

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: P894038

Luminaire Tested: 4MB-9HL-LVR-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894038
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-L935
Description: 9000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

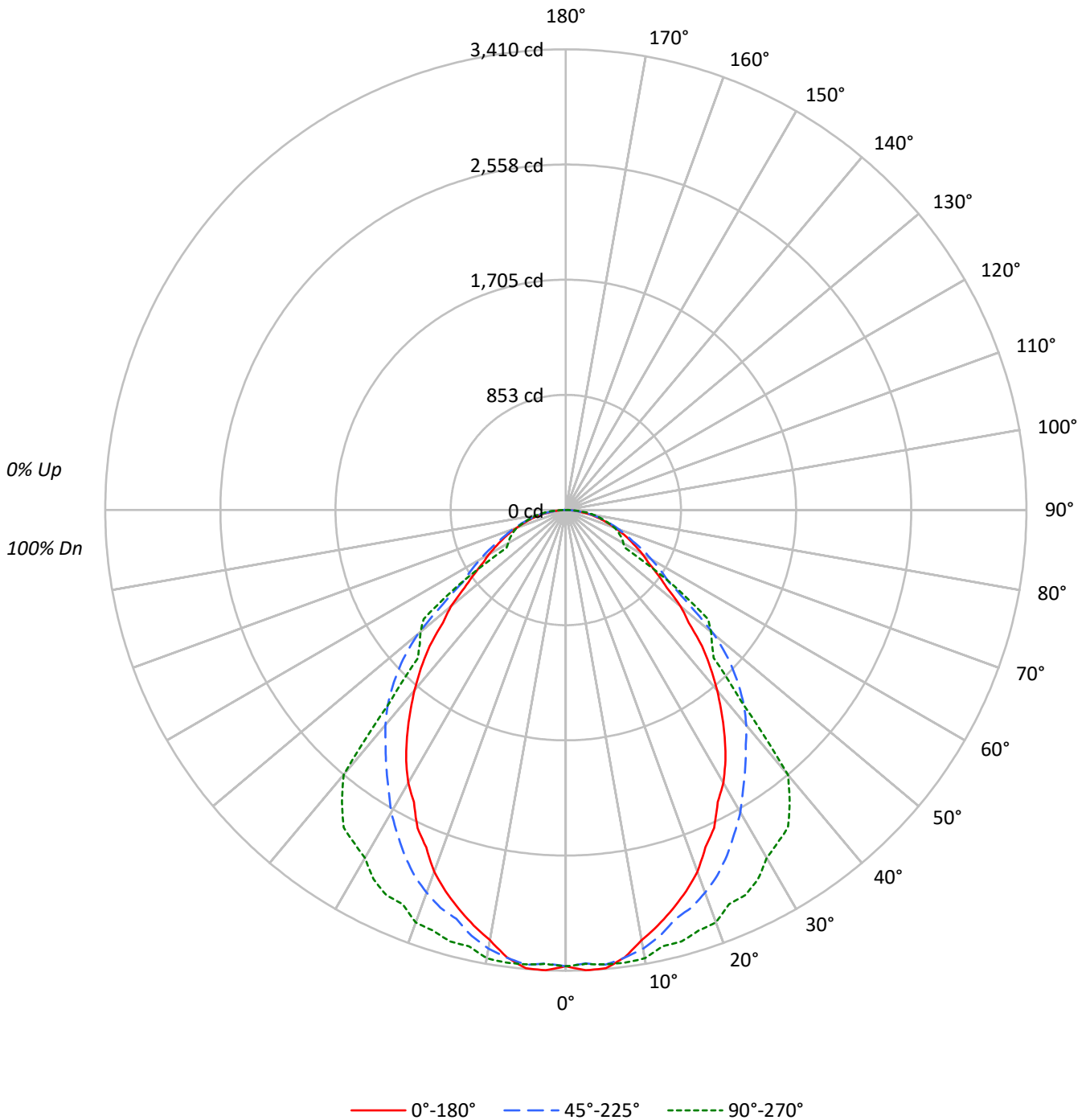
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7069.0 lumens
Efficiency: N/A
Efficacy: 109.8 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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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	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°	24028	24028	24028
5°	24318	24127	24113
10°	23360	23819	24342
15°	22523	23078	24357
20°	21575	22822	24601
25°	20384	22152	24690
30°	19157	21226	24437
35°	17815	20132	24914
40°	16185	19299	23758
45°	14341	18113	15578
50°	12273	15831	15545
55°	10285	11552	12093
60°	9358	10429	7000
65°	8766	9234	7480
70°	8067	8748	8005
75°	7579	8206	8151
80°	7072	7760	8736
85°	6074	6474	9315

