

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: P894040

Luminaire Tested: 4MB-9HL-LVR-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894040
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-9HL-LVR-UNV-L950
Description: 9000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

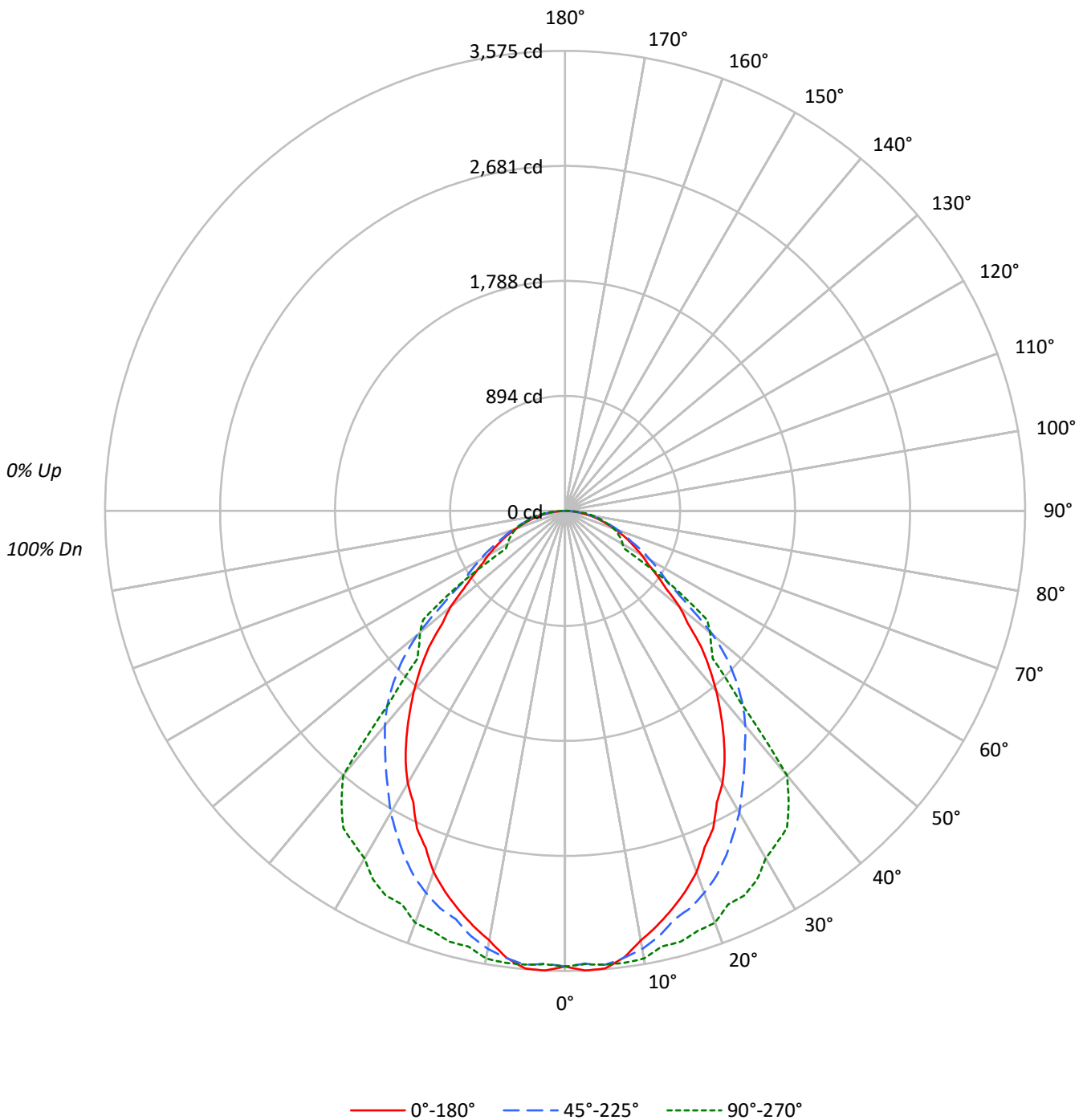
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7411.0 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.32 / 1.26
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 64.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 8.94
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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CATALOG NUMBER: 4MB-9HL-LVR-UNV-L950

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	101	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	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52	52	52	52	50
6	74	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25191	25191	25191
5°	25495	25294	25279
10°	24490	24971	25519
15°	23613	24195	25535
20°	22619	23926	25791
25°	21371	23223	25885
30°	20083	22253	25619
35°	18677	21107	26119
40°	16968	20233	24907
45°	15035	18989	16332
50°	12868	16597	16297
55°	10783	12112	12679
60°	9810	10934	7338
65°	9191	9680	7842
70°	8458	9172	8392
75°	7947	8604	8547
80°	7412	8137	9162
85°	6368	6792	9764

