

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: P894096

Luminaire Tested: 4MB-SC3-A-UNV-CC93-MID-3500K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894096
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-3500K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 3500K CCT, MID lumen setting
Light Source: -
Ballast/Driver: -

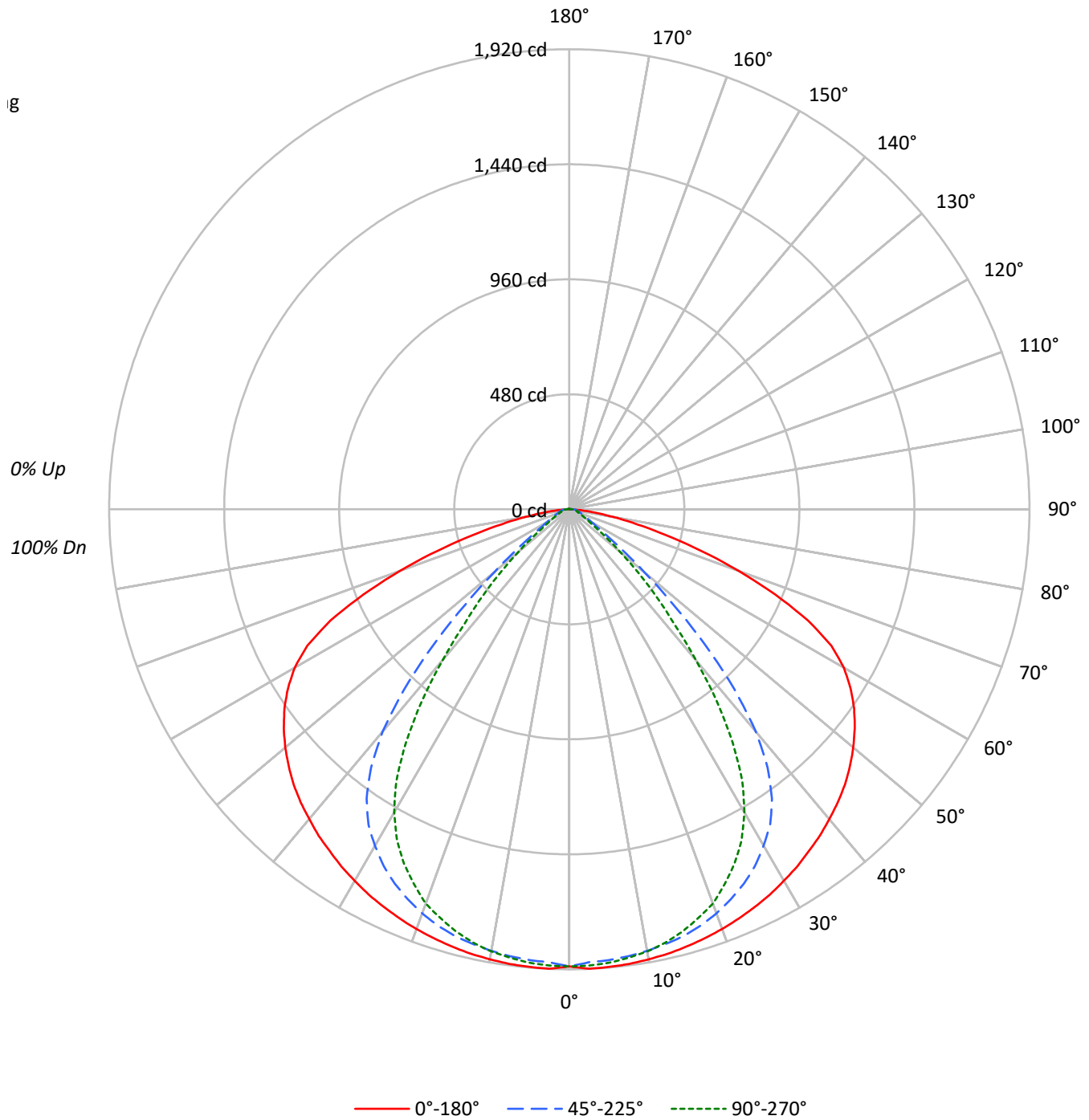
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3911.0 lumens
Efficiency: N/A
Efficacy: 116.7 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 (Ain): 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	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°	19430	19430	19430
5°	19602	19310	19423
10°	19724	19353	19381
15°	19921	19437	19236
20°	20202	19453	18978
25°	20578	19368	18337
30°	21058	19065	17183
35°	21659	18331	14774
40°	22431	16100	10920
45°	23419	11617	7345
50°	24507	6491	4382
55°	25758	3356	2399
60°	26945	2183	1699
65°	26486	1793	1349
70°	22338	1650	1257
75°	16432	1684	1350
80°	10961	1982	1701
85°	5983	3213	2594

