

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: P893464

Luminaire Tested: 4MB-4SL-A-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893464
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-4SL-A-UNV-L950
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

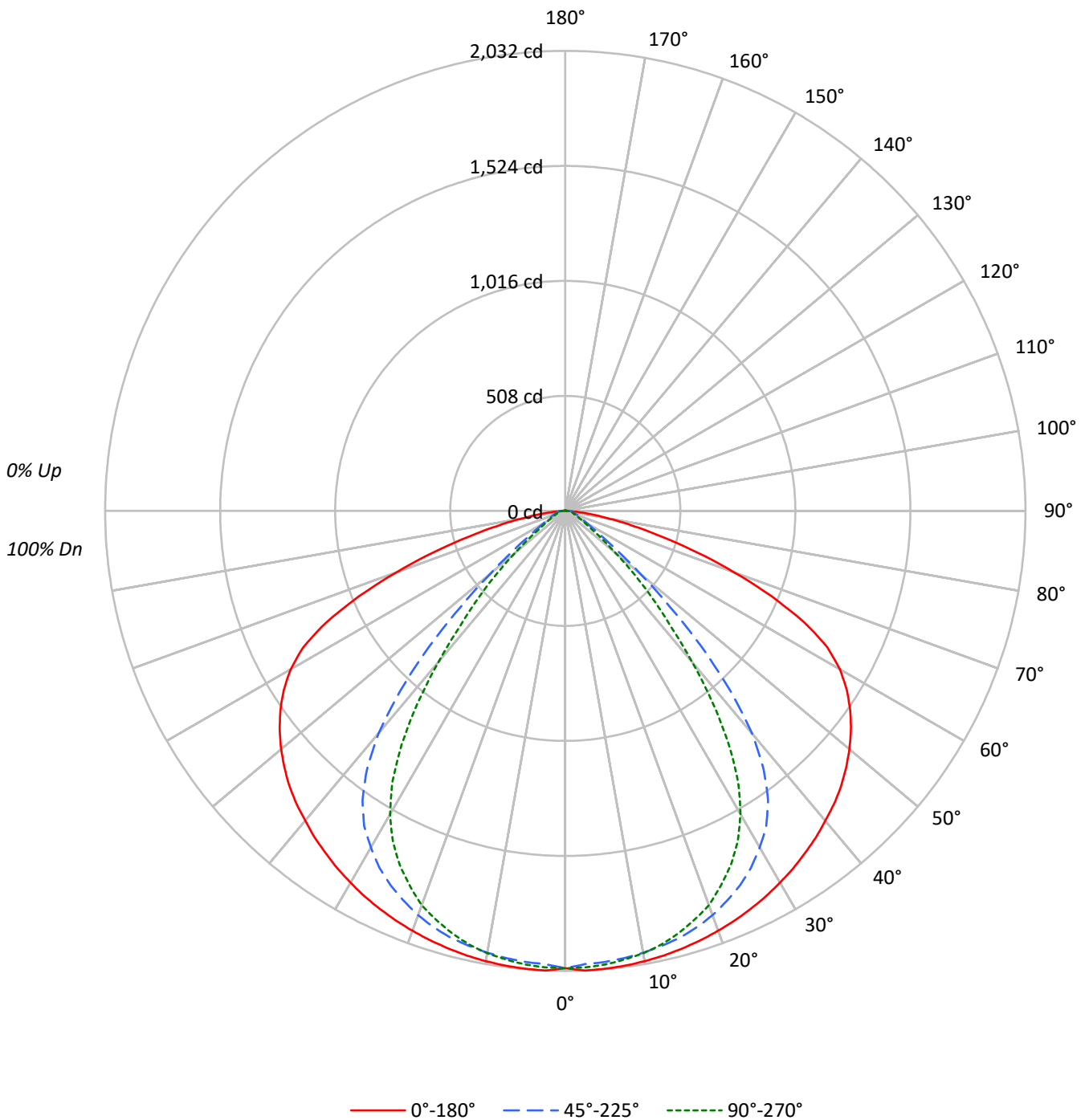
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4141.1 lumens
Efficiency: N/A
Efficacy: 139.0 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.15 / 1.23
Luminous Opening: Rectangular (W 0.27' 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	111	107	103	100	108	105	102	99	100	98	96	97	95	93	93	91	90	93	91	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	84	81	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	77	73	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	70	65	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	64	59	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	59	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	54	49	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	50	44	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	46	41	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20573	20573	20573
5°	20754	20445	20566
10°	20884	20491	20520
15°	21092	20580	20367
20°	21391	20596	20093
25°	21789	20508	19414
30°	22296	20186	18195
35°	22932	19410	15643
40°	23749	17046	11562
45°	24796	12301	7776
50°	25947	6871	4641
55°	27273	3553	2541
60°	28530	2312	1799
65°	28043	1899	1427
70°	23652	1748	1331
75°	17396	1782	1428
80°	11607	2100	1801
85°	6333	3400	2746

