

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: P893902

Luminaire Tested: 4MB-8HL-ACL-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893902
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-20)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-8HL-ACL-UNV-L935
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 3500K (C)
Light Source: -
Ballast/Driver: -

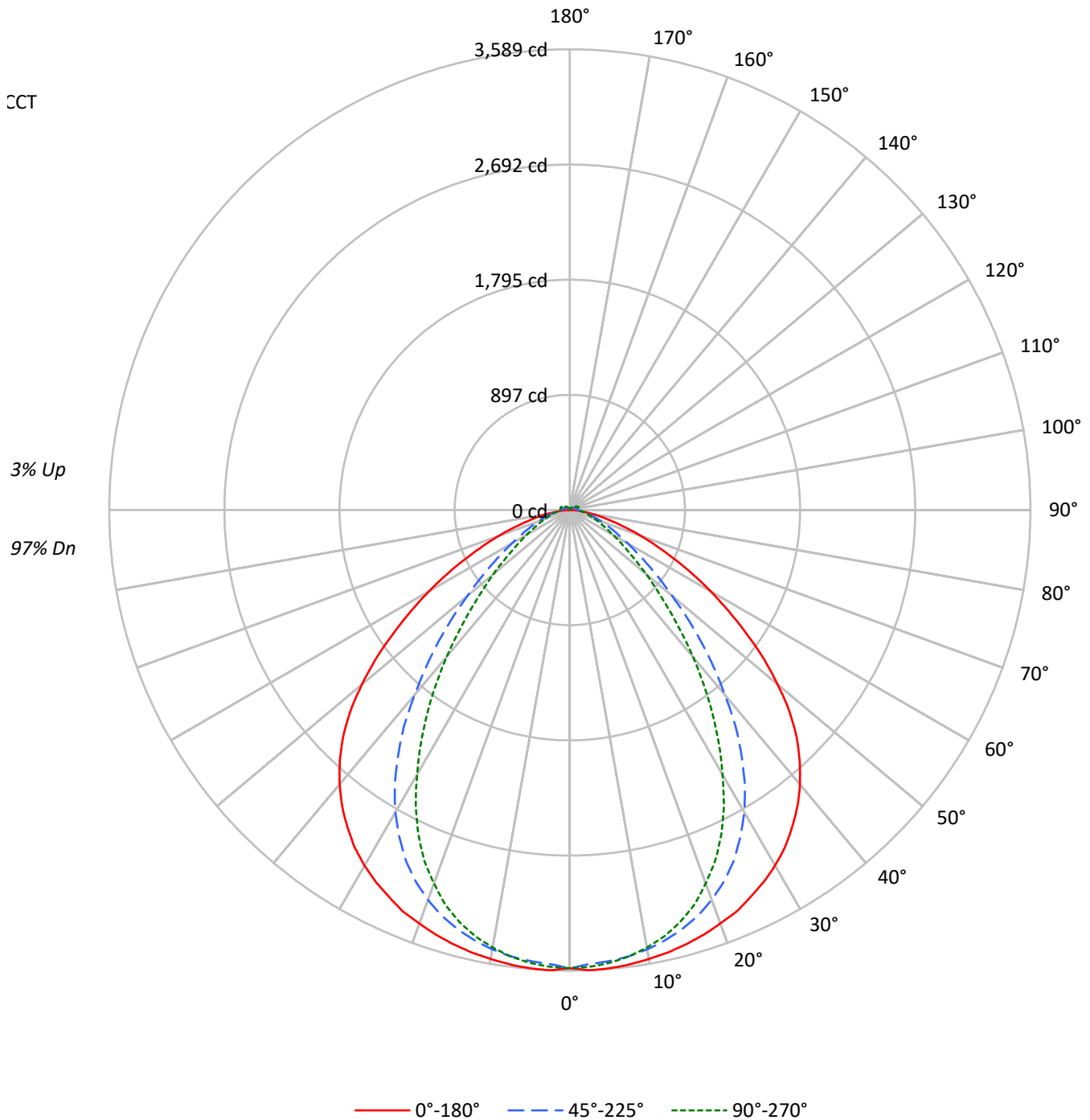
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7239.0 lumens
Efficiency: N/A
Efficacy: 125.0 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.05 / 1.15
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.08')
CIE Type: Direct

