

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: P893689

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893689
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-15)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-6SL-ACL-UNV-L830
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 80CRI, 3000K (C)
Light Source: -
Ballast/Driver: -

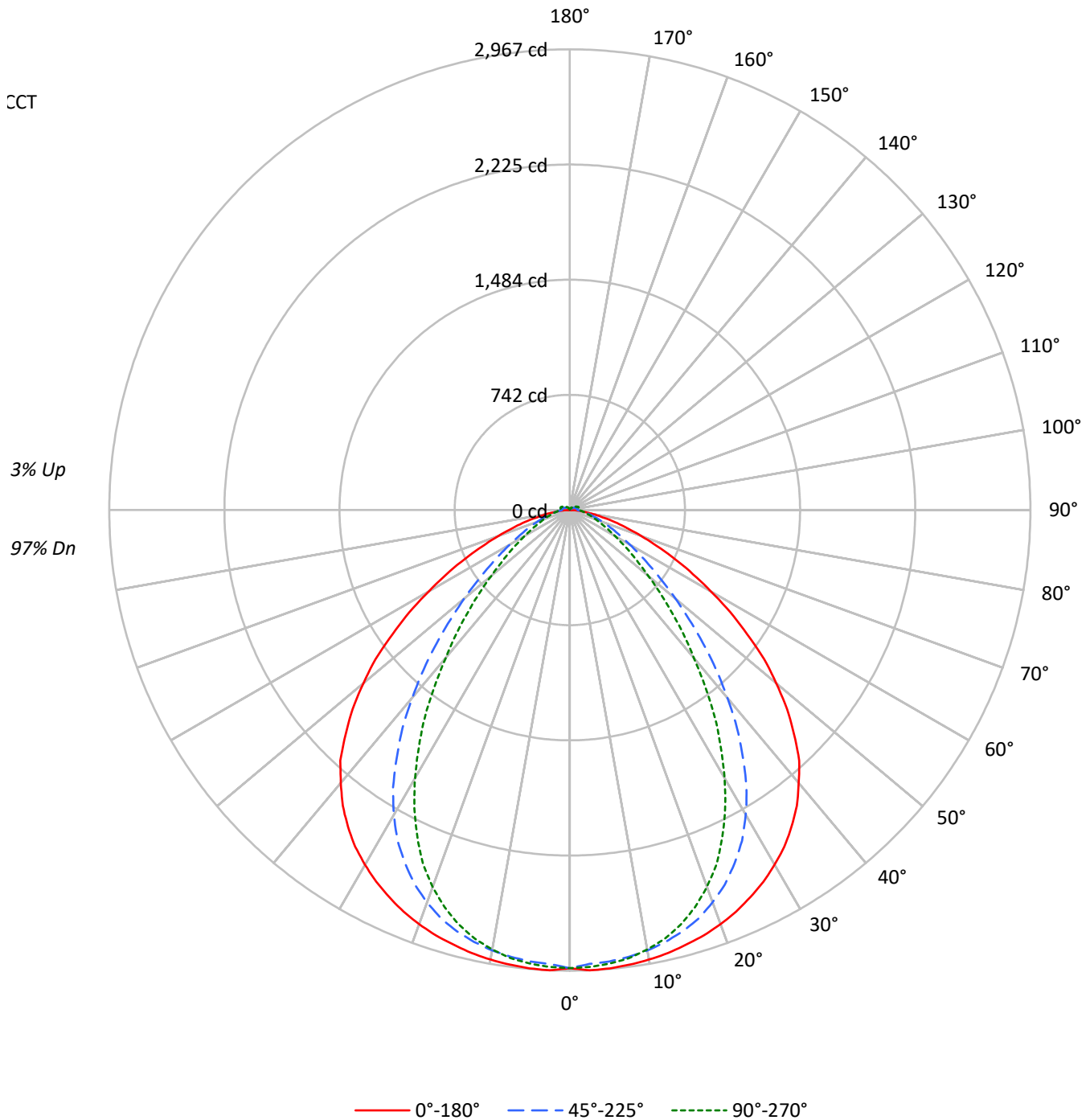
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6052.0 lumens
Efficiency: N/A
Efficacy: 136.3 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.08')
CIE Type: Direct