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 27175 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.2	4.6
10°-20°	523.5	13.4
20°-30°	796.3	20.4
30°-40°	909.5	23.3
40°-50°	733.7	18.8
50°-60°	401.6	10.3
60°-70°	211.8	5.4
70°-80°	103.8	2.7
80°-90°	36.6	0.9
90°-100°	7.9	0.2
100°-110°	1.1	0.0
110°-120°	0.6	0.0
120°-130°	0.6	0.0
130°-140°	0.6	0.0
140°-150°	0.8	0.0
150°-160°	0.7	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	1501.0	38.4
0°-40°	2410.5	61.6
0°-60°	3545.8	90.7
0°-90°	3898.0	99.7
90°-120°	9.6	0.2
90°-150°	11.6	0.3
90°-180°	13.0	0.3
0°-180°	3911.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1908	1908	1908	1908	1908	
5°	1917	1912	1889	1906	1900	183
15°	1889	1878	1844	1840	1824	535
25°	1831	1805	1724	1665	1632	846
35°	1742	1669	1474	1274	1188	1093
45°	1626	1397	807	551	510	1255
55°	1451	597	189	146	135	1294
65°	1099	138	74	60	56	1063
75°	418	78	43	36	34	461
85°	51	41	28	25	22	71
90°	2	21	17	15	14	3
95°	2	3	6	9	8	1
105°	0	0	0	1	1	1
115°	0	0	0	1	0	0
125°	0	0	0	1	0	0
135°	0	0	1	1	0	0
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°	1907.9	1907.9	1907.9	1907.9	1907.9
2.5°	1919.5	1914.2	1892.5	1911.0	1905.7
5°	1917.4	1911.6	1888.9	1905.7	1899.9
7.5°	1913.7	1906.3	1881.5	1896.8	1887.8
10°	1907.3	1899.9	1871.4	1883.6	1874.1
12.5°	1899.9	1889.9	1858.2	1864.6	1852.4
15°	1889.4	1877.8	1843.5	1840.3	1824.4
17.5°	1877.8	1863.5	1821.8	1808.1	1789.1
20°	1864.0	1846.6	1794.9	1768.0	1751.1
22.5°	1848.7	1826.0	1761.1	1719.9	1693.5
25°	1831.3	1804.9	1723.6	1665.0	1631.8
27.5°	1812.8	1776.9	1678.2	1601.1	1556.3
30°	1790.7	1747.4	1621.2	1517.2	1461.2
32.5°	1768.5	1710.4	1560.0	1409.0	1342.5
35°	1742.1	1668.7	1474.4	1273.8	1188.3
37.5°	1717.3	1618.6	1358.8	1104.4	1012.5
40°	1687.2	1559.4	1211.0	909.6	821.4
42.5°	1658.7	1490.8	1019.4	721.6	645.1
45°	1626.0	1396.8	806.6	551.1	510.0
47.5°	1587.9	1268.6	586.5	410.2	384.3
50°	1546.8	1092.2	409.7	297.7	276.6
52.5°	1501.4	854.2	276.1	206.9	195.3
55°	1450.7	597.1	189.0	146.2	135.1
57.5°	1392.1	388.5	137.3	110.3	102.9
60°	1322.9	248.1	107.2	87.6	83.4
62.5°	1232.1	174.2	88.2	72.3	68.6
65°	1099.1	137.8	74.4	60.2	56.0
67.5°	930.7	116.7	63.9	50.7	48.0
70°	750.2	101.4	55.4	43.8	42.2
72.5°	576.5	88.7	48.0	39.1	38.0
75°	417.6	77.6	42.8	35.9	34.3
77.5°	289.3	67.0	38.0	32.2	31.1
80°	186.9	58.1	33.8	29.6	29.0
82.5°	107.2	48.6	30.6	28.5	28.0
85°	51.2	40.6	27.5	24.8	22.2
87.5°	16.4	30.1	21.6	19.0	16.9
90°	2.1	21.1	16.9	14.8	13.7
92.5°	2.1	11.6	12.1	12.1	11.6
95°	1.6	2.6	5.8	9.0	8.4
97.5°	1.6	1.1	3.7	6.3	6.3
100°	1.1	0.5	1.6	4.2	4.2
102.5°	1.1	0.5	0.5	2.6	2.6
105°	0.5	0.0	0.5	1.1	1.1
107.5°	0.5	0.5	0.5	1.1	0.5
110°	0.5	0.5	0.5	1.1	0.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.5	0.5	0.5	1.1	0.5
115°	0.5	0.5	0.5	1.1	0.5
117.5°	0.5	0.5	0.5	1.1	0.5
120°	0.5	0.5	0.5	1.1	0.5
122.5°	0.5	0.5	0.5	1.1	0.5
125°	0.5	0.5	0.5	1.1	0.5
127.5°	0.5	0.5	0.5	1.1	0.5
130°	0.5	0.5	1.1	1.1	0.5
132.5°	0.5	0.5	1.1	1.1	0.5
135°	0.5	0.5	1.1	1.1	0.5
137.5°	0.5	0.5	1.1	1.1	1.1
140°	1.1	0.5	1.1	1.1	1.1
142.5°	1.1	1.1	1.1	1.6	1.1
145°	1.1	1.1	1.1	1.6	1.1
147.5°	1.1	1.1	1.6	1.6	1.1
150°	1.1	1.1	1.6	1.6	1.1
152.5°	1.1	1.1	1.6	1.6	1.6
155°	1.1	1.1	1.6	2.1	1.6
157.5°	1.1	1.1	1.6	2.1	1.6
160°	1.1	1.6	2.1	2.1	1.6
162.5°	1.1	1.6	2.1	2.1	2.1
165°	1.1	1.6	2.1	2.1	2.1
167.5°	1.6	1.6	2.1	2.6	2.1
170°	1.6	1.6	2.1	2.6	2.1
172.5°	1.6	1.6	2.1	2.6	2.1
175°	1.6	1.6	2.1	2.6	2.1
177.5°	1.6	1.6	2.1	2.6	2.6
180°	2.1	2.1	2.1	2.1	2.1



