

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: P893208

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893208
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-5)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-10HL-LVRF-UNV-L950
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 90CRI, 5000K (C)
Light Source: -
Ballast/Driver: -

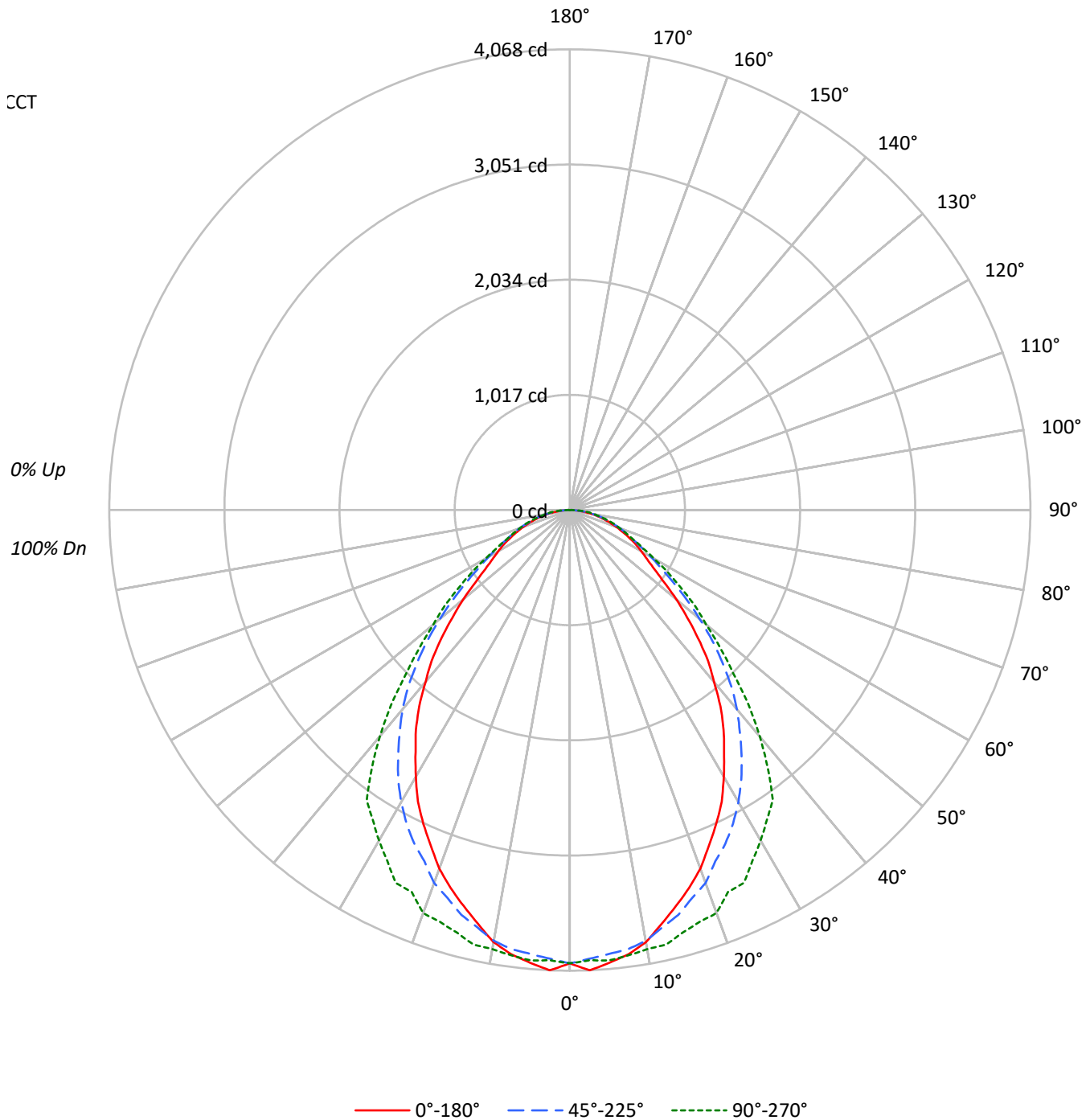
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8115.0 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.25 / 1.21
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	47	47	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	38	38	38	37
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	35	35	35	33
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28476	28476	28476
5°	28662	28107	28508
10°	27991	27904	28440
15°	26669	27260	28441
20°	25511	26535	28673
25°	24019	25521	28527
30°	22343	24457	27691
35°	20578	22957	27156
40°	18403	21337	24249
45°	16133	19190	20563
50°	13615	16581	17403
55°	11294	13877	14842
60°	10386	11800	12242
65°	9729	10374	10455
70°	9060	9831	9757
75°	8453	9176	9506
80°	7892	8531	9117
85°	6645	7225	10057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 20563 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	377.8	4.7
10°-20°	1053.8	13.0
20°-30°	1517.6	18.7
30°-40°	1675.4	20.6
40°-50°	1437.6	17.7
50°-60°	979.4	12.1
60°-70°	616.1	7.6
70°-80°	350.8	4.3
80°-90°	106.6	1.3
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°	2949.1	36.3
0°-40°	4624.5	57.0
0°-60°	7041.5	86.8
0°-90°	8115.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8115.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4002	4002	4002	4002	4002	
5°	4013	3998	3935	4018	3992	379
15°	3621	3659	3701	3868	3861	1019
25°	3060	3120	3251	3513	3634	1405
35°	2369	2461	2643	2931	3126	1474
45°	1603	1710	1907	2022	2044	1235
55°	910	967	1119	1173	1196	837
65°	578	588	616	646	621	574
75°	308	310	334	348	346	328
85°	81	84	88	105	123	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4002.3	4002.3	4002.3	4002.3	4002.3
2.5°	4068.1	4026.2	3966.4	4023.8	3979.6
5°	4013.1	3997.5	3935.3	4017.8	3991.5
7.5°	3956.8	3923.3	3912.6	4001.1	3966.4
10°	3874.3	3855.1	3862.3	3976.0	3936.5
12.5°	3743.8	3757.0	3773.8	3918.5	3930.5
15°	3620.6	3658.9	3700.8	3868.3	3861.1
17.5°	3499.8	3552.4	3591.9	3807.3	3813.2
