

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: P893952

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893952
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-8HL-LVRA-UNV-L950
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

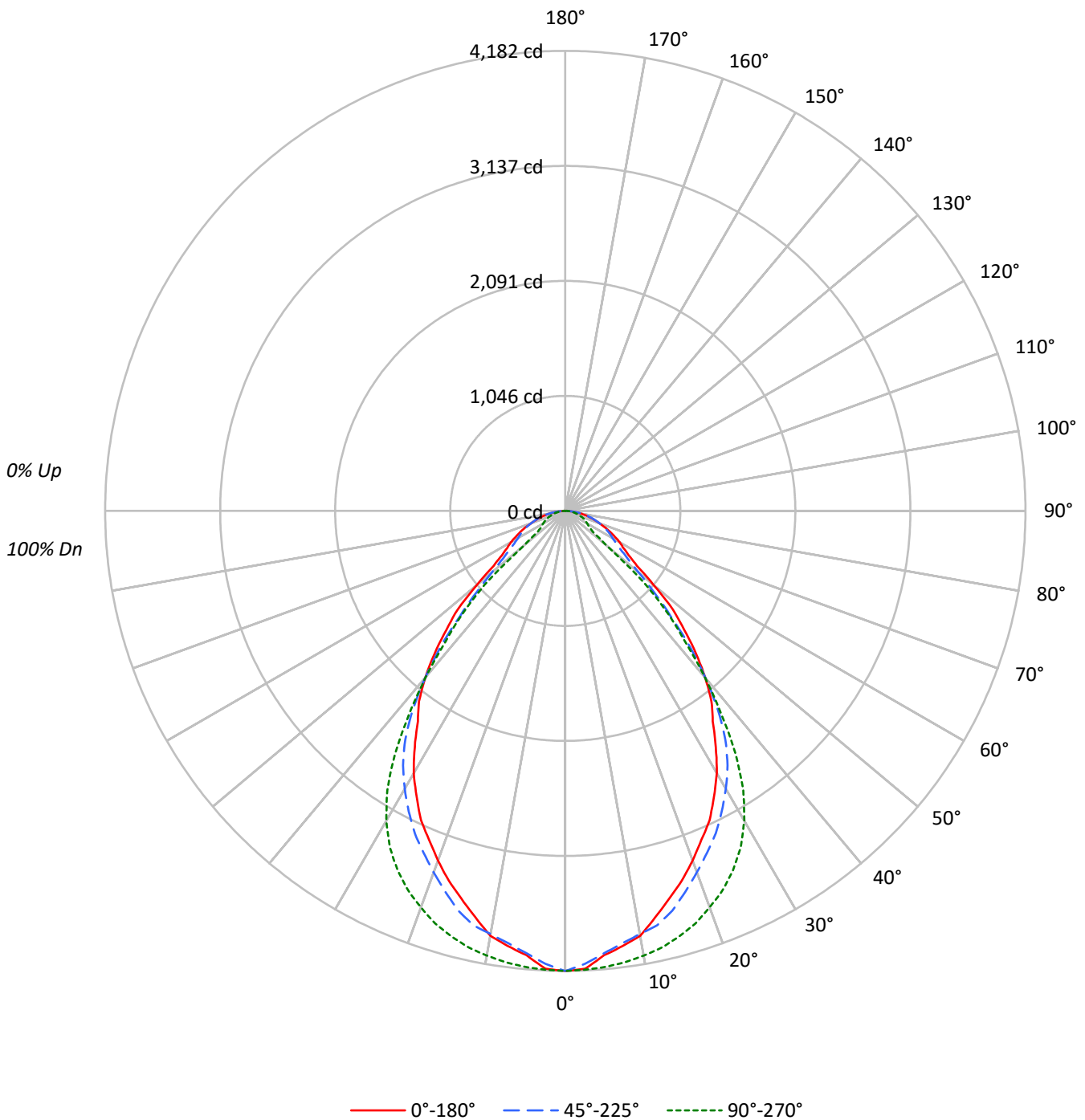
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6788.0 lumens
Efficiency: N/A
Efficacy: 117.2 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
Luminous Opening: Rectangular (W 0.38' 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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78		
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69		
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62		
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55		
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50		
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45		
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41		
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38		
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	29758	29758	29758
5°	28956	28825	29726
10°	28341	28216	29657
15°	26878	27703	29490
20°	25604	26469	29040
25°	24355	25396	28299
30°	22628	23973	26719
35°	20289	22031	23435
40°	18382	18422	18322
45°	15370	13612	13276
50°	11610	9581	5429
55°	8732	7662	3424
60°	8114	7057	3299
65°	7549	7041	3303
70°	6907	6907	3251
75°	6548	6727	3142
80°	6052	6359	3225
85°	5282	5543	3518

