

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: P893816

Luminaire Tested: 4MB-7HL-AOL-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893816
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-19)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-AOL-UNV-L950
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 9
5000K CCT
Light Source: -
Ballast/Driver: -

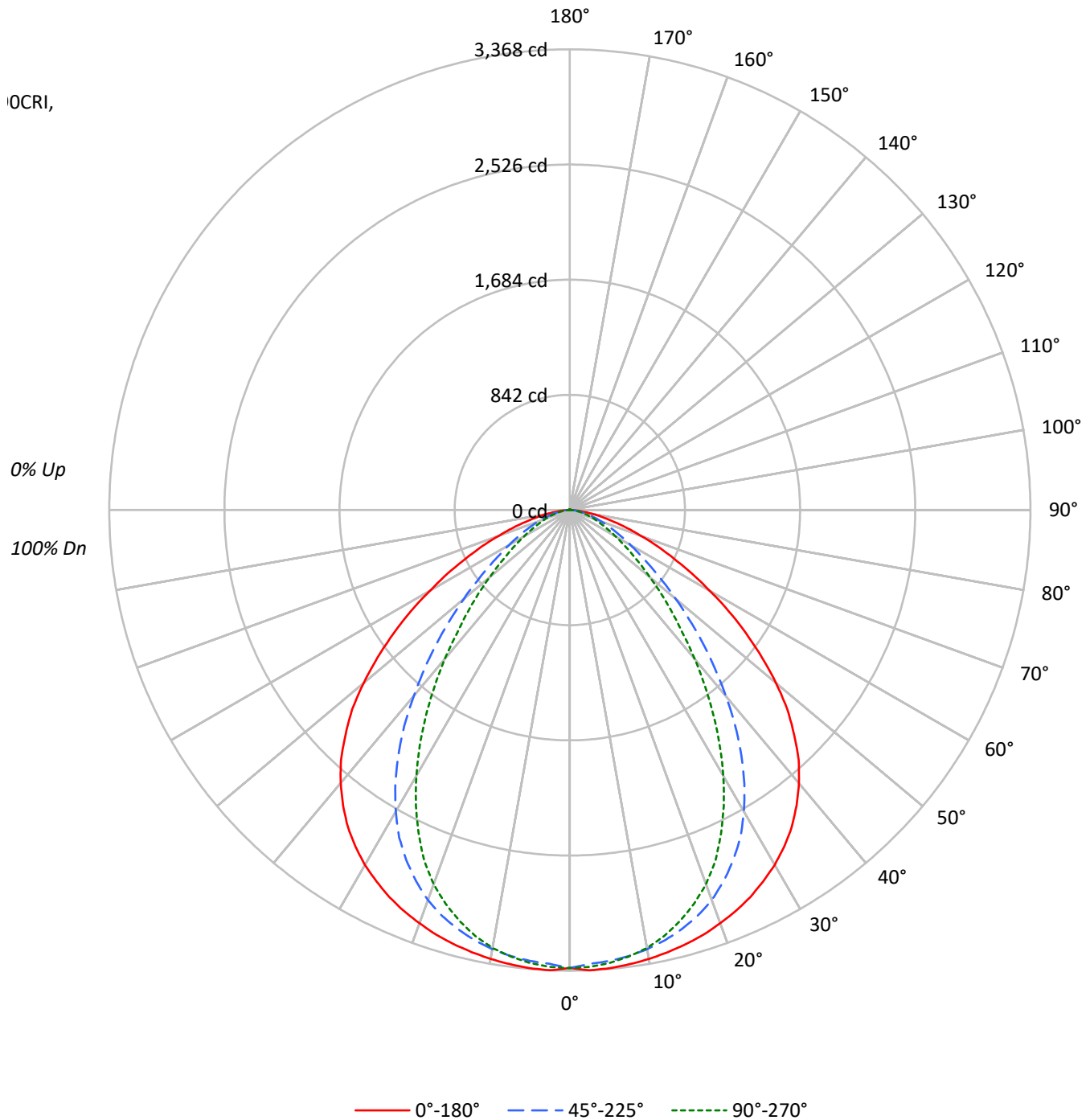
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6619.0 lumens
Efficiency: N/A
Efficacy: 127.8 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.05 / 1.16
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 51.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
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	90	85	100	93	88	84	90	86	82	87	83	80	84	81	78	78	78	78	76
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	68	68	68	67
4	87	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	61	61	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	54	54	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	52	48	48	48	48	46
7	70	58	50	45	69	57	50	45	56	49	44	55	48	44	53	48	44	44	44	44	42
8	66	54	46	40	64	53	45	40	52	45	40	50	44	40	49	44	40	40	40	40	38
9	62	49	42	37	61	49	42	37	48	41	37	47	41	36	46	40	36	36	36	36	34
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	33	33	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34102	34102	34102
5°	34368	33832	33982
10°	34463	33715	33626
15°	34633	33429	32800
20°	34837	32887	31542
25°	35084	31757	29369
30°	35232	29932	26403
35°	35177	27163	22796
40°	34659	23600	18905
45°	33398	19802	15222
50°	31187	16061	12086
55°	27937	12825	9677
60°	24029	10465	7911
65°	20172	8702	6543
70°	16466	7313	5613
75°	13060	6190	4781
80°	10164	5296	4129
85°	7841	4732	3564

