

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: P893590

Luminaire Tested: 4MB-5SL-AOL-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893590
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-5SL-AOL-UNV-L935
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 9
3500K CCT
Light Source: -
Ballast/Driver: -

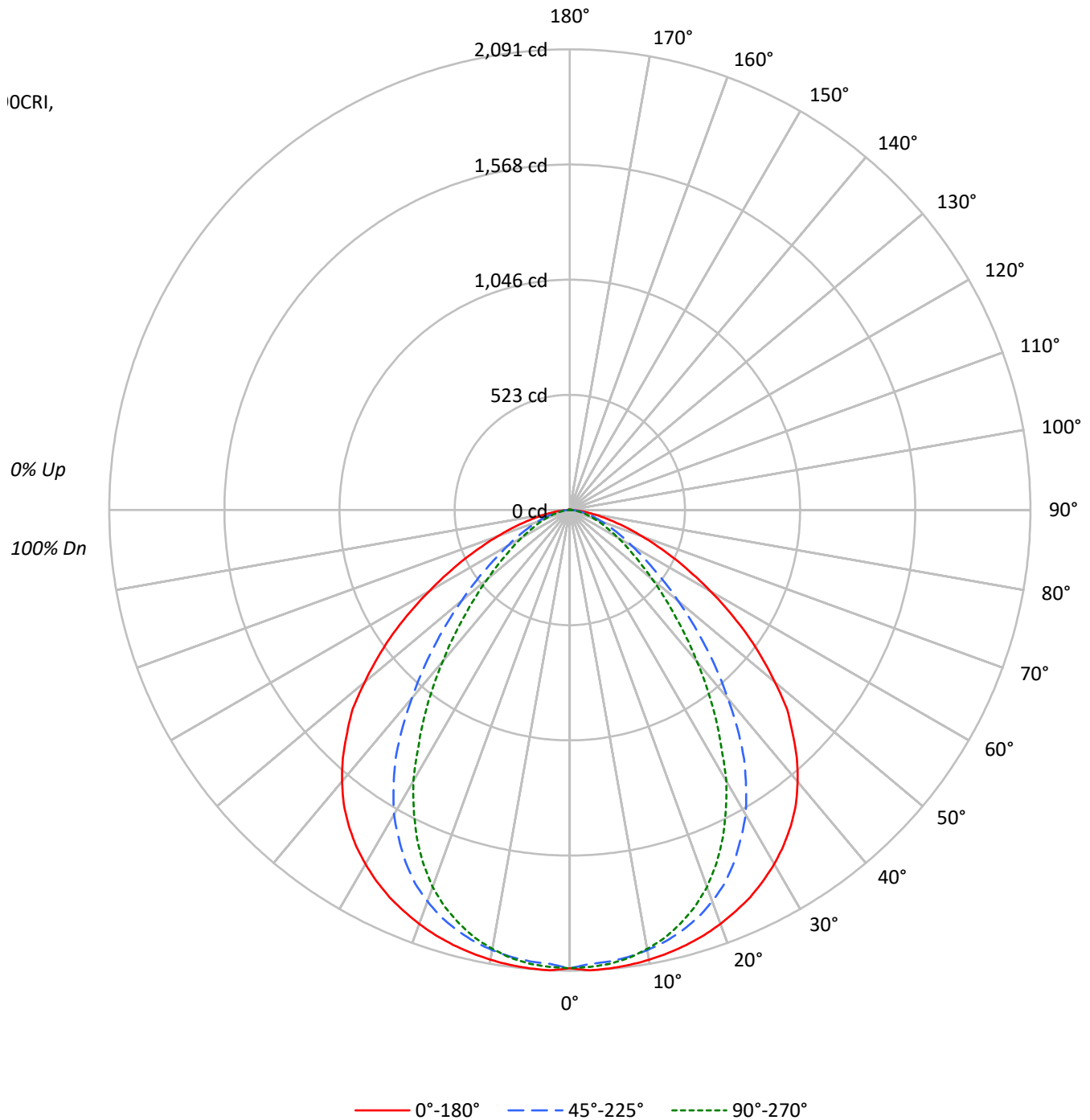
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4154.1 lumens
Efficiency: N/A
Efficacy: 118.7 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): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 9.55
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P893590
CATALOG NUMBER: 4MB-5SL-AOL-UNV-L935