Input Watts (W): 57.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.23
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	100	100	100	97
1	110	106	102	99	107	103	100	97	99	96	94	94	92	90	90	89	87	87	87	87	85
2	101	94	89	84	99	92	87	83	88	84	80	85	81	78	82	79	76	76	76	76	74
3	94	85	78	72	91	83	76	71	80	74	70	77	72	68	74	70	67	67	67	67	65
4	87	76	69	63	84	75	68	62	72	66	61	70	64	60	67	63	59	59	59	59	57
5	81	69	61	55	78	68	60	55	66	59	54	63	58	53	61	56	52	52	52	52	50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	56	51	47	47	47	47	45
7	70	58	50	44	68	57	49	44	55	48	43	53	47	43	52	47	42	42	42	42	41
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	43	39	39	39	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	35	35	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	32	32	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	36344	36344	36344
5°	36563	35334	35237
10°	36592	34501	33916
15°	36716	33512	32315
20°	36871	32252	30113
25°	37038	30546	27357
30°	37171	28131	23699
35°	36999	24873	19755
40°	36450	20860	15705
45°	35247	16804	11875
50°	32686	12845	8957
55°	29017	9840	6672
60°	24900	7571	5163
65°	20542	5933	4085
70°	16593	4754	3341
75°	12628	3885	2850
80°	9447	3181	2514
85°	6430	2694	2286

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 35247 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	337.6	4.7
10°-20°	958.6	13.2
20°-30°	1395.3	19.3
30°-40°	1497.4	20.7
40°-50°	1239.0	17.1
50°-60°	821.2	11.3
60°-70°	467.9	6.5
70°-80°	232.0	3.2
80°-90°	93.8	1.3
90°-100°	55.1	0.8
100°-110°	49.0	0.7
110°-120°	37.0	0.5
120°-130°	24.6	0.3
130°-140°	15.1	0.2
140°-150°	8.6	0.1
150°-160°	4.4	0.1
160°-170°	1.9	0.0
170°-180°	0.5	0.0
0°-30°	2691.5	37.2
0°-40°	4188.9	57.9
0°-60°	6249.1	86.3
0°-90°	7042.8	97.3
90°-120°	141.2	2.0
90°-150°	189.5	2.6
90°-180°	196.0	2.7
0°-180°	7239.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3569	3569	3569	3569	3569	
5°	3583	3574	3528	3554	3541	341
15°	3502	3474	3380	3349	3322	990
25°	3328	3241	3018	2854	2791	1536
35°	3020	2780	2332	2027	1938	1887
45°	2498	2029	1443	1162	1083	1914
55°	1683	1190	741	586	544	1506
65°	891	597	371	299	284	895
75°	346	258	186	162	157	382
85°	68	73	85	90	90	79
90°	9	30	58	71	73	8
95°	11	32	59	71	73	9
105°	9	24	53	68	72	9
115°	5	16	41	58	63	5
125°	3	11	29	43	48	3
135°	2	9	20	30	34	2
145°	3	6	14	21	24	2
155°	3	6	9	13	16	1
165°	4	4	6	8	10	1
175°	4	4	5	5	4	0
180°	4	4	4	4	4	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3568.7	3568.7	3568.7	3568.7	3568.7
2.5°	3588.8	3580.9	3540.0	3570.9	3561.5
5°	3583.1	3573.7	3527.8	3554.3	3541.4
7.5°	3570.9	3559.4	3507.7	3525.6	3509.8
10°	3551.5	3537.1	3475.4	3479.0	3461.0
12.5°	3530.7	3508.4	3433.0	3423.0	3400.7
15°	3501.9	3474.0	3379.9	3349.1	3322.5
17.5°	3468.9	3430.2	3313.9	3259.3	3224.9
20°	3428.0	3376.3	3232.1	3148.8	3095.7
22.5°	3388.5	3312.5	3134.5	3015.3	2959.3
25°	3328.2	3241.4	3018.2	2853.8	2790.6
27.5°	3268.7	3151.7	2875.3	2673.7	2600.4
30°	3199.1	3045.5	2718.9	2470.5	2380.1
32.5°	3118.7	2929.2	2537.3	2259.5	2163.3
35°	3019.6	2779.9	2332.0	2027.0	1937.9
37.5°	2913.4	2615.5	2120.3	1805.9	1714.0
40°	2789.9	2441.1	1880.5	1576.2	1492.2
42.5°	2652.8	2241.6	1658.0	1360.2	1276.2
45°	2498.5	2029.1	1442.7	1162.1	1083.1
47.5°	2321.2	1811.6	1234.5	983.3	917.3
50°	2114.5	1594.1	1039.3	825.4	776.6
52.5°	1906.4	1389.6	882.1	699.8	647.4
55°	1683.1	1190.0	741.4	586.4	544.1
57.5°	1467.1	1013.5	619.4	491.7	462.2
60°	1266.8	855.6	524.0	414.9	391.2
62.5°	1074.5	721.3	438.6	351.0	330.2
65°	890.7	597.2	371.1	299.3	283.5
67.5°	729.2	498.8	312.9	255.5	243.3
70°	589.3	403.4	263.4	218.9	208.9
72.5°	458.6	323.7	221.1	189.5	180.9
75°	346.0	257.7	185.9	162.2	157.2
77.5°	260.5	200.3	153.6	140.0	136.4
80°	180.2	149.3	127.0	121.3	119.1
82.5°	114.8	106.9	104.1	104.1	104.1
85°	68.2	73.2	85.4	90.4	89.7
87.5°	32.3	48.1	68.9	78.2	79.7
90°	9.3	30.1	58.1	71.1	73.2
92.5°	10.8	30.9	58.1	71.1	73.2
95°	10.8	31.6	58.9	71.1	73.2
97.5°	10.8	30.1	58.1	71.8	73.9
100°	10.8	29.4	57.4	71.1	73.9
102.5°	9.3	27.3	55.3	70.3	73.2
105°	8.6	23.7	53.1	68.2	71.8
107.5°	7.2	21.5	51.0	66.0	70.3
110°	6.5	19.4	48.1	63.9	68.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.7	17.2	44.5	61.7	66.0
115°	5.0	15.8	40.9	58.1	63.2
117.5°	4.3	14.4	37.3	54.5	60.3
120°	3.6	12.9	34.5	51.0	56.0
122.5°	3.6	12.2	31.6	46.7	52.4
125°	2.9	10.8	29.4	43.1	48.1
127.5°	2.9	10.0	26.6	39.5	43.8
130°	2.2	10.0	24.4	36.6	40.9
132.5°	2.2	9.3	21.5	33.0	37.3
135°	2.2	8.6	20.1	30.1	33.7
137.5°	2.2	8.6	17.9	28.0	31.6
140°	2.9	7.9	15.8	25.1	28.7
142.5°	2.9	7.2	15.1	23.0	25.8
145°	2.9	6.5	13.6	20.8	23.7
147.5°	2.9	6.5	12.2	18.7	21.5
150°	2.9	5.7	11.5	16.5	19.4
152.5°	2.9	5.7	10.8	14.4	17.9
155°	2.9	5.7	9.3	12.9	16.5
157.5°	2.9	5.0	8.6	11.5	14.4
160°	3.6	5.0	7.9	10.0	12.9
162.5°	3.6	5.0	7.2	9.3	11.5
165°	3.6	4.3	6.5	7.9	10.0
167.5°	3.6	4.3	6.5	7.2	8.6
170°	3.6	4.3	5.7	5.7	6.5
172.5°	3.6	4.3	5.0	5.7	4.3
175°	3.6	4.3	5.0	5.0	4.3
177.5°	3.6	4.3	4.3	5.0	4.3
180°	4.3	4.3	4.3	4.3	4.3



