

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: P893904

Luminaire Tested: 4MB-8HL-ACL-UNV-L950

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P893904  
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-L950  
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 5000K (C)  
Light Source: -  
Ballast/Driver: -

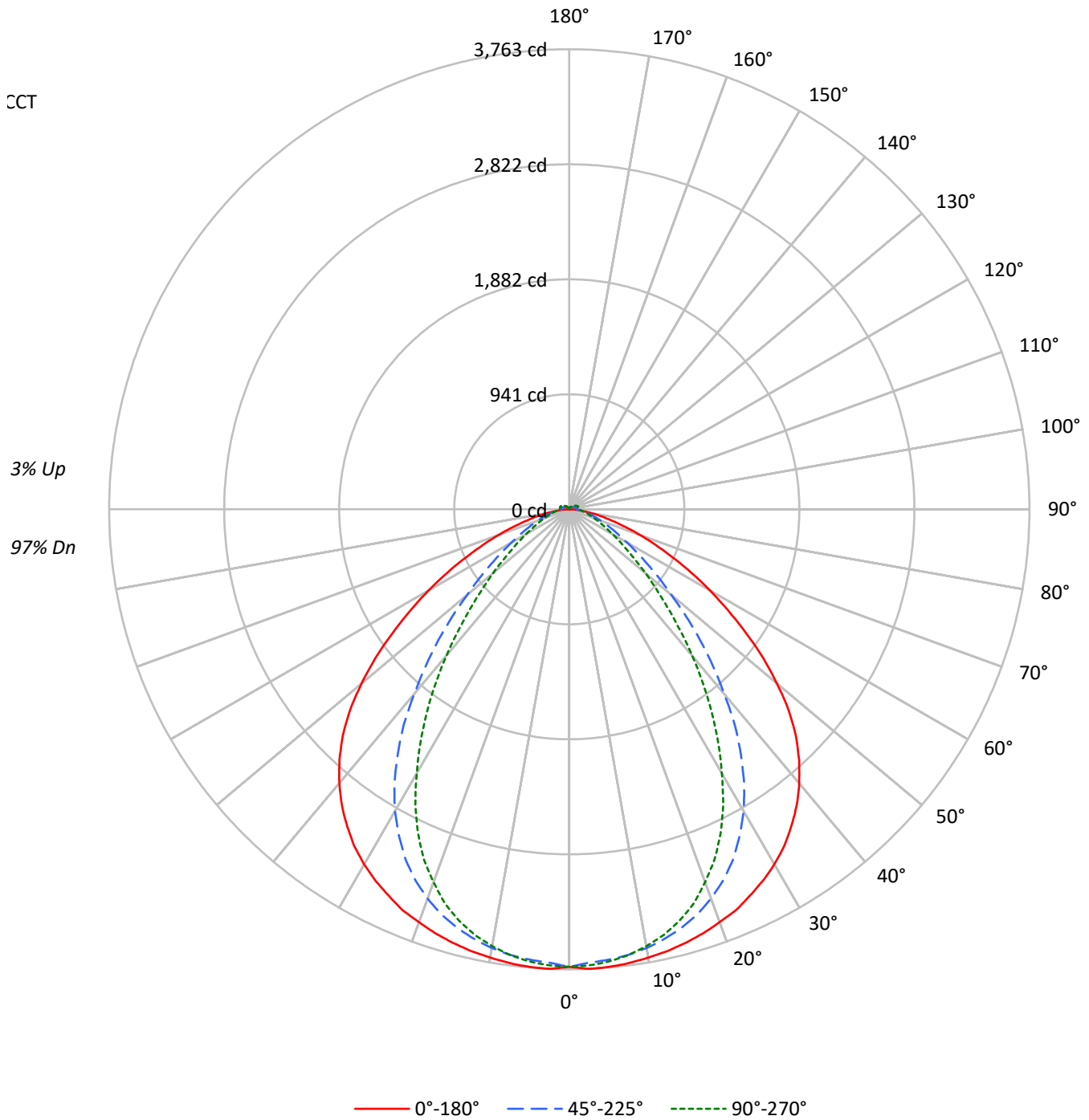
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7590.0 lumens  
Efficiency: N/A  
Efficacy: 131.1 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<sub>in</sub>): 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	97				97
1	110	106	102	99	107	103	100	97	99	96	94	94	92	90	90	89	87	85				85
2	101	94	89	84	99	92	87	83	88	84	80	85	81	78	82	79	76	74				74
3	94	85	78	72	91	83	76	71	80	74	70	77	72	68	74	70	67	65				65
4	87	76	69	63	84	75	68	62	72	66	61	70	64	60	67	63	59	57				57
5	81	69	61	55	78	68	60	55	66	59	54	63	58	53	61	56	52	50				50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	56	51	47	45				45
7	70	58	50	44	68	57	49	44	55	48	43	53	47	43	52	47	42	41				41
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	43	39	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34				34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31				31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	38106	38106	38106
5°	38336	37047	36946
10°	38366	36174	35561
15°	38497	35137	33882
20°	38659	33816	31574
25°	38834	32027	28685
30°	38973	29495	24848
35°	38793	26079	20713
40°	38218	21872	16467
45°	36957	17618	12451
50°	34271	13468	9392
55°	30425	10318	6995
60°	26109	7938	5413
65°	21538	6221	4284
70°	17398	4985	3503
75°	13238	4073	2988
80°	9903	3336	2636
85°	6742	2827	2398