Luminous Intensity Polar Plot





TEST NUMBER: P893590

CATALOG NUMBER: 4MB-5SL-AOL-UNV-L935

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	87			87
2	102	95	89	85	100	93	88	84	90	85	82	87	83	80	84	81	78	76			76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	70	76	72	68	66			66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58			58
5	81	70	62	56	79	69	61	55	66	60	55	65	59	54	63	58	54	52			52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46			46
7	70	58	50	45	69	57	50	44	56	49	44	54	48	44	53	48	43	42			42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38			38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34			34
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31			31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21178	21178	21178
5°	21350	21027	21137
10°	21437	20974	20918
15°	21548	20824	20479
20°	21665	20488	19731
25°	21785	19821	18453
30°	21824	18779	16709
35°	21752	17155	14373
40°	21388	14846	11944
45°	20594	12476	9666
50°	19271	10161	7741
55°	17413	8166	6207
60°	15018	6646	5139
65°	12707	5535	4227
70°	10374	4708	3588
75°	8310	3966	3050
80°	6475	3396	2622
85°	5013	3003	2372

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 20594 cd/sqm



TEST NUMBER: P893590
 CATALOG NUMBER: 4MB-5SL-AOL-UNV-L935

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.9	4.7
10°-20°	560.4	13.5
20°-30°	816.8	19.7
30°-40°	880.4	21.2
40°-50°	738.1	17.8
50°-60°	499.7	12.0
60°-70°	284.9	6.9
70°-80°	130.3	3.1
80°-90°	34.1	0.8
90°-100°	4.2	0.1
100°-110°	2.9	0.1
110°-120°	1.6	0.0
120°-130°	0.9	0.0
130°-140°	0.9	0.0
140°-150°	0.8	0.0
150°-160°	0.6	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	1574.1	37.9
0°-40°	2454.5	59.1
0°-60°	3692.2	88.9
0°-90°	4141.6	99.7
90°-120°	8.7	0.2
90°-150°	11.2	0.3
90°-180°	13.0	0.3
0°-180°	4154.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2080	2080	2080	2080	2080	
5°	2088	2082	2057	2074	2068	199
15°	2044	2026	1975	1962	1942	577
25°	1939	1887	1764	1683	1642	893
35°	1750	1618	1380	1211	1156	1092
45°	1430	1193	866	714	671	1101
55°	981	718	460	373	350	873
65°	527	367	230	186	175	526
75°	211	155	101	82	78	230
85°	43	36	26	22	20	50
90°	6	6	4	3	2	6
95°	9	5	3	2	2	7
105°	6	4	2	1	1	7
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	



TEST NUMBER: P893590

CATALOG NUMBER: 4MB-5SL-AOL-UNV-L935

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2079.5	2079.5	2079.5	2079.5	2079.5
2.5°	2091.4	2086.1	2062.2	2081.9	2075.9
5°	2088.4	2081.9	2056.8	2073.5	2067.6
7.5°	2082.5	2074.1	2046.1	2058.6	2050.9
10°	2072.9	2062.8	2028.2	2035.4	2022.8
12.5°	2059.8	2047.3	2006.1	2004.3	1989.4
15°	2043.7	2025.8	1975.1	1962.0	1942.3
17.5°	2024.0	2001.3	1938.1	1911.9	1888.0
20°	1999.0	1969.7	1890.4	1848.6	1820.6
22.5°	1970.3	1931.0	1834.9	1768.1	1737.7
25°	1938.7	1887.4	1763.9	1682.8	1642.2
27.5°	1899.3	1834.9	1681.6	1576.6	1534.9
30°	1855.8	1774.1	1596.9	1462.7	1420.9
32.5°	1806.3	1704.3	1488.9	1339.8	1281.3
35°	1749.6	1617.8	1379.8	1211.0	1156.1
37.5°	1685.8	1527.7	1249.1	1080.9	1025.4
40°	1608.8	1420.9	1116.7	950.3	898.4
42.5°	1525.9	1312.4	989.6	826.2	781.5
45°	1429.9	1193.1	866.2	714.0	671.1
47.5°	1337.4	1072.6	750.4	611.4	576.2
50°	1216.3	944.3	641.3	517.8	488.6
52.5°	1098.2	825.6	548.2	442.6	415.2
55°	980.7	717.6	459.9	372.8	349.6
57.5°	856.6	612.0	387.1	315.6	300.1
60°	737.3	520.8	326.3	264.9	252.3
62.5°	628.1	436.7	276.2	223.7	211.8
65°	527.3	366.9	229.7	186.1	175.4
67.5°	431.9	301.8	191.5	155.1	147.3
70°	348.4	244.6	158.1	127.7	120.5
72.5°	276.2	195.7	126.5	104.4	96.6
75°	211.2	155.1	100.8	82.3	77.5
77.5°	157.5	116.9	77.5	63.2	59.7
80°	110.4	84.7	57.9	47.7	44.7
82.5°	75.2	58.5	40.6	33.4	31.6
85°	42.9	36.4	25.7	21.5	20.3
87.5°	22.1	19.1	13.7	10.1	8.9
90°	6.0	6.0	3.6	3.0	2.4
92.5°	9.5	5.4	3.6	2.4	1.8
95°	8.9	5.4	3.0	1.8	1.8
97.5°	8.4	5.4	2.4	1.8	1.2
100°	7.8	4.8	2.4	1.2	1.2
102.5°	7.2	4.8	2.4	1.2	1.2
105°	6.0	4.2	1.8	1.2	0.6
107.5°	5.4	3.6	1.8	1.2	0.6
110°	4.2	3.0	1.8	1.2	0.6



