

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: P893200

Luminaire Tested: 4MB-10HL-LVRA-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893200
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-10HL-LVRA-UNV-L950
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

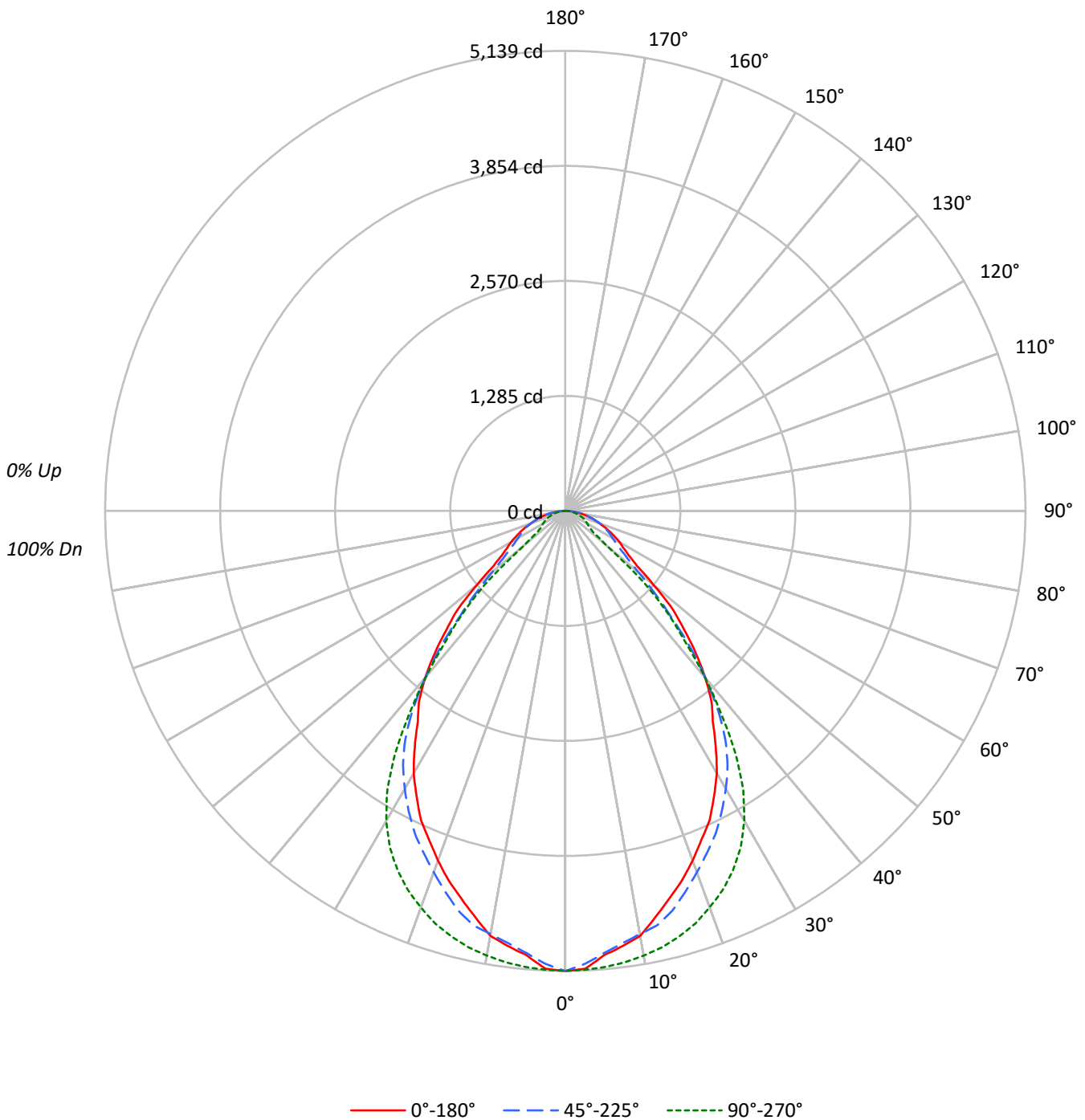
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8341.0 lumens
Efficiency: N/A
Efficacy: 110.5 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): 75.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 7.45
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	92	90	93	92	90	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	85	82	80	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	71	67	63	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	66	61	57	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	61	56	52	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	56	51	47	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	52	47	43	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	49	44	40	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	46	40	37	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	36567	36567	36567
5°	35580	35419	36527
10°	34824	34672	36442
15°	33027	34042	36237
20°	31462	32525	35684
25°	29927	31207	34773
30°	27804	29458	32832
35°	24932	27071	28797
40°	22587	22637	22514
45°	18886	16726	16314
50°	14266	11773	6671
55°	10730	9415	4206
60°	9971	8670	4053
65°	9276	8652	4059
70°	8488	8488	3996
75°	8046	8266	3860
80°	7437	7814	3962
85°	6490	6808	4327

