

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: P893905

Luminaire Tested: 4MB-8HL-AOL-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893905
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-19)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-8HL-AOL-UNV-L830
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 8
3000K CCT
Light Source: -
Ballast/Driver: -

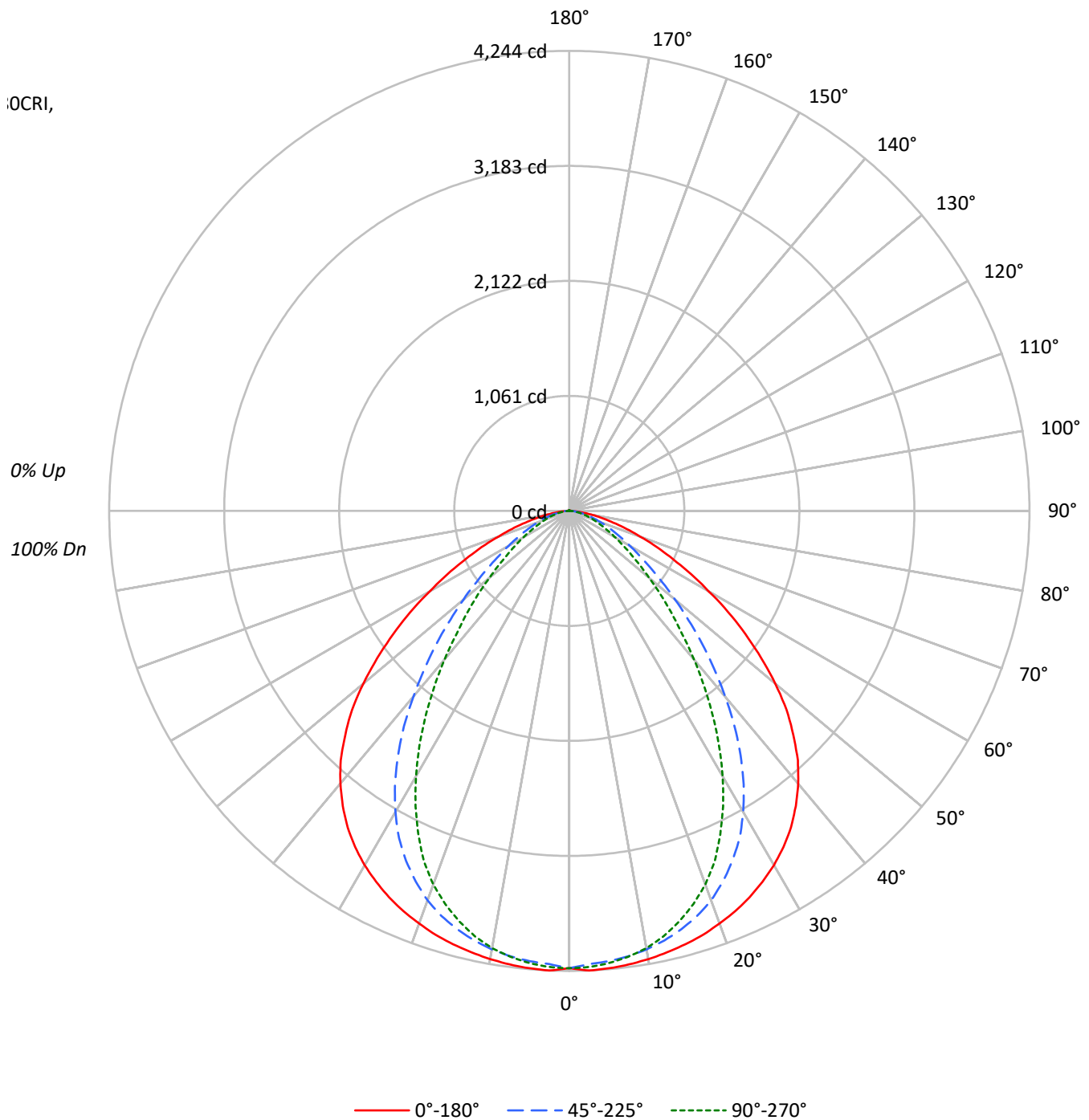
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8339.9 lumens
Efficiency: N/A
Efficacy: 144.0 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.05 / 1.16
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 (Ain): 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	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	89	89	89	87
2	102	95	90	85	100	93	88	84	90	86	82	87	83	80	84	81	78	78	78	78	76
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	68	68	68	67
4	87	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	61	61	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	54	54	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	52	48	48	48	48	46
7	70	58	50	45	69	57	50	45	56	49	44	55	48	44	53	48	44	44	44	44	42
8	66	54	46	40	64	53	45	40	52	45	40	50	44	40	49	44	40	40	40	40	38
9	62	49	42	37	61	49	42	37	48	41	37	47	41	36	46	40	36	36	36	36	34
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	33	33	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42969	42969	42969
5°	43304	42628	42816
10°	43424	42481	42369
15°	43638	42121	41327
20°	43895	41438	39743
25°	44206	40014	37006
30°	44393	37715	33268
35°	44324	34225	28723
40°	43670	29736	23820
45°	42082	24950	19180
50°	39296	20237	15227
55°	35201	16159	12193
60°	30276	13187	9966
65°	25418	10965	8244
70°	20748	9216	7075
75°	16456	7799	6024
80°	12803	6674	5202
85°	9874	5959	4499

