

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: P894117

Luminaire Tested: 4MB-SC3-AOL-UNV-CC83-HI-3500K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894117
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-SC3-AOL-UNV-CC83-HI-3500K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 800
3500K CCT, HI lumen setting
Light Source: -
Ballast/Driver: -

Summary

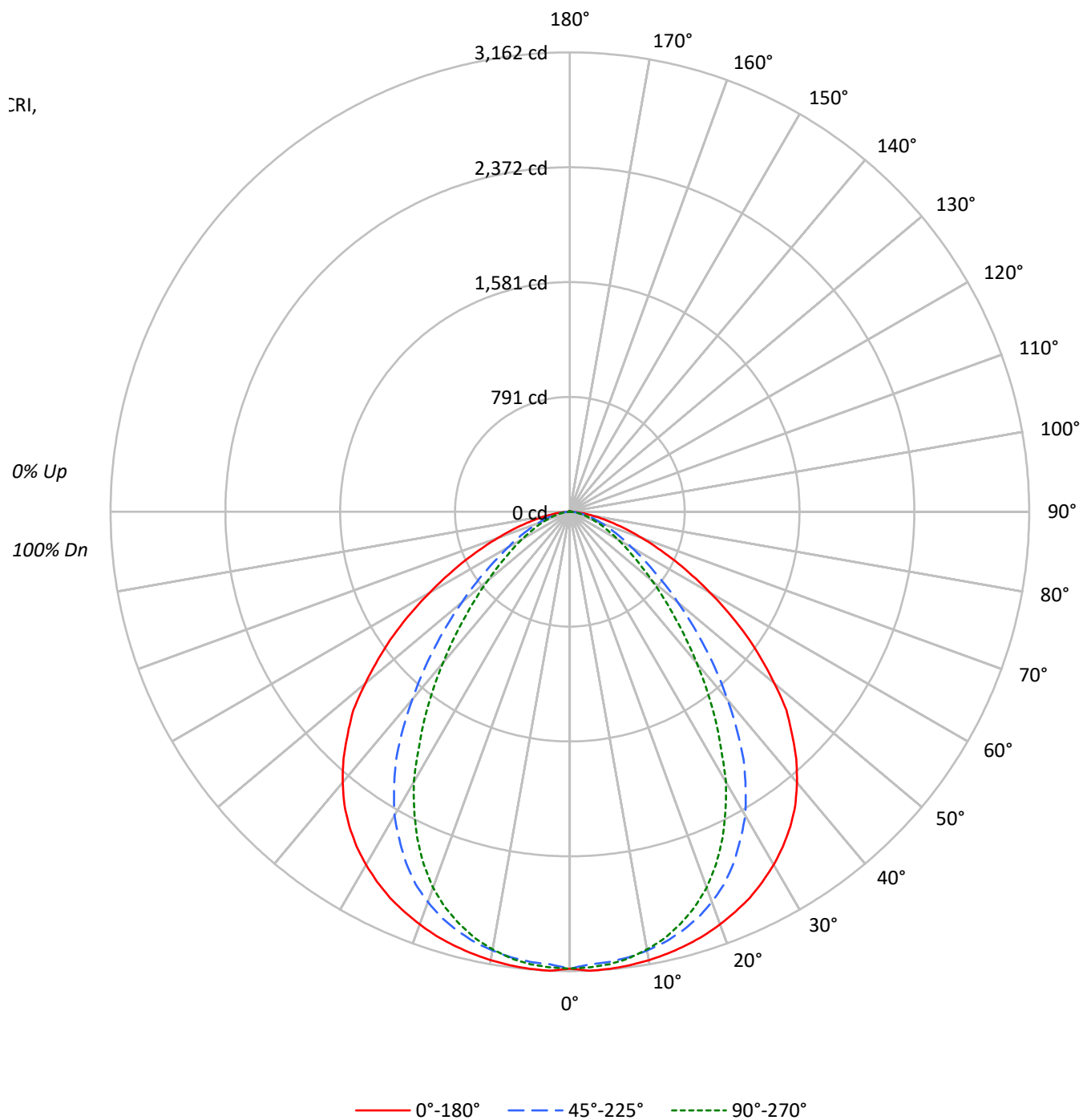
Lumens per Lamp: N/A
Luminaire Lumens: 6280.9 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 50.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.39961257980444
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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	111	107	103	100	108	104	101	98	100	98	95		96	94	92		93
2	102	95	89	85	100	93	88	84	90	85	82		87	83	80		84
3	94	85	78	73	92	84	77	72	81	75	71		78	73	70		76
4	87	77	69	63	85	76	68	63	73	67	62		71	66	61		69
5	81	70	62	56	79	69	61	55	66	60	55		65	59	54		63
6	75	63	55	50	74	63	55	49	61	54	49		59	53	49		58
7	70	58	50	45	69	57	50	44	56	49	44		54	48	44		53
8	66	53	46	40	64	53	45	40	51	45	40		50	44	40		49
9	62	49	42	37	60	49	42	37	48	41	36		47	41	36		46
10	58	46	38	34	57	45	38	33	44	38	33		43	37	33		43

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32022	32022	32022
5°	32283	31794	31959
10°	32413	31714	31630
15°	32581	31487	30964
20°	32757	30978	29834
25°	32940	29970	27903
30°	32998	28395	25266
35°	32891	25938	21732
40°	32340	22448	18059
45°	31139	18863	14614
50°	29138	15362	11704
55°	26328	12347	9386
60°	22707	10050	7771
65°	19213	8369	6391
70°	15686	7117	5425
75°	12564	5997	4616
80°	9788	5132	3965
85°	7584	4534	3587

