

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: P894098

Luminaire Tested: 4MB-SC3-A-UNV-CC93-MID-5000K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894098
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-SC3-A-UNV-CC93-MID-5000K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 5000K CCT, MID lumen setting
Light Source: -
Ballast/Driver: -

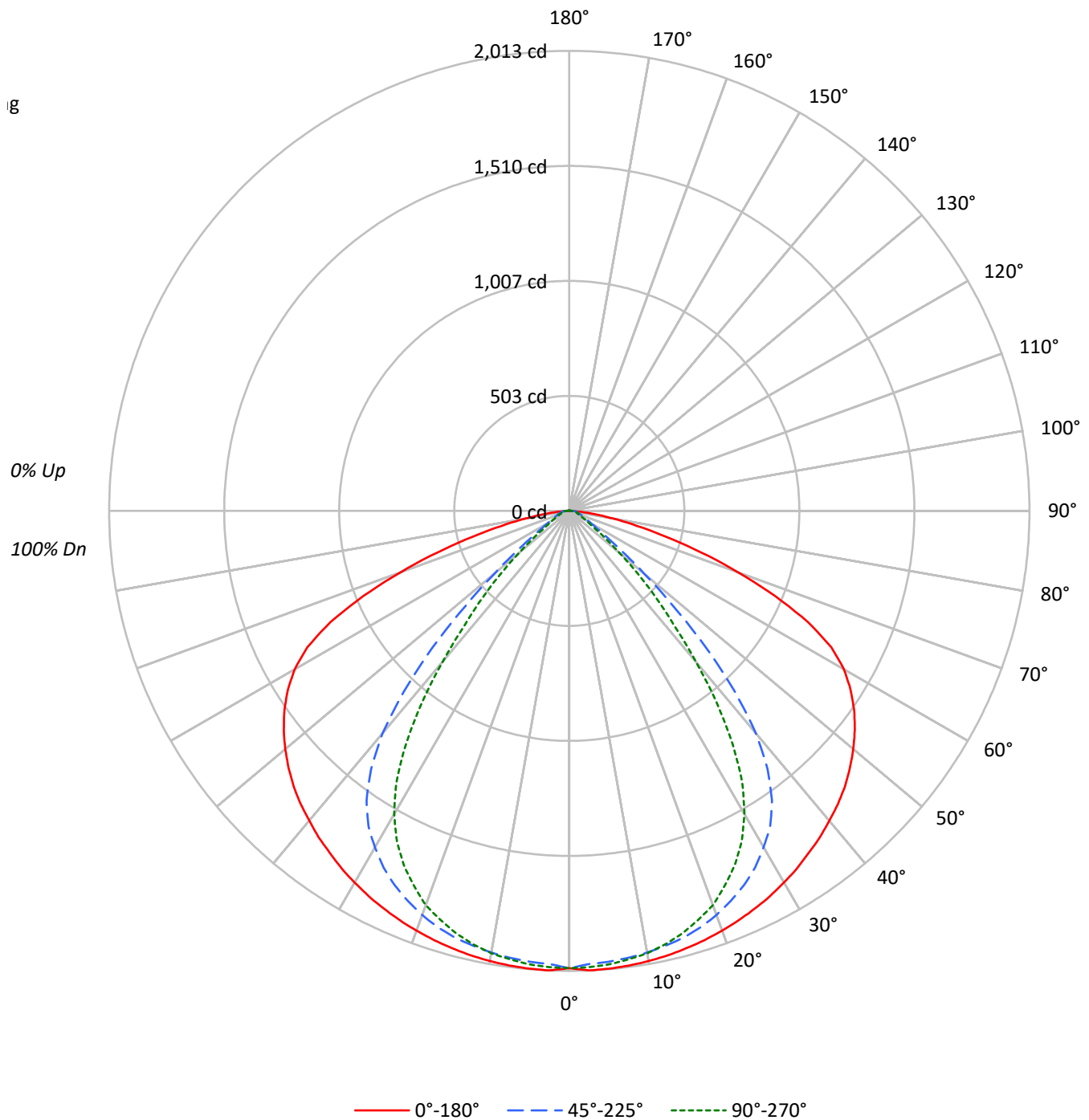
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4101.1 lumens
Efficiency: N/A
Efficacy: 122.4 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): 33.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.9948
Total Harmonic Distortion (THDi): 5.65231997856897
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	90	90	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	79	79	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	69	69	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	62	62	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	55	55	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	49	49	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	45	45	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	40	40	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	37	37	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	34	34	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20374	20374	20374
5°	20554	20248	20366
10°	20683	20293	20322
15°	20889	20381	20171
20°	21184	20398	19899
25°	21578	20310	19227
30°	22081	19992	18018
35°	22711	19222	15492
40°	23521	16883	11451
45°	24555	12182	7701
50°	25697	6807	4596
55°	27010	3519	2516
60°	28255	2289	1782
65°	27773	1882	1415
70°	23422	1730	1319
75°	17231	1763	1417
80°	11495	2076	1783
85°	6275	3365	2711

