

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: P894134

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

Issue Date: 11/11/2024

**Test Information**

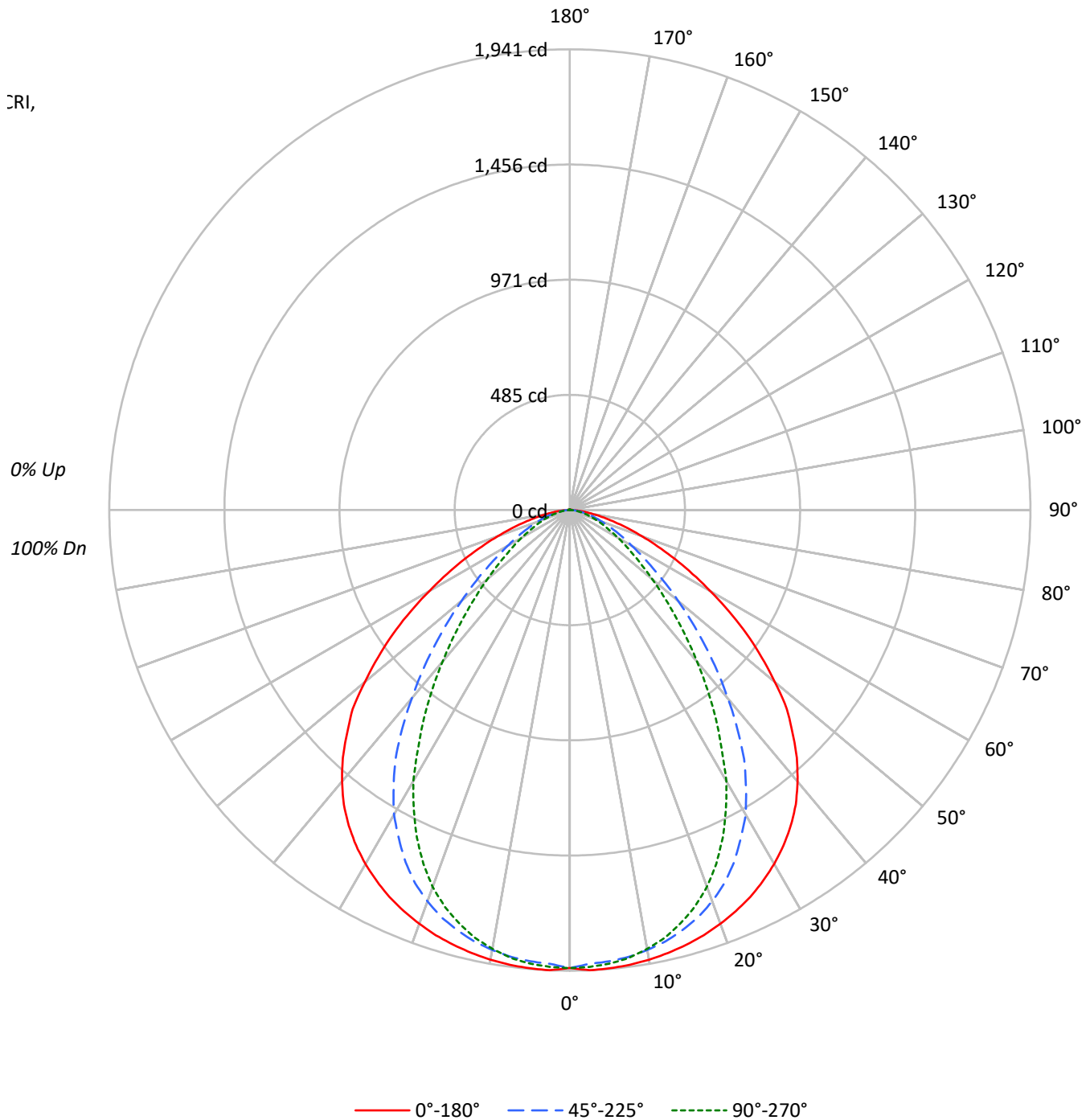
Test Method: LM-79-2019  
Report Number: P894134  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-AOL-UNV-CC93-MID-5000K  
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 900  
5000K CCT, MID lumen setting  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3855.1 lumens  
Efficiency: N/A  
Efficacy: 115.1 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16  
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	104	101	98	100	98	95	96	94	92	93	91	89	89	89	89	87
2	102	95	89	85	100	93	88	84	90	85	82	87	83	80	84	81	78	78	78	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	70	76	72	68	68	68	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	60	60	60	58
5	81	70	62	56	79	69	61	55	66	60	55	65	59	54	63	58	54	54	54	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	48	48	48	46
7	70	58	50	45	69	57	50	44	56	49	44	54	48	44	53	48	43	43	43	43	42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	39	39	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	36	36	36	34
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	33	33	33	31

