

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: P893458

Luminaire Tested: 4MB-4SL-A-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893458
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-16)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-4SL-A-UNV-L835
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

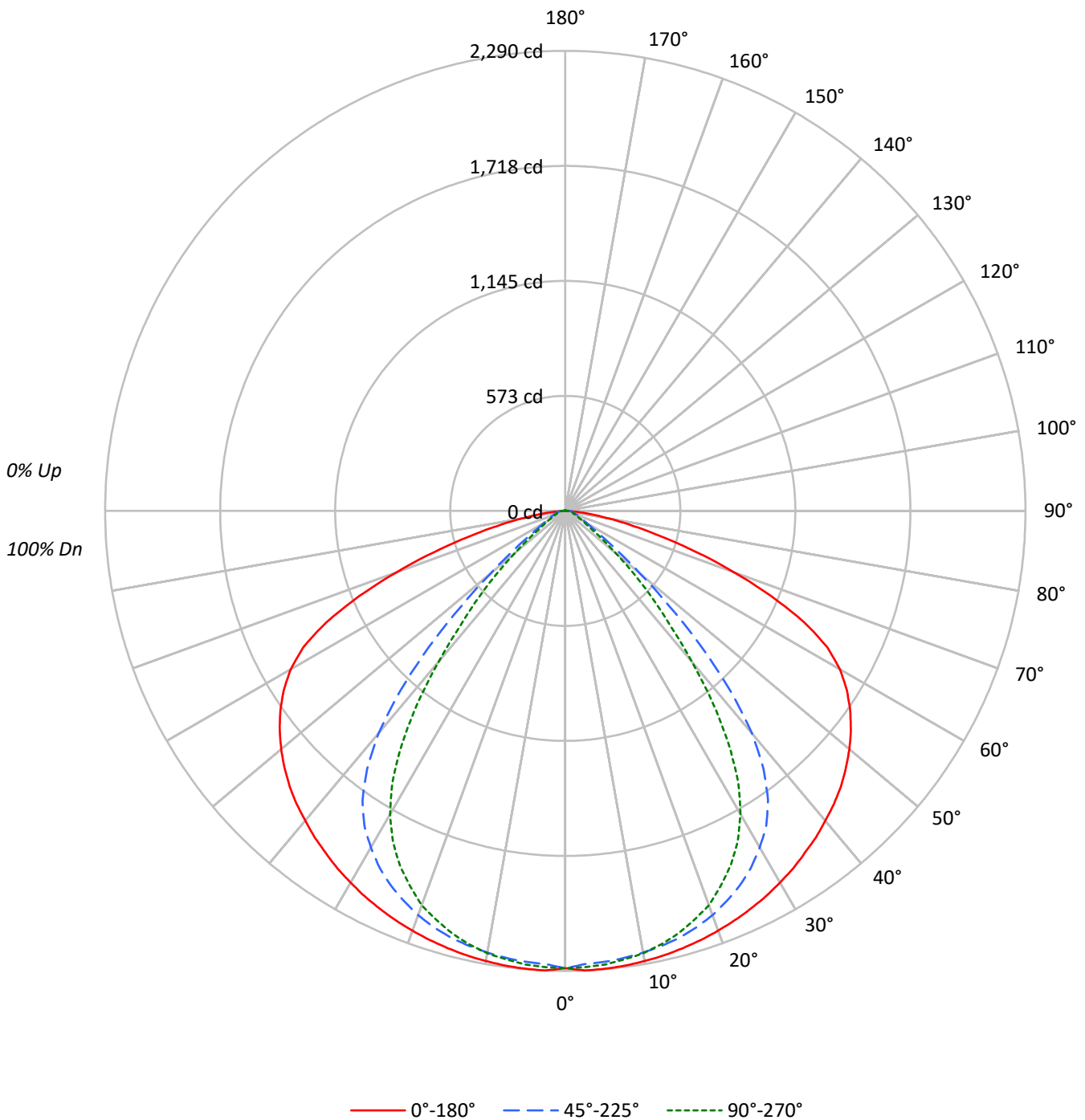
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4666.0 lumens
Efficiency: N/A
Efficacy: 156.6 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.15 / 1.23
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 29.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.5
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P893458
CATALOG NUMBER: 4MB-4SL-A-UNV-L835

