

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: P894114

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894114
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-15)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-SC3-ACL-UNV-CC93-MID-3500K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 3500K CC
MID lumen setting
Light Source: -
Ballast/Driver: -

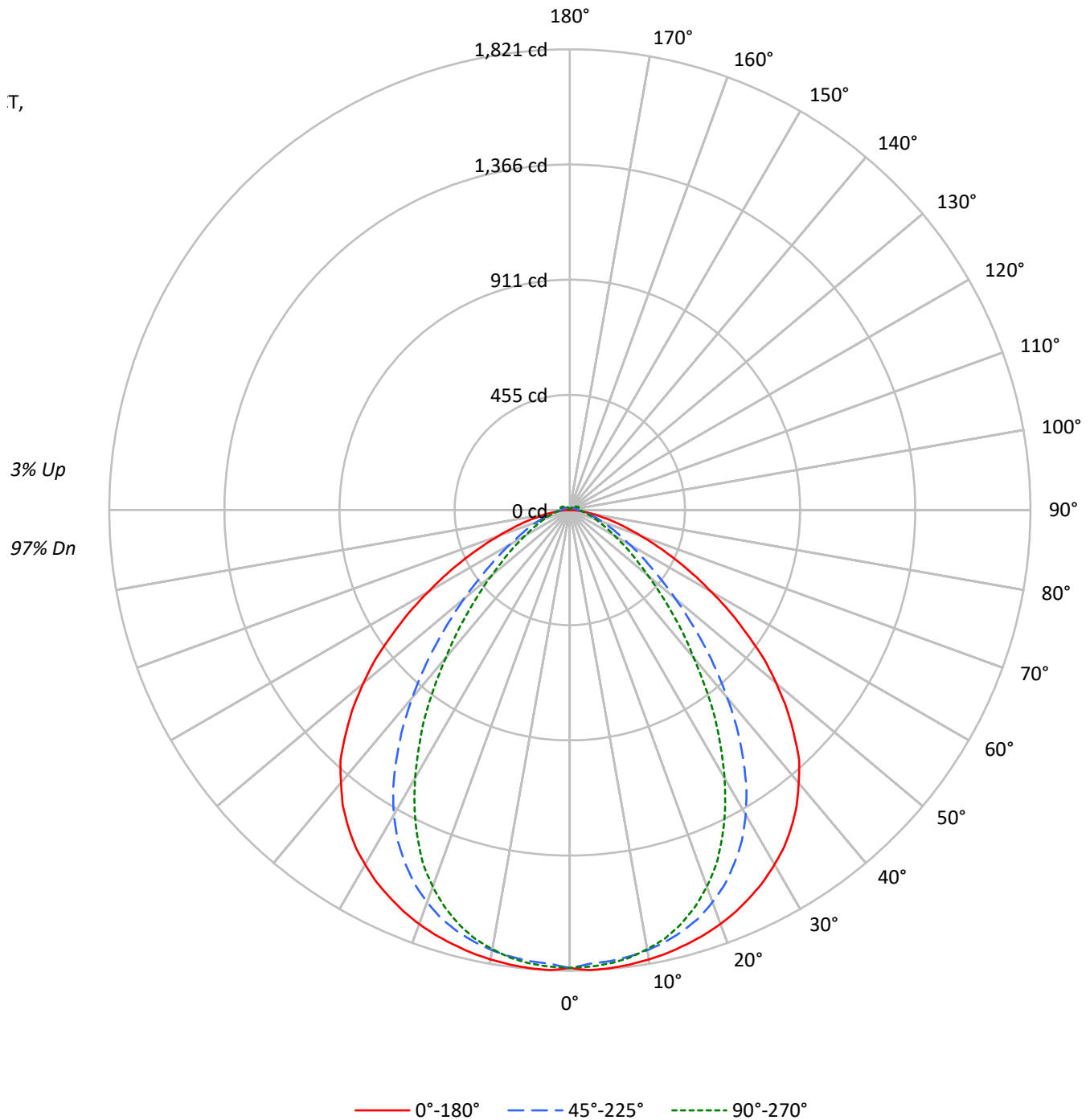
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3713.0 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.08')
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				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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97				97
1	110	106	102	99	107	103	100	97	99	96	93	94	92	90	90	89	87	85				85
2	101	94	88	84	99	92	87	82	88	84	80	85	81	78	82	79	76	74				74
3	94	85	77	72	91	83	76	71	80	74	69	77	72	68	74	70	66	64				64
4	87	76	68	62	84	75	67	62	72	66	61	69	64	60	67	62	59	57				57
5	80	69	61	55	78	68	60	55	65	59	54	63	58	53	61	56	52	50				50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	47	56	51	47	45				45
7	70	57	50	44	68	57	49	44	55	48	43	53	47	43	52	46	42	40				40
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	42	38	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33				33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18433	18433	18433
5°	18551	17933	17904
10°	18584	17543	17276
15°	18640	17088	16490
20°	18730	16460	15413
25°	18785	15588	13981
30°	18803	14390	12181
35°	18723	12716	10189
40°	18392	10742	8019
45°	17684	8672	6218
50°	16463	6729	4665
55°	14737	5151	3567
60°	12662	3959	2718
65°	10558	3124	2161
70°	8444	2507	1766
75°	6726	2019	1503
80°	4928	1666	1315
85°	3385	1417	1211

