

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: P893947

Luminaire Tested: 4MB-8HL-LVRA-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893947
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-8HL-LVRA-UNV-L840
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

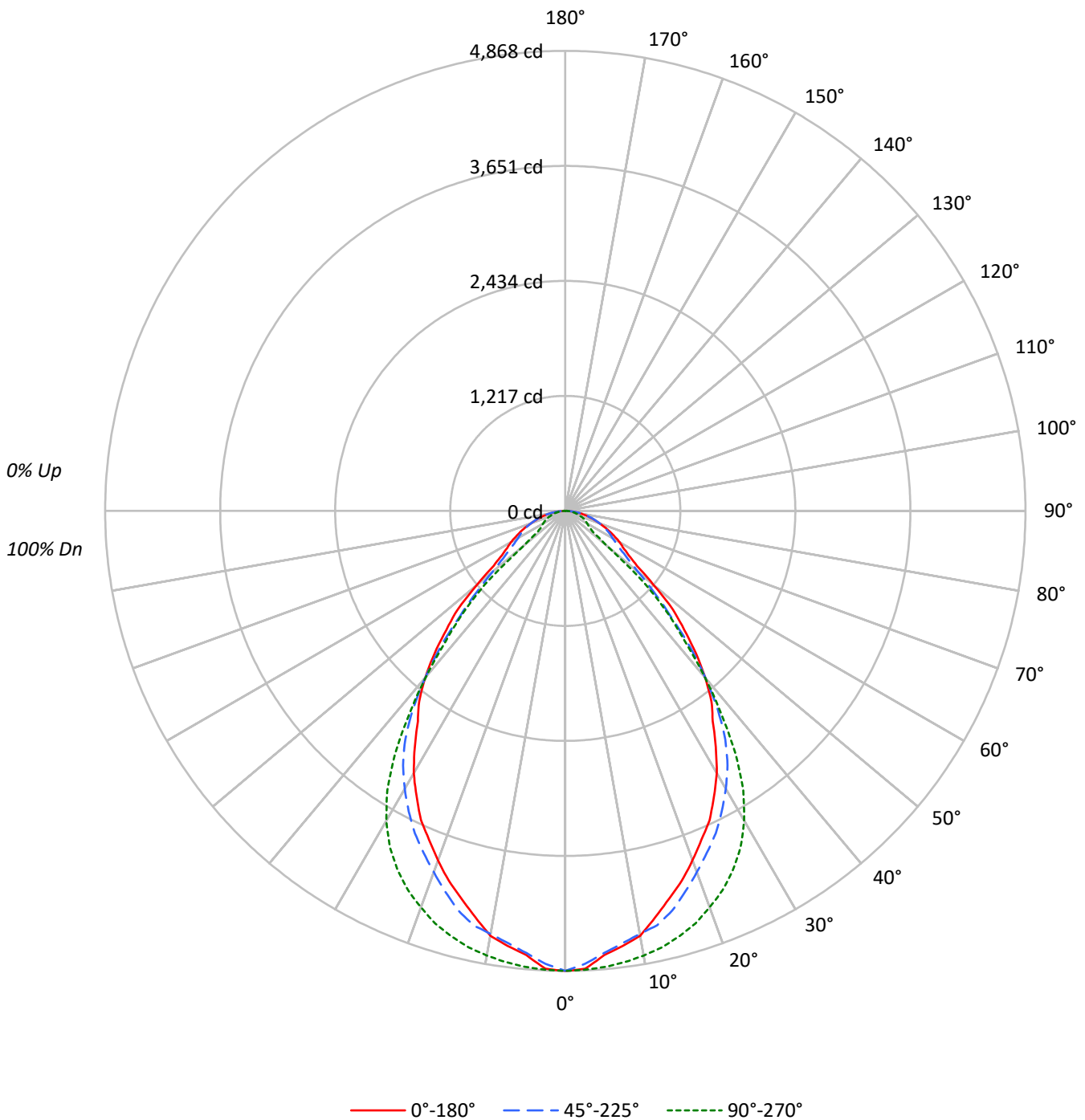
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7900.0 lumens
Efficiency: N/A
Efficacy: 136.4 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): 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

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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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	93	92	90	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	85	82	80	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	71	67	63	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	66	61	57	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	61	56	52	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	56	51	47	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	52	47	43	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	49	44	40	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	46	40	37	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34633	34633	34633
5°	33700	33547	34595
10°	32983	32838	34515
15°	31280	32242	34321
20°	29798	30805	33797
25°	28345	29556	32935
30°	26335	27901	31096
35°	23613	25641	27274
40°	21393	21440	21323
45°	17887	15843	15451
50°	13512	11151	6318
55°	10162	8918	3984
60°	9444	8212	3838
65°	8786	8196	3844
70°	8038	8038	3784
75°	7623	7829	3656
80°	7043	7404	3753
85°	6147	6449	4098