Luminous Intensity Polar Plot





TEST NUMBER: P893458

CATALOG NUMBER: 4MB-4SL-A-UNV-L835

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	105	102	99	100	98	96	97	95	93	93	91	90	90	90	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	79	79	79	77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	69	69	69	67
4	88	78	70	65	86	77	70	64	74	68	63	72	67	62	70	65	62	62	62	62	60
5	82	71	63	57	80	70	62	57	68	61	56	66	60	55	64	59	55	55	55	55	53
6	76	64	56	51	74	63	56	51	62	55	50	60	54	50	59	53	49	49	49	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	45	45	45	45	43
8	66	54	47	41	65	54	46	41	52	46	41	51	45	41	50	44	40	40	40	40	39
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37	37	37	37	35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	34	34	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23181	23181	23181
5°	23385	23038	23173
10°	23532	23089	23122
15°	23766	23188	22950
20°	24102	23208	22641
25°	24551	23108	21876
30°	25122	22746	20501
35°	25840	21870	17626
40°	26761	19208	13029
45°	27938	13861	8763
50°	29238	7743	5228
55°	30730	4004	2862
60°	32147	2605	2027
65°	31600	2140	1610
70°	26650	1968	1501
75°	19604	2007	1609
80°	13079	2364	2029
85°	7140	3833	3097

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 62.5°
 Luminance: 32422 cd/sqm



TEST NUMBER: P893458
 CATALOG NUMBER: 4MB-4SL-A-UNV-L835

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.1	4.6
10°-20°	624.6	13.4
20°-30°	950.1	20.4
30°-40°	1085.1	23.3
40°-50°	875.3	18.8
50°-60°	479.1	10.3
60°-70°	252.6	5.4
70°-80°	123.9	2.7
80°-90°	43.6	0.9
90°-100°	9.4	0.2
100°-110°	1.3	0.0
110°-120°	0.8	0.0
120°-130°	0.7	0.0
130°-140°	0.8	0.0
140°-150°	0.9	0.0
150°-160°	0.8	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	1790.8	38.4
0°-40°	2875.8	61.6
0°-60°	4230.3	90.7
0°-90°	4650.5	99.7
90°-120°	11.4	0.2
90°-150°	13.8	0.3
90°-180°	16.0	0.3
0°-180°	4666.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2276	2276	2276	2276	2276	
5°	2288	2281	2254	2274	2267	218
15°	2254	2240	2199	2196	2177	638
25°	2185	2153	2056	1986	1947	1009
35°	2078	1991	1759	1520	1418	1304
45°	1940	1666	962	658	608	1497
55°	1731	712	226	174	161	1544
65°	1311	164	89	72	67	1268
75°	498	93	51	43	41	550
85°	61	48	33	30	26	84
90°	2	25	20	18	16	4
95°	2	3	7	11	10	2
105°	1	0	1	1	1	1
115°	1	1	1	1	1	1
125°	1	1	1	1	1	1
135°	1	1	1	1	1	1
145°	1	1	1	2	1	1
155°	1	1	2	2	2	1
165°	1	2	2	2	2	0
175°	2	2	2	3	2	0
180°	2	2	2	2	2	



TEST NUMBER: P893458

CATALOG NUMBER: 4MB-4SL-A-UNV-L835

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2276.2	2276.2	2276.2	2276.2	2276.2
2.5°	2290.0	2283.7	2257.9	2279.9	2273.6
5°	2287.5	2280.6	2253.5	2273.6	2266.7
7.5°	2283.1	2274.3	2244.7	2262.9	2252.2
10°	2275.5	2266.7	2232.7	2247.2	2235.9
12.5°	2266.7	2254.7	2217.0	2224.5	2210.0
15°	2254.1	2240.3	2199.3	2195.5	2176.7
17.5°	2240.3	2223.3	2173.5	2157.1	2134.5
20°	2223.9	2203.1	2141.4	2109.3	2089.1
22.5°	2205.6	2178.5	2101.1	2051.9	2020.5
25°	2184.8	2153.3	2056.4	1986.4	1946.8
27.5°	2162.8	2120.0	2002.2	1910.2	1856.7
30°	2136.3	2084.7	1934.2	1810.1	1743.3
32.5°	2109.9	2040.6	1861.1	1681.0	1601.6
35°	2078.4	1990.9	1759.1	1519.8	1417.7
37.5°	2048.8	1931.0	1621.2	1317.6	1208.0
40°	2012.9	1860.5	1444.8	1085.2	980.0
42.5°	1978.9	1778.6	1216.2	861.0	769.6
45°	1939.8	1666.5	962.4	657.5	608.4
47.5°	1894.5	1513.5	699.7	489.4	458.5
50°	1845.4	1303.1	488.7	355.2	330.0
52.5°	1791.2	1019.0	329.4	246.9	233.0
55°	1730.7	712.3	225.5	174.5	161.2
57.5°	1660.8	463.5	163.8	131.6	122.8
60°	1578.3	296.0	127.9	104.5	99.5
62.5°	1470.0	207.8	105.2	86.3	81.9
65°	1311.3	164.4	88.8	71.8	66.8
67.5°	1110.4	139.2	76.2	60.5	57.3
70°	895.0	120.9	66.1	52.3	50.4
72.5°	687.8	105.8	57.3	46.6	45.3
75°	498.2	92.6	51.0	42.8	40.9
77.5°	345.1	80.0	45.3	38.4	37.2
80°	223.0	69.3	40.3	35.3	34.6
82.5°	127.9	57.9	36.5	34.0	33.4
85°	61.1	48.5	32.8	29.6	26.5
87.5°	19.5	35.9	25.8	22.7	20.2
90°	2.5	25.2	20.2	17.6	16.4
92.5°	2.5	13.9	14.5	14.5	13.9
95°	1.9	3.1	6.9	10.7	10.1
97.5°	1.9	1.3	4.4	7.6	7.6
100°	1.3	0.6	1.9	5.0	5.0
102.5°	1.3	0.6	0.6	3.1	3.1
105°	0.6	0.0	0.6	1.3	1.3
107.5°	0.6	0.6	0.6	1.3	0.6
110°	0.6	0.6	0.6	1.3	0.6



