

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: P893798

Luminaire Tested: 4MB-7HL-A-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893798
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-L935
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

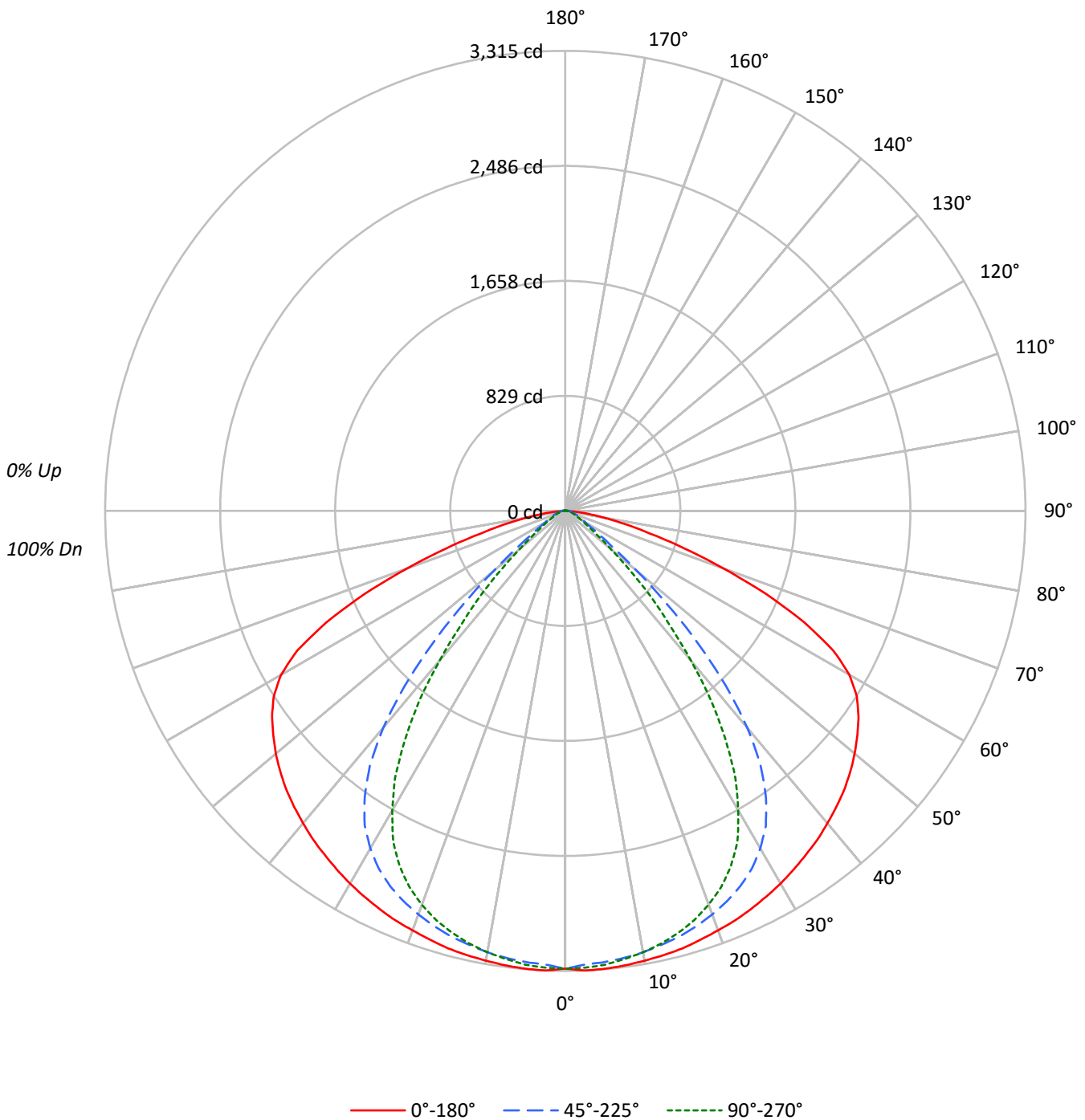
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6678.9 lumens
Efficiency: N/A
Efficacy: 128.9 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°	33591	33591	33591
5°	33853	33368	33559
10°	34031	33393	33399
15°	34408	33474	33185
20°	34861	33537	32732
25°	35571	33526	31724
30°	36470	33025	29306
35°	37589	31325	25014
40°	39058	27130	18708
45°	40922	19523	12455
50°	43121	10699	6826
55°	45788	5259	3929
60°	48157	3467	2717
65°	45706	2839	2150
70°	35979	2582	1986
75°	24951	2550	1889
80°	16422	2557	2340
85°	9395	3938	4008