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17684 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.4	4.6
10°-20°	488.4	13.2
20°-30°	712.0	19.2
30°-40°	765.0	20.6
40°-50°	636.7	17.1
50°-60°	425.8	11.5
60°-70°	243.8	6.6
70°-80°	121.2	3.3
80°-90°	49.6	1.3
90°-100°	28.8	0.8
100°-110°	25.4	0.7
110°-120°	18.6	0.5
120°-130°	12.0	0.3
130°-140°	7.1	0.2
140°-150°	4.0	0.1
150°-160°	2.0	0.1
160°-170°	0.9	0.0
170°-180°	0.2	0.0
0°-30°	1371.9	36.9
0°-40°	2136.9	57.6
0°-60°	3199.4	86.2
0°-90°	3614.0	97.3
90°-120°	72.8	2.0
90°-150°	95.9	2.6
90°-180°	99.0	2.7
0°-180°	3713.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1810	1810	1810	1810	1810	
5°	1818	1812	1790	1805	1799	173
15°	1778	1766	1723	1711	1695	503
25°	1688	1648	1540	1463	1426	778
35°	1528	1417	1192	1045	1000	954
45°	1254	1042	744	602	567	964
55°	855	617	388	307	291	766
65°	458	310	195	158	150	458
75°	184	134	97	86	83	198
85°	36	40	45	47	48	42
90°	5	17	31	36	38	5
95°	8	17	30	36	38	6
105°	5	14	27	35	37	6
115°	3	8	21	29	32	3
125°	2	5	14	21	23	1
135°	1	4	10	14	16	1
145°	1	3	6	10	11	1
155°	1	3	4	6	7	1
165°	2	2	3	4	5	0
175°	2	2	2	2	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1810.0	1810.0	1810.0	1810.0	1810.0
2.5°	1820.6	1815.8	1795.2	1811.6	1806.8
5°	1817.9	1812.1	1790.5	1805.2	1799.4
7.5°	1812.1	1805.8	1781.0	1792.6	1786.2
10°	1803.7	1795.7	1767.2	1773.0	1763.0
12.5°	1793.1	1783.1	1747.7	1746.1	1735.0
15°	1777.8	1765.6	1723.4	1710.7	1695.4
17.5°	1761.9	1744.0	1692.2	1666.4	1645.3
20°	1741.4	1717.6	1649.5	1610.9	1584.5
22.5°	1717.6	1685.4	1601.4	1542.3	1514.8
25°	1688.0	1647.9	1540.2	1462.6	1426.1
27.5°	1656.3	1603.0	1473.7	1371.8	1330.0
30°	1618.3	1552.3	1390.8	1268.3	1223.4
32.5°	1578.2	1487.9	1299.9	1159.5	1110.4
35°	1528.0	1417.2	1192.2	1045.4	999.5
37.5°	1473.7	1332.7	1085.6	928.8	877.0
40°	1407.7	1243.4	968.4	813.1	761.9
42.5°	1342.2	1146.3	855.9	708.6	664.2
45°	1253.5	1041.7	744.5	602.5	567.1
47.5°	1164.2	929.8	637.8	516.4	481.5
50°	1065.0	820.0	544.4	433.5	404.5
52.5°	968.4	717.6	459.4	366.4	341.6
55°	854.8	616.7	388.1	306.8	290.9
57.5°	752.4	523.3	327.4	259.8	245.0
60°	644.2	443.5	274.0	219.6	205.9
62.5°	549.1	372.8	230.7	186.4	176.9
65°	457.8	310.5	195.4	158.4	150.0
67.5°	373.8	259.2	164.7	135.2	128.3
70°	299.9	210.1	138.9	115.1	110.4
72.5°	236.0	169.0	115.6	99.3	95.0
75°	184.3	134.1	96.6	85.5	82.9
77.5°	133.1	104.5	80.8	73.4	71.8
80°	94.0	79.2	66.5	63.4	62.3
82.5°	62.3	57.6	54.9	54.9	54.4
85°	35.9	40.1	44.9	47.0	47.5
87.5°	18.5	26.9	35.9	40.1	40.7
90°	5.3	16.9	30.6	36.4	37.5
92.5°	7.9	16.9	30.1	36.4	37.5
95°	7.9	16.9	30.1	36.4	37.5
97.5°	7.4	16.4	30.1	36.4	37.5
100°	6.9	15.3	29.6	36.4	37.5
102.5°	5.8	14.8	28.5	35.9	37.5
105°	5.3	13.7	26.9	35.4	37.0
107.5°	4.8	11.6	25.3	33.8	35.9
110°	3.7	10.0	24.3	32.2	34.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.2	9.0	22.7	30.6	33.3
115°	2.6	7.9	21.1	29.0	31.7
117.5°	2.1	7.4	19.0	26.9	29.6
120°	1.6	6.9	17.4	25.3	27.5
122.5°	1.6	6.3	15.3	23.2	25.3
125°	1.6	5.3	14.3	21.1	23.2
127.5°	1.1	4.8	12.7	19.0	21.1
130°	1.1	4.8	11.6	17.4	19.0
132.5°	1.1	4.2	10.6	15.8	17.4
135°	1.1	4.2	9.5	14.3	15.8
137.5°	1.1	3.7	8.4	13.2	14.8
140°	1.1	3.7	7.9	11.6	13.2
142.5°	1.1	3.2	6.9	11.1	12.1
145°	1.1	3.2	6.3	9.5	11.1
147.5°	1.1	3.2	5.8	9.0	10.0
150°	1.1	2.6	5.3	7.4	9.0
152.5°	1.1	2.6	4.8	6.9	8.4
155°	1.1	2.6	4.2	5.8	7.4
157.5°	1.1	2.6	4.2	5.3	6.3
160°	1.6	2.1	3.7	4.8	5.8
162.5°	1.6	2.1	3.2	4.2	5.3
165°	1.6	2.1	3.2	3.7	4.8
167.5°	1.6	2.1	2.6	3.2	3.7
170°	1.6	1.6	2.6	2.6	2.6
172.5°	1.6	1.6	2.1	2.6	2.1
175°	1.6	1.6	2.1	2.1	2.1
177.5°	1.6	1.6	2.1	2.1	2.1
180°	1.6	1.6	1.6	1.6	1.6