TEST NUMBER: P893458

CATALOG NUMBER: 4MB-4SL-A-UNV-L835

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.6	0.6	0.6	1.3	0.6
115°	0.6	0.6	0.6	1.3	0.6
117.5°	0.6	0.6	0.6	1.3	0.6
120°	0.6	0.6	0.6	1.3	0.6
122.5°	0.6	0.6	0.6	1.3	0.6
125°	0.6	0.6	0.6	1.3	0.6
127.5°	0.6	0.6	0.6	1.3	0.6
130°	0.6	0.6	1.3	1.3	0.6
132.5°	0.6	0.6	1.3	1.3	0.6
135°	0.6	0.6	1.3	1.3	0.6
137.5°	0.6	0.6	1.3	1.3	1.3
140°	1.3	0.6	1.3	1.3	1.3
142.5°	1.3	1.3	1.3	1.9	1.3
145°	1.3	1.3	1.3	1.9	1.3
147.5°	1.3	1.3	1.9	1.9	1.3
150°	1.3	1.3	1.9	1.9	1.3
152.5°	1.3	1.3	1.9	1.9	1.9
155°	1.3	1.3	1.9	2.5	1.9
157.5°	1.3	1.3	1.9	2.5	1.9
160°	1.3	1.9	2.5	2.5	1.9
162.5°	1.3	1.9	2.5	2.5	2.5
165°	1.3	1.9	2.5	2.5	2.5
167.5°	1.9	1.9	2.5	3.1	2.5
170°	1.9	1.9	2.5	3.1	2.5
172.5°	1.9	1.9	2.5	3.1	2.5
175°	1.9	1.9	2.5	3.1	2.5
177.5°	1.9	1.9	2.5	3.1	3.1
180°	2.5	2.5	2.5	2.5	2.5



TEST NUMBER: P893458
 CATALOG NUMBER: 4MB-4SL-A-UNV-L835

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	20.83	22.23	21.20	22.55	22.87	9.34	10.74	9.71	11.06	11.38
	3H	23.74	24.98	24.12	25.32	25.69	10.28	11.52	10.66	11.86	12.23
	4H	24.63	25.79	25.04	26.15	26.54	10.79	11.96	11.20	12.31	12.70
	6H	25.13	26.20	25.55	26.57	26.98	11.43	12.50	11.85	12.87	13.28
	8H	25.24	26.26	25.67	26.65	27.06	11.85	12.86	12.28	13.26	13.67
	12H	25.28	26.26	25.72	26.64	27.08	12.30	13.27	12.73	13.66	14.09
4H	2H	20.64	21.80	21.05	22.16	22.55	9.86	11.02	10.27	11.38	11.77
	3H	23.57	24.53	23.99	24.94	25.35	11.05	12.01	11.47	12.42	12.83
	4H	24.47	25.33	24.91	25.75	26.20	11.72	12.57	12.16	13.00	13.45
	6H	25.07	25.81	25.53	26.26	26.73	12.54	13.28	13.01	13.73	14.21
	8H	25.23	25.92	25.70	26.37	26.85	13.07	13.77	13.55	14.22	14.70
	12H	25.32	25.94	25.81	26.42	26.90	13.65	14.27	14.14	14.76	15.24
8H	4H	24.36	25.06	24.84	25.51	25.99	12.31	13.00	12.78	13.45	13.93
	6H	24.96	25.53	25.47	26.03	26.52	13.31	13.88	13.82	14.39	14.87
	8H	25.15	25.66	25.68	26.18	26.68	13.99	14.50	14.51	15.02	15.52
	12H	25.30	25.75	25.82	26.25	26.83	14.76	15.21	15.27	15.71	16.29
12H	4H	24.33	24.94	24.82	25.43	25.91	12.57	13.19	13.06	13.67	14.15
	6H	24.91	25.43	25.44	25.95	26.44	13.62	14.14	14.15	14.66	15.15
	8H	25.13	25.58	25.65	26.08	26.66	14.39	14.84	14.91	15.34	15.92