

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: P893894

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893894
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-21)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-8HL-A-UNV-L935
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

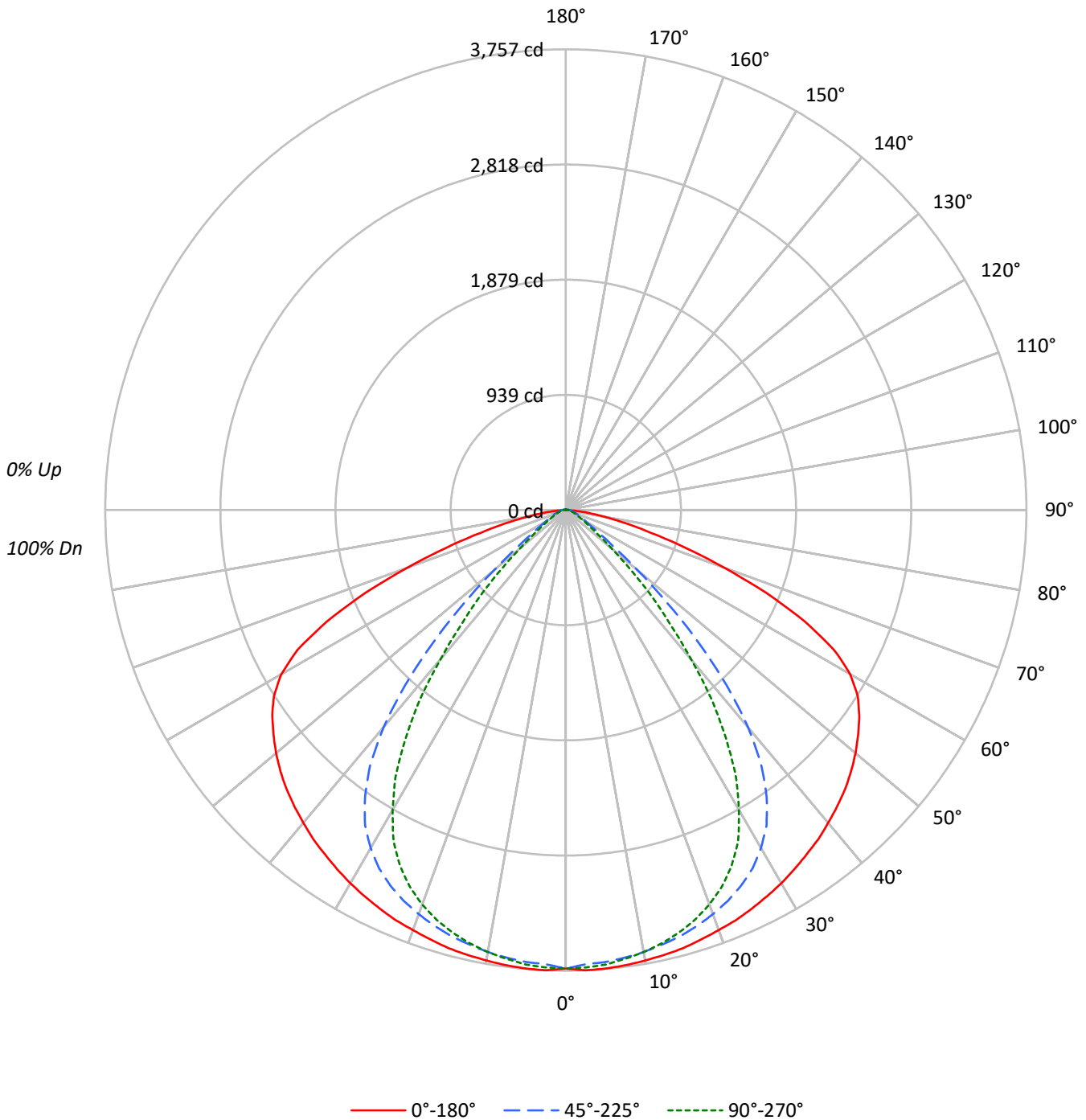
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7569.9 lumens
Efficiency: N/A
Efficacy: 130.7 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.14 / 1.22
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')
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				
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	91	90	90	90	90	88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	79	79	79	77
3	95	86	80	74	93	85	79	74	82	77	72	79	75	71	77	73	70	70	70	70	68
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	62	62	62	60
5	82	71	63	57	80	70	63	57	68	61	56	66	60	56	64	59	55	55	55	55	53
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	50	50	50	48
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	45	45	45	43
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	41	41	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	37	37	37	35
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	43	38	34	34	34	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	38072	38072	38072
5°	38369	37820	38037
10°	38572	37848	37855
15°	38998	37940	37612
20°	39512	38011	37100
25°	40316	37998	35956
30°	41335	37430	33216
35°	42603	35504	28353
40°	44269	30750	21205
45°	46381	22127	14117
50°	48873	12125	7737
55°	51896	5961	4455
60°	54581	3929	3080
65°	51803	3219	2436
70°	40779	2924	2251
75°	28280	2892	2141
80°	18609	2903	2651
85°	10657	4464	4545

