

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: P894115

Luminaire Tested: 4MB-SC3-ACL-UNV-CC93-MID-4000K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894115
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-4000K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 4000K CC
MID lumen setting
Light Source: -
Ballast/Driver: -

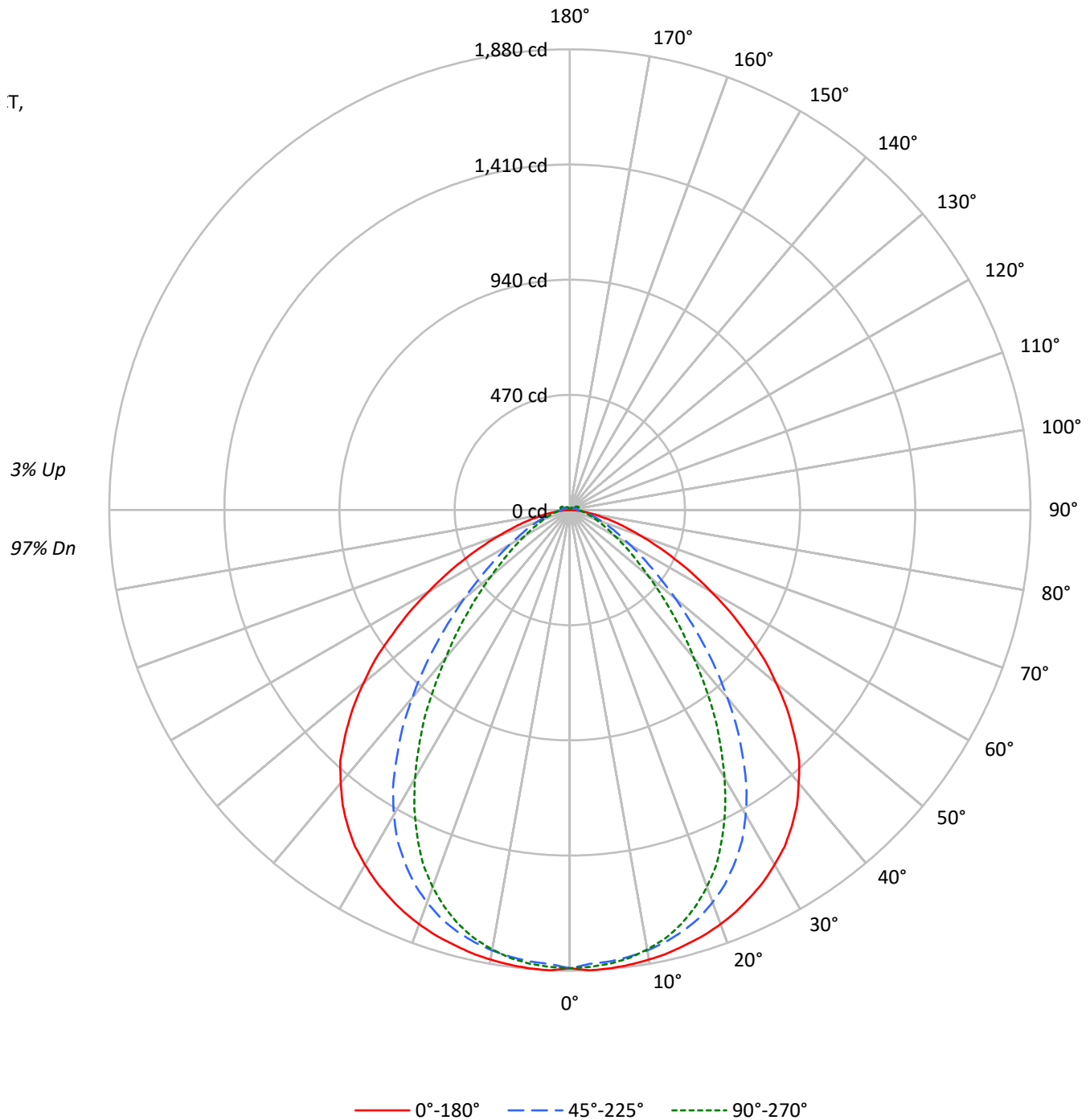
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3835.0 lumens
Efficiency: N/A
Efficacy: 114.5 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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CATALOG NUMBER: 4MB-SC3-ACL-UNV-CC93-MID-4000K