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 42082 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	399.1	4.8
10°-20°	1133.0	13.6
20°-30°	1648.6	19.8
30°-40°	1772.4	21.3
40°-50°	1480.2	17.7
50°-60°	994.2	11.9
60°-70°	564.8	6.8
70°-80°	257.3	3.1
80°-90°	65.7	0.8
90°-100°	7.3	0.1
100°-110°	5.3	0.1
110°-120°	3.1	0.0
120°-130°	2.1	0.0
130°-140°	1.9	0.0
140°-150°	1.8	0.0
150°-160°	1.5	0.0
160°-170°	1.2	0.0
170°-180°	0.4	0.0
0°-30°	3180.7	38.1
0°-40°	4953.1	59.4
0°-60°	7427.4	89.1
0°-90°	8315.2	99.7
90°-120°	15.8	0.2
90°-150°	21.6	0.3
90°-180°	25.0	0.3
0°-180°	8339.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4219	4219	4219	4219	4219	
5°	4236	4224	4170	4203	4188	403
15°	4139	4105	3995	3963	3920	1170
25°	3934	3820	3561	3376	3293	1813
35°	3565	3279	2753	2423	2310	2224
45°	2922	2410	1732	1417	1332	2246
55°	1982	1425	910	729	687	1772
65°	1055	725	455	365	342	1060
75°	418	302	198	161	153	460
85°	84	69	51	41	38	96
90°	11	9	7	6	5	10
95°	13	9	6	3	3	11
105°	10	8	4	2	2	10
115°	5	4	2	2	2	5
125°	3	2	2	2	2	3
135°	2	2	2	2	2	2
145°	2	2	3	3	2	2
155°	2	3	3	3	3	1
165°	3	3	4	5	5	1
175°	3	4	5	5	5	0
180°	5	5	5	5	5	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4219.2	4219.2	4219.2	4219.2	4219.2
2.5°	4244.3	4232.6	4184.9	4221.7	4211.7
5°	4235.9	4224.2	4169.8	4203.3	4188.2
7.5°	4220.0	4208.3	4144.7	4169.0	4148.9
10°	4199.1	4182.4	4107.9	4114.6	4097.1
12.5°	4171.5	4146.4	4058.6	4046.9	4019.3
15°	4138.9	4105.4	3995.0	3963.2	3919.7
17.5°	4101.2	4052.7	3918.1	3851.1	3803.5
20°	4050.2	3988.3	3823.5	3717.3	3667.1
22.5°	3997.5	3913.0	3701.4	3560.9	3500.7
25°	3934.0	3820.2	3560.9	3376.0	3293.2
27.5°	3857.8	3715.6	3402.8	3170.2	3071.5
30°	3775.0	3592.7	3207.1	2939.4	2829.0
32.5°	3675.5	3448.0	2992.9	2686.8	2572.2
35°	3565.1	3279.0	2752.8	2423.3	2310.3
37.5°	3431.2	3083.3	2503.6	2153.9	2045.2
40°	3284.8	2881.7	2236.7	1886.3	1791.7
42.5°	3120.1	2649.1	1977.4	1640.3	1538.3
45°	2921.8	2409.9	1732.3	1417.0	1331.7
47.5°	2719.4	2145.6	1488.1	1202.0	1141.0
50°	2480.2	1897.1	1277.3	1023.8	961.1
52.5°	2231.7	1652.9	1080.7	869.1	813.1
55°	1982.5	1425.4	910.1	729.4	686.7
57.5°	1739.9	1216.2	765.4	616.5	579.7
60°	1486.4	1032.2	647.4	519.5	489.3
62.5°	1268.9	872.4	543.7	437.5	412.4
65°	1054.8	725.2	455.0	364.7	342.1
67.5°	875.0	598.9	377.3	302.8	283.6
70°	696.8	487.7	309.5	250.1	237.6
72.5°	555.4	389.0	250.9	203.3	190.7
75°	418.2	302.0	198.2	161.4	153.1
77.5°	314.5	229.2	153.1	125.5	116.3
80°	218.3	163.9	113.8	92.8	88.7
82.5°	139.7	112.9	78.6	66.1	61.1
85°	84.5	68.6	51.0	41.0	38.5
87.5°	40.2	33.5	25.9	20.1	18.4
90°	10.9	9.2	6.7	5.9	5.0
92.5°	12.5	9.2	5.9	4.2	3.3
95°	13.4	9.2	5.9	3.3	3.3
97.5°	13.4	10.0	5.0	3.3	2.5
100°	12.5	9.2	5.0	3.3	2.5
102.5°	10.9	8.4	4.2	2.5	2.5
105°	10.0	7.5	4.2	2.5	1.7
107.5°	8.4	6.7	3.3	2.5	1.7
110°	7.5	5.9	3.3	2.5	1.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.9	5.0	3.3	2.5	1.7
115°	5.0	4.2	2.5	1.7	1.7
117.5°	4.2	3.3	2.5	1.7	1.7
120°	4.2	3.3	2.5	1.7	1.7
122.5°	3.3	3.3	2.5	1.7	1.7
125°	3.3	2.5	2.5	1.7	1.7
127.5°	2.5	2.5	2.5	1.7	1.7
130°	2.5	2.5	2.5	2.5	1.7
132.5°	2.5	2.5	2.5	2.5	1.7
135°	2.5	2.5	2.5	2.5	2.5
137.5°	2.5	2.5	2.5	2.5	2.5
140°	2.5	2.5	2.5	2.5	2.5
142.5°	2.5	2.5	3.3	2.5	2.5
145°	2.5	2.5	3.3	3.3	2.5
147.5°	2.5	2.5	3.3	3.3	3.3
150°	2.5	2.5	3.3	3.3	3.3
152.5°	2.5	3.3	3.3	3.3	3.3
155°	2.5	3.3	3.3	3.3	3.3
157.5°	3.3	3.3	3.3	4.2	4.2
160°	3.3	3.3	4.2	4.2	4.2
162.5°	3.3	3.3	4.2	4.2	4.2
165°	3.3	3.3	4.2	5.0	5.0
167.5°	3.3	4.2	4.2	5.0	5.0
170°	3.3	4.2	4.2	5.0	5.0
172.5°	3.3	4.2	5.0	5.0	5.0
175°	3.3	4.2	5.0	5.0	5.0
177.5°	4.2	4.2	5.0	5.0	5.0
180°	5.0	5.0	5.0	5.0	5.0



