

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: P893699

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893699
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-L840
Description: 6000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 8
4000K CCT
Light Source: -
Ballast/Driver: -

Summary

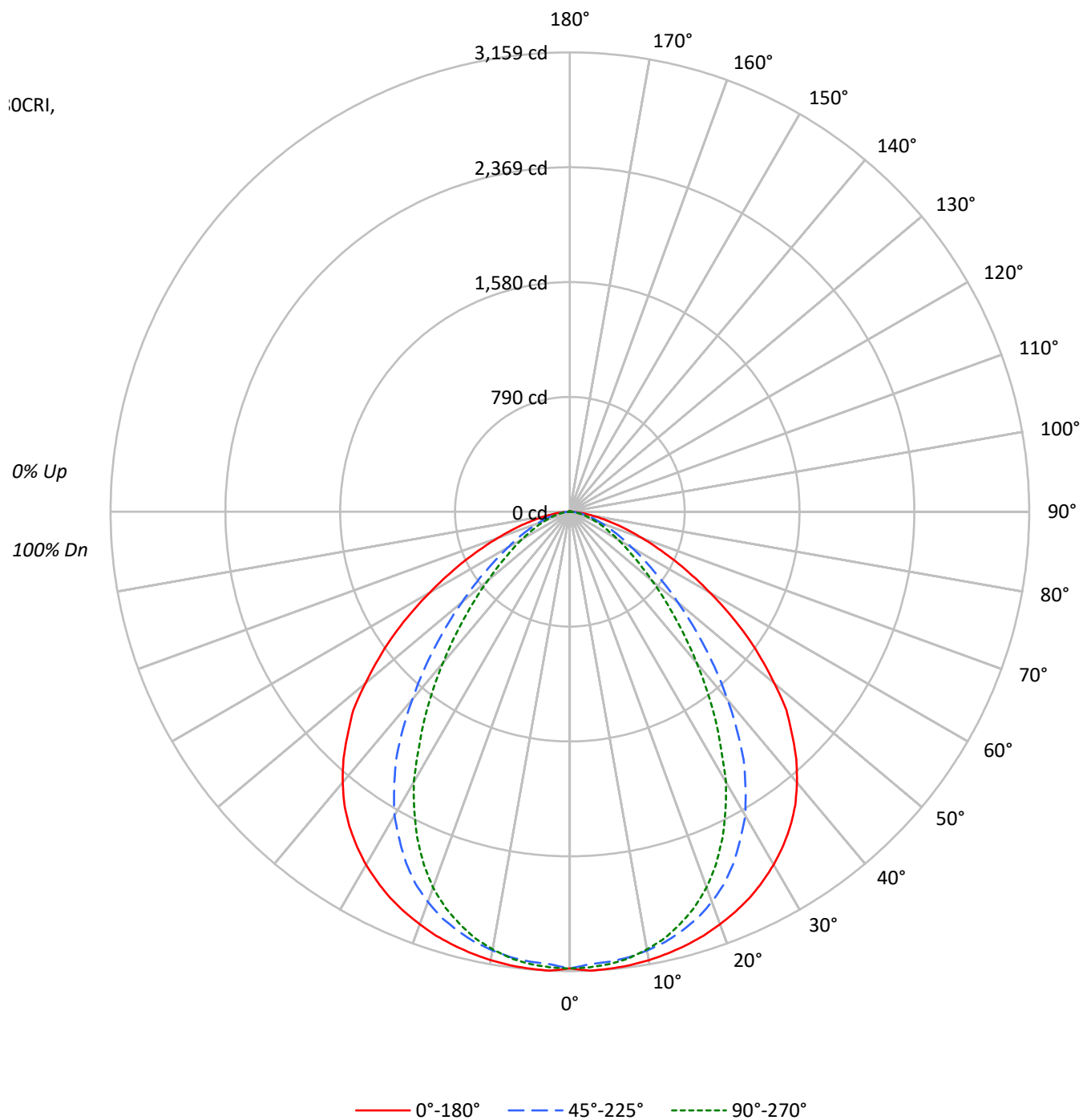
Lumens per Lamp: N/A
Luminaire Lumens: 6274.0 lumens
Efficiency: N/A
Efficacy: 141.3 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')
CIE Type: Direct