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 28774 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.8	4.6
10°-20°	554.3	13.4
20°-30°	843.2	20.4
30°-40°	963.0	23.3
40°-50°	776.8	18.8
50°-60°	425.2	10.3
60°-70°	224.2	5.4
70°-80°	109.9	2.7
80°-90°	38.7	0.9
90°-100°	8.3	0.2
100°-110°	1.2	0.0
110°-120°	0.7	0.0
120°-130°	0.7	0.0
130°-140°	0.7	0.0
140°-150°	0.8	0.0
150°-160°	0.7	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	1589.3	38.4
0°-40°	2552.2	61.6
0°-60°	3754.3	90.7
0°-90°	4127.2	99.7
90°-120°	10.2	0.2
90°-150°	12.4	0.3
90°-180°	14.0	0.3
0°-180°	4141.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2020	2020	2020	2020	2020	
5°	2030	2024	2000	2018	2012	193
15°	2000	1988	1952	1948	1932	566
25°	1939	1911	1825	1763	1728	896
35°	1844	1767	1561	1349	1258	1157
45°	1722	1479	854	584	540	1329
55°	1536	632	200	155	143	1370
65°	1164	146	79	64	59	1126
75°	442	82	45	38	36	488
85°	54	43	29	26	24	75
90°	2	22	18	16	14	3
95°	2	3	6	10	9	1
105°	1	0	1	1	1	1
115°	1	1	1	1	1	1
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	1	1	1	2	1	1
155°	1	1	2	2	2	1
165°	1	2	2	2	2	0
175°	2	2	2	3	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2020.1	2020.1	2020.1	2020.1	2020.1
2.5°	2032.4	2026.8	2003.8	2023.4	2017.8
5°	2030.1	2024.0	1999.9	2017.8	2011.7
7.5°	2026.2	2018.4	1992.1	2008.3	1998.8
10°	2019.5	2011.7	1981.5	1994.3	1984.3
12.5°	2011.7	2001.1	1967.5	1974.2	1961.4
15°	2000.5	1988.2	1951.9	1948.5	1931.7
17.5°	1988.2	1973.1	1928.9	1914.4	1894.3
20°	1973.7	1955.2	1900.4	1871.9	1854.0
22.5°	1957.5	1933.4	1864.7	1821.1	1793.1
25°	1939.0	1911.1	1825.0	1762.9	1727.7
27.5°	1919.4	1881.4	1776.9	1695.3	1647.8
30°	1896.0	1850.1	1716.5	1606.4	1547.2
32.5°	1872.5	1811.0	1651.7	1491.8	1421.4
35°	1844.5	1766.9	1561.2	1348.8	1258.2
37.5°	1818.3	1713.8	1438.7	1169.3	1072.1
40°	1786.4	1651.1	1282.2	963.1	869.7
42.5°	1756.2	1578.5	1079.3	764.1	683.0
45°	1721.6	1479.0	854.1	583.5	539.9
47.5°	1681.3	1343.2	621.0	434.3	406.9
50°	1637.7	1156.5	433.7	315.2	292.9
52.5°	1589.7	904.4	292.3	219.1	206.8
55°	1536.0	632.2	200.1	154.8	143.1
57.5°	1474.0	411.4	145.3	116.8	109.0
60°	1400.7	262.7	113.5	92.8	88.3
62.5°	1304.6	184.5	93.3	76.6	72.7
65°	1163.7	145.9	78.8	63.7	59.2
67.5°	985.4	123.5	67.6	53.7	50.9
70°	794.3	107.3	58.7	46.4	44.7
72.5°	610.4	93.9	50.9	41.4	40.2
75°	442.1	82.2	45.3	38.0	36.3
77.5°	306.3	71.0	40.2	34.1	33.0
80°	197.9	61.5	35.8	31.3	30.7
82.5°	113.5	51.4	32.4	30.2	29.6
85°	54.2	43.0	29.1	26.3	23.5
87.5°	17.3	31.9	22.9	20.1	17.9
90°	2.2	22.4	17.9	15.7	14.5
92.5°	2.2	12.3	12.9	12.9	12.3
95°	1.7	2.8	6.1	9.5	8.9
97.5°	1.7	1.1	3.9	6.7	6.7
100°	1.1	0.6	1.7	4.5	4.5
102.5°	1.1	0.6	0.6	2.8	2.8
105°	0.6	0.0	0.6	1.1	1.1
107.5°	0.6	0.6	0.6	1.1	0.6
110°	0.6	0.6	0.6	1.1	0.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.6	0.6	0.6	1.1	0.6
115°	0.6	0.6	0.6	1.1	0.6
117.5°	0.6	0.6	0.6	1.1	0.6
120°	0.6	0.6	0.6	1.1	0.6
122.5°	0.6	0.6	0.6	1.1	0.6
125°	0.6	0.6	0.6	1.1	0.6
127.5°	0.6	0.6	0.6	1.1	0.6
130°	0.6	0.6	1.1	1.1	0.6
132.5°	0.6	0.6	1.1	1.1	0.6
135°	0.6	0.6	1.1	1.1	0.6
137.5°	0.6	0.6	1.1	1.1	1.1
140°	1.1	0.6	1.1	1.1	1.1
142.5°	1.1	1.1	1.1	1.7	1.1
145°	1.1	1.1	1.1	1.7	1.1
147.5°	1.1	1.1	1.7	1.7	1.1
150°	1.1	1.1	1.7	1.7	1.1
152.5°	1.1	1.1	1.7	1.7	1.7
155°	1.1	1.1	1.7	2.2	1.7
157.5°	1.1	1.1	1.7	2.2	1.7
160°	1.1	1.7	2.2	2.2	1.7
162.5°	1.1	1.7	2.2	2.2	2.2
165°	1.1	1.7	2.2	2.2	2.2
167.5°	1.7	1.7	2.2	2.8	2.2
170°	1.7	1.7	2.2	2.8	2.2
172.5°	1.7	1.7	2.2	2.8	2.2
175°	1.7	1.7	2.2	2.8	2.2
177.5°	1.7	1.7	2.2	2.8	2.8
180°	2.2	2.2	2.2	2.2	2.2



