

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: P893797

Luminaire Tested: 4MB-7HL-A-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893797
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-21)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-A-UNV-L930
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

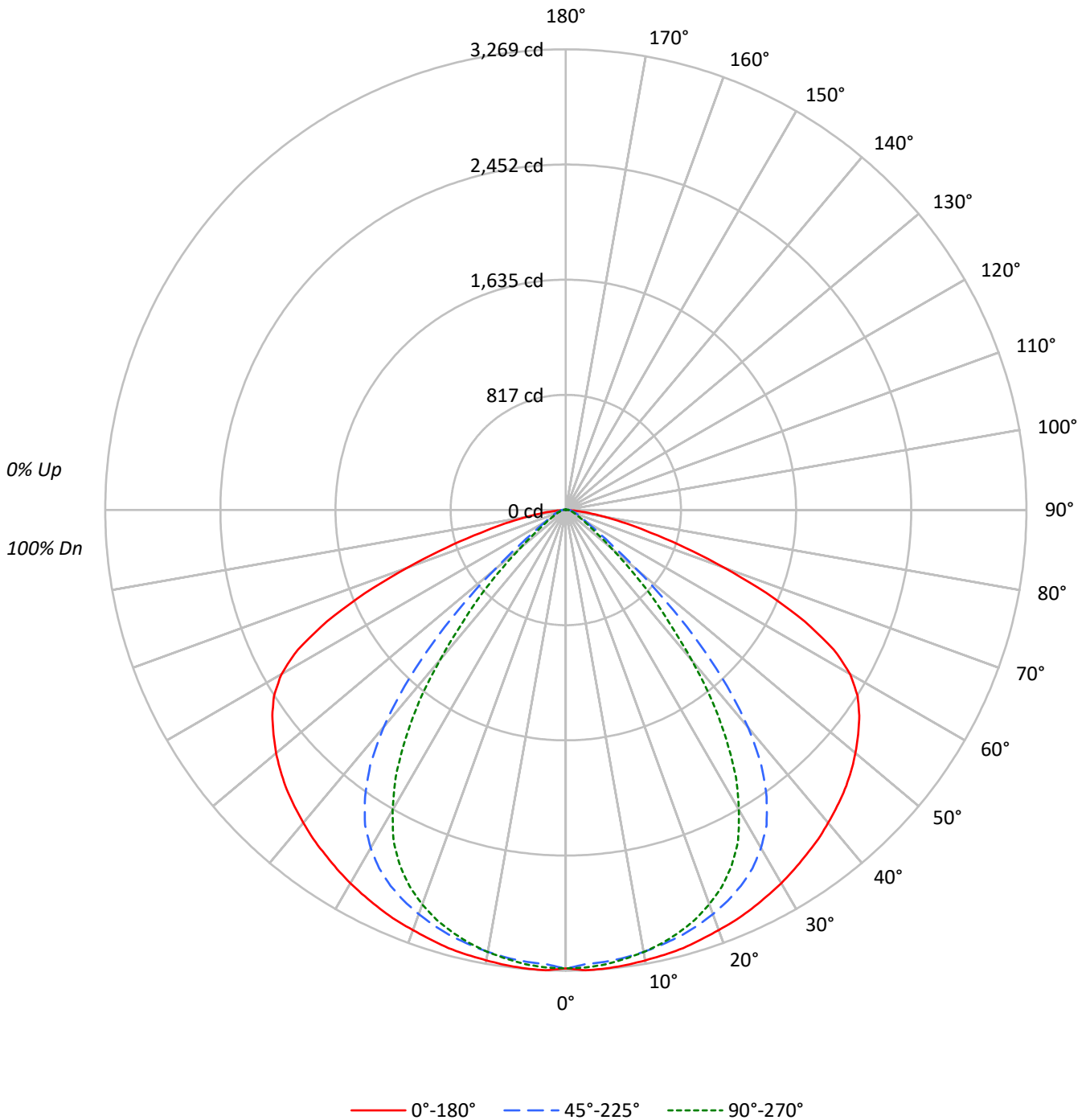
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6585.9 lumens
Efficiency: N/A
Efficacy: 127.1 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.14 / 1.22
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 (A_{in}): 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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	91	90	88		
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77		
3	95	86	80	74	93	85	79	74	82	77	72	79	75	71	77	73	70	68		
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60		
5	82	71	63	57	80	70	63	57	68	61	56	66	60	56	64	59	55	53		
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48		
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43		
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39		
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	35		
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	43	38	34	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33123	33123	33123
5°	33382	32904	33092
10°	33558	32929	32935
15°	33929	33008	32723
20°	34376	33070	32277
25°	35075	33058	31283
30°	35962	32565	28898
35°	37065	30889	24666
40°	38514	26753	18449
45°	40352	19251	12283
50°	42520	10550	6730
55°	45151	5185	3876
60°	47487	3418	2680
65°	45070	2800	2118
70°	35479	2546	1959
75°	24605	2514	1861
80°	16193	2522	2305
85°	9266	3879	3950

