

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: P893524

Luminaire Tested: 4MB-4SL-LVR-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893524
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-8)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-4SL-LVR-UNV-L850
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

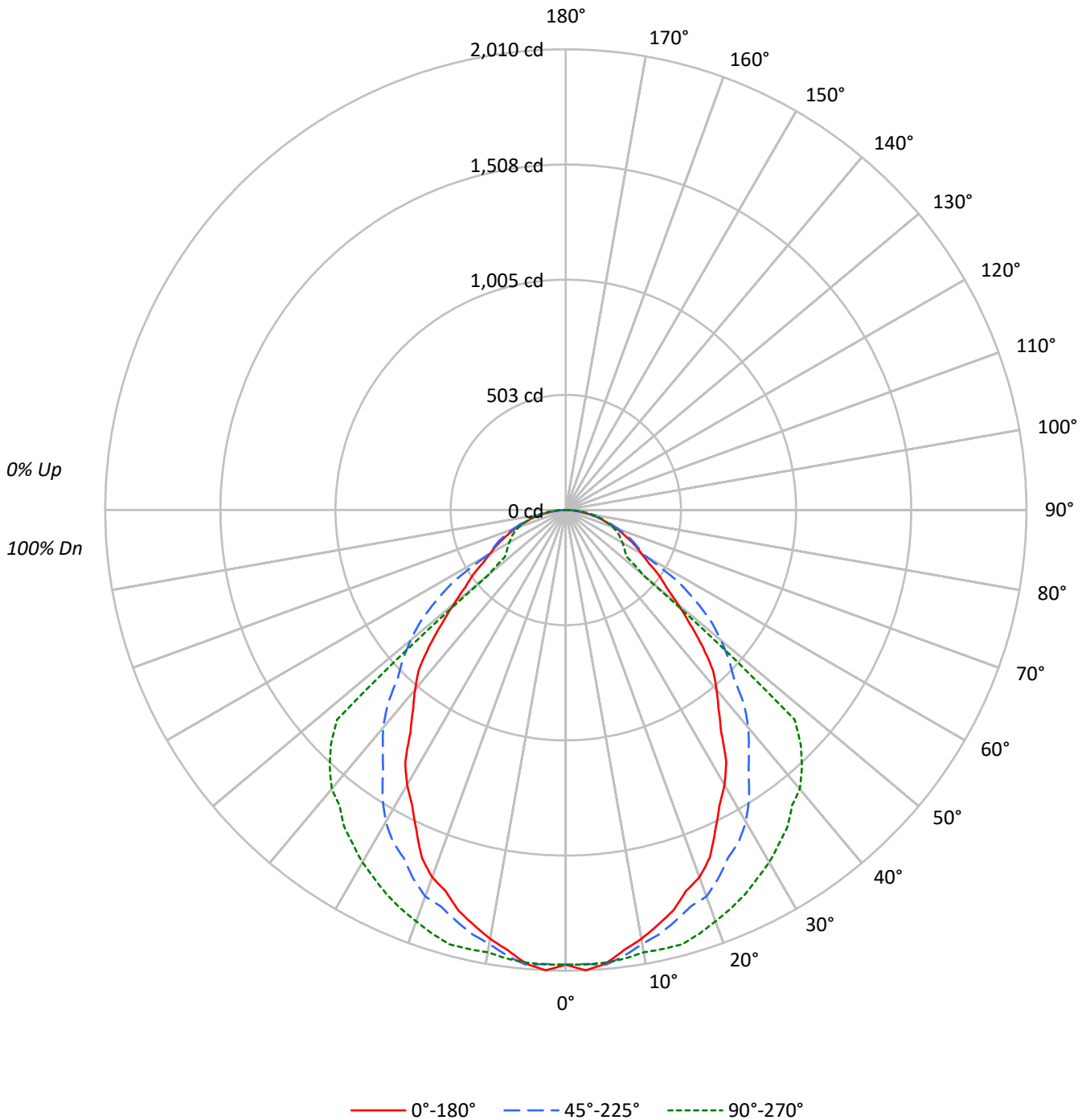
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4233.0 lumens
Efficiency: N/A
Efficacy: 142.0 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.32 / 1.27
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 29.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.5
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	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	52	52	52	50
6	75	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	40	35	59	48	40	35	47	40	35	45	39	35	44	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14113	14113	14113
5°	14189	14225	14153
10°	13723	13885	14155
15°	13327	13663	14447
20°	12910	13584	14459
25°	12113	13146	14523
30°	11378	12909	14582
35°	10260	12072	14651
40°	9503	11517	14754
45°	8501	10438	14587
50°	7053	9778	4900
55°	6145	8583	3921
60°	5434	5594	4066
65°	5169	5441	4315
70°	4847	5142	4552
75°	4511	4847	4679
80°	4110	4564	4896
85°	3641	3886	5290

