

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: P893691

Luminaire Tested: 4MB-6SL-ACL-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893691
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-L840
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 80CRI, 4000K (C)
Light Source: -
Ballast/Driver: -

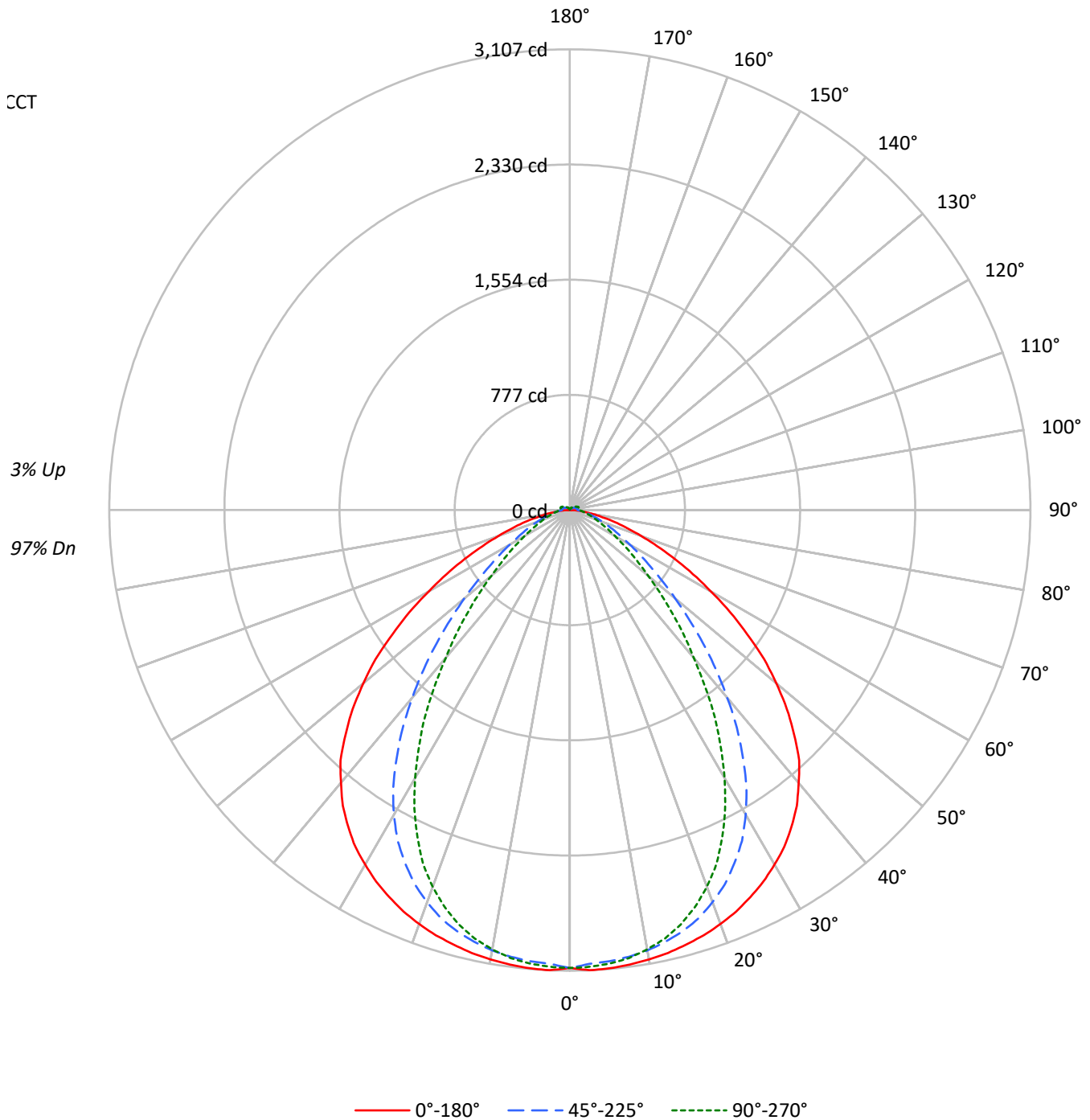
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6336.0 lumens
Efficiency: N/A
Efficacy: 142.7 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°	31455	31455	31455
5°	31656	30601	30553
10°	31711	29938	29481
15°	31807	29159	28139
20°	31961	28087	26302
25°	32055	26599	23858
30°	32088	24555	20786
35°	31950	21700	17387
40°	31384	18330	13684
45°	30176	14797	10610
50°	28092	11481	7960
55°	25148	8789	6089
60°	21606	6756	4638
65°	18016	5330	3687
70°	14411	4277	3012
75°	11478	3446	2565
80°	8409	2843	2244
85°	5780	2417	2067

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 30176 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.6	4.6
10°-20°	833.4	13.2
20°-30°	1215.0	19.2
30°-40°	1305.4	20.6
40°-50°	1086.5	17.1
50°-60°	726.7	11.5
60°-70°	416.0	6.6
70°-80°	206.8	3.3
80°-90°	84.6	1.3
90°-100°	49.1	0.8
100°-110°	43.3	0.7
110°-120°	31.8	0.5
120°-130°	20.4	0.3
130°-140°	12.2	0.2
140°-150°	6.9	0.1
150°-160°	3.4	0.1
160°-170°	1.5	0.0
170°-180°	0.3	0.0
0°-30°	2341.0	36.9
0°-40°	3646.5	57.6
0°-60°	5459.6	86.2
0°-90°	6167.1	97.3
90°-120°	124.3	2.0
90°-150°	163.7	2.6
90°-180°	169.0	2.7
0°-180°	6336.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3089	3089	3089	3089	3089	
5°	3102	3092	3055	3080	3071	295
15°	3034	3013	2941	2919	2893	858
25°	2880	2812	2628	2496	2434	1328
35°	2608	2418	2034	1784	1706	1628
45°	2139	1778	1270	1028	968	1644
55°	1459	1052	662	524	496	1307
65°	781	530	333	270	256	781
75°	314	229	165	146	142	337
85°	61	68	77	80	81	72
90°	9	29	52	62	64	9
95°	14	29	51	62	64	11
105°	9	23	46	60	63	10
115°	4	14	36	50	54	4
