

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: P893204

Luminaire Tested: 4MB-10HL-LVRF-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893204
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-L850
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 5000K (C)
Light Source: -
Ballast/Driver: -

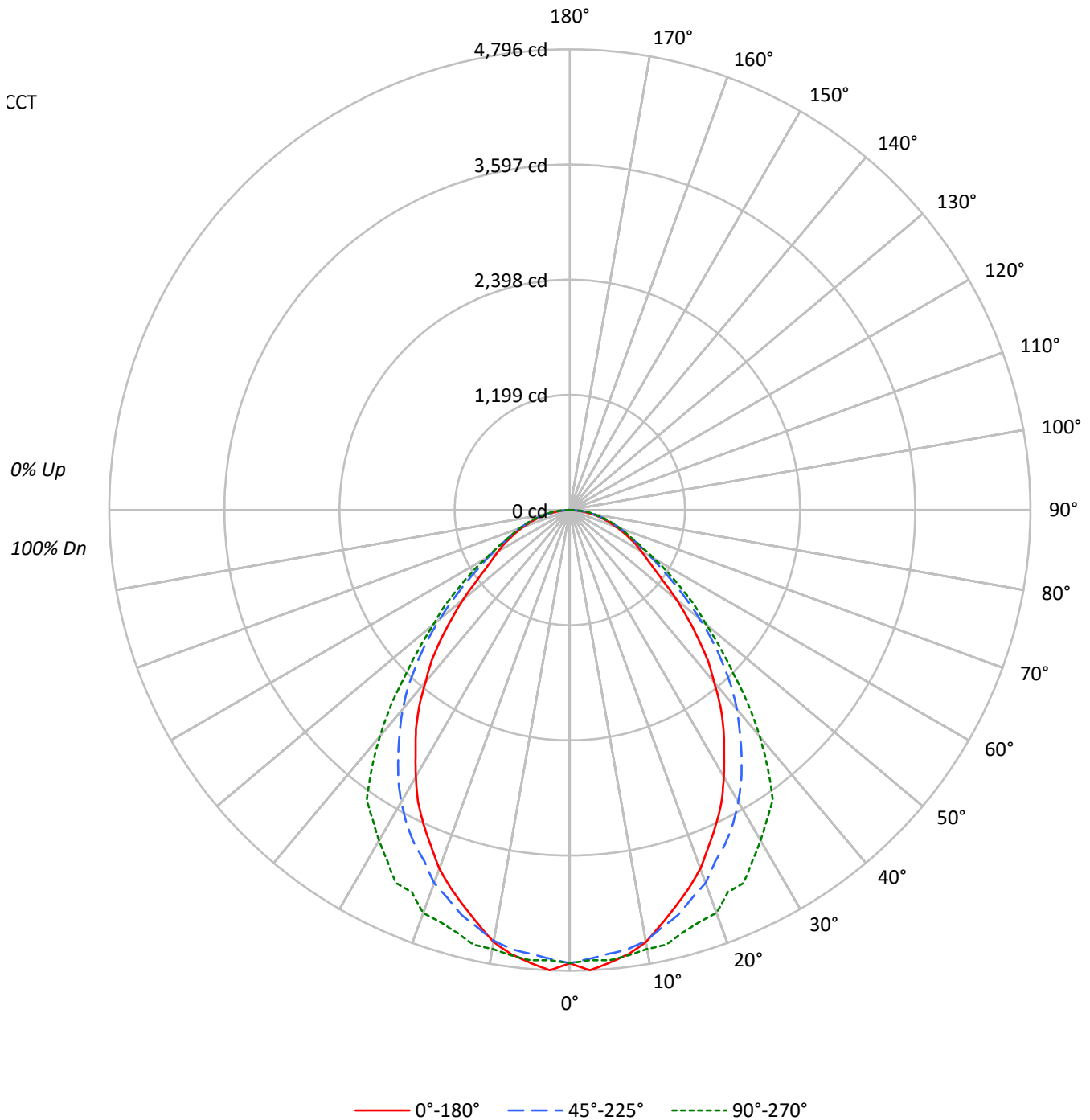
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9566.0 lumens
Efficiency: N/A
Efficacy: 126.7 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									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	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	102	102	102	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	89	89	89	89	89	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	77	77	77	77	77	77	77	77	77	75																
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	75	70	67	67	67	67	67	67	67	67	67	67	65																
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	68	63	59	59	59	59	59	59	59	59	59	59	57																
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	62	57	52	52	52	52	52	52	52	52	52	52	50																
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	57	51	47	47	47	47	47	47	47	47	47	47	45																
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	52	46	42	42	42	42	42	42	42	42	42	42	40																
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	48	43	38	38	38	38	38	38	38	38	38	38	37																
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	45	39	35	35	35	35	35	35	35	35	35	35	33																
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	42	36	32	32	32	32	32	32	32	32	32	32	30																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33568	33568	33568
5°	33787	33132	33605
10°	32995	32894	33525
15°	31438	32134	33526
20°	30073	31280	33800
25°	28313	30085	33628
30°	26339	28831	32643
35°	24257	27062	32012
40°	21694	25152	28585
45°	19017	22622	24240
50°	16049	19547	20514
55°	13314	16359	17495
60°	12243	13908	14431
65°	11468	12229	12324
70°	10680	11589	11502
75°	9965	10817	11205
80°	9305	10055	10747
85°	7829	8523	11862