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 14587 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.1	4.4
10°-20°	529.3	12.5
20°-30°	778.6	18.4
30°-40°	890.4	21.0
40°-50°	843.1	19.9
50°-60°	464.5	11.0
60°-70°	298.2	7.0
70°-80°	184.1	4.3
80°-90°	56.6	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°	1496.0	35.3
0°-40°	2386.4	56.4
0°-60°	3694.0	87.3
0°-90°	4233.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4233.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1984	1984	1984	1984	1984	
5°	1987	2003	1992	1992	1982	186
15°	1809	1832	1855	1952	1961	508
25°	1543	1612	1675	1784	1850	711
35°	1181	1282	1390	1592	1687	747
45°	845	925	1037	1331	1450	646
55°	495	520	692	357	316	443
65°	307	317	323	288	256	304
75°	164	167	176	185	170	175
85°	45	45	48	55	65	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1983.6	1983.6	1983.6	1983.6	1983.6
2.5°	2009.9	2015.0	1982.6	1981.6	1984.6
5°	1986.6	2002.8	1991.7	1991.7	1981.6
7.5°	1937.0	1964.3	1961.3	1984.6	1973.5
10°	1899.5	1921.8	1921.8	1982.6	1959.3
12.5°	1854.9	1880.3	1894.4	1958.3	1961.3
15°	1809.3	1831.6	1854.9	1952.2	1961.3
17.5°	1743.5	1784.0	1813.4	1908.6	1938.0
20°	1705.0	1729.3	1794.1	1871.1	1909.6
22.5°	1641.2	1676.6	1739.4	1825.6	1882.3
25°	1542.9	1611.8	1674.6	1784.0	1849.9
27.5°	1451.7	1503.4	1633.1	1748.6	1811.4
30°	1384.9	1425.4	1571.3	1696.9	1774.9
32.5°	1303.8	1369.7	1488.2	1646.2	1729.3
35°	1181.2	1282.5	1389.9	1591.5	1686.8
37.5°	1095.1	1165.0	1310.9	1534.8	1622.9
40°	1023.2	1087.0	1240.0	1463.9	1588.5
42.5°	951.3	1002.9	1150.8	1411.2	1524.7
45°	844.9	924.9	1037.4	1331.2	1449.7
47.5°	733.5	818.6	963.4	1263.3	1354.5
50°	637.2	705.1	883.4	1128.6	442.7
52.5°	553.1	615.9	798.3	408.3	334.3
55°	495.4	519.7	691.9	356.6	316.1
57.5°	426.5	466.0	580.5	339.4	299.9
60°	381.9	399.1	393.1	322.2	285.7
62.5°	346.5	358.6	356.6	304.9	269.5
65°	307.0	317.1	323.2	287.7	256.3
67.5°	267.5	276.6	285.7	266.4	238.1
70°	233.0	239.1	247.2	241.1	218.8
72.5°	197.5	204.6	209.7	214.8	193.5
75°	164.1	167.2	176.3	185.4	170.2
77.5°	133.7	136.8	142.8	153.0	144.9
80°	100.3	103.3	111.4	119.5	119.5
82.5°	70.9	72.9	78.0	89.2	94.2
85°	44.6	44.6	47.6	54.7	64.8
87.5°	17.2	17.2	20.3	24.3	32.4
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	17.15	18.63	17.51	18.94	19.26	14.95	16.43	15.32	16.75	17.06
	3H	18.67	20.00	19.05	20.33	20.69	17.28	18.61	17.66	18.93	19.30
	4H	19.27	20.51	19.67	20.86	21.24	18.23	19.47	18.63	19.82	20.20
	6H	19.72	20.87	20.14	21.24	21.63	19.01	20.16	19.43	20.53	20.92
	8H	19.87	20.96	20.29	21.35	21.75	19.33	20.42	19.75	20.81	21.21
	12H	19.96	21.01	20.39	21.39	21.82	19.57	20.62	20.00	21.00	21.43
4H	2H	17.70	18.94	18.10	19.29	19.67	16.05	17.30	16.45	17.65	18.03
	3H	19.47	20.50	19.88	20.90	21.30	18.50	19.53	18.91	19.93	20.33
	4H	20.19	21.12	20.62	21.53	21.97	19.57	20.49	20.00	20.91	21.35
	6H	20.78	21.58	21.23	22.02	22.48	20.45	21.26	20.91	21.70	22.16
	8H	20.96	21.72	21.43	22.16	22.63	20.80	21.56	21.27	22.00	22.47
	12H	21.10	21.77	21.58	22.25	22.72	21.09	21.77	21.58	22.25	22.72
8H	4H	20.50	21.25	20.96	21.69	22.16	19.95	20.71	20.42	21.15	21.62
	6H	21.21	21.83	21.71	22.32	22.80	20.99	21.61	21.49	22.10	22.58
	8H	21.47	22.03	21.98	22.54	23.03	21.43	21.99	21.95	22.51	22.99
	12H	21.68	22.18	22.19	22.67	23.24	21.82	22.32	22.33	22.81	23.37
12H	4H	20.53	21.21	21.02	21.68	22.16	19.99	20.66	20.47	21.14	21.61
	6H	21.27	21.84	21.79	22.35	22.83	21.05	21.61	21.57	22.12	22.61
	8H	21.59	22.09	22.10	22.58	23.15	21.56	22.06	22.07	22.55	23.12