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			
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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95		96	94	92		93	91	89	87
2	102	95	89	85	100	93	88	84	90	85	82		87	83	80		84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71		78	73	70		76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62		71	66	61		69	64	60	58
5	81	70	62	56	79	69	61	55	66	60	55		65	59	54		63	58	54	52
6	75	63	55	50	74	63	55	49	61	54	49		59	53	49		58	52	48	46
7	70	58	50	45	69	57	50	44	56	49	44		54	48	44		53	48	43	42
8	66	53	46	40	64	53	45	40	51	45	40		50	44	40		49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36		47	41	36		46	40	36	34
10	58	46	38	34	57	45	38	33	44	38	33		43	37	33		43	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	31987	31987	31987
5°	32247	31758	31924
10°	32378	31679	31595
15°	32545	31452	30929
20°	32720	30944	29801
25°	32903	29938	27872
30°	32961	28363	25238
35°	32853	25908	21709
40°	32304	22423	18039
45°	31104	18842	14599
50°	29107	15345	11691
55°	26300	12333	9375
60°	22682	10038	7762
65°	19194	8360	6384
70°	15668	7111	5419
75°	12548	5993	4608
80°	9777	5126	3965
85°	7584	4522	3576

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 31104 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.4	4.7
10°-20°	846.3	13.5
20°-30°	1233.6	19.7
30°-40°	1329.7	21.2
40°-50°	1114.7	17.8
50°-60°	754.7	12.0
60°-70°	430.4	6.9
70°-80°	196.8	3.1
80°-90°	51.5	0.8
90°-100°	6.3	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°	2377.4	37.9
0°-40°	3707.1	59.1
0°-60°	5576.5	88.9
0°-90°	6255.2	99.7
90°-120°	13.0	0.2
90°-150°	16.8	0.3
90°-180°	19.0	0.3
0°-180°	6274.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3141	3141	3141	3141	3141	
5°	3154	3144	3106	3132	3123	300
15°	3087	3060	2983	2963	2934	872
25°	2928	2851	2664	2542	2480	1349
35°	2642	2443	2084	1829	1746	1650
45°	2160	1802	1308	1078	1014	1662
55°	1481	1084	695	563	528	1319
65°	796	554	347	281	265	795
75°	319	234	152	124	117	348
85°	65	55	39	32	31	76
90°	9	9	5	4	4	9
95°	14	8	4	3	3	11
105°	9	6	3	2	1	10
115°	4	4	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	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°	3140.8	3140.8	3140.8	3140.8	3140.8
2.5°	3158.8	3150.7	3114.6	3144.4	3135.4
5°	3154.3	3144.4	3106.5	3131.8	3122.7
7.5°	3145.3	3132.7	3090.3	3109.2	3097.5
10°	3130.9	3115.5	3063.3	3074.1	3055.2
12.5°	3111.0	3092.1	3029.9	3027.2	3004.7
15°	3086.7	3059.7	2983.1	2963.3	2933.5
17.5°	3057.0	3022.7	2927.2	2887.6	2851.6
20°	3019.1	2975.0	2855.2	2792.1	2749.7
22.5°	2975.9	2916.4	2771.4	2670.5	2624.5
