

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: P894116

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894116
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-5000K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 5000K CC
MID lumen setting
Light Source: -
Ballast/Driver: -

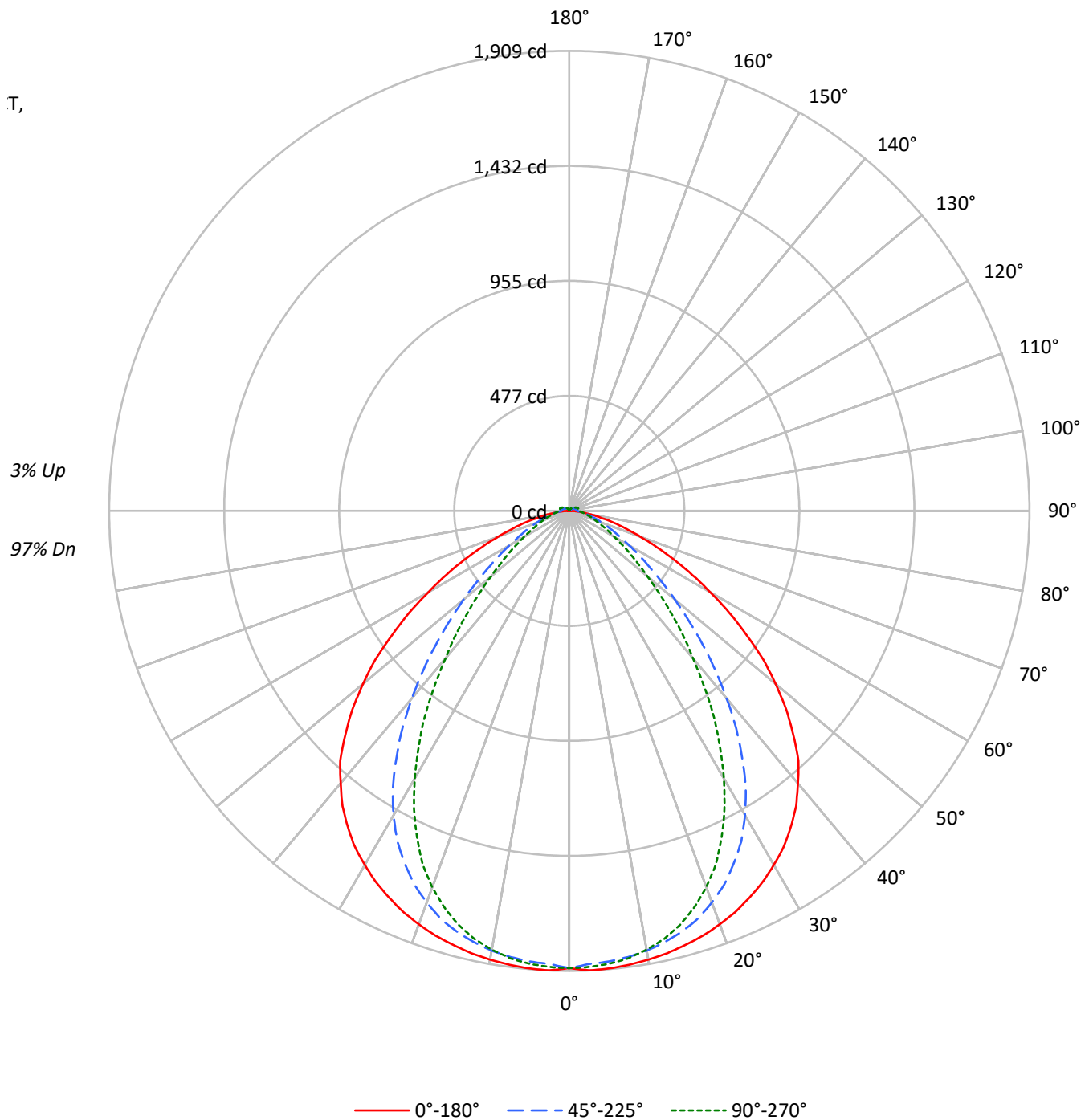
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3893.0 lumens
Efficiency: N/A
Efficacy: 116.2 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°	19327	19327	19327
5°	19450	18803	18773
10°	19485	18394	18114
15°	19543	17915	17289
20°	19638	17257	16161
25°	19696	16343	14659
30°	19716	15087	12772
35°	19631	13332	10683
40°	19283	11262	8407
45°	18540	9092	6519
50°	17261	7055	4891
55°	15452	5400	3740
60°	13275	4151	2850
65°	11070	3274	2265
70°	8853	2628	1851
75°	7051	2117	1575
80°	5164	1748	1378
85°	3545	1486	1269