20°	3369.3	3399.3	3504.5	3712.7	3786.9
22.5°	3207.8	3266.4	3357.4	3617.0	3650.5
25°	3059.5	3120.5	3250.9	3512.9	3633.8
27.5°	2903.9	2960.1	3121.7	3389.7	3492.6
30°	2719.6	2795.0	2976.9	3249.7	3370.5
32.5°	2535.4	2645.5	2820.2	3100.1	3240.1
35°	2369.1	2461.2	2643.1	2931.4	3126.5
37.5°	2184.8	2281.7	2466.0	2747.2	2871.6
40°	1981.4	2085.5	2297.3	2524.6	2610.8
42.5°	1806.7	1896.5	2109.4	2269.8	2338.0
45°	1603.3	1709.8	1907.2	2022.1	2043.6
47.5°	1407.1	1529.1	1706.2	1760.1	1801.9
50°	1230.0	1325.7	1498.0	1531.5	1572.2
52.5°	1049.3	1151.0	1301.8	1335.3	1395.1
55°	910.5	966.8	1118.7	1172.6	1196.5
57.5°	808.8	844.7	952.4	1020.6	1027.8
60°	729.9	747.8	829.2	880.6	860.3
62.5°	656.9	671.2	711.9	751.4	725.1
65°	577.9	587.5	616.2	646.1	621.0
67.5°	503.7	514.5	540.8	562.4	540.8
70°	435.5	443.9	472.6	482.2	469.0
72.5°	372.1	375.7	399.6	416.4	408.0
75°	307.5	309.9	333.8	348.2	345.8
77.5°	248.9	252.5	272.8	286.0	278.8
80°	192.6	195.0	208.2	227.3	222.5
82.5°	135.2	140.0	148.4	165.1	178.3
85°	81.4	83.8	88.5	105.3	123.2
87.5°	31.1	33.5	35.9	44.3	58.6
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	19.09	20.57	19.46	20.88	21.20	20.45	21.93	20.82	22.24	22.56
	3H	20.67	21.99	21.05	22.32	22.68	21.74	23.06	22.12	23.39	23.75
	4H	21.28	22.52	21.68	22.87	23.25	22.29	23.53	22.69	23.88	24.26
	6H	21.75	22.89	22.16	23.26	23.65	22.74	23.89	23.16	24.26	24.65
	8H	21.90	22.99	22.33	23.38	23.78	22.93	24.02	23.36	24.41	24.81
	12H	22.00	23.04	22.43	23.43	23.86	23.08	24.13	23.52	24.51	24.94
4H	2H	19.70	20.94	20.10	21.29	21.67	20.82	22.06	21.22	22.41	22.79
	3H	21.51	22.54	21.92	22.94	23.34	22.37	23.40	22.78	23.80	24.20
	4H	22.23	23.16	22.66	23.57	24.01	23.08	24.00	23.51	24.42	24.86
	6H	22.83	23.63	23.29	24.08	24.54	23.69	24.49	24.15	24.94	25.40
	8H	23.03	23.78	23.49	24.23	24.70	23.93	24.69	24.40	25.13	25.60
	12H	23.17	23.84	23.65	24.32	24.79	24.15	24.82	24.63	25.30	25.77
8H	4H	22.56	23.31	23.02	23.75	24.22	23.31	24.06	23.78	24.51	24.98
	6H	23.28	23.90	23.78	24.40	24.87	24.06	24.68	24.55	25.17	25.65
	8H	23.56	24.12	24.07	24.63	25.12	24.39	24.95	24.90	25.46	25.95
	12H	23.77	24.27	24.28	24.76	25.32	24.69	25.19	25.20	25.68	26.25
12H	4H	22.60	23.27	23.08	23.75	24.22	23.33	24.00	23.81	24.48	24.95
	6H	23.35	23.91	23.86	24.42	24.91	24.09	24.65	24.61	25.16	25.65
	8H	23.69	24.18	24.20	24.67	25.24	24.48	24.98	24.99	25.47	26.04