

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: P893592

Luminaire Tested: 4MB-5SL-AOL-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893592
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-L950
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 9
5000K CCT
Light Source: -
Ballast/Driver: -

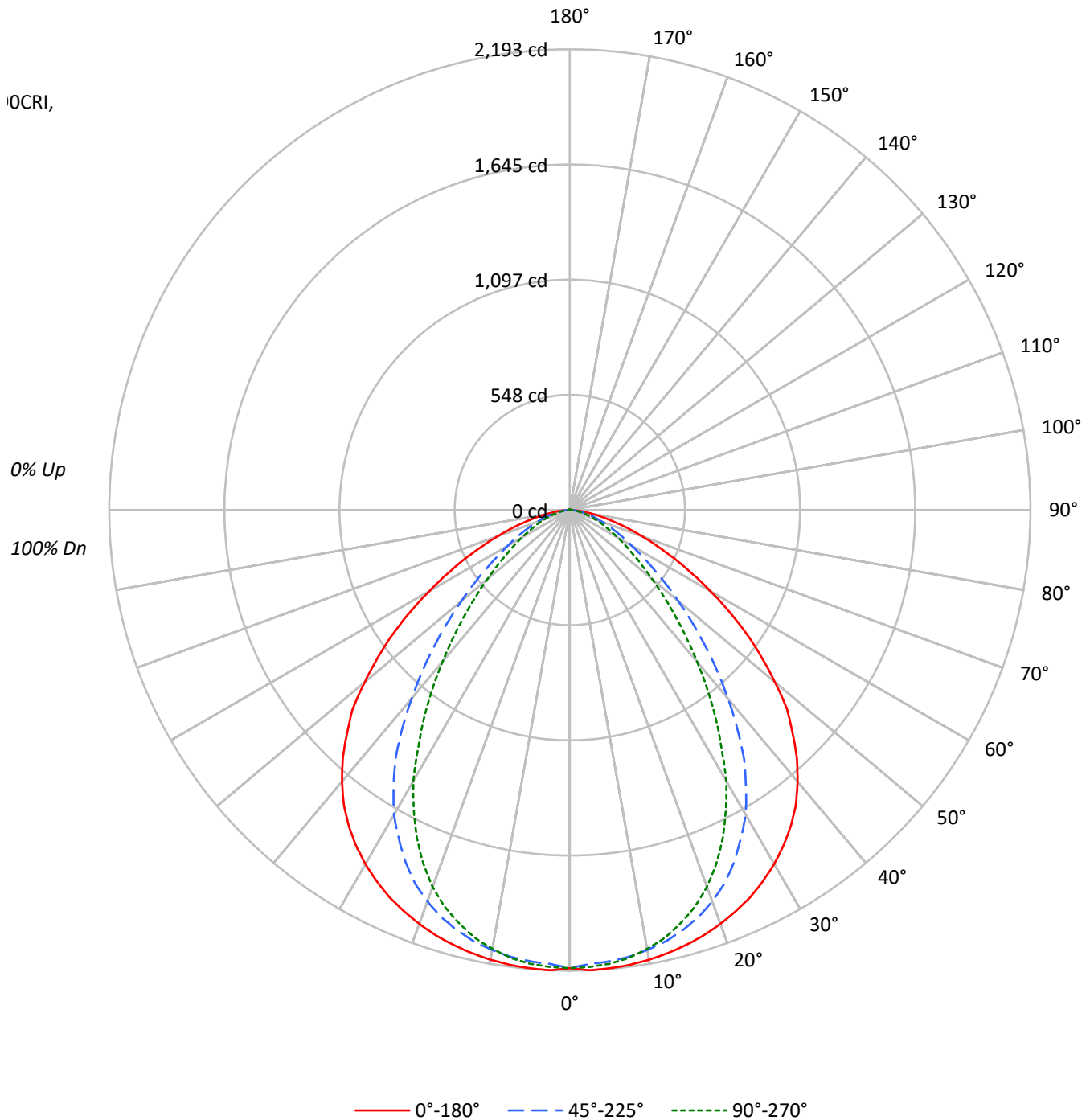
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4356.2 lumens
Efficiency: N/A
Efficacy: 124.5 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