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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	18.86	20.25	19.27	20.62	21.01	14.15	15.55	14.56	15.92	16.30
	3H	19.95	21.20	20.38	21.58	22.01	15.30	16.54	15.72	16.92	17.35
	4H	20.26	21.42	20.71	21.83	22.27	15.80	16.96	16.24	17.36	17.81
	6H	20.41	21.48	20.86	21.90	22.36	16.30	17.37	16.75	17.79	18.25
	8H	20.42	21.44	20.90	21.89	22.36	16.56	17.58	17.03	18.02	18.49
	12H	20.42	21.39	20.89	21.83	22.32	16.85	17.83	17.33	18.26	18.76
4H	2H	18.84	20.01	19.29	20.41	20.86	14.65	15.82	15.10	16.22	16.67
	3H	20.08	21.04	20.54	21.49	21.96	15.97	16.93	16.42	17.38	17.85
	4H	20.46	21.33	20.94	21.80	22.30	16.56	17.42	17.04	17.89	18.40
	6H	20.69	21.44	21.20	21.94	22.46	17.18	17.93	17.68	18.43	18.95
	8H	20.74	21.44	21.24	21.93	22.46	17.50	18.20	18.01	18.70	19.23
	12H	20.75	21.37	21.28	21.90	22.44	17.88	18.50	18.40	19.03	19.56
8H	4H	20.45	21.15	20.96	21.65	22.18	16.80	17.50	17.31	18.00	18.53
	6H	20.73	21.31	21.27	21.85	22.39	17.52	18.10	18.07	18.64	19.18
	8H	20.80	21.32	21.36	21.88	22.43	17.93	18.45	18.49	19.01	19.56
	12H	20.85	21.31	21.40	21.85	22.47	18.42	18.88	18.97	19.42	20.05
12H	4H	20.43	21.05	20.96	21.58	22.12	16.81	17.44	17.34	17.97	18.50
	6H	20.71	21.23	21.27	21.79	22.34	17.56	18.08	18.12	18.64	19.19
	8H	20.81	21.27	21.37	21.81	22.44	18.02	18.48	18.58	19.02	19.65