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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	20.41	21.81	20.78	22.13	22.46	8.93	10.32	9.30	10.65	10.97
	3H	23.32	24.57	23.71	24.90	25.28	9.86	11.11	10.25	11.44	11.82
	4H	24.22	25.38	24.62	25.74	26.13	10.38	11.54	10.79	11.90	12.29
	6H	24.71	25.78	25.13	26.16	26.56	11.01	12.08	11.43	12.46	12.86
	8H	24.82	25.84	25.26	26.24	26.65	11.43	12.45	11.87	12.84	13.26
	12H	24.87	25.84	25.31	26.23	26.67	11.88	12.85	12.32	13.24	13.68
4H	2H	20.23	21.39	20.63	21.75	22.14	9.44	10.61	9.85	10.96	11.35
	3H	23.16	24.11	23.57	24.52	24.93	10.64	11.59	11.06	12.00	12.41
	4H	24.06	24.91	24.50	25.34	25.79	11.30	12.16	11.74	12.58	13.03
	6H	24.65	25.39	25.12	25.84	26.32	12.13	12.87	12.59	13.32	13.79
	8H	24.81	25.51	25.29	25.96	26.44	12.66	13.35	13.13	13.80	14.28
	12H	24.91	25.52	25.40	26.01	26.49	13.24	13.85	13.73	14.34	14.82
8H	4H	23.95	24.64	24.42	25.09	25.57	11.90	12.59	12.37	13.04	13.52
	6H	24.55	25.12	25.05	25.62	26.11	12.90	13.47	13.41	13.97	14.46
	8H	24.74	25.25	25.26	25.77	26.27	13.58	14.09	14.10	14.61	15.11
	12H	24.88	25.34	25.40	25.84	26.41	14.34	14.80	14.86	15.30	15.87
12H	4H	23.91	24.53	24.40	25.01	25.49	12.16	12.77	12.65	13.26	13.74
	6H	24.50	25.01	25.02	25.53	26.03	13.21	13.72	13.73	14.24	14.74
	8H	24.71	25.17	25.23	25.67	26.24	13.97	14.43	14.49	14.93	15.51