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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	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°	22208	22208	22208
5°	22389	22049	22165
10°	22479	21994	21936
15°	22596	21837	21474
20°	22718	21484	20690
25°	22845	20785	19351
30°	22884	19693	17522
35°	22810	17989	15072
40°	22429	15568	12525
45°	21595	13082	10135
50°	20209	10655	8117
55°	18260	8564	6509
60°	15749	6970	5389
65°	13326	5803	4432
70°	10877	4937	3764
75°	8712	4159	3199
80°	6786	3560	2751
85°	5258	3143	2489

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21595 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.5	4.7
10°-20°	587.6	13.5
20°-30°	856.5	19.7
30°-40°	923.2	21.2
40°-50°	774.0	17.8
50°-60°	524.0	12.0
60°-70°	298.8	6.9
70°-80°	136.6	3.1
80°-90°	35.8	0.8
90°-100°	4.4	0.1
100°-110°	3.0	0.1
110°-120°	1.6	0.0
120°-130°	1.0	0.0
130°-140°	0.9	0.0
140°-150°	0.8	0.0
150°-160°	0.7	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	1650.6	37.9
0°-40°	2573.8	59.1
0°-60°	3871.8	88.9
0°-90°	4343.0	99.7
90°-120°	9.1	0.2
90°-150°	11.8	0.3
90°-180°	13.0	0.3
0°-180°	4356.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2181	2181	2181	2181	2181	
5°	2190	2183	2157	2174	2168	208
15°	2143	2124	2071	2057	2037	606
25°	2033	1979	1850	1765	1722	937
35°	1835	1696	1447	1270	1212	1145
45°	1499	1251	908	749	704	1154
55°	1028	752	482	391	367	916
65°	553	385	241	195	184	552
75°	221	163	106	86	81	241
85°	45	38	27	22	21	53
90°	6	6	4	3	2	6
95°	9	6	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2180.6	2180.6	2180.6	2180.6	2180.6
2.5°	2193.1	2187.5	2162.5	2183.1	2176.9
5°	2190.0	2183.1	2156.8	2174.4	2168.1
7.5°	2183.7	2175.0	2145.6	2158.7	2150.6
10°	2173.7	2163.1	2126.8	2134.3	2121.2
12.5°	2160.0	2146.8	2103.7	2101.8	2086.2
15°	2143.1	2124.3	2071.1	2057.4	2036.7
17.5°	2122.4	2098.7	2032.4	2004.8	1979.8
20°	2096.2	2065.5	1982.3	1938.5	1909.1
22.5°	2066.1	2024.9	1924.1	1854.1	1822.2
25°	2033.0	1979.2	1849.7	1764.6	1722.1
27.5°	1991.7	1924.1	1763.4	1653.3	1609.5
30°	1946.0	1860.3	1674.6	1533.8	1490.0
32.5°	1894.1	1787.2	1561.3	1405.0	1343.6
35°	1834.7	1696.5	1446.9	1269.8	1212.3
37.5°	1767.8	1602.0	1309.9	1133.5	1075.3
40°	1687.1	1490.0	1171.0	996.5	942.1
42.5°	1600.1	1376.2	1037.8	866.4	819.5
45°	1499.4	1251.1	908.3	748.8	703.7
47.5°	1402.4	1124.7	786.9	641.2	604.3
50°	1275.5	990.2	672.5	543.0	512.3
52.5°	1151.6	865.7	574.9	464.1	435.4
55°	1028.4	752.5	482.3	391.0	366.6
57.5°	898.3	641.8	406.0	330.9	314.6
60°	773.2	546.1	342.2	277.7	264.6
62.5°	658.7	457.9	289.6	234.6	222.1
65°	553.0	384.7	240.8	195.2	183.9
67.5°	452.9	316.5	200.8	162.6	154.5
70°	365.3	256.5	165.8	133.9	126.4
72.5°	289.6	205.2	132.6	109.5	101.3
75°	221.4	162.6	105.7	86.3	81.3
77.5°	165.1	122.6	81.3	66.3	62.6
80°	115.7	88.8	60.7	50.0	46.9
82.5°	78.8	61.3	42.5	35.0	33.2
85°	45.0	38.2	26.9	22.5	21.3
87.5°	23.1	20.0	14.4	10.6	9.4
90°	6.3	6.3	3.8	3.1	2.5
92.5°	10.0	5.6	3.8	2.5	1.9
95°	9.4	5.6	3.1	1.9	1.9
97.5°	8.8	5.6	2.5	1.9	1.3
100°	8.1	5.0	2.5	1.3	1.3
102.5°	7.5	5.0	2.5	1.3	1.3
105°	6.3	4.4	1.9	1.3	0.6
107.5°	5.6	3.8	1.9	1.3	0.6
110°	4.4	3.1	1.9	1.3	0.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.8	3.1	1.3	1.3	0.6
115°	3.1	2.5	1.3	0.6	0.6
117.5°	2.5	1.9	1.3	0.6	0.6
120°	1.9	1.9	1.3	0.6	0.6
122.5°	1.9	1.3	1.3	0.6	0.6
125°	1.3	1.3	1.3	0.6	0.6
127.5°	1.3	1.3	1.3	0.6	0.6
130°	1.3	1.3	1.3	0.6	0.6
132.5°	1.3	1.3	1.3	1.3	0.6
135°	0.6	1.3	1.3	1.3	0.6
137.5°	1.3	1.3	1.3	1.3	1.3
140°	1.3	1.3	1.3	1.3	1.3
142.5°	1.3	1.3	1.3	1.3	1.3
145°	1.3	1.3	1.3	1.3	1.3
147.5°	1.3	1.3	1.3	1.3	1.3
150°	1.3	1.3	1.3	1.3	1.3
152.5°	1.3	1.3	1.3	1.3	1.3
155°	1.3	1.3	1.3	1.9	1.9
157.5°	1.3	1.3	1.9	1.9	1.9
160°	1.3	1.3	1.9	1.9	1.9
162.5°	1.3	1.3	1.9	1.9	1.9
165°	1.3	1.9	1.9	1.9	1.9
167.5°	1.3	1.9	1.9	1.9	2.5
170°	1.3	1.9	1.9	2.5	2.5
172.5°	1.3	1.9	1.9	2.5	2.5
175°	1.9	1.9	1.9	2.5	2.5
177.5°	1.9	1.9	1.9	2.5	2.5
180°	1.9	1.9	1.9	1.9	1.9