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 18304 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	449.6	5.7
10°-20°	1238.9	15.7
20°-30°	1756.8	22.2
30°-40°	1809.9	22.9
40°-50°	1264.2	16.0
50°-60°	606.6	7.7
60°-70°	425.6	5.4
70°-80°	266.1	3.4
80°-90°	82.3	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°	3445.4	43.6
0°-40°	5255.3	66.5
0°-60°	7126.1	90.2
0°-90°	7900.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7900.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4868	4868	4868	4868	4868	
5°	4718	4712	4697	4820	4844	447
15°	4247	4278	4377	4503	4659	1196
25°	3611	3647	3765	4020	4195	1651
35°	2719	2793	2952	3013	3140	1713
45°	1778	1819	1574	1494	1536	1370
55°	819	779	719	460	321	768
65°	522	488	487	370	228	517
75°	277	274	285	246	133	292
85°	75	75	79	78	50	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4867.6	4867.6	4867.6	4867.6	4867.6
2.5°	4848.8	4833.8	4797.4	4863.9	4858.9
5°	4718.4	4712.1	4697.0	4820.0	4843.8
7.5°	4644.3	4631.8	4614.2	4749.7	4816.2
10°	4565.3	4580.4	4545.2	4669.4	4777.3
12.5°	4402.2	4442.4	4490.0	4586.6	4729.6
15°	4246.6	4278.0	4377.1	4502.6	4659.4
17.5°	4101.1	4137.5	4222.8	4411.0	4577.8
20°	3935.5	3985.7	4068.5	4309.4	4463.7
22.5°	3764.9	3811.3	3915.4	4173.9	4345.8
25°	3610.6	3647.0	3764.9	4019.6	4195.2
27.5°	3406.1	3473.8	3585.5	3831.4	4015.8
30°	3205.4	3263.1	3396.1	3603.1	3785.0
32.5°	2963.2	3047.3	3194.1	3352.2	3504.0
35°	2718.6	2792.6	2952.0	3013.4	3140.1
37.5°	2540.5	2560.5	2650.9	2643.3	2714.8
40°	2303.3	2343.5	2308.4	2214.3	2295.8
42.5°	2047.4	2095.1	1953.3	1844.2	1873.0
45°	1777.7	1819.1	1574.5	1494.2	1535.6
47.5°	1544.3	1540.6	1269.6	1215.7	1157.9
50°	1220.7	1260.8	1007.4	907.0	570.8
52.5°	953.5	968.5	830.5	579.6	375.1
55°	819.2	779.1	718.9	460.4	321.2
57.5°	727.6	677.5	637.3	427.8	293.6
60°	663.7	607.2	577.1	406.5	269.7
62.5°	590.9	547.0	535.7	387.7	248.4
65°	521.9	488.0	486.8	370.1	228.3
67.5°	452.9	434.1	439.1	348.8	205.7
70°	386.4	382.6	386.4	321.2	181.9
72.5°	329.9	326.2	336.2	286.0	155.6
75°	277.3	273.5	284.8	245.9	133.0
77.5°	220.8	223.3	230.8	204.5	111.7
80°	171.9	171.9	180.7	160.6	91.6
82.5°	122.9	124.2	129.2	117.9	71.5
85°	75.3	75.3	79.0	77.8	50.2
87.5°	25.1	28.9	33.9	36.4	25.1
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	17.96	19.32	18.33	19.63	19.94	14.30	15.65	14.66	15.96	16.28
	3H	19.70	20.91	20.08	21.24	21.60	16.27	17.48	16.65	17.81	18.17
	4H	20.37	21.50	20.77	21.85	22.23	16.98	18.10	17.38	18.45	18.84
	6H	20.88	21.92	21.29	22.29	22.68	17.50	18.54	17.91	18.91	19.30
	8H	21.05	22.04	21.48	22.43	22.83	17.68	18.67	18.11	19.06	19.46
	12H	21.16	22.10	21.59	22.49	22.92	17.82	18.77	18.26	19.15	19.58
4H	2H	18.49	19.62	18.90	19.97	20.35	15.92	17.04	16.32	17.40	17.78
	3H	20.47	21.40	20.88	21.80	22.21	18.10	19.03	18.51	19.43	19.83
	4H	21.27	22.11	21.71	22.53	22.97	18.98	19.81	19.41	20.23	20.67
	6H	21.92	22.64	22.38	23.09	23.55	19.62	20.34	20.08	20.79	21.25
	8H	22.14	22.81	22.60	23.26	23.73	19.83	20.50	20.29	20.95	21.42
	12H	22.29	22.89	22.77	23.37	23.84	19.98	20.58	20.47	21.07	21.54
8H	4H	21.56	22.23	22.02	22.68	23.15	19.62	20.30	20.09	20.75	21.22
	6H	22.34	22.90	22.84	23.39	23.87	20.49	21.04	20.99	21.54	22.02
	8H	22.64	23.14	23.16	23.65	24.15	20.81	21.31	21.33	21.83	22.32
	12H	22.88	23.32	23.39	23.81	24.38	21.08	21.52	21.59	22.01	22.58
12H	4H	21.57	22.17	22.06	22.66	23.13	19.70	20.30	20.18	20.78	21.25
	6H	22.39	22.89	22.91	23.41	23.90	20.62	21.12	21.14	21.64	22.13
	8H	22.76	23.20	23.27	23.69	24.26	21.04	21.48	21.55	21.97	22.54