

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: P893943

Luminaire Tested: 4MB-8HL-LVR-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893943
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-8HL-LVR-UNV-L940
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

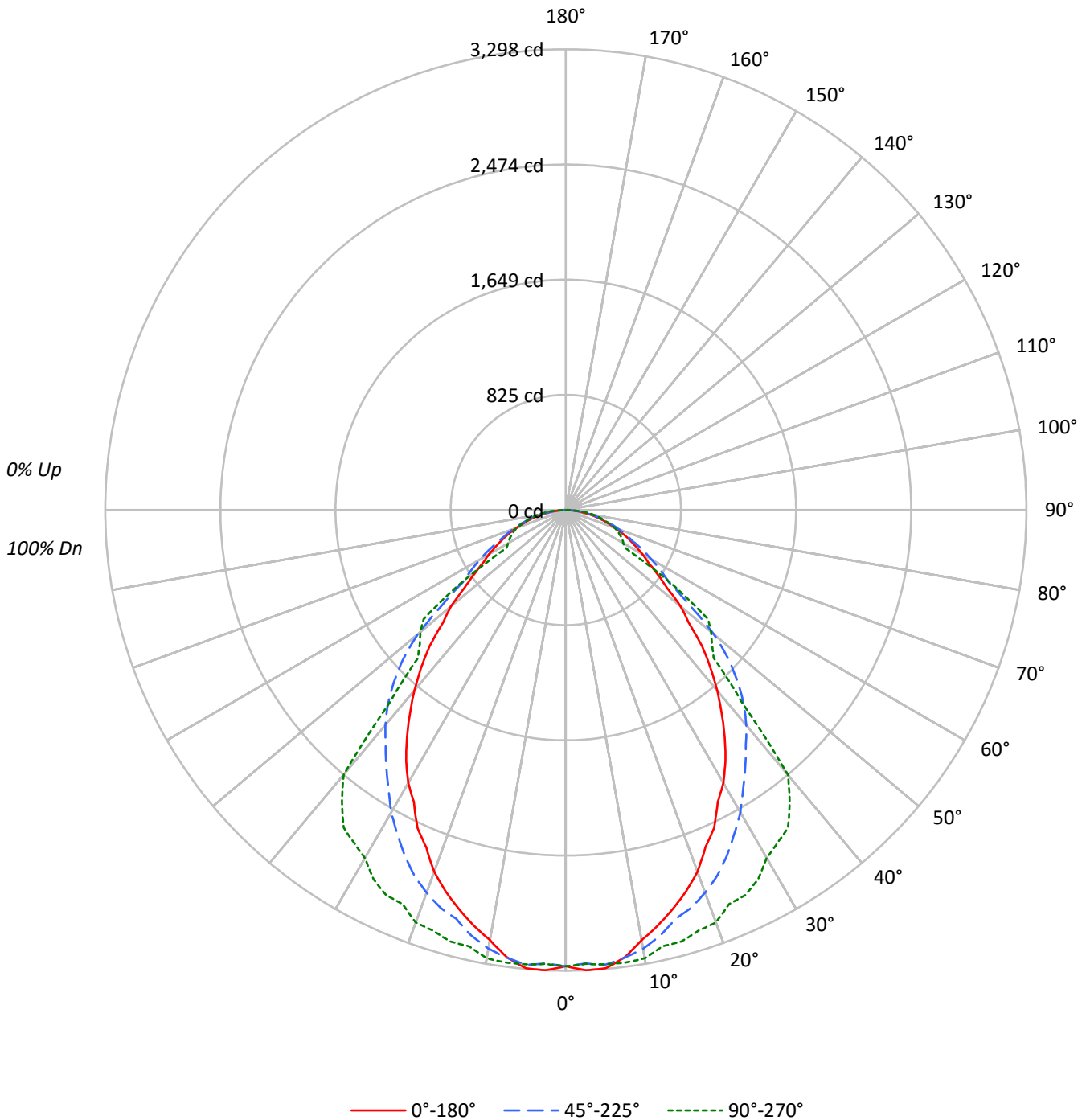
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6837.0 lumens
Efficiency: N/A
Efficacy: 118.1 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): 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

TEST NUMBER: P893943
CATALOG NUMBER: 4MB-8HL-LVR-UNV-L940

Luminous Intensity Polar Plot





TEST NUMBER: P893943

CATALOG NUMBER: 4MB-8HL-LVR-UNV-L940

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°	23240	23240	23240
5°	23520	23335	23321
10°	22593	23037	23543
15°	21784	22321	23557
20°	20867	22073	23794
25°	19715	21425	23880
30°	18528	20530	23635
35°	17230	19472	24096
40°	15654	18665	22978
45°	13870	17518	15067
50°	11870	15311	15035
55°	9947	11173	11696
60°	9050	10088	6771
65°	8478	8931	7234
70°	7803	8461	7743
75°	7332	7936	7884
80°	6838	7506	8449
85°	5870	6261	9004

