06	20.65	20.56	21.14	21.63
	8H	24.81	25.34	25.33	25.85	26.35	20.20	20.73	20.72	21.24	21.74
	12H	24.94	25.41	25.45	25.90	26.48	20.32	20.79	20.84	21.29	21.86
12H	4H	24.19	24.83	24.68	25.32	25.79	19.71	20.35	20.20	20.83	21.31
	6H	24.62	25.15	25.14	25.67	26.16	20.12	20.65	20.64	21.17	21.67
	8H	24.81	25.28	25.33	25.78	26.35	20.31	20.78	20.83	21.28	21.85