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 24240 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	445.3	4.7
10°-20°	1242.2	13.0
20°-30°	1788.9	18.7
30°-40°	1975.0	20.6
40°-50°	1694.7	17.7
50°-60°	1154.5	12.1
60°-70°	726.3	7.6
70°-80°	413.5	4.3
80°-90°	125.7	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°	3476.4	36.3
0°-40°	5451.4	57.0
0°-60°	8300.6	86.8
0°-90°	9566.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9566.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4718	4718	4718	4718	4718	
5°	4731	4712	4639	4736	4705	447
15°	4268	4313	4362	4560	4552	1202
25°	3606	3678	3832	4141	4284	1656
35°	2793	2901	3116	3456	3686	1737
45°	1890	2016	2248	2384	2409	1456
55°	1073	1140	1319	1382	1410	986
65°	681	692	726	762	732	677
75°	362	365	394	410	408	386
85°	96	99	104	124	145	110
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4717.9	4717.9	4717.9	4717.9	4717.9
2.5°	4795.5	4746.1	4675.6	4743.3	4691.1
5°	4730.6	4712.3	4638.9	4736.3	4705.2
7.5°	4664.3	4624.8	4612.1	4716.5	4675.6
10°	4567.0	4544.4	4552.9	4686.9	4640.3
12.5°	4413.3	4428.8	4448.5	4619.2	4633.3
15°	4268.0	4313.1	4362.5	4560.0	4551.5
17.5°	4125.5	4187.6	4234.1	4488.0	4495.1
20°	3971.8	4007.1	4131.2	4376.6	4464.0
22.5°	3781.4	3850.5	3957.7	4263.8	4303.3
25°	3606.5	3678.4	3832.2	4141.1	4283.5
27.5°	3423.1	3489.4	3679.8	3995.8	4117.1
30°	3205.9	3294.8	3509.2	3830.8	3973.2
32.5°	2988.7	3118.5	3324.4	3654.4	3819.5
35°	2792.7	2901.3	3115.7	3455.6	3685.5
37.5°	2575.5	2689.7	2906.9	3238.4	3385.1
40°	2335.7	2458.4	2708.0	2976.0	3077.6
42.5°	2129.8	2235.5	2486.6	2675.6	2756.0
45°	1890.0	2015.5	2248.2	2383.6	2409.0
47.5°	1658.7	1802.5	2011.3	2074.8	2124.1
50°	1449.9	1562.8	1765.9	1805.4	1853.3
52.5°	1237.0	1356.8	1534.6	1574.1	1644.6
55°	1073.3	1139.6	1318.8	1382.2	1410.4
57.5°	953.5	995.8	1122.7	1203.1	1211.6
60°	860.4	881.5	977.4	1038.1	1014.1
62.5°	774.3	791.3	839.2	885.8	854.7
65°	681.2	692.5	726.4	761.6	732.0
67.5°	593.8	606.5	637.5	662.9	637.5
70°	513.4	523.3	557.1	568.4	552.9
72.5°	438.6	442.9	471.1	490.8	481.0
75°	362.5	365.3	393.5	410.4	407.6
77.5°	293.4	297.6	321.6	337.1	328.6
80°	227.1	229.9	245.4	268.0	262.3
82.5°	159.4	165.0	174.9	194.6	210.2
85°	95.9	98.7	104.4	124.1	145.3
87.5°	36.7	39.5	42.3	52.2	69.1
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	19.66	21.14	20.03	21.45	21.77	21.02	22.50	21.39	22.82	23.13
	3H	21.24	22.57	21.62	22.89	23.26	22.31	23.63	22.69	23.96	24.32
	4H	21.85	23.09	22.25	23.44	23.82	22.86	24.10	23.26	24.45	24.83
	6H	22.32	23.46	22.73	23.83	24.22	23.31	24.46	23.73	24.83	25.22
	8H	22.47	23.56	22.90	23.95	24.36	23.50	24.59	23.93	24.98	25.38
	12H	22.57	23.62	23.00	24.00	24.43	23.66	24.70	24.09	25.08	25.51
4H	2H	20.28	21.52	20.68	21.87	22.25	21.39	22.63	21.79	22.98	23.36
	3H	22.08	23.11	22.49	23.51	23.91	22.95	23.97	23.36	24.37	24.78
	4H	22.80	23.73	23.24	24.15	24.59	23.65	24.58	24.08	24.99	25.43
	6H	23.40	24.21	23.86	24.65	25.11	24.26	25.06	24.72	25.51	25.97
	8H	23.60	24.35	24.07	24.80	25.27	24.50	25.26	24.97	25.70	26.17
	12H	23.74	24.41	24.22	24.89	25.36	24.72	25.39	25.20	25.87	26.34
8H	4H	23.13	23.88	23.59	24.33	24.79	23.88	24.64	24.35	25.08	25.55
	6H	23.85	24.48	24.35	24.97	25.45	24.63	25.25	25.12	25.74	26.22
	8H	24.13	24.69	24.65	25.20	25.69	24.96	25.52	25.47	26.03	26.52
	12H	24.34	24.84	24.85	25.33	25.90	25.26	25.76	25.77	26.25	26.82
12H	4H	23.17	23.84	23.65	24.32	24.79	23.90	24.57	24.38	25.05	25.52
	6H	23.92	24.48	24.44	24.99	25.48	24.66	25.22	25.18	25.74	26.22
	8H	24.26	24.75	24.77	25.25	25.81	25.05	25.55	25.56	26.04	26.61