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 60°
 Luminance: 47487 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	308.5	4.7
10°-20°	890.2	13.5
20°-30°	1356.3	20.6
30°-40°	1540.2	23.4
40°-50°	1236.8	18.8
50°-60°	663.4	10.1
60°-70°	350.9	5.3
70°-80°	159.1	2.4
80°-90°	50.7	0.8
90°-100°	15.7	0.2
100°-110°	5.6	0.1
110°-120°	1.7	0.0
120°-130°	1.3	0.0
130°-140°	1.4	0.0
140°-150°	1.5	0.0
150°-160°	1.4	0.0
160°-170°	1.0	0.0
170°-180°	0.4	0.0
0°-30°	2555.0	38.8
0°-40°	4095.2	62.2
0°-60°	5995.4	91.0
0°-90°	6556.1	99.5
90°-120°	23.0	0.3
90°-150°	27.1	0.4
90°-180°	30.0	0.5
0°-180°	6585.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3252	3252	3252	3252	3252	
5°	3265	3258	3219	3246	3237	311
15°	3218	3198	3131	3122	3104	910
25°	3121	3072	2942	2839	2784	1442
35°	2981	2855	2484	2124	1984	1871
45°	2802	2371	1337	930	853	2164
55°	2543	949	292	228	218	2267
65°	1870	221	116	94	88	1809
75°	625	126	64	50	47	707
85°	79	47	33	33	34	108
90°	3	22	24	28	26	5
95°	3	9	19	17	16	3
105°	2	1	4	9	10	2
115°	1	1	1	2	2	1
125°	1	1	1	2	1	1
135°	2	1	2	2	2	1
145°	2	2	2	2	2	1
155°	2	2	3	4	3	1
165°	2	3	4	4	4	1
175°	3	3	4	5	4	0
180°	4	4	4	4	4	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3252.4	3252.4	3252.4	3252.4	3252.4
2.5°	3269.0	3262.9	3226.0	3256.7	3248.7
5°	3265.3	3258.5	3218.6	3245.6	3237.0
7.5°	3257.3	3248.7	3203.8	3226.0	3212.4
10°	3245.0	3236.4	3184.2	3199.5	3184.8
12.5°	3232.7	3218.0	3158.3	3163.3	3149.1
15°	3218.0	3197.7	3130.7	3122.1	3103.6
17.5°	3195.2	3172.5	3094.4	3074.1	3048.3
20°	3171.9	3141.1	3051.4	3010.2	2978.2
22.5°	3150.3	3107.9	3002.2	2936.4	2893.3
25°	3121.4	3071.6	2941.9	2839.2	2783.9
27.5°	3090.1	3029.2	2867.5	2713.8	2648.0
30°	3058.1	2978.2	2769.2	2556.4	2457.4
32.5°	3020.6	2922.2	2651.1	2365.8	2249.0
35°	2981.3	2854.6	2484.5	2124.2	1984.0
37.5°	2943.8	2776.5	2279.1	1830.9	1706.7
40°	2897.0	2685.5	2012.3	1516.1	1387.7
42.5°	2850.9	2545.4	1692.6	1214.3	1091.3
45°	2801.7	2370.7	1336.6	929.6	852.8
47.5°	2745.8	2131.6	978.2	676.9	610.5
50°	2683.7	1787.3	665.9	461.1	424.8
52.5°	2615.4	1384.6	432.8	317.9	297.0
55°	2542.9	948.7	292.0	228.1	218.3
57.5°	2455.6	594.5	216.4	171.5	166.0
60°	2331.4	385.5	167.8	138.3	131.6
62.5°	2144.5	276.1	140.8	113.1	107.6
65°	1870.3	220.7	116.2	94.1	87.9
67.5°	1542.0	188.7	99.6	80.5	76.2
70°	1191.5	166.0	85.5	70.1	65.8
72.5°	889.0	145.1	73.8	60.9	55.3
75°	625.3	126.0	63.9	50.4	47.3
77.5°	439.6	108.8	52.9	43.0	42.4
80°	276.1	90.4	43.0	40.0	39.3
82.5°	167.8	71.3	37.5	36.9	36.3
85°	79.3	47.3	33.2	33.2	33.8
87.5°	25.8	31.4	28.3	29.5	29.5
90°	3.1	21.5	24.0	27.7	26.4
92.5°	3.1	15.4	22.1	22.1	17.8
95°	3.1	8.6	19.1	16.6	16.0
97.5°	3.1	4.3	14.1	16.0	15.4
100°	3.1	2.5	10.5	14.1	15.4
102.5°	2.5	1.8	6.8	11.7	12.9
105°	1.8	1.2	3.7	8.6	10.5
107.5°	1.2	1.2	2.5	6.1	7.4
110°	1.2	0.6	1.8	4.3	4.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.2	0.6	1.8	3.1	3.1
115°	1.2	1.2	1.2	2.5	2.5
117.5°	1.2	1.2	1.2	1.8	1.8
120°	1.2	1.2	1.2	1.8	1.2
122.5°	1.2	1.2	1.2	1.8	1.2
125°	1.2	1.2	1.2	1.8	1.2
127.5°	1.2	1.2	1.8	1.8	1.2
130°	1.2	1.2	1.8	1.8	1.2
132.5°	1.2	1.2	1.8	1.8	1.8
135°	1.8	1.2	1.8	1.8	1.8
137.5°	1.8	1.8	1.8	2.5	1.8
140°	1.8	1.8	2.5	2.5	1.8
142.5°	1.8	1.8	2.5	2.5	2.5
145°	1.8	1.8	2.5	2.5	2.5
147.5°	1.8	1.8	2.5	3.1	2.5
150°	1.8	2.5	3.1	3.1	2.5
152.5°	1.8	2.5	3.1	3.1	3.1
155°	2.5	2.5	3.1	3.7	3.1
157.5°	2.5	2.5	3.1	3.7	3.1
160°	2.5	2.5	3.7	3.7	3.7
162.5°	2.5	3.1	3.7	4.3	3.7
165°	2.5	3.1	3.7	4.3	3.7
167.5°	2.5	3.1	3.7	4.3	4.3
170°	2.5	3.1	4.3	4.3	4.3
172.5°	3.1	3.1	4.3	4.9	4.3
175°	3.1	3.1	4.3	4.9	4.3
177.5°	3.1	3.1	4.3	4.9	4.3
180°	4.3	4.3	4.3	4.3	4.3