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 33398 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.7	4.8
10°-20°	899.2	13.6
20°-30°	1308.4	19.8
30°-40°	1406.6	21.3
40°-50°	1174.7	17.7
50°-60°	789.1	11.9
60°-70°	448.2	6.8
70°-80°	204.2	3.1
80°-90°	52.1	0.8
90°-100°	5.8	0.1
100°-110°	4.2	0.1
110°-120°	2.5	0.0
120°-130°	1.7	0.0
130°-140°	1.5	0.0
140°-150°	1.4	0.0
150°-160°	1.3	0.0
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	2524.3	38.1
0°-40°	3931.0	59.4
0°-60°	5894.8	89.1
0°-90°	6599.3	99.7
90°-120°	12.5	0.2
90°-150°	17.2	0.3
90°-180°	20.0	0.3
0°-180°	6619.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3348	3348	3348	3348	3348	
5°	3362	3352	3309	3336	3324	320
15°	3285	3258	3171	3145	3111	928
25°	3122	3032	2826	2679	2614	1439
35°	2829	2602	2185	1923	1834	1765
45°	2319	1913	1375	1125	1057	1782
55°	1573	1131	722	579	545	1406
65°	837	576	361	289	272	841
75°	332	240	157	128	122	365
85°	67	54	40	32	30	76
90°	9	7	5	5	4	8
95°	11	7	5	3	3	8
105°	8	6	3	2	1	8
115°	4	3	2	1	1	4
125°	3	2	2	1	1	2
135°	2	2	2	2	2	2
145°	2	2	3	3	2	1
155°	2	3	3	3	3	1
165°	3	3	3	4	4	1
175°	3	3	4	4	4	0
180°	4	4	4	4	4	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3348.5	3348.5	3348.5	3348.5	3348.5
2.5°	3368.5	3359.2	3321.3	3350.5	3342.6
5°	3361.8	3352.5	3309.4	3335.9	3324.0
7.5°	3349.2	3339.9	3289.5	3308.7	3292.8
10°	3332.6	3319.3	3260.2	3265.6	3251.6
12.5°	3310.7	3290.8	3221.1	3211.8	3189.9
15°	3284.8	3258.3	3170.6	3145.4	3110.9
17.5°	3254.9	3216.4	3109.5	3056.4	3018.6
20°	3214.4	3165.3	3034.5	2950.2	2910.4
22.5°	3172.6	3105.6	2937.6	2826.1	2778.3
25°	3122.2	3031.9	2826.1	2679.4	2613.6
27.5°	3061.7	2948.9	2700.6	2516.1	2437.7
30°	2996.0	2851.3	2545.3	2332.8	2245.2
32.5°	2917.0	2736.5	2375.3	2132.3	2041.4
35°	2829.4	2602.4	2184.8	1923.2	1833.6
37.5°	2723.2	2447.0	1987.0	1709.5	1623.2
40°	2607.0	2287.0	1775.2	1497.0	1422.0
42.5°	2476.2	2102.5	1569.4	1301.8	1220.8
45°	2318.9	1912.6	1374.9	1124.6	1056.9
47.5°	2158.2	1702.8	1181.0	954.0	905.5
50°	1968.4	1505.6	1013.7	812.6	762.8
52.5°	1771.2	1311.8	857.7	689.8	645.3
55°	1573.4	1131.2	722.3	578.9	545.0
57.5°	1380.8	965.3	607.4	489.3	460.1
60°	1179.7	819.2	513.8	412.3	388.4
62.5°	1007.1	692.4	431.5	347.2	327.3
65°	837.1	575.6	361.1	289.4	271.5
67.5°	694.4	475.3	299.4	240.3	225.1
70°	553.0	387.0	245.6	198.5	188.5
72.5°	440.8	308.7	199.2	161.3	151.4
75°	331.9	239.7	157.3	128.1	121.5
77.5°	249.6	181.9	121.5	99.6	92.3
80°	173.3	130.1	90.3	73.7	70.4
82.5°	110.9	89.6	62.4	52.4	48.5
85°	67.1	54.4	40.5	32.5	30.5
87.5°	31.9	26.6	20.6	15.9	14.6
90°	8.6	7.3	5.3	4.6	4.0
92.5°	10.0	7.3	4.6	3.3	2.7
95°	10.6	7.3	4.6	2.7	2.7
97.5°	10.6	8.0	4.0	2.7	2.0
100°	10.0	7.3	4.0	2.7	2.0
102.5°	8.6	6.6	3.3	2.0	2.0
105°	8.0	6.0	3.3	2.0	1.3
107.5°	6.6	5.3	2.7	2.0	1.3
110°	6.0	4.6	2.7	2.0	1.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.6	4.0	2.7	2.0	1.3
115°	4.0	3.3	2.0	1.3	1.3
117.5°	3.3	2.7	2.0	1.3	1.3
120°	3.3	2.7	2.0	1.3	1.3
122.5°	2.7	2.7	2.0	1.3	1.3
125°	2.7	2.0	2.0	1.3	1.3
127.5°	2.0	2.0	2.0	1.3	1.3
130°	2.0	2.0	2.0	2.0	1.3
132.5°	2.0	2.0	2.0	2.0	1.3
135°	2.0	2.0	2.0	2.0	2.0
137.5°	2.0	2.0	2.0	2.0	2.0
140°	2.0	2.0	2.0	2.0	2.0
142.5°	2.0	2.0	2.7	2.0	2.0
145°	2.0	2.0	2.7	2.7	2.0
147.5°	2.0	2.0	2.7	2.7	2.7
150°	2.0	2.0	2.7	2.7	2.7
152.5°	2.0	2.7	2.7	2.7	2.7
155°	2.0	2.7	2.7	2.7	2.7
157.5°	2.7	2.7	2.7	3.3	3.3
160°	2.7	2.7	3.3	3.3	3.3
162.5°	2.7	2.7	3.3	3.3	3.3
165°	2.7	2.7	3.3	4.0	4.0
167.5°	2.7	3.3	3.3	4.0	4.0
170°	2.7	3.3	3.3	4.0	4.0
172.5°	2.7	3.3	4.0	4.0	4.0
175°	2.7	3.3	4.0	4.0	4.0
177.5°	3.3	3.3	4.0	4.0	4.0
180°	4.0	4.0	4.0	4.0	4.0