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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	20.21	21.61	20.58	21.93	22.26	8.73	10.13	9.10	10.45	10.77
	3H	23.12	24.37	23.51	24.71	25.08	9.66	10.91	10.05	11.24	11.61
	4H	24.02	25.18	24.42	25.54	25.93	10.18	11.34	10.59	11.70	12.09
	6H	24.51	25.58	24.93	25.96	26.36	10.81	11.88	11.23	12.26	12.66
	8H	24.63	25.64	25.06	26.04	26.45	11.23	12.25	11.67	12.65	13.06
	12H	24.67	25.64	25.11	26.03	26.47	11.68	12.65	12.12	13.04	13.48
4H	2H	20.03	21.19	20.44	21.55	21.94	9.24	10.41	9.65	10.76	11.15
	3H	22.96	23.91	23.38	24.32	24.73	10.44	11.39	10.85	11.80	12.21
	4H	23.86	24.72	24.30	25.14	25.59	11.10	11.96	11.54	12.38	12.83
	6H	24.45	25.19	24.92	25.65	26.12	11.93	12.67	12.39	13.12	13.59
	8H	24.62	25.31	25.09	25.76	26.24	12.46	13.15	12.93	13.60	14.08
	12H	24.71	25.32	25.20	25.81	26.29	13.04	13.66	13.53	14.14	14.62
8H	4H	23.75	24.44	24.22	24.90	25.37	11.70	12.39	12.17	12.84	13.32
	6H	24.35	24.92	24.86	25.42	25.91	12.70	13.27	13.21	13.77	14.26
	8H	24.54	25.05	25.06	25.57	26.07	13.38	13.89	13.90	14.41	14.91
	12H	24.68	25.14	25.20	25.64	26.22	14.14	14.60	14.66	15.10	15.67
12H	4H	23.71	24.33	24.20	24.81	25.30	11.96	12.57	12.45	13.06	13.54
	6H	24.30	24.81	24.82	25.33	25.83	13.01	13.52	13.53	14.04	14.54
	8H	24.52	24.97	25.03	25.47	26.05	13.77	14.23	14.29	14.73	15.31