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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	21.14	22.58	21.51	22.90	23.22	15.98	17.42	16.35	17.74	18.06
	3H	22.45	23.73	22.83	24.07	24.44	17.00	18.28	17.38	18.61	18.98
	4H	22.87	24.07	23.28	24.43	24.82	17.33	18.53	17.74	18.89	19.27
	6H	23.14	24.24	23.56	24.62	25.02	17.56	18.66	17.97	19.04	19.44
	8H	23.21	24.26	23.64	24.66	25.07	17.62	18.67	18.06	19.07	19.48
	12H	23.25	24.25	23.69	24.64	25.08	17.67	18.67	18.10	19.06	19.50
4H	2H	21.14	22.34	21.54	22.69	23.08	16.61	17.81	17.01	18.16	18.55
	3H	22.60	23.59	23.02	24.00	24.41	17.80	18.79	18.22	19.20	19.61
	4H	23.13	24.01	23.57	24.44	24.89	18.22	19.10	18.66	19.53	19.98
	6H	23.51	24.27	23.97	24.72	25.19	18.53	19.30	18.99	19.75	20.22
	8H	23.62	24.33	24.09	24.79	25.26	18.62	19.34	19.09	19.79	20.27
	12H	23.69	24.33	24.18	24.82	25.30	18.70	19.33	19.18	19.82	20.30
8H	4H	23.11	23.83	23.58	24.28	24.75	18.55	19.27	19.02	19.72	20.20
	6H	23.54	24.13	24.05	24.63	25.12	18.95	19.54	19.45	20.03	20.52
	8H	23.70	24.23	24.22	24.75	25.24	19.09	19.62	19.61	20.13	20.63
	12H	23.83	24.30	24.35	24.80	25.37	19.21	19.68	19.73	20.18	20.75
12H	4H	23.08	23.72	23.57	24.21	24.69	18.60	19.24	19.09	19.72	20.20
	6H	23.51	24.04	24.03	24.56	25.05	19.01	19.54	19.54	20.06	20.56
	8H	23.70	24.17	24.22	24.67	25.24	19.20	19.67	19.72	20.17	20.75