

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: P893196

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893196
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-10HL-LVRA-UNV-L850
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

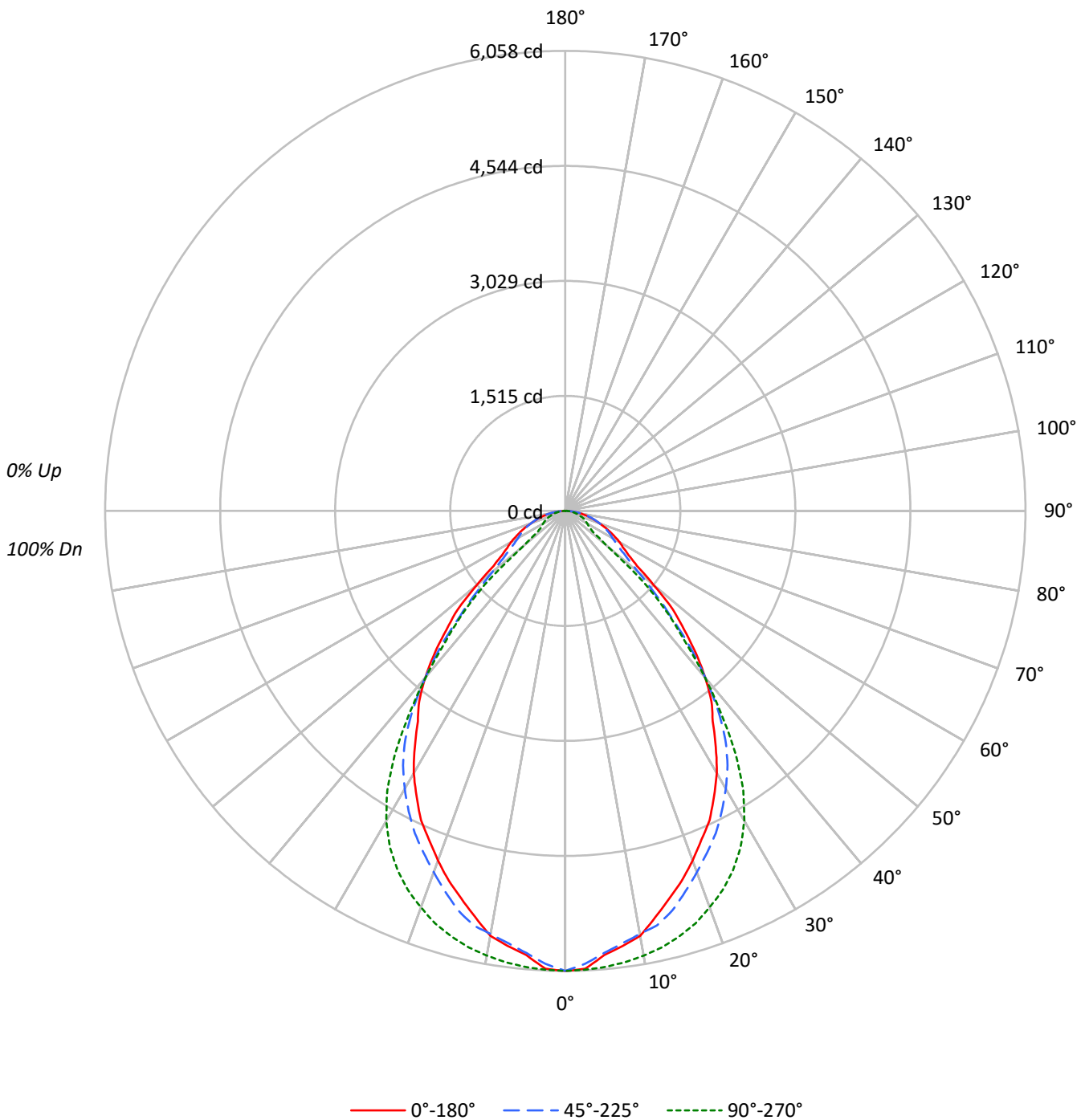
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9832.0 lumens
Efficiency: N/A
Efficacy: 130.2 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78	78	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69	69	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62	62	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55	55	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50	50	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45	45	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41	41	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38	38	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35	35	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	43103	43103	43103
5°	41941	41751	43056
10°	41050	40869	42956
15°	38931	40127	42715
20°	37086	38339	42063
25°	35277	36784	40989
30°	32775	34724	38701
35°	29388	31911	33945
40°	26625	26683	26539
45°	22261	19717	19230
50°	16816	13878	7863
55°	12648	11098	4958
60°	11754	10220	4777
65°	10935	10199	4785
70°	10004	10004	4710
75°	9487	9743	4550
80°	8764	9211	4671
85°	7649	8033	5102