TEST NUMBER: P893590

CATALOG NUMBER: 4MB-5SL-AOL-UNV-L935

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.6	3.0	1.2	1.2	0.6
115°	3.0	2.4	1.2	0.6	0.6
117.5°	2.4	1.8	1.2	0.6	0.6
120°	1.8	1.8	1.2	0.6	0.6
122.5°	1.8	1.2	1.2	0.6	0.6
125°	1.2	1.2	1.2	0.6	0.6
127.5°	1.2	1.2	1.2	0.6	0.6
130°	1.2	1.2	1.2	0.6	0.6
132.5°	1.2	1.2	1.2	1.2	0.6
135°	0.6	1.2	1.2	1.2	0.6
137.5°	1.2	1.2	1.2	1.2	1.2
140°	1.2	1.2	1.2	1.2	1.2
142.5°	1.2	1.2	1.2	1.2	1.2
145°	1.2	1.2	1.2	1.2	1.2
147.5°	1.2	1.2	1.2	1.2	1.2
150°	1.2	1.2	1.2	1.2	1.2
152.5°	1.2	1.2	1.2	1.2	1.2
155°	1.2	1.2	1.2	1.8	1.8
157.5°	1.2	1.2	1.8	1.8	1.8
160°	1.2	1.2	1.8	1.8	1.8
162.5°	1.2	1.2	1.8	1.8	1.8
165°	1.2	1.8	1.8	1.8	1.8
167.5°	1.2	1.8	1.8	1.8	2.4
170°	1.2	1.8	1.8	2.4	2.4
172.5°	1.2	1.8	1.8	2.4	2.4
175°	1.8	1.8	1.8	2.4	2.4
177.5°	1.8	1.8	1.8	2.4	2.4
180°	1.8	1.8	1.8	1.8	1.8



TEST NUMBER: P893590
 CATALOG NUMBER: 4MB-5SL-AOL-UNV-L935

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	20.98	22.41	21.35	22.73	23.06	15.82	17.26	16.19	17.58	17.90
	3H	22.28	23.57	22.67	23.90	24.27	16.83	18.11	17.22	18.45	18.82
	4H	22.71	23.91	23.11	24.26	24.65	17.17	18.37	17.57	18.72	19.11
	6H	22.97	24.08	23.39	24.45	24.85	17.39	18.50	17.81	18.87	19.27
	8H	23.05	24.10	23.48	24.49	24.90	17.46	18.51	17.89	18.90	19.32
	12H	23.09	24.09	23.52	24.48	24.91	17.50	18.51	17.94	18.89	19.33
4H	2H	20.97	22.17	21.38	22.53	22.92	16.44	17.64	16.85	18.00	18.39
	3H	22.44	23.43	22.86	23.83	24.24	17.64	18.63	18.06	19.04	19.44
	4H	22.96	23.85	23.40	24.27	24.72	18.05	18.94	18.49	19.36	19.81
	6H	23.34	24.11	23.81	24.56	25.03	18.37	19.13	18.83	19.58	20.05
	8H	23.45	24.17	23.92	24.62	25.10	18.46	19.18	18.93	19.63	20.10
	12H	23.53	24.17	24.02	24.65	25.13	18.53	19.17	19.02	19.65	20.13
8H	4H	22.95	23.66	23.42	24.11	24.59	18.39	19.11	18.86	19.56	20.03
	6H	23.38	23.97	23.88	24.47	24.95	18.78	19.37	19.29	19.87	20.36
	8H	23.53	24.06	24.06	24.58	25.08	18.92	19.45	19.45	19.97	20.47
	12H	23.66	24.13	24.18	24.63	25.21	19.05	19.51	19.56	20.01	20.59
12H	4H	22.92	23.56	23.41	24.04	24.52	18.44	19.07	18.92	19.56	20.04
	6H	23.34	23.88	23.87	24.39	24.89	18.85	19.38	19.37	19.90	20.39
	8H	23.54	24.00	24.05	24.50	25.08	19.04	19.51	19.56	20.01	20.58