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	19653	19653	19653
5°	19813	19514	19615
10°	19894	19464	19413
15°	19997	19325	19005
20°	20105	19013	18312
25°	20218	18395	17125
30°	20253	17428	15508
35°	20187	15920	13339
40°	19849	13777	11084
45°	19112	11577	8970
50°	17885	9429	7184
55°	16159	7578	5760
60°	13936	6168	4770
65°	11794	5135	3923
70°	9627	4368	3329
75°	7712	3683	2833
80°	6006	3149	2434
85°	4662	2781	2197

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 19112 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	182.7	4.7
10°-20°	520.0	13.5
20°-30°	758.0	19.7
30°-40°	817.0	21.2
40°-50°	684.9	17.8
50°-60°	463.7	12.0
60°-70°	264.4	6.9
70°-80°	120.9	3.1
80°-90°	31.7	0.8
90°-100°	3.9	0.1
100°-110°	2.7	0.1
110°-120°	1.5	0.0
120°-130°	0.9	0.0
130°-140°	0.8	0.0
140°-150°	0.7	0.0
150°-160°	0.6	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	1460.8	37.9
0°-40°	2277.8	59.1
0°-60°	3426.4	88.9
0°-90°	3843.5	99.7
90°-120°	8.0	0.2
90°-150°	10.4	0.3
90°-180°	12.0	0.3
0°-180°	3855.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1930	1930	1930	1930	1930	
5°	1938	1932	1909	1924	1919	185
15°	1897	1880	1833	1821	1802	536
25°	1799	1752	1637	1562	1524	829
35°	1624	1501	1280	1124	1073	1014
45°	1327	1107	804	663	623	1021
55°	910	666	427	346	324	811
65°	489	340	213	173	163	488
75°	196	144	94	76	72	214
85°	40	34	24	20	19	47
90°	6	6	3	3	2	6
95°	8	5	3	2	2	7
105°	6	4	2	1	1	6
115°	3	2	1	1	1	3
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	1	1	1	1	1	1
155°	1	1	1	2	2	1
165°	1	2	2	2	2	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°	1929.8	1929.8	1929.8	1929.8	1929.8
2.5°	1940.9	1935.9	1913.8	1932.0	1926.5
5°	1938.1	1932.0	1908.8	1924.3	1918.7
7.5°	1932.6	1924.8	1898.8	1910.4	1903.2
10°	1923.7	1914.3	1882.2	1888.8	1877.2
12.5°	1911.5	1899.9	1861.7	1860.1	1846.2
15°	1896.6	1880.0	1832.9	1820.8	1802.5
17.5°	1878.3	1857.3	1798.6	1774.3	1752.1
20°	1855.1	1828.0	1754.3	1715.6	1689.6
22.5°	1828.5	1792.0	1702.8	1640.8	1612.6
25°	1799.2	1751.6	1637.0	1561.7	1524.0
27.5°	1762.6	1702.8	1560.6	1463.1	1424.4
30°	1722.2	1646.4	1482.0	1357.4	1318.7
32.5°	1676.3	1581.6	1381.8	1243.4	1189.1
35°	1623.7	1501.3	1280.5	1123.8	1072.9
37.5°	1564.4	1417.7	1159.2	1003.1	951.6
40°	1493.0	1318.7	1036.3	881.9	833.7
42.5°	1416.1	1217.9	918.4	766.7	725.2
45°	1327.0	1107.2	803.8	662.6	622.8
47.5°	1241.1	995.4	696.4	567.4	534.8
50°	1128.8	876.3	595.1	480.5	453.4
52.5°	1019.2	766.2	508.7	410.8	385.3
55°	910.1	666.0	426.8	346.0	324.4
57.5°	795.0	568.0	359.3	292.8	278.5
60°	684.2	483.3	302.8	245.8	234.2
62.5°	582.9	405.2	256.3	207.6	196.5