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 22781 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	559.6	5.7
10°-20°	1541.9	15.7
20°-30°	2186.5	22.2
30°-40°	2252.5	22.9
40°-50°	1573.3	16.0
50°-60°	754.9	7.7
60°-70°	529.7	5.4
70°-80°	331.2	3.4
80°-90°	102.4	1.0
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°	4288.0	43.6
0°-40°	6540.5	66.5
0°-60°	8868.8	90.2
0°-90°	9832.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9832.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6058	6058	6058	6058	6058	
5°	5872	5864	5846	5999	6028	556
15°	5285	5324	5448	5604	5799	1488
25°	4494	4539	4686	5003	5221	2055
35°	3384	3476	3674	3750	3908	2132
45°	2212	2264	1960	1860	1911	1705
55°	1020	970	895	573	400	955
65°	650	607	606	461	284	644
75°	345	340	354	306	166	363
85°	94	94	98	97	62	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6058.1	6058.1	6058.1	6058.1	6058.1
2.5°	6034.6	6015.9	5970.6	6053.4	6047.1
5°	5872.3	5864.5	5845.7	5998.7	6028.4
7.5°	5780.1	5764.5	5742.7	5911.3	5994.0
10°	5681.8	5700.5	5656.8	5811.4	5945.6
12.5°	5478.8	5528.8	5588.1	5708.3	5886.3
15°	5285.2	5324.2	5447.6	5603.7	5798.9
17.5°	5104.1	5149.4	5255.5	5489.7	5697.4
20°	4898.0	4960.4	5063.5	5363.3	5555.3
22.5°	4685.6	4743.4	4873.0	5194.6	5408.5
25°	4493.6	4538.9	4685.6	5002.6	5221.2
27.5°	4239.1	4323.4	4462.4	4768.4	4997.9
30°	3989.3	4061.1	4226.6	4484.2	4710.6
32.5°	3687.9	3792.5	3975.2	4171.9	4360.9
35°	3383.5	3475.6	3673.9	3750.4	3908.1
37.5°	3161.7	3186.7	3299.1	3289.8	3378.8
40°	2866.6	2916.6	2872.9	2755.8	2857.3
42.5°	2548.1	2607.5	2431.0	2295.2	2331.1
45°	2212.4	2264.0	1959.5	1859.6	1911.1
47.5°	1922.0	1917.3	1580.1	1513.0	1441.1
50°	1519.2	1569.2	1253.8	1128.9	710.4
52.5°	1186.6	1205.4	1033.6	721.3	466.8
55°	1019.6	969.6	894.7	573.0	399.7
57.5°	905.6	843.1	793.2	532.4	365.4
60°	826.0	755.7	718.2	505.9	335.7
62.5°	735.4	680.8	666.7	482.5	309.1
65°	649.5	607.4	605.8	460.6	284.2
67.5°	563.6	540.2	546.5	434.1	256.1
70°	480.9	476.2	480.9	399.7	226.4
72.5°	410.6	406.0	418.4	356.0	193.6
75°	345.1	340.4	354.4	306.0	165.5
77.5°	274.8	277.9	287.3	254.5	139.0
80°	213.9	213.9	224.8	199.9	114.0
82.5°	153.0	154.6	160.8	146.8	89.0
85°	93.7	93.7	98.4	96.8	62.5
87.5°	31.2	35.9	42.2	45.3	31.2
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	18.72	20.08	19.09	20.39	20.70	15.05	16.41	15.42	16.72	17.04
	3H	20.46	21.67	20.84	22.00	22.36	17.03	18.24	17.41	18.57	18.93
	4H	21.13	22.26	21.53	22.61	22.99	17.74	18.86	18.14	19.21	19.60
	6H	21.64	22.68	22.05	23.05	23.44	18.26	19.30	18.67	19.67	20.06
	8H	21.81	22.80	22.24	23.19	23.59	18.44	19.43	18.87	19.82	20.22
	12H	21.92	22.86	22.35	23.25	23.68	18.58	19.53	19.02	19.91	20.34
4H	2H	19.25	20.38	19.66	20.73	21.11	16.68	17.80	17.08	18.15	18.54
	3H	21.23	22.16	21.64	22.56	22.97	18.86	19.79	19.27	20.19	20.59
	4H	22.03	22.87	22.47	23.29	23.73	19.73	20.57	20.17	20.99	21.43
	6H	22.68	23.40	23.14	23.85	24.31	20.38	21.10	20.84	21.55	22.01
	8H	22.90	23.57	23.36	24.02	24.49	20.59	21.26	21.05	21.71	22.18
	12H	23.05	23.65	23.53	24.13	24.60	20.74	21.35	21.23	21.83	22.30
8H	4H	22.32	22.99	22.78	23.44	23.91	20.38	21.06	20.85	21.51	21.98
	6H	23.10	23.66	23.60	24.15	24.63	21.25	21.80	21.75	22.30	22.78
	8H	23.40	23.90	23.92	24.41	24.91	21.57	22.07	22.09	22.59	23.08
	12H	23.64	24.08	24.15	24.57	25.14	21.84	22.28	22.35	22.77	23.34
12H	4H	22.33	22.93	22.82	23.42	23.89	20.46	21.06	20.94	21.54	22.01
	6H	23.15	23.65	23.67	24.17	24.66	21.38	21.88	21.90	22.40	22.89
	8H	23.52	23.96	24.03	24.45	25.02	21.80	22.24	22.31	22.73	23.30