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 60°
 Luminance: 54581 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	354.5	4.7
10°-20°	1023.3	13.5
20°-30°	1558.9	20.6
30°-40°	1770.4	23.4
40°-50°	1421.6	18.8
50°-60°	762.6	10.1
60°-70°	403.3	5.3
70°-80°	182.9	2.4
80°-90°	58.3	0.8
90°-100°	18.0	0.2
100°-110°	6.5	0.1
110°-120°	2.0	0.0
120°-130°	1.5	0.0
130°-140°	1.6	0.0
140°-150°	1.6	0.0
150°-160°	1.5	0.0
160°-170°	1.1	0.0
170°-180°	0.4	0.0
0°-30°	2936.7	38.8
0°-40°	4707.1	62.2
0°-60°	6891.2	91.0
0°-90°	7535.7	99.5
90°-120°	26.5	0.3
90°-150°	31.2	0.4
90°-180°	34.0	0.4
0°-180°	7569.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3738	3738	3738	3738	3738	
5°	3753	3745	3700	3731	3721	357
15°	3699	3675	3598	3588	3567	1046
25°	3588	3531	3382	3263	3200	1658
35°	3427	3281	2856	2442	2280	2150
45°	3220	2725	1536	1068	980	2487
55°	2923	1090	336	262	251	2606
65°	2150	254	134	108	101	2079
75°	719	145	74	58	54	813
85°	91	54	38	38	39	124
90°	4	25	28	32	30	6
95°	4	10	22	19	18	3
105°	2	1	4	10	12	2
115°	1	1	1	3	3	1
125°	1	1	1	2	1	1
135°	2	1	2	2	2	1
145°	2	2	3	3	3	1
155°	3	3	4	4	4	1
165°	3	4	4	5	4	1
175°	4	4	5	6	5	0
180°	5	5	5	5	5	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3738.3	3738.3	3738.3	3738.3	3738.3
2.5°	3757.4	3750.3	3707.9	3743.3	3734.1
5°	3753.2	3745.4	3699.5	3730.6	3720.7
7.5°	3744.0	3734.1	3682.5	3707.9	3692.4
10°	3729.9	3720.0	3659.9	3677.6	3660.6
12.5°	3715.7	3698.8	3630.2	3635.9	3619.6
15°	3698.8	3675.4	3598.4	3588.5	3567.3
17.5°	3672.6	3646.5	3556.7	3533.4	3503.7
20°	3645.8	3610.4	3507.3	3459.9	3423.2
22.5°	3621.0	3572.3	3450.7	3375.1	3325.6
25°	3587.8	3530.6	3381.5	3263.4	3199.8
27.5°	3551.8	3481.8	3296.0	3119.3	3043.7
30°	3515.0	3423.2	3182.9	2938.4	2824.6
32.5°	3471.9	3358.8	3047.2	2719.3	2585.0
35°	3426.7	3281.1	2855.7	2441.6	2280.5
37.5°	3383.6	3191.4	2619.7	2104.5	1961.7
40°	3329.9	3086.8	2313.0	1742.7	1595.0
42.5°	3276.9	2925.7	1945.5	1395.7	1254.4
45°	3220.3	2725.0	1536.3	1068.5	980.2
47.5°	3156.0	2450.1	1124.3	778.1	701.7
50°	3084.7	2054.3	765.3	530.0	488.3
52.5°	3006.2	1591.4	497.5	365.4	341.3
55°	2922.8	1090.4	335.7	262.2	250.9
57.5°	2822.5	683.4	248.8	197.2	190.8
60°	2679.7	443.1	192.9	159.0	151.2
62.5°	2464.9	317.3	161.8	130.0	123.7
65°	2149.7	253.7	133.6	108.1	101.1
67.5°	1772.4	217.0	114.5	92.6	87.6
70°	1369.5	190.8	98.2	80.6	75.6
72.5°	1021.9	166.8	84.8	70.0	63.6
75°	718.7	144.9	73.5	57.9	54.4
77.5°	505.3	125.1	60.8	49.5	48.8
80°	317.3	103.9	49.5	45.9	45.2
82.5°	192.9	82.0	43.1	42.4	41.7
85°	91.2	54.4	38.2	38.2	38.9
87.5°	29.7	36.0	32.5	33.9	33.9
90°	3.5	24.7	27.6	31.8	30.4
92.5°	3.5	17.7	25.4	25.4	20.5
95°	3.5	9.9	21.9	19.1	18.4
97.5°	3.5	4.9	16.3	18.4	17.7
100°	3.5	2.8	12.0	16.3	17.7
102.5°	2.8	2.1	7.8	13.4	14.8
105°	2.1	1.4	4.2	9.9	12.0
107.5°	1.4	1.4	2.8	7.1	8.5
110°	1.4	0.7	2.1	4.9	5.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.4	0.7	2.1	3.5	3.5
115°	1.4	1.4	1.4	2.8	2.8
117.5°	1.4	1.4	1.4	2.1	2.1
120°	1.4	1.4	1.4	2.1	1.4
122.5°	1.4	1.4	1.4	2.1	1.4
125°	1.4	1.4	1.4	2.1	1.4
127.5°	1.4	1.4	2.1	2.1	1.4
130°	1.4	1.4	2.1	2.1	1.4
132.5°	1.4	1.4	2.1	2.1	2.1
135°	2.1	1.4	2.1	2.1	2.1
137.5°	2.1	2.1	2.1	2.8	2.1
140°	2.1	2.1	2.8	2.8	2.1
142.5°	2.1	2.1	2.8	2.8	2.8
145°	2.1	2.1	2.8	2.8	2.8
147.5°	2.1	2.1	2.8	3.5	2.8
150°	2.1	2.8	3.5	3.5	2.8
152.5°	2.1	2.8	3.5	3.5	3.5
155°	2.8	2.8	3.5	4.2	3.5
157.5°	2.8	2.8	3.5	4.2	3.5
160°	2.8	2.8	4.2	4.2	4.2
162.5°	2.8	3.5	4.2	4.9	4.2
165°	2.8	3.5	4.2	4.9	4.2
167.5°	2.8	3.5	4.2	4.9	4.9
170°	2.8	3.5	4.9	4.9	4.9
172.5°	3.5	3.5	4.9	5.7	4.9
175°	3.5	3.5	4.9	5.7	4.9
177.5°	3.5	3.5	4.9	5.7	4.9
180°	4.9	4.9	4.9	4.9	4.9