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 18113 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.9	4.5
10°-20°	897.9	12.7
20°-30°	1308.6	18.5
30°-40°	1497.0	21.2
40°-50°	1280.7	18.1
50°-60°	844.5	11.9
60°-70°	510.6	7.2
70°-80°	312.3	4.4
80°-90°	96.5	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°	2527.4	35.8
0°-40°	4024.4	56.9
0°-60°	6149.6	87.0
0°-90°	7069.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7069.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3377	3377	3377	3377	3377	
5°	3405	3402	3378	3371	3376	319
15°	3058	3093	3133	3334	3307	860
25°	2596	2636	2822	3063	3145	1188
35°	2051	2154	2318	2682	2868	1278
45°	1425	1535	1800	1682	1548	1091
55°	829	876	931	1104	975	754
65°	521	534	548	490	444	515
75°	276	283	298	312	296	291
85°	74	73	79	94	114	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3377.1	3377.1	3377.1	3377.1	3377.1
2.5°	3409.8	3399.9	3359.2	3397.9	3363.2
5°	3404.9	3401.9	3378.1	3371.1	3376.1
7.5°	3339.4	3346.3	3342.4	3416.8	3379.1
10°	3233.3	3247.2	3296.8	3400.9	3369.2
12.5°	3150.0	3160.9	3227.3	3382.0	3307.7
15°	3057.7	3093.4	3133.1	3333.5	3306.7
17.5°	2958.5	2992.3	3086.5	3268.0	3265.0
20°	2849.5	2911.9	3014.1	3182.7	3249.1
22.5°	2701.7	2786.0	2929.8	3144.0	3156.9
25°	2596.5	2636.2	2821.7	3062.7	3145.0
27.5°	2436.9	2512.2	2701.7	2945.7	3081.5
30°	2331.7	2394.2	2583.6	2877.2	2974.4
32.5°	2199.8	2274.2	2443.8	2802.8	2919.9
35°	2051.0	2154.2	2317.8	2681.8	2868.3
37.5°	1894.3	1996.5	2189.9	2581.7	2722.5
40°	1742.6	1829.9	2077.8	2461.7	2557.9
42.5°	1586.9	1681.1	1949.9	2224.6	1924.1
45°	1425.2	1535.3	1800.1	1682.1	1548.2
47.5°	1233.8	1368.7	1634.5	1351.8	1466.9
50°	1108.8	1182.2	1430.2	1274.5	1404.4
52.5°	943.2	1042.4	1148.5	1190.2	1327.0
55°	829.1	875.8	931.3	1103.9	974.9
57.5°	724.0	765.7	830.1	778.6	519.7
60°	657.6	676.4	732.9	556.4	491.9
62.5°	582.2	601.0	642.7	519.7	472.1
65°	520.7	533.6	548.5	490.0	444.3
67.5°	455.2	462.2	478.0	452.3	417.5
70°	387.8	397.7	420.5	413.6	384.8
72.5°	328.3	337.2	357.0	367.0	340.2
75°	275.7	282.7	298.5	312.4	296.5
77.5°	219.2	226.1	247.0	261.8	254.9
80°	172.6	173.6	189.4	204.3	213.2
82.5°	121.0	123.0	134.9	150.8	168.6
85°	74.4	73.4	79.3	94.2	114.1
87.5°	28.8	27.8	32.7	39.7	58.5
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	18.87	20.35	19.24	20.66	20.98	18.55	20.03	18.91	20.34	20.66
	3H	20.43	21.76	20.81	22.08	22.45	20.17	21.49	20.55	21.82	22.18
	4H	21.03	22.27	21.43	22.62	23.00	20.91	22.16	21.32	22.50	22.88
	6H	21.49	22.63	21.90	23.00	23.39	21.58	22.73	22.00	23.10	23.49
	8H	21.64	22.73	22.07	23.12	23.52	21.86	22.95	22.29	23.34	23.74
	12H	21.74	22.78	22.17	23.17	23.59	22.08	23.12	22.51	23.51	23.94
4H	2H	19.46	20.71	19.86	21.05	21.43	19.21	20.45	19.61	20.80	21.18
	3H	21.25	22.28	21.66	22.68	23.08	21.09	22.12	21.51	22.52	22.93
	4H	21.98	22.91	22.41	23.32	23.76	21.99	22.92	22.42	23.33	23.77
	6H	22.56	23.37	23.02	23.81	24.27	22.80	23.60	23.26	24.05	24.51
	8H	22.76	23.51	23.23	23.96	24.43	23.13	23.88	23.59	24.32	24.79
	12H	22.90	23.57	23.38	24.05	24.52	23.40	24.07	23.88	24.55	25.02
8H	4H	22.30	23.06	22.77	23.50	23.97	22.31	23.06	22.78	23.51	23.98
	6H	23.01	23.64	23.51	24.13	24.61	23.26	23.88	23.76	24.38	24.85
	8H	23.28	23.84	23.80	24.35	24.84	23.68	24.24	24.19	24.75	25.24
	12H	23.49	23.99	24.00	24.48	25.05	24.05	24.54	24.56	25.04	25.60
12H	4H	22.34	23.01	22.82	23.49	23.96	22.34	23.01	22.82	23.49	23.96
	6H	23.08	23.64	23.60	24.15	24.64	23.31	23.88	23.83	24.39	24.87
	8H	23.41	23.91	23.92	24.40	24.97	23.79	24.29	24.30	24.78	25.35