125°	3	9	24	36	40	2
135°	2	7	16	24	27	1
145°	2	5	11	16	19	1
155°	2	4	7	10	13	1
165°	3	4	5	6	8	1
175°	3	3	4	4	4	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3088.6	3088.6	3088.6	3088.6	3088.6
2.5°	3106.7	3098.6	3063.4	3091.3	3083.2
5°	3102.2	3092.2	3055.3	3080.5	3070.6
7.5°	3092.2	3081.4	3039.1	3058.9	3048.1
10°	3077.8	3064.3	3015.7	3025.6	3008.4
12.5°	3059.8	3042.7	2982.3	2979.6	2960.7
15°	3033.7	3013.0	2940.9	2919.3	2893.1
17.5°	3006.6	2976.0	2887.7	2843.6	2807.5
20°	2971.5	2931.0	2814.7	2749.0	2703.9
22.5°	2931.0	2876.0	2732.7	2631.8	2585.0
25°	2880.5	2812.0	2628.2	2495.8	2433.6
27.5°	2826.4	2735.4	2514.7	2340.8	2269.6
30°	2761.6	2648.9	2373.2	2164.2	2087.6
32.5°	2693.1	2539.0	2218.3	1978.6	1894.8
35°	2607.5	2418.3	2034.5	1784.0	1705.6
37.5°	2514.7	2274.1	1852.5	1584.9	1496.6
40°	2402.1	2121.9	1652.4	1387.5	1300.1
42.5°	2290.4	1956.1	1460.5	1209.1	1133.5
45°	2139.0	1777.7	1270.4	1028.0	967.7
47.5°	1986.7	1586.7	1088.4	881.2	821.7
50°	1817.3	1399.3	928.9	739.7	690.2
52.5°	1652.4	1224.5	783.9	625.3	582.9
55°	1458.7	1052.4	662.2	523.5	496.5
57.5°	1283.9	892.9	558.6	443.3	418.1
60°	1099.2	756.8	467.6	374.8	351.4
62.5°	937.0	636.1	393.7	318.1	301.8
65°	781.2	529.8	333.4	270.3	255.9
67.5°	637.9	442.4	281.1	230.7	218.9
70°	511.8	358.6	237.0	196.4	188.3
72.5°	402.7	288.3	197.3	169.4	162.2
75°	314.5	228.9	164.9	146.0	141.5
77.5°	227.1	178.4	137.9	125.2	122.5
80°	160.4	135.2	113.5	108.1	106.3
82.5°	106.3	98.2	93.7	93.7	92.8
85°	61.3	68.5	76.6	80.2	81.1
87.5°	31.5	46.0	61.3	68.5	69.4
90°	9.0	28.8	52.3	62.2	64.0
92.5°	13.5	28.8	51.4	62.2	64.0
95°	13.5	28.8	51.4	62.2	64.0
97.5°	12.6	27.9	51.4	62.2	64.0
100°	11.7	26.1	50.5	62.2	64.0
102.5°	9.9	25.2	48.7	61.3	64.0
105°	9.0	23.4	46.0	60.4	63.1
107.5°	8.1	19.8	43.2	57.7	61.3
110°	6.3	17.1	41.4	55.0	59.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.4	15.3	38.7	52.3	56.8
115°	4.5	13.5	36.0	49.6	54.1
117.5°	3.6	12.6	32.4	46.0	50.5
120°	2.7	11.7	29.7	43.2	46.9