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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	21.83	23.22	22.20	23.54	23.87	10.04	11.43	10.41	11.75	12.07
	3H	24.73	25.96	25.11	26.30	26.67	10.99	12.23	11.38	12.57	12.94
	4H	25.51	26.66	25.92	27.02	27.41	11.41	12.57	11.82	12.93	13.32
	6H	25.95	27.01	26.37	27.38	27.79	11.89	12.95	12.32	13.33	13.74
	8H	26.05	27.05	26.48	27.45	27.87	12.20	13.21	12.64	13.61	14.02
	12H	26.08	27.04	26.52	27.44	27.88	12.61	13.57	13.05	13.96	14.40
4H	2H	21.64	22.79	22.05	23.15	23.54	10.56	11.71	10.96	12.07	12.46
	3H	24.56	25.50	24.98	25.91	26.33	11.76	12.71	12.18	13.12	13.53
	4H	25.35	26.20	25.79	26.62	27.08	12.30	13.15	12.74	13.57	14.03
	6H	25.88	26.61	26.35	27.06	27.54	12.94	13.67	13.40	14.12	14.60
	8H	26.02	26.70	26.50	27.16	27.64	13.34	14.02	13.81	14.48	14.96
	12H	26.10	26.71	26.59	27.20	27.68	13.87	14.47	14.36	14.96	15.45
8H	4H	25.24	25.92	25.71	26.38	26.86	12.86	13.55	13.34	14.00	14.48
	6H	25.77	26.33	26.28	26.83	27.32	13.64	14.20	14.14	14.70	15.19
	8H	25.93	26.44	26.46	26.96	27.46	14.16	14.66	14.68	15.18	15.69
	12H	26.05	26.50	26.57	27.00	27.58	14.86	15.31	15.38	15.81	16.39
12H	4H	25.20	25.80	25.69	26.29	26.78	13.11	13.72	13.60	14.21	14.69
	6H	25.71	26.22	26.24	26.74	27.24	13.91	14.42	14.44	14.94	15.44
	8H	25.90	26.35	26.43	26.85	27.43	14.51	14.95	15.03	15.46	16.03