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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	23.37	24.80	23.74	25.12	25.44	18.04	19.48	18.42	19.80	20.12
	3H	24.68	25.96	25.07	26.30	26.67	19.05	20.33	19.44	20.67	21.04
	4H	25.10	26.29	25.51	26.65	27.04	19.40	20.59	19.80	20.95	21.34
	6H	25.36	26.46	25.78	26.84	27.24	19.63	20.73	20.04	21.10	21.50
	8H	25.42	26.47	25.86	26.87	27.28	19.69	20.74	20.13	21.14	21.55
	12H	25.46	26.46	25.89	26.84	27.28	19.73	20.73	20.17	21.12	21.56
4H	2H	23.36	24.55	23.77	24.91	25.30	18.69	19.88	19.10	20.24	20.63
	3H	24.83	25.82	25.25	26.22	26.63	19.88	20.87	20.30	21.27	21.68
	4H	25.34	26.22	25.78	26.65	27.10	20.30	21.18	20.74	21.61	22.06
	6H	25.71	26.48	26.18	26.93	27.40	20.62	21.38	21.08	21.83	22.30
	8H	25.81	26.52	26.28	26.98	27.45	20.71	21.42	21.18	21.87	22.35
	12H	25.88	26.51	26.37	27.00	27.48	20.78	21.41	21.27	21.90	22.38
8H	4H	25.32	26.03	25.79	26.49	26.96	20.64	21.36	21.11	21.81	22.28
	6H	25.74	26.33	26.25	26.83	27.31	21.04	21.62	21.54	22.12	22.61
	8H	25.88	26.41	26.40	26.93	27.42	21.18	21.71	21.70	22.22	22.72
	12H	26.00	26.47	26.52	26.96	27.54	21.30	21.76	21.81	22.26	22.84
12H	4H	25.29	25.93	25.78	26.41	26.89	20.69	21.32	21.18	21.81	22.29
	6H	25.71	26.23	26.23	26.75	27.25	21.10	21.63	21.63	22.15	22.65
	8H	25.88	26.35	26.40	26.85	27.42	21.29	21.76	21.81	22.26	22.83