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18540 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.8	4.6
10°-20°	512.1	13.2
20°-30°	746.6	19.2
30°-40°	802.1	20.6
40°-50°	667.6	17.1
50°-60°	446.5	11.5
60°-70°	255.6	6.6
70°-80°	127.1	3.3
80°-90°	52.0	1.3
90°-100°	30.2	0.8
100°-110°	26.6	0.7
110°-120°	19.5	0.5
120°-130°	12.6	0.3
130°-140°	7.5	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°	1438.4	36.9
0°-40°	2240.5	57.6
0°-60°	3354.5	86.2
0°-90°	3789.2	97.3
90°-120°	76.3	2.0
90°-150°	100.6	2.6
90°-180°	104.0	2.7
0°-180°	3893.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1898	1898	1898	1898	1898	
5°	1906	1900	1877	1893	1887	181
15°	1864	1851	1807	1794	1778	527
25°	1770	1728	1615	1534	1495	816
35°	1602	1486	1250	1096	1048	1001
45°	1314	1092	781	632	595	1010
55°	896	647	407	322	305	803
65°	480	326	205	166	157	480
75°	193	141	101	90	87	207
85°	38	42	47	49	50	44
90°	6	18	32	38	39	5
95°	8	18	32	38	39	6
105°	6	14	28	37	39	6
115°	3	8	22	30	33	3
125°	2	6	15	22	24	1
135°	1	4	10	15	17	1
145°	1	3	7	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°	1897.7	1897.7	1897.7	1897.7	1897.7
2.5°	1908.8	1903.8	1882.2	1899.4	1894.4
5°	1906.0	1900.0	1877.3	1892.8	1886.7
7.5°	1900.0	1893.3	1867.3	1879.5	1872.8
10°	1891.1	1882.8	1852.9	1859.0	1848.5
12.5°	1880.0	1869.5	1832.4	1830.8	1819.1
15°	1864.0	1851.2	1806.9	1793.7	1777.6
17.5°	1847.4	1828.5	1774.3	1747.2	1725.0
20°	1825.8	1800.9	1729.4	1689.0	1661.4
22.5°	1800.9	1767.1	1679.1	1617.1	1588.3
25°	1769.9	1727.8	1614.8	1533.5	1495.3
27.5°	1736.6	1680.7	1545.1	1438.3	1394.5
30°	1696.8	1627.6	1458.2	1329.7	1282.7
32.5°	1654.7	1560.0	1363.0	1215.7	1164.2
35°	1602.1	1485.9	1250.0	1096.1	1048.0
37.5°	1545.1	1397.3	1138.2	973.8	919.5
40°	1475.9	1303.7	1015.3	852.5	798.8
42.5°	1407.2	1201.9	897.4	742.9	696.4
45°	1314.2	1092.3	780.6	631.7	594.6
47.5°	1220.7	974.9	668.7	541.4	504.9
50°	1116.6	859.7	570.8	454.5	424.1
52.5°	1015.3	752.3	481.6	384.2	358.2
55°	896.3	646.6	406.9	321.6	305.0
57.5°	788.9	548.6	343.2	272.4	256.9
60°	675.4	465.0	287.3	230.3	215.9
62.5°	575.7	390.8	241.9	195.4	185.5
65°	480.0	325.5	204.8	166.1	157.2
67.5°	391.9	271.8	172.7	141.7	134.5
70°	314.4	220.3	145.6	120.7	115.7
72.5°	247.5	177.2	121.2	104.1	99.6
75°	193.2	140.6	101.3	89.7	86.9
77.5°	139.5	109.6	84.7	77.0	75.3
80°	98.5	83.0	69.8	66.4	65.3
82.5°	65.3	60.3	57.6	57.6	57.0
85°	37.6	42.1	47.1	49.3	49.8
87.5°	19.4	28.2	37.6	42.1	42.6
90°	5.5	17.7	32.1	38.2	39.3
92.5°	8.3	17.7	31.6	38.2	39.3
95°	8.3	17.7	31.6	38.2	39.3
97.5°	7.8	17.2	31.6	38.2	39.3
100°	7.2	16.1	31.0	38.2	39.3
102.5°	6.1	15.5	29.9	37.6	39.3
105°	5.5	14.4	28.2	37.1	38.8
107.5°	5.0	12.2	26.6	35.4	37.6
110°	3.9	10.5	25.5	33.8	36.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.3	9.4	23.8	32.1	34.9
115°	2.8	8.3	22.1	30.4	33.2
117.5°	2.2	7.8	19.9	28.2	31.0
120°	1.7	7.2	18.3	26.6	28.8
122.5°	1.7	6.6	16.1	24.4	26.6
125°	1.7	5.5	14.9	22.1	24.4
127.5°	1.1	5.0	13.3	19.9	22.1
130°	1.1	5.0	12.2	18.3	19.9
132.5°	1.1	4.4	11.1	16.6	18.3
135°	1.1	4.4	10.0	14.9	16.6
137.5°	1.1	3.9	8.9	13.8	15.5
140°	1.1	3.9	8.3	12.2	13.8
142.5°	1.1	3.3	7.2	11.6	12.7
145°	1.1	3.3	6.6	10.0	11.6
147.5°	1.1	3.3	6.1	9.4	10.5
150°	1.1	2.8	5.5	7.8	9.4
152.5°	1.1	2.8	5.0	7.2	8.9
155°	1.1	2.8	4.4	6.1	7.8
157.5°	1.1	2.8	4.4	5.5	6.6
160°	1.7	2.2	3.9	5.0	6.1
162.5°	1.7	2.2	3.3	4.4	5.5
165°	1.7	2.2	3.3	3.9	5.0
167.5°	1.7	2.2	2.8	3.3	3.9
170°	1.7	1.7	2.8	2.8	2.8
172.5°	1.7	1.7	2.2	2.8	2.2
175°	1.7	1.7	2.2	2.2	2.2
177.5°	1.7	1.7	2.2	2.2	2.2
180°	1.7	1.7	1.7	1.7	1.7