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 36957 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	353.9	4.7
10°-20°	1005.1	13.2
20°-30°	1463.0	19.3
30°-40°	1570.0	20.7
40°-50°	1299.1	17.1
50°-60°	861.0	11.3
60°-70°	490.6	6.5
70°-80°	243.3	3.2
80°-90°	98.4	1.3
90°-100°	57.8	0.8
100°-110°	51.4	0.7
110°-120°	38.8	0.5
120°-130°	25.8	0.3
130°-140°	15.8	0.2
140°-150°	9.0	0.1
150°-160°	4.6	0.1
160°-170°	2.0	0.0
170°-180°	0.5	0.0
0°-30°	2822.0	37.2
0°-40°	4392.0	57.9
0°-60°	6552.1	86.3
0°-90°	7384.2	97.3
90°-120°	148.0	2.0
90°-150°	198.7	2.6
90°-180°	206.0	2.7
0°-180°	7590.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3742	3742	3742	3742	3742	
5°	3757	3747	3699	3727	3713	357
15°	3672	3642	3544	3512	3484	1038
25°	3490	3399	3164	2992	2926	1610
35°	3166	2915	2445	2125	2032	1978
45°	2620	2128	1513	1218	1136	2007
55°	1765	1248	777	615	570	1579
65°	934	626	389	314	297	938
75°	363	270	195	170	165	400
85°	72	77	90	95	94	82
90°	10	32	61	74	77	9
95°	11	33	62	74	77	9
105°	9	25	56	72	75	9
115°	5	17	43	61	66	5
125°	3	11	31	45	50	3
135°	2	9	21	32	35	2
145°	3	7	14	22	25	2
155°	3	6	10	14	17	1
165°	4	4	7	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°	3741.7	3741.7	3741.7	3741.7	3741.7
2.5°	3762.8	3754.5	3711.6	3744.0	3734.2
5°	3756.8	3747.0	3698.8	3726.7	3713.1
7.5°	3744.0	3732.0	3677.8	3696.6	3680.0
10°	3723.7	3708.6	3643.9	3647.7	3628.9
12.5°	3701.8	3678.5	3599.5	3589.0	3565.6
15°	3671.7	3642.4	3543.8	3511.5	3483.6
17.5°	3637.1	3596.5	3474.6	3417.4	3381.3
20°	3594.2	3540.0	3388.8	3301.5	3245.8
22.5°	3552.8	3473.1	3286.4	3161.5	3102.8
25°	3489.6	3398.6	3164.5	2992.2	2926.0
27.5°	3427.2	3304.5	3014.8	2803.3	2726.5
30°	3354.2	3193.1	2850.7	2590.3	2495.5
32.5°	3269.9	3071.2	2660.3	2369.1	2268.2
35°	3166.0	2914.7	2445.1	2125.2	2031.9
37.5°	3054.6	2742.3	2223.1	1893.4	1797.1
40°	2925.2	2559.5	1971.7	1652.6	1564.6
42.5°	2781.5	2350.2	1738.4	1426.1	1338.1
45°	2619.7	2127.5	1512.6	1218.4	1135.6
47.5°	2433.8	1899.5	1294.4	1031.0	961.8
50°	2217.0	1671.4	1089.7	865.4	814.3
52.5°	1998.8	1457.0	924.9	733.7	678.8
55°	1764.8	1247.7	777.4	614.8	570.4
57.5°	1538.2	1062.6	649.5	515.5	484.6
60°	1328.3	897.1	549.4	435.0	410.1
62.5°	1126.6	756.3	459.8	368.0	346.2
65°	933.9	626.1	389.1	313.8	297.3
67.5°	764.6	523.0	328.1	267.9	255.1
70°	617.9	422.9	276.2	229.5	219.0
72.5°	480.9	339.4	231.8	198.7	189.6
75°	362.7	270.2	194.9	170.1	164.8
77.5°	273.2	210.0	161.0	146.7	143.0
80°	188.9	156.5	133.2	127.2	124.9
82.5°	120.4	112.1	109.1	109.1	109.1
85°	71.5	76.8	89.6	94.8	94.1
87.5°	33.9	50.4	72.2	82.0	83.5
90°	9.8	31.6	61.0	74.5	76.8
92.5°	11.3	32.4	61.0	74.5	76.8
95°	11.3	33.1	61.7	74.5	76.8
97.5°	11.3	31.6	61.0	75.3	77.5
100°	11.3	30.9	60.2	74.5	77.5
102.5°	9.8	28.6	57.9	73.8	76.8
105°	9.0	24.8	55.7	71.5	75.3
107.5°	7.5	22.6	53.4	69.2	73.8
110°	6.8	20.3	50.4	67.0	72.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	6.0	18.1	46.7	64.7	69.2
115°	5.3	16.6	42.9	61.0	66.2
117.5°	4.5	15.1	39.1	57.2	63.2
120°	3.8	13.5	36.1	53.4	58.7
122.5°	3.8	12.8	33.1	48.9	54.9
125°	3.0	11.3	30.9	45.2	50.4
127.5°	3.0	10.5	27.8	41.4	45.9
130°	2.3	10.5	25.6	38.4	42.9
132.5°	2.3	9.8	22.6	34.6	39.1
135°	2.3	9.0	21.1	31.6	35.4
137.5°	2.3	9.0	18.8	29.3	33.1
140°	3.0	8.3	16.6	26.3	30.1
142.5°	3.0	7.5	15.8	24.1	27.1
145°	3.0	6.8	14.3	21.8	24.8
147.5°	3.0	6.8	12.8	19.6	22.6
150°	3.0	6.0	12.0	17.3	20.3
152.5°	3.0	6.0	11.3	15.1	18.8
155°	3.0	6.0	9.8	13.5	17.3
157.5°	3.0	5.3	9.0	12.0	15.1
160°	3.8	5.3	8.3	10.5	13.5
162.5°	3.8	5.3	7.5	9.8	12.0
165°	3.8	4.5	6.8	8.3	10.5
167.5°	3.8	4.5	6.8	7.5	9.0
170°	3.8	4.5	6.0	6.0	6.8
172.5°	3.8	4.5	5.3	6.0	4.5
175°	3.8	4.5	5.3	5.3	4.5
177.5°	3.8	4.5	4.5	5.3	4.5
180°	4.5	4.5	4.5	4.5	4.5