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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	22.56	24.00	22.93	24.32	24.64	17.24	18.68	17.61	19.00	19.32
	3H	23.88	25.16	24.26	25.49	25.86	18.25	19.53	18.64	19.87	20.24
	4H	24.30	25.49	24.70	25.85	26.24	18.59	19.79	19.00	20.15	20.53
	6H	24.56	25.66	24.98	26.03	26.43	18.82	19.92	19.24	20.30	20.70
	8H	24.62	25.67	25.05	26.06	26.47	18.89	19.94	19.32	20.33	20.74
	12H	24.65	25.65	25.09	26.04	26.48	18.93	19.93	19.37	20.32	20.76
4H	2H	22.56	23.75	22.96	24.11	24.50	17.89	19.08	18.29	19.44	19.83
	3H	24.03	25.01	24.45	25.42	25.83	19.08	20.06	19.50	20.47	20.88
	4H	24.54	25.42	24.98	25.85	26.29	19.50	20.38	19.94	20.80	21.25
	6H	24.91	25.67	25.37	26.12	26.59	19.81	20.58	20.28	21.03	21.50
	8H	25.01	25.72	25.48	26.17	26.65	19.91	20.62	20.38	21.07	21.55
	12H	25.08	25.71	25.56	26.20	26.68	19.97	20.61	20.46	21.09	21.57
8H	4H	24.52	25.23	24.99	25.68	26.16	19.84	20.55	20.31	21.00	21.48
	6H	24.94	25.53	25.44	26.02	26.51	20.23	20.82	20.74	21.32	21.81
	8H	25.08	25.61	25.60	26.12	26.62	20.38	20.90	20.90	21.42	21.92
	12H	25.20	25.66	25.71	26.16	26.74	20.49	20.96	21.01	21.46	22.03
12H	4H	24.49	25.12	24.98	25.61	26.09	19.89	20.52	20.37	21.01	21.49
	6H	24.90	25.43	25.43	25.95	26.45	20.30	20.83	20.82	21.35	21.84
	8H	25.08	25.54	25.60	26.04	26.62	20.49	20.96	21.01	21.46	22.03