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	100	100	100	97
1	110	106	102	99	107	103	100	97	99	96	93	94	92	90	90	89	87	87	87	87	85
2	101	94	88	84	99	92	87	82	88	84	80	85	81	78	82	79	76	76	76	76	74
3	94	85	77	72	91	83	76	71	80	74	69	77	72	68	74	70	66	66	66	66	64
4	87	76	68	62	84	75	67	62	72	66	61	69	64	60	67	62	59	59	59	59	57
5	80	69	61	55	78	68	60	55	65	59	54	63	58	53	61	56	52	52	52	52	50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	47	56	51	47	47	47	47	45
7	70	57	50	44	68	57	49	44	55	48	43	53	47	43	52	46	42	42	42	42	40
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	42	38	38	38	38	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	35	35	35	33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	32	32	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19039	19039	19039
5°	19160	18522	18493
10°	19194	18120	17844
15°	19252	17649	17032
20°	19345	17001	15920
25°	19402	16100	14440
30°	19422	14863	12582
35°	19338	13134	10524
40°	18995	11095	8282
45°	18265	8956	6422
50°	17004	6950	4818
55°	15221	5319	3685
60°	13077	4089	2807
65°	10904	3226	2232
70°	8723	2588	1823
75°	6945	2086	1552
80°	5090	1721	1359
85°	3498	1464	1251

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18265 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.1	4.6
10°-20°	504.4	13.2
20°-30°	735.4	19.2
30°-40°	790.1	20.6
40°-50°	657.6	17.1
50°-60°	439.8	11.5
60°-70°	251.8	6.6
70°-80°	125.2	3.3
80°-90°	51.2	1.3
90°-100°	29.7	0.8
100°-110°	26.2	0.7
110°-120°	19.3	0.5
120°-130°	12.4	0.3
130°-140°	7.4	0.2
140°-150°	4.2	0.1
150°-160°	2.1	0.1
160°-170°	0.9	0.0
170°-180°	0.2	0.0
0°-30°	1417.0	36.9
0°-40°	2207.1	57.6
0°-60°	3304.5	86.2
0°-90°	3732.7	97.3
90°-120°	75.2	2.0
90°-150°	99.1	2.6
90°-180°	102.0	2.7
0°-180°	3835.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1870	1870	1870	1870	1870	
5°	1878	1872	1849	1865	1859	179
15°	1836	1824	1780	1767	1751	519
25°	1744	1702	1591	1511	1473	804
35°	1578	1464	1231	1080	1032	986
45°	1295	1076	769	622	586	995
55°	883	637	401	317	300	791
65°	473	321	202	164	155	473
75°	190	138	100	88	86	204
85°	37	41	46	48	49	43
90°	6	18	32	38	39	5
95°	8	18	31	38	39	6
105°	6	14	28	36	38	6
115°	3	8	22	30	33	3
125°	2	6	15	22	24	1
135°	1	4	10	15	16	1
145°	1	3	6	10	12	1
155°	1	3	4	6	8	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°	1869.5	1869.5	1869.5	1869.5	1869.5
2.5°	1880.4	1875.5	1854.2	1871.1	1866.2
5°	1877.6	1871.6	1849.3	1864.6	1858.6
7.5°	1871.6	1865.1	1839.5	1851.5	1844.9
10°	1862.9	1854.7	1825.3	1831.3	1820.9
12.5°	1852.0	1841.7	1805.1	1803.5	1792.0
15°	1836.2	1823.7	1780.0	1766.9	1751.1
17.5°	1819.8	1801.3	1747.9	1721.1	1699.3
20°	1798.6	1774.0	1703.7	1663.9	1636.6
22.5°	1774.0	1740.8	1654.1	1593.0	1564.6
25°	1743.5	1702.0	1590.8	1510.6	1473.0
27.5°	1710.8	1655.7	1522.1	1416.8	1373.7
30°	1671.5	1603.3	1436.5	1309.9	1263.6
32.5°	1630.1	1536.8	1342.7	1197.6	1146.9
35°	1578.2	1463.7	1231.4	1079.8	1032.4
37.5°	1522.1	1376.5	1121.2	959.3	905.8
40°	1453.9	1284.3	1000.2	839.8	786.9
42.5°	1386.3	1184.0	884.0	731.9	686.1
45°	1294.7	1076.0	768.9	622.2	585.7
47.5°	1202.5	960.4	658.8	533.4	497.4
50°	1100.0	846.9	562.3	447.7	417.7
52.5°	1000.2	741.1	474.5	378.5	352.8
55°	882.9	637.0	400.8	316.8	300.5
57.5°	777.1	540.4	338.1	268.3	253.0
60°	665.3	458.1	283.0	226.9	212.7
62.5°	567.2	385.0	238.3	192.5	182.7
65°	472.8	320.7	201.8	163.6	154.9
67.5°	386.1	267.8	170.1	139.6	132.5
70°	309.8	217.0	143.4	118.9	114.0
72.5°	243.8	174.5	119.4	102.5	98.2
75°	190.3	138.5	99.8	88.3	85.6
77.5°	137.4	108.0	83.4	75.8	74.2
80°	97.1	81.8	68.7	65.4	64.4
82.5°	64.4	59.4	56.7	56.7	56.2
85°	37.1	41.4	46.4	48.5	49.1
87.5°	19.1	27.8	37.1	41.4	42.0
90°	5.5	17.5	31.6	37.6	38.7
92.5°	8.2	17.5	31.1	37.6	38.7
95°	8.2	17.5	31.1	37.6	38.7
97.5°	7.6	16.9	31.1	37.6	38.7
100°	7.1	15.8	30.5	37.6	38.7
102.5°	6.0	15.3	29.4	37.1	38.7
105°	5.5	14.2	27.8	36.5	38.2
107.5°	4.9	12.0	26.2	34.9	37.1
110°	3.8	10.4	25.1	33.3	36.0