25°	2928.1	2850.7	2664.2	2541.6	2480.4
27.5°	2868.7	2771.4	2539.8	2381.3	2318.2
30°	2802.9	2679.5	2411.9	2209.2	2146.1
32.5°	2728.1	2574.1	2248.8	2023.6	1935.3
35°	2642.5	2443.4	2083.9	1829.0	1746.1
37.5°	2546.1	2307.4	1886.6	1632.6	1548.8
40°	2429.9	2146.1	1686.6	1435.2	1356.9
42.5°	2304.7	1982.1	1494.7	1247.8	1180.3
45°	2159.6	1801.9	1308.2	1078.5	1013.6
47.5°	2020.0	1619.9	1133.4	923.5	870.3
50°	1837.1	1426.2	968.5	782.0	737.9
52.5°	1658.7	1246.9	828.0	668.5	627.1
55°	1481.2	1083.9	694.6	563.1	528.0
57.5°	1293.8	924.4	584.7	476.6	453.2
60°	1113.6	786.5	492.8	400.0	381.1
62.5°	948.7	659.5	417.1	337.9	319.8
65°	796.5	554.1	346.9	281.1	264.9
67.5°	652.3	455.9	289.2	234.3	222.5
70°	526.2	369.4	238.8	192.8	182.0
72.5°	417.1	295.5	191.0	157.7	146.0
75°	318.9	234.3	152.3	124.3	117.1
77.5°	237.9	176.6	117.1	95.5	90.1
80°	166.7	127.9	87.4	72.1	67.6
82.5°	113.5	88.3	61.3	50.5	47.8
85°	64.9	55.0	38.7	32.4	30.6
87.5°	33.3	28.8	20.7	15.3	13.5
90°	9.0	9.0	5.4	4.5	3.6
92.5°	14.4	8.1	5.4	3.6	2.7
95°	13.5	8.1	4.5	2.7	2.7
97.5°	12.6	8.1	3.6	2.7	1.8
100°	11.7	7.2	3.6	1.8	1.8
102.5°	10.8	7.2	3.6	1.8	1.8
105°	9.0	6.3	2.7	1.8	0.9
107.5°	8.1	5.4	2.7	1.8	0.9
110°	6.3	4.5	2.7	1.8	0.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.4	4.5	1.8	1.8	0.9
115°	4.5	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	22.41	23.85	22.78	24.17	24.49	17.25	18.69	17.62	19.01	19.33
	3H	23.72	25.00	24.10	25.33	25.71	18.26	19.55	18.65	19.88	20.25
	4H	24.14	25.34	24.55	25.70	26.08	18.60	19.80	19.00	20.15	20.54
	6H	24.41	25.51	24.83	25.89	26.29	18.82	19.93	19.24	20.30	20.70
	8H	24.48	25.53	24.91	25.93	26.34	18.89	19.94	19.32	20.34	20.75
	12H	24.52	25.52	24.95	25.91	26.35	18.93	19.94	19.37	20.33	20.76
4H	2H	22.41	23.61	22.81	23.96	24.35	17.87	19.07	18.28	19.43	19.82
	3H	23.87	24.86	24.29	25.27	25.68	19.07	20.06	19.49	20.47	20.88
	4H	24.40	25.28	24.84	25.71	26.15	19.49	20.37	19.93	20.80	21.24
	6H	24.77	25.54	25.24	25.99	26.46	19.80	20.57	20.26	21.02	21.48
	8H	24.89	25.60	25.36	26.05	26.53	19.89	20.61	20.36	21.06	21.54
	12H	24.96	25.60	25.45	26.09	26.57	19.96	20.60	20.45	21.09	21.57
8H	4H	24.38	25.10	24.85	25.55	26.02	19.82	20.54	20.29	20.99	21.47
	6H	24.81	25.40	25.31	25.90	26.39	20.21	20.80	20.72	21.30	21.79
	8H	24.97	25.50	25.49	26.01	26.51	20.36	20.89	20.88	21.40	21.90
	12H	25.10	25.57	25.61	26.06	26.64	20.48	20.95	21.00	21.45	22.02
12H	4H	24.35	24.99	24.84	25.47	25.95	19.87	20.51	20.36	20.99	21.47
	6H	24.78	25.31	25.30	25.83	26.32	20.28	20.81	20.80	21.33	21.83
	8H	24.97	25.44	25.48	25.94	26.51	20.47	20.94	20.99	21.44	22.01

END OF REPORT