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 31139 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.8	4.7
10°-20°	847.3	13.5
20°-30°	1235.0	19.7
30°-40°	1331.2	21.2
40°-50°	1116.0	17.8
50°-60°	755.5	12.0
60°-70°	430.8	6.9
70°-80°	197.0	3.1
80°-90°	51.6	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°	2380.0	37.9
0°-40°	3711.2	59.1
0°-60°	5582.7	88.9
0°-90°	6262.2	99.7
90°-120°	13.0	0.2
90°-150°	16.8	0.3
90°-180°	19.0	0.3
0°-180°	6280.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3144	3144	3144	3144	3144	
5°	3158	3148	3110	3135	3126	301
15°	3090	3063	2986	2967	2937	873
25°	2931	2854	2667	2544	2483	1351
35°	2646	2446	2086	1831	1748	1652
45°	2162	1804	1310	1080	1015	1664
55°	1483	1085	695	564	529	1321
65°	797	555	347	281	265	796
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°	3144.3	3144.3	3144.3	3144.3	3144.3
2.5°	3162.3	3154.2	3118.1	3147.9	3138.9
5°	3157.8	3147.9	3110.0	3135.3	3126.2
7.5°	3148.8	3136.2	3093.8	3112.7	3101.0
10°	3134.3	3119.0	3066.7	3077.5	3058.6
12.5°	3114.5	3095.6	3033.3	3030.6	3008.1
15°	3090.2	3063.1	2986.4	2966.6	2936.8
17.5°	3060.4	3026.1	2930.5	2890.8	2854.7
20°	3022.5	2978.3	2858.3	2795.2	2752.8
22.5°	2979.2	2919.7	2774.5	2673.4	2627.4
25°	2931.4	2853.8	2667.1	2544.5	2483.1
27.5°	2871.9	2774.5	2542.7	2383.9	2320.8
30°	2806.0	2682.5	2414.6	2211.6	2148.5
32.5°	2731.2	2576.9	2251.3	2025.8	1937.4
35°	2645.5	2446.1	2086.3	1831.0	1748.0
37.5°	2549.0	2309.9	1888.7	1634.4	1550.5
40°	2432.6	2148.5	1688.5	1436.8	1358.4
42.5°	2307.2	1984.3	1496.4	1249.2	1181.6
45°	2162.0	1803.9	1309.7	1079.7	1014.7
47.5°	2022.2	1621.7	1134.7	924.5	871.3
50°	1839.1	1427.8	969.6	782.9	738.7
52.5°	1660.5	1248.3	828.9	669.3	627.8
55°	1482.8	1085.1	695.4	563.7	528.6
57.5°	1295.2	925.4	585.4	477.1	453.7
60°	1114.8	787.4	493.4	400.5	381.5
62.5°	949.8	660.2	417.6	338.2	320.2
65°	797.3	554.7	347.3	281.4	265.2
67.5°	653.0	456.4	289.5	234.5	222.8
70°	526.8	369.8	239.0	193.0	182.2
72.5°	417.6	295.8	191.2	157.8	146.1
75°	319.3	234.5	152.4	124.5	117.3
77.5°	238.1	176.8	117.3	95.6	90.2
80°	166.9	128.1	87.5	72.2	67.6
82.5°	113.6	88.4	61.3	50.5	47.8
85°	64.9	55.0	38.8	32.5	30.7
87.5°	33.4	28.9	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	17.26	18.69	17.63	19.01	19.34
	3H	23.72	25.00	24.10	25.34	25.71	18.27	19.55	18.65	19.88	20.26
	4H	24.15	25.34	24.55	25.70	26.09	18.60	19.80	19.01	20.16	20.55
	6H	24.41	25.52	24.83	25.89	26.29	18.83	19.93	19.25	20.31	20.71
	8H	24.48	25.53	24.92	25.93	26.34	18.90	19.94	19.33	20.34	20.75
	12H	24.52	25.53	24.96	25.91	26.35	18.94	19.94	19.37	20.33	20.77
4H	2H	22.41	23.61	22.82	23.97	24.35	17.88	19.08	18.28	19.43	19.82
	3H	23.88	24.86	24.29	25.27	25.68	19.08	20.06	19.49	20.47	20.88
	4H	24.40	25.29	24.84	25.71	26.16	19.49	20.38	19.93	20.80	21.25
	6H	24.78	25.55	25.24	26.00	26.47	19.80	20.57	20.27	21.02	21.49
	8H	24.89	25.61	25.36	26.06	26.53	19.90	20.61	20.37	21.06	21.54
	12H	24.97	25.60	25.45	26.09	26.57	19.97	20.60	20.46	21.09	21.57
8H	4H	24.38	25.10	24.85	25.55	26.03	19.83	20.54	20.30	20.99	21.47
	6H	24.81	25.40	25.32	25.90	26.39	20.22	20.81	20.72	21.31	21.79
	8H	24.97	25.50	25.49	26.02	26.51	20.36	20.89	20.88	21.41	21.90
	12H	25.10	25.57	25.62	26.07	26.64	20.48	20.95	21.00	21.45	22.02
12H	4H	24.35	24.99	24.84	25.48	25.96	19.87	20.51	20.36	21.00	21.47
	6H	24.78	25.31	25.30	25.83	26.33	20.29	20.82	20.81	21.33	21.83
	8H	24.97	25.44	25.49	25.94	26.51	20.48	20.94	20.99	21.44	22.02