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 28496 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.0	4.6
10°-20°	548.9	13.4
20°-30°	835.0	20.4
30°-40°	953.7	23.3
40°-50°	769.3	18.8
50°-60°	421.1	10.3
60°-70°	222.0	5.4
70°-80°	108.9	2.7
80°-90°	38.4	0.9
90°-100°	8.2	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°	1573.9	38.4
0°-40°	2527.6	61.6
0°-60°	3718.1	90.7
0°-90°	4087.3	99.7
90°-120°	10.1	0.2
90°-150°	12.3	0.3
90°-180°	14.0	0.3
0°-180°	4101.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2000	2000	2000	2000	2000	
5°	2010	2004	1981	1998	1992	192
15°	1981	1969	1933	1930	1913	561
25°	1920	1893	1807	1746	1711	887
35°	1827	1750	1546	1336	1246	1146
45°	1705	1465	846	578	535	1316
55°	1521	626	198	153	142	1357
65°	1152	144	78	63	59	1115
75°	438	81	45	38	36	484
85°	54	43	29	26	23	74
90°	2	22	18	16	14	3
95°	2	3	6	9	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°	2000.5	2000.5	2000.5	2000.5	2000.5
2.5°	2012.7	2007.2	1984.5	2003.9	1998.3
5°	2010.5	2004.4	1980.6	1998.3	1992.2
7.5°	2006.6	1998.9	1972.9	1988.9	1979.5
10°	2000.0	1992.2	1962.3	1975.1	1965.1
12.5°	1992.2	1981.7	1948.5	1955.2	1942.4
15°	1981.2	1969.0	1933.0	1929.7	1913.1
17.5°	1969.0	1954.0	1910.3	1895.9	1876.0
20°	1954.6	1936.3	1882.1	1853.9	1836.1
22.5°	1938.5	1914.7	1846.7	1803.5	1775.8
25°	1920.3	1892.6	1807.4	1745.9	1711.0
27.5°	1900.9	1863.3	1759.7	1678.9	1631.9
30°	1877.7	1832.3	1700.0	1590.9	1532.2
32.5°	1854.4	1793.5	1635.8	1477.4	1407.7
35°	1826.7	1749.8	1546.1	1335.7	1246.1
37.5°	1800.7	1697.2	1424.8	1158.0	1061.7
40°	1769.2	1635.2	1269.9	953.8	861.3
42.5°	1739.3	1563.2	1068.9	756.7	676.4
45°	1704.9	1464.7	845.8	577.9	534.7
47.5°	1665.1	1330.2	615.0	430.1	403.0
50°	1621.9	1145.3	429.6	312.2	290.1
52.5°	1574.3	895.7	289.5	217.0	204.8
55°	1521.2	626.1	198.2	153.3	141.7
57.5°	1459.7	407.4	143.9	115.7	107.9
60°	1387.2	260.2	112.4	91.9	87.5
62.5°	1292.0	182.7	92.4	75.8	72.0
65°	1152.5	144.5	78.1	63.1	58.7
67.5°	975.9	122.3	67.0	53.1	50.4
70°	786.6	106.3	58.1	45.9	44.3
72.5°	604.5	93.0	50.4	41.0	39.9
75°	437.9	81.4	44.8	37.6	36.0
77.5°	303.3	70.3	39.9	33.8	32.7
80°	196.0	60.9	35.4	31.0	30.4
82.5°	112.4	50.9	32.1	29.9	29.3
85°	53.7	42.6	28.8	26.0	23.2
87.5°	17.2	31.6	22.7	19.9	17.7
90°	2.2	22.1	17.7	15.5	14.4
92.5°	2.2	12.2	12.7	12.7	12.2
95°	1.7	2.8	6.1	9.4	8.9
97.5°	1.7	1.1	3.9	6.6	6.6
100°	1.1	0.6	1.7	4.4	4.4
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	20.38	21.78	20.75	22.10	22.42	8.89	10.29	9.26	10.61	10.94
	3H	23.29	24.53	23.67	24.87	25.24	9.83	11.07	10.21	11.41	11.78
	4H	24.18	25.34	24.59	25.70	26.09	10.35	11.51	10.75	11.87	12.26
	6H	24.68	25.75	25.10	26.12	26.53	10.98	12.05	11.40	12.43	12.83
	8H	24.79	25.81	25.23	26.20	26.62	11.40	12.41	11.83	12.81	13.22
	12H	24.83	25.81	25.27	26.20	26.63	11.84	12.82	12.28	13.21	13.64
4H	2H	20.19	21.36	20.60	21.71	22.10	9.41	10.57	9.82	10.93	11.32
	3H	23.12	24.08	23.54	24.49	24.90	10.60	11.56	11.02	11.97	12.38
	4H	24.02	24.88	24.46	25.30	25.75	11.27	12.13	11.71	12.55	13.00
	6H	24.62	25.36	25.08	25.81	26.28	12.09	12.83	12.56	13.29	13.76
	8H	24.78	25.47	25.25	25.92	26.40	12.63	13.32	13.10	13.77	14.25
	12H	24.87	25.49	25.36	25.97	26.45	13.20	13.82	13.69	14.31	14.79
8H	4H	23.92	24.61	24.39	25.06	25.54	11.86	12.55	12.33	13.01	13.48
	6H	24.51	25.08	25.02	25.59	26.07	12.87	13.44	13.37	13.94	14.43
	8H	24.70	25.22	25.23	25.74	26.23	13.54	14.05	14.07	14.57	15.07
	12H	24.85	25.30	25.37	25.80	26.38	14.31	14.76	14.82	15.26	15.84
12H	4H	23.88	24.49	24.37	24.98	25.46	12.12	12.74	12.61	13.23	13.71
	6H	24.46	24.98	24.99	25.50	25.99	13.18	13.69	13.70	14.21	14.71
	8H	24.68	25.14	25.20	25.64	26.21	13.94	14.40	14.46	14.90	15.47