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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	22.31	23.70	22.68	24.02	24.35	10.52	11.91	10.90	12.23	12.56
	3H	25.21	26.44	25.60	26.78	27.16	11.48	12.71	11.87	13.05	13.43
	4H	25.99	27.14	26.40	27.50	27.90	11.90	13.05	12.31	13.41	13.80
	6H	26.43	27.49	26.85	27.87	28.27	12.38	13.44	12.80	13.82	14.22
	8H	26.53	27.53	26.97	27.93	28.35	12.69	13.69	13.13	14.09	14.51
	12H	26.57	27.53	27.01	27.92	28.36	13.09	14.05	13.53	14.45	14.89
4H	2H	22.12	23.27	22.53	23.63	24.03	11.04	12.19	11.45	12.55	12.94
	3H	25.04	25.98	25.46	26.40	26.81	12.25	13.19	12.67	13.60	14.02
	4H	25.83	26.68	26.28	27.11	27.56	12.79	13.63	13.23	14.06	14.51
	6H	26.36	27.09	26.83	27.55	28.02	13.42	14.15	13.89	14.61	15.08
	8H	26.51	27.19	26.98	27.64	28.12	13.82	14.51	14.30	14.96	15.44
	12H	26.59	27.19	27.08	27.68	28.16	14.35	14.96	14.85	15.45	15.93
8H	4H	25.72	26.40	26.20	26.86	27.34	13.35	14.03	13.82	14.49	14.97
	6H	26.25	26.81	26.76	27.32	27.81	14.12	14.68	14.63	15.19	15.68
	8H	26.42	26.92	26.94	27.44	27.95	14.64	15.15	15.17	15.67	16.17
	12H	26.54	26.98	27.06	27.49	28.07	15.35	15.79	15.87	16.30	16.88
12H	4H	25.68	26.29	26.17	26.78	27.26	13.60	14.20	14.09	14.69	15.18
	6H	26.20	26.70	26.72	27.23	27.73	14.40	14.90	14.92	15.42	15.92
	8H	26.39	26.84	26.91	27.34	27.92	14.99	15.44	15.51	15.94	16.52