TEST NUMBER: P894115

CATALOG NUMBER: 4MB-SC3-ACL-UNV-CC93-MID-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.3	9.3	23.5	31.6	34.4
115°	2.7	8.2	21.8	30.0	32.7
117.5°	2.2	7.6	19.6	27.8	30.5
120°	1.6	7.1	18.0	26.2	28.4
122.5°	1.6	6.5	15.8	24.0	26.2
125°	1.6	5.5	14.7	21.8	24.0
127.5°	1.1	4.9	13.1	19.6	21.8
130°	1.1	4.9	12.0	18.0	19.6
132.5°	1.1	4.4	10.9	16.4	18.0
135°	1.1	4.4	9.8	14.7	16.4
137.5°	1.1	3.8	8.7	13.6	15.3
140°	1.1	3.8	8.2	12.0	13.6
142.5°	1.1	3.3	7.1	11.5	12.5
145°	1.1	3.3	6.5	9.8	11.5
147.5°	1.1	3.3	6.0	9.3	10.4
150°	1.1	2.7	5.5	7.6	9.3
152.5°	1.1	2.7	4.9	7.1	8.7
155°	1.1	2.7	4.4	6.0	7.6
157.5°	1.1	2.7	4.4	5.5	6.5
160°	1.6	2.2	3.8	4.9	6.0
162.5°	1.6	2.2	3.3	4.4	5.5
165°	1.6	2.2	3.3	3.8	4.9
167.5°	1.6	2.2	2.7	3.3	3.8
170°	1.6	1.6	2.7	2.7	2.7
172.5°	1.6	1.6	2.2	2.7	2.2
175°	1.6	1.6	2.2	2.2	2.2
177.5°	1.6	1.6	2.2	2.2	2.2
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	18.97	20.36	19.38	20.73	21.12	14.27	15.66	14.68	16.03	16.41
	3H	20.06	21.31	20.49	21.69	22.12	15.41	16.65	15.83	17.04	17.47
	4H	20.37	21.54	20.82	21.94	22.39	15.91	17.07	16.35	17.48	17.92
	6H	20.52	21.59	20.98	22.01	22.47	16.41	17.48	16.87	17.90	18.36
	8H	20.54	21.56	21.01	22.00	22.47	16.67	17.69	17.14	18.13	18.60
	12H	20.53	21.50	21.01	21.94	22.44	16.96	17.94	17.44	18.37	18.87
4H	2H	18.95	20.12	19.40	20.52	20.97	14.76	15.93	15.21	16.33	16.78
	3H	20.19	21.15	20.65	21.61	22.07	16.08	17.04	16.54	17.49	17.96
	4H	20.57	21.44	21.05	21.91	22.41	16.67	17.54	17.15	18.00	18.51
	6H	20.81	21.56	21.31	22.05	22.58	17.29	18.04	17.80	18.54	19.06
	8H	20.85	21.55	21.36	22.04	22.57	17.61	18.31	18.12	18.81	19.34
	12H	20.86	21.48	21.39	22.01	22.55	17.99	18.61	18.52	19.14	19.68
8H	4H	20.56	21.26	21.07	21.76	22.29	16.91	17.61	17.42	18.11	18.64
	6H	20.84	21.42	21.38	21.96	22.50	17.63	18.21	18.18	18.76	19.30
	8H	20.91	21.43	21.47	21.99	22.54	18.04	18.56	18.60	19.12	19.67
	12H	20.96	21.42	21.51	21.96	22.59	18.53	18.99	19.09	19.53	20.16
12H	4H	20.54	21.16	21.07	21.69	22.23	16.93	17.55	17.45	18.08	18.61
	6H	20.82	21.34	21.38	21.90	22.45	17.67	18.19	18.23	18.75	19.30
	8H	20.92	21.39	21.48	21.93	22.55	18.13	18.59	18.69	19.13	19.76