Input Watts (W): 44.4
Input Voltage (V): 120
Input Current (A_{in}): 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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97				97
1	110	106	102	99	107	103	100	97	99	96	93	94	92	90	90	89	87	85				85
2	101	94	88	84	99	92	87	82	88	84	80	85	81	78	82	79	76	74				74
3	94	85	77	72	91	83	76	71	80	74	69	77	72	68	74	70	66	64				64
4	87	76	68	62	84	75	67	62	72	66	61	69	64	60	67	62	59	57				57
5	80	69	61	55	78	68	60	55	65	59	54	63	58	53	61	56	52	50				50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	47	56	51	47	45				45
7	70	57	50	44	68	57	49	44	55	48	43	53	47	43	52	46	42	40				40
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	42	38	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33				33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	30045	30045	30045
5°	30237	29230	29184
10°	30291	28595	28160
15°	30381	27852	26877
20°	30528	26829	25123
25°	30619	25407	22788
30°	30649	23455	19855
35°	30517	20727	16607
40°	29976	17509	13071
45°	28823	14134	10134
50°	26834	10967	7603
55°	24021	8396	5815
60°	20638	6454	4430
65°	17209	5090	3521
70°	13763	4084	2878
75°	10964	3292	2449
80°	8031	2715	2145
85°	5516	2309	1975