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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	19.02	20.42	19.43	20.79	21.17	14.32	15.71	14.73	16.08	16.47
	3H	20.12	21.36	20.54	21.75	22.18	15.46	16.70	15.88	17.09	17.52
	4H	20.42	21.59	20.87	21.99	22.44	15.96	17.12	16.41	17.53	17.97
	6H	20.57	21.64	21.03	22.06	22.52	16.46	17.53	16.92	17.96	18.41
	8H	20.59	21.61	21.06	22.05	22.52	16.72	17.74	17.19	18.18	18.65
	12H	20.58	21.56	21.06	21.99	22.49	17.01	17.99	17.49	18.43	18.92
4H	2H	19.01	20.17	19.45	20.57	21.02	14.82	15.98	15.26	16.39	16.83
	3H	20.24	21.20	20.70	21.66	22.12	16.13	17.09	16.59	17.55	18.01
	4H	20.63	21.49	21.11	21.96	22.46	16.72	17.59	17.20	18.06	18.56
	6H	20.86	21.61	21.36	22.10	22.63	17.34	18.09	17.85	18.59	19.11
	8H	20.90	21.60	21.41	22.10	22.63	17.67	18.37	18.18	18.86	19.39
	12H	20.91	21.54	21.44	22.06	22.60	18.04	18.67	18.57	19.19	19.73
8H	4H	20.61	21.31	21.12	21.81	22.34	16.96	17.66	17.47	18.16	18.69
	6H	20.89	21.47	21.43	22.01	22.55	17.69	18.27	18.23	18.81	19.35
	8H	20.96	21.48	21.52	22.04	22.59	18.09	18.61	18.65	19.17	19.72
	12H	21.01	21.47	21.56	22.01	22.64	18.58	19.05	19.14	19.59	20.21
12H	4H	20.59	21.22	21.12	21.74	22.28	16.98	17.60	17.51	18.13	18.67
	6H	20.87	21.39	21.43	21.95	22.50	17.72	18.25	18.28	18.80	19.35
	8H	20.98	21.44	21.53	21.98	22.60	18.18	18.65	18.74	19.19	19.81