65°	489.4	340.5	213.1	172.7	162.8
67.5°	400.8	280.1	177.7	143.9	136.7
70°	323.3	227.0	146.7	118.5	111.8
72.5°	256.3	181.6	117.4	96.9	89.7
75°	196.0	143.9	93.6	76.4	72.0
77.5°	146.1	108.5	72.0	58.7	55.4
80°	102.4	78.6	53.7	44.3	41.5
82.5°	69.8	54.3	37.6	31.0	29.3
85°	39.9	33.8	23.8	19.9	18.8
87.5°	20.5	17.7	12.7	9.4	8.3
90°	5.5	5.5	3.3	2.8	2.2
92.5°	8.9	5.0	3.3	2.2	1.7
95°	8.3	5.0	2.8	1.7	1.7
97.5°	7.8	5.0	2.2	1.7	1.1
100°	7.2	4.4	2.2	1.1	1.1
102.5°	6.6	4.4	2.2	1.1	1.1
105°	5.5	3.9	1.7	1.1	0.6
107.5°	5.0	3.3	1.7	1.1	0.6
110°	3.9	2.8	1.7	1.1	0.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	3.3	2.8	1.1	1.1	0.6
115°	2.8	2.2	1.1	0.6	0.6
117.5°	2.2	1.7	1.1	0.6	0.6
120°	1.7	1.7	1.1	0.6	0.6
122.5°	1.7	1.1	1.1	0.6	0.6
125°	1.1	1.1	1.1	0.6	0.6
127.5°	1.1	1.1	1.1	0.6	0.6
130°	1.1	1.1	1.1	0.6	0.6
132.5°	1.1	1.1	1.1	1.1	0.6
135°	0.6	1.1	1.1	1.1	0.6
137.5°	1.1	1.1	1.1	1.1	1.1
140°	1.1	1.1	1.1	1.1	1.1
142.5°	1.1	1.1	1.1	1.1	1.1
145°	1.1	1.1	1.1	1.1	1.1
147.5°	1.1	1.1	1.1	1.1	1.1
150°	1.1	1.1	1.1	1.1	1.1
152.5°	1.1	1.1	1.1	1.1	1.1
155°	1.1	1.1	1.1	1.7	1.7
157.5°	1.1	1.1	1.7	1.7	1.7
160°	1.1	1.1	1.7	1.7	1.7
162.5°	1.1	1.1	1.7	1.7	1.7
165°	1.1	1.7	1.7	1.7	1.7
167.5°	1.1	1.7	1.7	1.7	2.2
170°	1.1	1.7	1.7	2.2	2.2
172.5°	1.1	1.7	1.7	2.2	2.2
175°	1.7	1.7	1.7	2.2	2.2
177.5°	1.7	1.7	1.7	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	20.72	22.16	21.09	22.48	22.80	15.56	17.00	15.93	17.32	17.64
	3H	22.02	23.31	22.41	23.64	24.01	16.57	17.85	16.95	18.19	18.56
	4H	22.45	23.65	22.86	24.00	24.39	16.91	18.11	17.31	18.46	18.85
	6H	22.71	23.82	23.13	24.19	24.59	17.13	18.24	17.55	18.61	19.01
	8H	22.79	23.84	23.22	24.23	24.64	17.20	18.25	17.63	18.64	19.05
	12H	22.83	23.83	23.26	24.22	24.66	17.24	18.25	17.68	18.63	19.07
4H	2H	20.71	21.91	21.12	22.27	22.66	16.18	17.38	16.59	17.74	18.12
	3H	22.18	23.17	22.60	23.58	23.99	17.38	18.37	17.80	18.77	19.18
	4H	22.70	23.59	23.14	24.01	24.46	17.79	18.68	18.23	19.10	19.55
	6H	23.08	23.85	23.55	24.30	24.77	18.11	18.87	18.57	19.32	19.79
	8H	23.19	23.91	23.66	24.36	24.84	18.20	18.92	18.67	19.37	19.84
	12H	23.27	23.91	23.76	24.39	24.87	18.27	18.91	18.76	19.39	19.87
8H	4H	22.69	23.40	23.16	23.85	24.33	18.13	18.85	18.60	19.30	19.77
	6H	23.12	23.71	23.62	24.21	24.69	18.52	19.11	19.03	19.61	20.10
	8H	23.27	23.80	23.80	24.32	24.82	18.66	19.19	19.19	19.71	20.21
	12H	23.40	23.87	23.92	24.37	24.95	18.79	19.25	19.30	19.75	20.33
12H	4H	22.66	23.30	23.15	23.78	24.26	18.18	18.81	18.66	19.30	19.78
	6H	23.09	23.62	23.61	24.13	24.63	18.59	19.12	19.11	19.64	20.13
	8H	23.28	23.74	23.79	24.24	24.82	18.78	19.25	19.30	19.75	20.32