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 15727 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	386.3	5.7
10°-20°	1064.5	15.7
20°-30°	1509.5	22.2
30°-40°	1555.1	22.9
40°-50°	1086.2	16.0
50°-60°	521.2	7.7
60°-70°	365.7	5.4
70°-80°	228.6	3.4
80°-90°	70.7	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2960.4	43.6
0°-40°	4515.6	66.5
0°-60°	6123.0	90.2
0°-90°	6788.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6788.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4182	4182	4182	4182	4182	
5°	4054	4049	4036	4142	4162	384
15°	3649	3676	3761	3869	4004	1028
25°	3102	3134	3235	3454	3605	1419
35°	2336	2400	2536	2589	2698	1472
45°	1528	1563	1353	1284	1319	1177
55°	704	669	618	396	276	660
65°	448	419	418	318	196	444
75°	238	235	245	211	114	251
85°	65	65	68	67	43	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4182.5	4182.5	4182.5	4182.5	4182.5
2.5°	4166.3	4153.4	4122.1	4179.2	4174.9
5°	4054.2	4048.8	4035.9	4141.5	4162.0
7.5°	3990.6	3979.8	3964.7	4081.1	4138.3
10°	3922.7	3935.6	3905.4	4012.2	4104.9
12.5°	3782.6	3817.0	3858.0	3941.0	4063.9
15°	3648.9	3675.8	3761.0	3868.8	4003.5
17.5°	3523.8	3555.1	3628.4	3790.1	3933.5
20°	3381.6	3424.7	3495.8	3702.8	3835.4
22.5°	3235.0	3274.8	3364.3	3586.4	3734.0
25°	3102.4	3133.6	3235.0	3453.8	3604.7
27.5°	2926.7	2984.9	3080.8	3292.1	3450.5
30°	2754.2	2803.8	2918.0	3095.9	3252.2
32.5°	2546.1	2618.4	2744.5	2880.3	3010.7
35°	2335.9	2399.5	2536.4	2589.3	2698.1
37.5°	2182.9	2200.1	2277.7	2271.3	2332.7
40°	1979.1	2013.6	1983.4	1902.6	1972.7
42.5°	1759.2	1800.2	1678.4	1584.6	1609.4
45°	1527.5	1563.0	1352.8	1283.8	1319.4
47.5°	1327.0	1323.7	1090.9	1044.5	995.0
50°	1048.9	1083.3	865.6	779.4	490.5
52.5°	819.2	832.2	713.6	498.0	322.3
55°	703.9	669.4	617.7	395.6	276.0
57.5°	625.2	582.1	547.6	367.6	252.2
60°	570.2	521.7	495.9	349.3	231.8
62.5°	507.7	470.0	460.3	333.1	213.4
65°	448.4	419.3	418.2	318.0	196.2
67.5°	389.1	373.0	377.3	299.7	176.8
70°	332.0	328.8	332.0	276.0	156.3
72.5°	283.5	280.3	288.9	245.8	133.7
75°	238.2	235.0	244.7	211.3	114.3
77.5°	189.7	191.9	198.3	175.7	95.9
80°	147.7	147.7	155.2	138.0	78.7
82.5°	105.6	106.7	111.0	101.3	61.4
85°	64.7	64.7	67.9	66.8	43.1
87.5°	21.6	24.8	29.1	31.3	21.6
90°	0.0	0.0	0.0	0.0	0.0



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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	17.44	18.79	17.80	19.10	19.42	13.77	15.12	14.13	15.43	15.75
	3H	19.17	20.38	19.55	20.71	21.07	15.74	16.95	16.12	17.28	17.64
	4H	19.85	20.97	20.25	21.32	21.71	16.45	17.58	16.85	17.93	18.31
	6H	20.35	21.39	20.77	21.76	22.15	16.97	18.01	17.39	18.38	18.77
	8H	20.52	21.51	20.95	21.90	22.30	17.16	18.14	17.59	18.53	18.94
	12H	20.63	21.58	21.07	21.96	22.39	17.30	18.24	17.73	18.62	19.05
4H	2H	17.97	19.09	18.37	19.44	19.83	15.39	16.52	15.79	16.87	17.25
	3H	19.94	20.87	20.36	21.28	21.68	17.57	18.50	17.98	18.90	19.30
	4H	20.75	21.58	21.18	22.00	22.44	18.45	19.28	18.88	19.70	20.14
	6H	21.39	22.11	21.85	22.56	23.02	19.09	19.82	19.55	20.26	20.73
	8H	21.61	22.29	22.08	22.73	23.20	19.30	19.98	19.77	20.42	20.89
	12H	21.76	22.36	22.25	22.84	23.32	19.46	20.06	19.94	20.54	21.01
8H	4H	21.03	21.71	21.50	22.15	22.62	19.10	19.77	19.56	20.22	20.69
	6H	21.81	22.37	22.31	22.86	23.34	19.96	20.51	20.46	21.01	21.49
	8H	22.11	22.61	22.63	23.13	23.62	20.29	20.78	20.81	21.30	21.79
	12H	22.35	22.79	22.86	23.28	23.85	20.55	20.99	21.06	21.48	22.05
12H	4H	21.05	21.65	21.53	22.13	22.60	19.17	19.77	19.65	20.25	20.72
	6H	21.86	22.36	22.38	22.88	23.37	20.10	20.59	20.61	21.11	21.60
	8H	22.23	22.67	22.74	23.16	23.73	20.51	20.95	21.02	21.44	22.01