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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	21.15	22.54	21.56	22.91	23.29	16.27	17.65	16.68	18.03	18.41
	3H	22.24	23.48	22.67	23.87	24.30	17.41	18.65	17.84	19.04	19.47
	4H	22.54	23.70	22.98	24.10	24.55	17.92	19.07	18.36	19.48	19.93
	6H	22.68	23.75	23.14	24.17	24.63	18.42	19.49	18.88	19.91	20.37
	8H	22.70	23.71	23.17	24.16	24.63	18.69	19.70	19.16	20.15	20.62
	12H	22.69	23.66	23.17	24.10	24.59	18.98	19.95	19.46	20.39	20.89
4H	2H	21.12	22.28	21.57	22.69	23.13	16.77	17.93	17.22	18.34	18.78
	3H	22.36	23.31	22.82	23.77	24.24	18.09	19.05	18.55	19.50	19.97
	4H	22.73	23.59	23.21	24.06	24.56	18.69	19.55	19.17	20.01	20.52
	6H	22.96	23.71	23.46	24.20	24.73	19.31	20.06	19.82	20.56	21.08
	8H	22.99	23.69	23.50	24.19	24.72	19.64	20.34	20.15	20.83	21.37
	12H	23.00	23.62	23.53	24.15	24.69	20.01	20.64	20.54	21.17	21.70
8H	4H	22.71	23.41	23.22	23.91	24.44	18.93	19.63	19.44	20.12	20.66
	6H	22.99	23.56	23.53	24.10	24.65	19.66	20.24	20.21	20.78	21.32
	8H	23.05	23.57	23.61	24.13	24.68	20.07	20.59	20.63	21.15	21.70
	12H	23.09	23.55	23.64	24.09	24.72	20.56	21.02	21.12	21.56	22.19
12H	4H	22.69	23.31	23.22	23.84	24.38	18.95	19.57	19.47	20.10	20.63
	6H	22.96	23.48	23.52	24.04	24.59	19.70	20.22	20.26	20.78	21.33
	8H	23.06	23.52	23.62	24.06	24.69	20.16	20.62	20.72	21.16	21.79