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 18989 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	336.4	4.5
10°-20°	941.3	12.7
20°-30°	1371.9	18.5
30°-40°	1569.5	21.2
40°-50°	1342.6	18.1
50°-60°	885.4	11.9
60°-70°	535.3	7.2
70°-80°	327.4	4.4
80°-90°	101.1	1.4
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°	2649.7	35.8
0°-40°	4219.2	56.9
0°-60°	6447.1	87.0
0°-90°	7411.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7411.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3540	3540	3540	3540	3540	
5°	3570	3566	3542	3534	3539	335
15°	3206	3243	3285	3495	3467	901
25°	2722	2764	2958	3211	3297	1245
35°	2150	2258	2430	2812	3007	1340
45°	1494	1610	1887	1764	1623	1144
55°	869	918	976	1157	1022	791
65°	546	559	575	514	466	540
75°	289	296	313	328	311	305
85°	78	77	83	99	120	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3540.5	3540.5	3540.5	3540.5	3540.5
2.5°	3574.8	3564.4	3521.8	3562.3	3525.9
5°	3569.6	3566.5	3541.5	3534.2	3539.4
7.5°	3501.0	3508.2	3504.1	3582.1	3542.6
10°	3389.7	3404.3	3456.3	3565.4	3532.2
12.5°	3302.4	3313.8	3383.5	3545.7	3467.7
15°	3205.7	3243.1	3284.7	3494.7	3466.6
17.5°	3101.7	3137.0	3235.8	3426.1	3423.0
20°	2987.3	3052.8	3159.9	3336.7	3406.3
22.5°	2832.4	2920.8	3071.5	3296.1	3309.6
25°	2722.2	2763.8	2958.2	3210.9	3297.2
27.5°	2554.8	2633.8	2832.4	3088.2	3230.6
30°	2444.5	2510.0	2708.6	3016.4	3118.3
32.5°	2306.2	2384.2	2562.0	2938.4	3061.1
35°	2150.3	2258.4	2430.0	2811.6	3007.1
37.5°	1986.0	2093.1	2295.8	2706.6	2854.2
40°	1826.9	1918.4	2178.4	2580.8	2681.6
42.5°	1663.7	1762.4	2044.2	2332.2	2017.2
45°	1494.2	1609.6	1887.2	1763.5	1623.1
47.5°	1293.5	1434.9	1713.6	1417.2	1537.8
50°	1162.5	1239.4	1499.4	1336.1	1472.3
52.5°	988.8	1092.8	1204.1	1247.7	1391.2
55°	869.3	918.1	976.4	1157.3	1022.1
57.5°	759.0	802.7	870.3	816.2	544.8
60°	689.4	709.1	768.4	583.3	515.7
62.5°	610.4	630.1	673.8	544.8	494.9
65°	545.9	559.4	575.0	513.7	465.8
67.5°	477.3	484.5	501.2	474.1	437.8
70°	406.6	417.0	440.9	433.6	403.4
72.5°	344.2	353.5	374.3	384.7	356.6
75°	289.1	296.3	313.0	327.5	310.9
77.5°	229.8	237.1	258.9	274.5	267.2
80°	180.9	182.0	198.6	214.2	223.6
82.5°	126.9	128.9	141.4	158.0	176.8
85°	78.0	76.9	83.2	98.8	119.6
87.5°	30.2	29.1	34.3	41.6	61.3
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	19.04	20.52	19.40	20.83	21.14	18.71	20.19	19.08	20.51	20.82
	3H	20.60	21.92	20.97	22.25	22.61	20.33	21.66	20.71	21.98	22.35
	4H	21.20	22.44	21.60	22.79	23.17	21.08	22.32	21.48	22.67	23.05
	6H	21.65	22.80	22.06	23.17	23.56	21.75	22.89	22.16	23.26	23.65
	8H	21.81	22.90	22.23	23.29	23.69	22.02	23.12	22.45	23.50	23.91
	12H	21.90	22.95	22.33	23.33	23.76	22.25	23.29	22.68	23.67	24.10
4H	2H	19.63	20.87	20.03	21.22	21.60	19.37	20.62	19.77	20.96	21.34
	3H	21.42	22.45	21.83	22.85	23.25	21.26	22.29	21.67	22.69	23.09
	4H	22.15	23.07	22.58	23.49	23.93	22.15	23.08	22.59	23.50	23.94
	6H	22.73	23.53	23.19	23.98	24.44	22.96	23.77	23.42	24.21	24.67
	8H	22.92	23.68	23.39	24.12	24.59	23.29	24.04	23.75	24.49	24.96
	12H	23.06	23.74	23.55	24.22	24.69	23.56	24.24	24.05	24.71	25.19
8H	4H	22.47	23.22	22.93	23.66	24.13	22.48	23.23	22.94	23.67	24.14
	6H	23.18	23.80	23.67	24.29	24.77	23.43	24.05	23.92	24.54	25.02
	8H	23.45	24.01	23.96	24.52	25.01	23.84	24.40	24.36	24.91	25.40
	12H	23.65	24.15	24.16	24.64	25.21	24.21	24.71	24.72	25.20	25.77
12H	4H	22.51	23.18	22.99	23.66	24.13	22.50	23.17	22.98	23.65	24.12
	6H	23.25	23.81	23.76	24.32	24.81	23.48	24.04	23.99	24.55	25.04
	8H	23.57	24.07	24.09	24.57	25.13	23.96	24.45	24.47	24.95	25.51