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 19325 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	474.7	5.7
10°-20°	1308.1	15.7
20°-30°	1854.9	22.2
30°-40°	1910.9	22.9
40°-50°	1334.7	16.0
50°-60°	640.5	7.7
60°-70°	449.3	5.4
70°-80°	280.9	3.4
80°-90°	86.9	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°	3637.7	43.6
0°-40°	5548.7	66.5
0°-60°	7523.9	90.2
0°-90°	8341.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8341.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5139	5139	5139	5139	5139	
5°	4982	4975	4959	5089	5114	471
15°	4484	4517	4622	4754	4920	1263
25°	3812	3851	3975	4244	4429	1743
35°	2870	2948	3117	3182	3315	1809
45°	1877	1921	1662	1578	1621	1446
55°	865	823	759	486	339	811
65°	551	515	514	391	241	546
75°	293	289	301	260	140	308
85°	80	80	83	82	53	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5139.4	5139.4	5139.4	5139.4	5139.4
2.5°	5119.5	5103.6	5065.2	5135.4	5130.1
5°	4981.7	4975.1	4959.2	5089.0	5114.2
7.5°	4903.6	4890.3	4871.8	5014.9	5085.1
10°	4820.1	4836.0	4799.0	4930.1	5044.0
12.5°	4648.0	4690.3	4740.7	4842.7	4993.7
15°	4483.7	4516.8	4621.5	4753.9	4919.5
17.5°	4330.1	4368.5	4458.5	4657.2	4833.4
20°	4155.2	4208.2	4295.6	4549.9	4712.9
22.5°	3975.1	4024.1	4134.0	4406.9	4588.3
25°	3812.1	3850.6	3975.1	4244.0	4429.4
27.5°	3596.2	3667.8	3785.6	4045.3	4240.0
30°	3384.3	3445.2	3585.6	3804.2	3996.3
32.5°	3128.7	3217.4	3372.4	3539.3	3699.6
35°	2870.4	2948.5	3116.7	3181.6	3315.4
37.5°	2682.3	2703.5	2798.8	2790.9	2866.4
40°	2431.9	2474.3	2437.2	2337.9	2424.0
42.5°	2161.7	2212.0	2062.4	1947.1	1977.6
45°	1876.9	1920.6	1662.3	1577.6	1621.3
47.5°	1630.6	1626.6	1340.5	1283.5	1222.6
50°	1288.8	1331.2	1063.6	957.7	602.7
52.5°	1006.7	1022.6	876.9	612.0	396.0
55°	865.0	822.6	759.0	486.1	339.1
57.5°	768.3	715.3	672.9	451.7	310.0
60°	700.7	641.1	609.3	429.2	284.8
62.5°	623.9	577.5	565.6	409.3	262.3
65°	551.0	515.3	513.9	390.8	241.1
67.5°	478.2	458.3	463.6	368.2	217.2
70°	408.0	404.0	408.0	339.1	192.1
72.5°	348.4	344.4	355.0	302.0	164.2
75°	292.7	288.8	300.7	259.6	140.4
77.5°	233.1	235.8	243.7	215.9	117.9
80°	181.5	181.5	190.7	169.5	96.7
82.5°	129.8	131.1	136.4	124.5	75.5
85°	79.5	79.5	83.4	82.1	53.0
87.5°	26.5	30.5	35.8	38.4	26.5
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	18.15	19.51	18.52	19.82	20.13	14.48	15.84	14.85	16.15	16.47
	3H	19.89	21.10	20.27	21.43	21.79	16.46	17.67	16.84	18.00	18.36
	4H	20.56	21.69	20.96	22.04	22.42	17.16	18.29	17.57	18.64	19.02
	6H	21.07	22.11	21.48	22.48	22.87	17.69	18.73	18.10	19.10	19.49
	8H	21.24	22.23	21.67	22.62	23.02	17.87	18.86	18.30	19.25	19.65
	12H	21.35	22.29	21.78	22.67	23.10	18.01	18.95	18.44	19.34	19.77
4H	2H	18.68	19.81	19.08	20.16	20.54	16.11	17.23	16.51	17.58	17.97
	3H	20.66	21.59	21.07	21.99	22.40	18.28	19.21	18.70	19.62	20.02
	4H	21.46	22.30	21.90	22.72	23.16	19.16	20.00	19.60	20.42	20.86
	6H	22.10	22.83	22.57	23.27	23.74	19.81	20.53	20.27	20.98	21.44
	8H	22.32	23.00	22.79	23.45	23.92	20.02	20.69	20.48	21.14	21.61
	12H	22.48	23.08	22.96	23.56	24.03	20.17	20.77	20.66	21.26	21.73
8H	4H	21.75	22.42	22.21	22.87	23.34	19.81	20.49	20.28	20.94	21.41
	6H	22.53	23.08	23.03	23.58	24.06	20.67	21.23	21.17	21.72	22.20
	8H	22.83	23.33	23.35	23.84	24.33	21.00	21.50	21.52	22.01	22.51
	12H	23.07	23.51	23.58	24.00	24.57	21.26	21.71	21.78	22.20	22.77
12H	4H	21.76	22.36	22.25	22.84	23.32	19.88	20.49	20.37	20.97	21.44
	6H	22.58	23.08	23.10	23.59	24.09	20.81	21.31	21.33	21.82	22.32
	8H	22.95	23.39	23.46	23.88	24.45	21.22	21.66	21.74	22.16	22.73