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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	21.31	22.70	21.72	23.07	23.46	16.43	17.82	16.84	18.19	18.58
	3H	22.41	23.65	22.83	24.03	24.46	17.58	18.81	18.00	19.20	19.63
	4H	22.70	23.86	23.15	24.27	24.71	18.08	19.24	18.53	19.64	20.09
	6H	22.85	23.92	23.31	24.34	24.80	18.59	19.66	19.05	20.08	20.54
	8H	22.86	23.88	23.34	24.32	24.79	18.85	19.87	19.33	20.31	20.78
	12H	22.85	23.82	23.33	24.26	24.76	19.15	20.12	19.62	20.56	21.05
4H	2H	21.29	22.44	21.73	22.85	23.30	16.93	18.09	17.38	18.50	18.95
	3H	22.52	23.48	22.98	23.93	24.40	18.25	19.21	18.71	19.67	20.13
	4H	22.89	23.75	23.37	24.22	24.73	18.85	19.71	19.33	20.18	20.68
	6H	23.12	23.87	23.63	24.37	24.89	19.48	20.22	19.98	20.72	21.25
	8H	23.16	23.86	23.67	24.35	24.88	19.80	20.50	20.31	21.00	21.53
	12H	23.17	23.79	23.70	24.32	24.85	20.18	20.80	20.71	21.33	21.87
8H	4H	22.88	23.58	23.39	24.07	24.60	19.09	19.79	19.61	20.29	20.82
	6H	23.15	23.73	23.69	24.27	24.81	19.83	20.40	20.37	20.95	21.49
	8H	23.21	23.73	23.77	24.29	24.84	20.23	20.75	20.80	21.31	21.86
	12H	23.25	23.71	23.81	24.25	24.88	20.73	21.19	21.28	21.73	22.36
12H	4H	22.85	23.48	23.38	24.01	24.54	19.11	19.73	19.64	20.26	20.80
	6H	23.13	23.65	23.69	24.21	24.76	19.86	20.38	20.42	20.94	21.49
	8H	23.22	23.68	23.78	24.22	24.85	20.33	20.79	20.88	21.33	21.95