122.5°	2.7	10.8	26.1	39.6	43.2
125°	2.7	9.0	24.3	36.0	39.6
127.5°	1.8	8.1	21.6	32.4	36.0
130°	1.8	8.1	19.8	29.7	32.4
132.5°	1.8	7.2	18.0	27.0	29.7
135°	1.8	7.2	16.2	24.3	27.0
137.5°	1.8	6.3	14.4	22.5	25.2
140°	1.8	6.3	13.5	19.8	22.5
142.5°	1.8	5.4	11.7	18.9	20.7
145°	1.8	5.4	10.8	16.2	18.9
147.5°	1.8	5.4	9.9	15.3	17.1
150°	1.8	4.5	9.0	12.6	15.3
152.5°	1.8	4.5	8.1	11.7	14.4
155°	1.8	4.5	7.2	9.9	12.6
157.5°	1.8	4.5	7.2	9.0	10.8
160°	2.7	3.6	6.3	8.1	9.9
162.5°	2.7	3.6	5.4	7.2	9.0
165°	2.7	3.6	5.4	6.3	8.1
167.5°	2.7	3.6	4.5	5.4	6.3
170°	2.7	2.7	4.5	4.5	4.5
172.5°	2.7	2.7	3.6	4.5	3.6
175°	2.7	2.7	3.6	3.6	3.6
177.5°	2.7	2.7	3.6	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	20.72	22.11	21.13	22.48	22.86	16.01	17.40	16.42	17.77	18.16
	3H	21.81	23.05	22.23	23.44	23.87	17.15	18.39	17.58	18.78	19.21
	4H	22.12	23.28	22.56	23.69	24.13	17.65	18.82	18.10	19.22	19.67
	6H	22.26	23.34	22.72	23.76	24.22	18.15	19.23	18.61	19.65	20.11
	8H	22.28	23.30	22.75	23.74	24.21	18.41	19.43	18.89	19.88	20.34
	12H	22.27	23.25	22.75	23.69	24.18	18.71	19.68	19.18	20.12	20.61
4H	2H	20.70	21.86	21.14	22.27	22.71	16.51	17.67	16.95	18.08	18.52
	3H	21.93	22.90	22.39	23.35	23.82	17.82	18.78	18.28	19.24	19.71
	4H	22.32	23.18	22.80	23.65	24.16	18.42	19.28	18.90	19.75	20.25
	6H	22.55	23.30	23.06	23.80	24.32	19.04	19.79	19.54	20.28	20.81
	8H	22.59	23.29	23.10	23.79	24.32	19.36	20.06	19.87	20.55	21.09
	12H	22.60	23.23	23.13	23.76	24.29	19.73	20.36	20.26	20.89	21.42
8H	4H	22.31	23.01	22.82	23.50	24.03	18.66	19.36	19.17	19.85	20.38
	6H	22.58	23.16	23.13	23.71	24.25	19.38	19.96	19.92	20.50	21.04
	8H	22.66	23.18	23.22	23.74	24.29	19.78	20.31	20.34	20.86	21.41
	12H	22.70	23.16	23.26	23.70	24.33	20.28	20.74	20.83	21.28	21.90
12H	4H	22.28	22.91	22.81	23.44	23.97	18.67	19.30	19.20	19.82	20.36
	6H	22.56	23.09	23.12	23.64	24.19	19.42	19.94	19.98	20.50	21.05
	8H	22.67	23.13	23.22	23.67	24.30	19.88	20.34	20.43	20.88	21.51