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 17518 cd/sqm



TEST NUMBER: P893943
 CATALOG NUMBER: 4MB-8HL-LVR-UNV-L940

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.4	4.5
10°-20°	868.4	12.7
20°-30°	1265.7	18.5
30°-40°	1447.9	21.2
40°-50°	1238.6	18.1
50°-60°	816.8	11.9
60°-70°	493.8	7.2
70°-80°	302.1	4.4
80°-90°	93.3	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°	2444.5	35.8
0°-40°	3892.4	56.9
0°-60°	5947.8	87.0
0°-90°	6837.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6837.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3266	3266	3266	3266	3266	
5°	3293	3290	3267	3260	3265	309
15°	2957	2992	3030	3224	3198	831
25°	2511	2550	2729	2962	3042	1149
35°	1984	2084	2242	2594	2774	1236
45°	1378	1485	1741	1627	1497	1055
55°	802	847	901	1068	943	729
65°	504	516	530	474	430	498
75°	267	273	289	302	287	281
85°	72	71	77	91	110	82
90°	0	0	0	0	0	



TEST NUMBER: P893943

CATALOG NUMBER: 4MB-8HL-LVR-UNV-L940

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3266.3	3266.3	3266.3	3266.3	3266.3
2.5°	3297.9	3288.3	3249.0	3286.4	3252.8
5°	3293.1	3290.2	3267.2	3260.5	3265.3
7.5°	3229.8	3236.5	3232.7	3304.6	3268.2
10°	3127.2	3140.6	3188.6	3289.3	3258.6
12.5°	3046.6	3057.1	3121.4	3271.1	3199.1
15°	2957.4	2991.9	3030.3	3224.0	3198.1
17.5°	2861.5	2894.1	2985.2	3160.7	3157.9
20°	2755.9	2816.4	2915.2	3078.2	3142.5
22.5°	2613.0	2694.5	2833.6	3040.8	3053.3
25°	2511.3	2549.7	2729.1	2962.2	3041.8
27.5°	2356.9	2429.8	2613.0	2849.0	2980.4
30°	2255.2	2315.6	2498.9	2782.8	2876.8
32.5°	2127.6	2199.6	2363.6	2710.8	2824.0
35°	1983.7	2083.5	2241.8	2593.8	2774.2
37.5°	1832.2	1931.0	2118.0	2496.9	2633.1
40°	1685.4	1769.8	2009.6	2380.9	2473.9
42.5°	1534.8	1625.9	1885.9	2151.6	1861.0
45°	1378.4	1484.9	1741.0	1626.9	1497.4
47.5°	1193.3	1323.8	1580.8	1307.5	1418.7
50°	1072.4	1143.4	1383.2	1232.6	1358.3
52.5°	912.2	1008.2	1110.8	1151.1	1283.5
55°	801.9	847.0	900.7	1067.6	942.9
57.5°	700.3	740.5	802.9	753.0	502.6
60°	636.0	654.2	708.9	538.1	475.8
62.5°	563.1	581.3	621.6	502.6	456.6
65°	503.6	516.1	530.5	473.9	429.7
67.5°	440.3	447.0	462.4	437.4	403.8
70°	375.1	384.7	406.7	400.0	372.2
72.5°	317.5	326.1	345.3	354.9	329.0
75°	266.7	273.4	288.7	302.2	286.8
77.5°	212.0	218.7	238.9	253.2	246.5
80°	166.9	167.9	183.2	197.6	206.2
82.5°	117.0	118.9	130.5	145.8	163.1
85°	71.9	71.0	76.7	91.1	110.3
87.5°	27.8	26.9	31.7	38.4	56.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893943
 CATALOG NUMBER: 4MB-8HL-LVR-UNV-L940

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	18.76	20.23	19.12	20.55	20.86	18.43	19.91	18.80	20.23	20.54
	3H	20.32	21.64	20.69	21.97	22.33	20.05	21.38	20.43	21.70	22.07
	4H	20.92	22.16	21.32	22.51	22.88	20.80	22.04	21.20	22.39	22.77
	6H	21.37	22.52	21.78	22.88	23.28	21.47	22.61	21.88	22.98	23.37
	8H	21.53	22.62	21.95	23.01	23.41	21.74	22.83	22.17	23.22	23.63
	12H	21.62	22.67	22.05	23.05	23.48	21.97	23.01	22.40	23.39	23.82
4H	2H	19.35	20.59	19.75	20.94	21.32	19.09	20.34	19.49	20.68	21.06
	3H	21.14	22.17	21.55	22.57	22.97	20.98	22.01	21.39	22.41	22.81
	4H	21.87	22.79	22.30	23.21	23.65	21.87	22.80	22.31	23.22	23.66
	6H	22.45	23.25	22.91	23.70	24.16	22.68	23.49	23.14	23.93	24.39
	8H	22.64	23.40	23.11	23.84	24.31	23.01	23.76	23.47	24.21	24.68
	12H	22.78	23.46	23.27	23.93	24.41	23.28	23.95	23.77	24.43	24.91
8H	4H	22.19	22.94	22.65	23.38	23.85	22.20	22.95	22.66	23.39	23.86
	6H	22.90	23.52	23.39	24.01	24.49	23.14	23.77	23.64	24.26	24.74
	8H	23.17	23.73	23.68	24.24	24.73	23.56	24.12	24.08	24.63	25.12
	12H	23.37	23.87	23.88	24.36	24.93	23.93	24.43	24.44	24.92	25.49
12H	4H	22.23	22.90	22.71	23.38	23.85	22.22	22.89	22.70	23.37	23.84
	6H	22.97	23.53	23.48	24.04	24.53	23.20	23.76	23.71	24.27	24.76
	8H	23.29	23.79	23.81	24.28	24.85	23.68	24.17	24.19	24.67	25.23