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 28823 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.4	4.6
10°-20°	796.1	13.2
20°-30°	1160.6	19.2
30°-40°	1246.9	20.6
40°-50°	1037.8	17.1
50°-60°	694.1	11.5
60°-70°	397.3	6.6
70°-80°	197.6	3.3
80°-90°	80.8	1.3
90°-100°	46.9	0.8
100°-110°	41.4	0.7
110°-120°	30.4	0.5
120°-130°	19.5	0.3
130°-140°	11.6	0.2
140°-150°	6.6	0.1
150°-160°	3.3	0.1
160°-170°	1.4	0.0
170°-180°	0.3	0.0
0°-30°	2236.1	36.9
0°-40°	3483.0	57.6
0°-60°	5214.9	86.2
0°-90°	5890.6	97.3
90°-120°	118.7	2.0
90°-150°	156.4	2.6
90°-180°	161.0	2.7
0°-180°	6052.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2950	2950	2950	2950	2950	
5°	2963	2954	2918	2942	2933	282
15°	2898	2878	2809	2788	2763	819
25°	2751	2686	2510	2384	2324	1269
35°	2491	2310	1943	1704	1629	1555
45°	2043	1698	1214	982	924	1571
55°	1393	1005	633	500	474	1248
65°	746	506	318	258	244	746
75°	300	219	158	139	135	322
85°	58	65	73	77	78	68
90°	9	28	50	59	61	8
95°	13	28	49	59	61	10
105°	9	22	44	58	60	9
115°	4	13	34	47	52	4
125°	3	9	23	34	38	2
135°	2	7	16	23	26	1
145°	2	5	10	16	18	1
155°	2	4	7	10	12	1
165°	3	3	5	6	8	1
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°	2950.2	2950.2	2950.2	2950.2	2950.2
2.5°	2967.4	2959.7	2926.1	2952.8	2945.0
5°	2963.1	2953.6	2918.4	2942.5	2933.0
7.5°	2953.6	2943.3	2902.9	2921.8	2911.5
10°	2939.9	2927.0	2880.5	2890.0	2873.6
12.5°	2922.7	2906.3	2848.6	2846.1	2828.0
15°	2897.7	2877.9	2809.1	2788.4	2763.4
17.5°	2871.9	2842.6	2758.3	2716.1	2681.7
20°	2838.3	2799.6	2688.6	2625.7	2582.7
22.5°	2799.6	2747.1	2610.3	2513.9	2469.1
25°	2751.4	2686.0	2510.4	2383.9	2324.5
27.5°	2699.8	2612.8	2402.0	2235.9	2167.9
30°	2637.8	2530.2	2266.9	2067.2	1994.1
32.5°	2572.4	2425.2	2118.8	1889.9	1809.9
35°	2490.6	2309.9	1943.3	1704.0	1629.1
37.5°	2402.0	2172.2	1769.4	1513.8	1429.5
40°	2294.4	2026.8	1578.4	1325.4	1241.9
42.5°	2187.7	1868.4	1395.1	1154.9	1082.7
45°	2043.1	1698.0	1213.5	982.0	924.3
47.5°	1897.7	1515.5	1039.6	841.7	784.9
50°	1735.9	1336.5	887.3	706.6	659.2
52.5°	1578.4	1169.6	748.7	597.3	556.8
55°	1393.3	1005.2	632.6	500.0	474.2
57.5°	1226.4	852.9	533.6	423.4	399.3
60°	1050.0	722.9	446.7	358.0	335.6
62.5°	895.0	607.6	376.1	303.8	288.3
65°	746.2	506.0	318.4	258.2	244.4
67.5°	609.3	422.6	268.5	220.3	209.1
70°	488.8	342.5	226.3	187.6	179.9
72.5°	384.7	275.4	188.5	161.8	154.9
75°	300.4	218.6	157.5	139.4	135.1
77.5°	216.9	170.4	131.7	119.6	117.0
80°	153.2	129.1	108.4	103.3	101.6
82.5°	101.6	93.8	89.5	89.5	88.6
85°	58.5	65.4	73.2	76.6	77.5
87.5°	30.1	43.9	58.5	65.4	66.3
90°	8.6	27.5	49.9	59.4	61.1
92.5°	12.9	27.5	49.1	59.4	61.1
95°	12.9	27.5	49.1	59.4	61.1
97.5°	12.0	26.7	49.1	59.4	61.1
100°	11.2	25.0	48.2	59.4	61.1
102.5°	9.5	24.1	46.5	58.5	61.1
105°	8.6	22.4	43.9	57.7	60.2
107.5°	7.7	18.9	41.3	55.1	58.5
110°	6.0	16.4	39.6	52.5	56.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.2	14.6	37.0	49.9	54.2
115°	4.3	12.9	34.4	47.3	51.6
117.5°	3.4	12.0	31.0	43.9	48.2
120°	2.6	11.2	28.4	41.3	44.8
122.5°	2.6	10.3	25.0	37.9	41.3
125°	2.6	8.6	23.2	34.4	37.9
127.5°	1.7	7.7	20.7	31.0	34.4
130°	1.7	7.7	18.9	28.4	31.0
132.5°	1.7	6.9	17.2	25.8	28.4
135°	1.7	6.9	15.5	23.2	25.8
137.5°	1.7	6.0	13.8	21.5	24.1
140°	1.7	6.0	12.9	18.9	21.5
142.5°	1.7	5.2	11.2	18.1	19.8
145°	1.7	5.2	10.3	15.5	18.1
147.5°	1.7	5.2	9.5	14.6	16.4
150°	1.7	4.3	8.6	12.0	14.6
152.5°	1.7	4.3	7.7	11.2	13.8
155°	1.7	4.3	6.9	9.5	12.0
157.5°	1.7	4.3	6.9	8.6	10.3
160°	2.6	3.4	6.0	7.7	9.5
162.5°	2.6	3.4	5.2	6.9	8.6
165°	2.6	3.4	5.2	6.0	7.7
167.5°	2.6	3.4	4.3	5.2	6.0
170°	2.6	2.6	4.3	4.3	4.3
172.5°	2.6	2.6	3.4	4.3	3.4
175°	2.6	2.6	3.4	3.4	3.4
177.5°	2.6	2.6	3.4	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	20.56	21.95	20.97	22.32	22.70	15.85	17.24	16.26	17.61	18.00
	3H	21.65	22.89	22.07	23.28	23.71	16.99	18.24	17.42	18.62	19.05
	4H	21.96	23.12	22.40	23.53	23.97	17.49	18.66	17.94	19.06	19.51
	6H	22.10	23.18	22.56	23.60	24.06	17.99	19.07	18.45	19.49	19.95
	8H	22.12	23.14	22.59	23.59	24.05	18.25	19.27	18.73	19.72	20.18
	12H	22.11	23.09	22.59	23.53	24.02	18.55	19.52	19.02	19.96	20.45
4H	2H	20.54	21.70	20.98	22.11	22.55	16.35	17.51	16.79	17.92	18.36
	3H	21.78	22.74	22.23	23.19	23.66	17.66	18.62	18.12	19.08	19.55
	4H	22.16	23.02	22.64	23.49	24.00	18.26	19.12	18.73	19.59	20.09
	6H	22.39	23.14	22.90	23.64	24.16	18.88	19.63	19.38	20.12	20.65
	8H	22.43	23.13	22.94	23.63	24.16	19.20	19.90	19.71	20.39	20.93
	12H	22.44	23.07	22.97	23.60	24.13	19.57	20.20	20.10	20.73	21.26
8H	4H	22.15	22.85	22.66	23.34	23.87	18.50	19.20	19.01	19.69	20.22
	6H	22.42	23.00	22.97	23.55	24.09	19.22	19.80	19.76	20.34	20.88
	8H	22.50	23.02	23.06	23.58	24.13	19.62	20.15	20.18	20.70	21.26
	12H	22.54	23.00	23.10	23.54	24.17	20.12	20.58	20.67	21.12	21.75
12H	4H	22.12	22.75	22.65	23.28	23.81	18.51	19.14	19.04	19.66	20.20
	6H	22.40	22.93	22.96	23.48	24.03	19.26	19.78	19.82	20.34	20.89
	8H	22.51	22.97	23.07	23.51	24.14	19.72	20.18	20.27	20.72	21.35