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 60°
 Luminance: 48157 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	312.8	4.7
10°-20°	902.8	13.5
20°-30°	1375.4	20.6
30°-40°	1562.0	23.4
40°-50°	1254.3	18.8
50°-60°	672.8	10.1
60°-70°	355.9	5.3
70°-80°	161.3	2.4
80°-90°	51.4	0.8
90°-100°	15.9	0.2
100°-110°	5.7	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°	2591.0	38.8
0°-40°	4153.0	62.2
0°-60°	6080.1	91.0
0°-90°	6648.6	99.5
90°-120°	23.3	0.3
90°-150°	27.5	0.4
90°-180°	30.0	0.4
0°-180°	6678.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3298	3298	3298	3298	3298	
5°	3311	3305	3264	3292	3283	315
15°	3263	3243	3175	3166	3147	923
25°	3166	3115	2984	2879	2823	1463
35°	3023	2895	2520	2154	2012	1897
45°	2841	2404	1356	943	865	2195
55°	2579	962	296	231	221	2299
65°	1897	224	118	95	89	1834
75°	634	128	65	51	48	717
85°	80	48	34	34	34	110
90°	3	22	24	28	27	5
95°	3	9	19	17	16	3
105°	2	1	4	9	11	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°	3298.3	3298.3	3298.3	3298.3	3298.3
2.5°	3315.2	3308.9	3271.5	3302.7	3294.6
5°	3311.4	3304.6	3264.0	3291.5	3282.7
7.5°	3303.3	3294.6	3249.1	3271.5	3257.8
10°	3290.8	3282.1	3229.1	3244.7	3229.7
12.5°	3278.4	3263.4	3202.9	3207.9	3193.6
15°	3263.4	3242.8	3174.9	3166.1	3147.4
17.5°	3240.3	3217.3	3138.1	3117.5	3091.3
20°	3216.6	3185.5	3094.4	3052.7	3020.2
22.5°	3194.8	3151.8	3044.6	2977.8	2934.2
25°	3165.5	3115.0	2983.5	2879.3	2823.2
27.5°	3133.7	3072.0	2908.0	2752.1	2685.4
30°	3101.3	3020.2	2808.3	2592.5	2492.1
32.5°	3063.3	2963.5	2688.5	2399.2	2280.8
35°	3023.4	2894.9	2519.6	2154.2	2012.0
37.5°	2985.3	2815.7	2311.3	1856.8	1730.8
40°	2937.9	2723.5	2040.7	1537.6	1407.2
42.5°	2891.2	2581.3	1716.5	1231.4	1106.7
45°	2841.3	2404.2	1355.5	942.7	864.8
47.5°	2784.6	2161.7	992.0	686.5	619.1
50°	2721.6	1812.5	675.3	467.6	430.8
52.5°	2652.4	1404.1	438.9	322.4	301.2
55°	2578.8	962.1	296.2	231.3	221.3
57.5°	2490.3	602.9	219.5	174.0	168.3
60°	2364.3	390.9	170.2	140.3	133.4
62.5°	2174.8	280.0	142.8	114.7	109.1
65°	1896.7	223.8	117.8	95.4	89.2
67.5°	1563.7	191.4	101.0	81.7	77.3
70°	1208.3	168.3	86.7	71.1	66.7
72.5°	901.6	147.1	74.8	61.7	56.1
75°	634.1	127.8	64.8	51.1	48.0
77.5°	445.8	110.4	53.6	43.6	43.0
80°	280.0	91.7	43.6	40.5	39.9
82.5°	170.2	72.3	38.0	37.4	36.8
85°	80.4	48.0	33.7	33.7	34.3
87.5°	26.2	31.8	28.7	29.9	29.9
90°	3.1	21.8	24.3	28.1	26.8
92.5°	3.1	15.6	22.4	22.4	18.1
95°	3.1	8.7	19.3	16.8	16.2
97.5°	3.1	4.4	14.3	16.2	15.6
100°	3.1	2.5	10.6	14.3	15.6
102.5°	2.5	1.9	6.9	11.8	13.1
105°	1.9	1.2	3.7	8.7	10.6
107.5°	1.2	1.2	2.5	6.2	7.5
110°	1.2	0.6	1.9	4.4	5.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.2	0.6	1.9	3.1	3.1
115°	1.2	1.2	1.2	2.5	2.5
117.5°	1.2	1.2	1.2	1.9	1.9
120°	1.2	1.2	1.2	1.9	1.2
122.5°	1.2	1.2	1.2	1.9	1.2
125°	1.2	1.2	1.2	1.9	1.2
127.5°	1.2	1.2	1.9	1.9	1.2
130°	1.2	1.2	1.9	1.9	1.2
132.5°	1.2	1.2	1.9	1.9	1.9
135°	1.9	1.2	1.9	1.9	1.9
137.5°	1.9	1.9	1.9	2.5	1.9
140°	1.9	1.9	2.5	2.5	1.9
142.5°	1.9	1.9	2.5	2.5	2.5
145°	1.9	1.9	2.5	2.5	2.5
147.5°	1.9	1.9	2.5	3.1	2.5
150°	1.9	2.5	3.1	3.1	2.5
152.5°	1.9	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	4.4	3.7
165°	2.5	3.1	3.7	4.4	3.7
167.5°	2.5	3.1	3.7	4.4	4.4
170°	2.5	3.1	4.4	4.4	4.4
172.5°	3.1	3.1	4.4	5.0	4.4
175°	3.1	3.1	4.4	5.0	4.4
177.5°	3.1	3.1	4.4	5.0	4.4
180°	4.4	4.4	4.4	4.4	4.4



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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	21.88	23.26	22.25	23.59	23.91	10.09	11.48	10.46	11.80	12.13
	3H	24.77	26.01	25.16	26.35	26.72	11.05	12.28	11.43	12.62	12.99
	4H	25.56	26.71	25.97	27.07	27.46	11.47	12.62	11.87	12.98	13.37
	6H	25.99	27.05	26.42	27.43	27.84	11.94	13.00	12.37	13.38	13.79
	8H	26.09	27.10	26.53	27.50	27.91	12.25	13.26	12.69	13.66	14.07
	12H	26.13	27.09	26.57	27.48	27.93	12.66	13.62	13.10	14.01	14.45
4H	2H	21.69	22.84	22.10	23.20	23.59	10.61	11.76	11.02	12.12	12.51
	3H	24.61	25.55	25.03	25.96	26.37	11.81	12.76	12.23	13.17	13.58
	4H	25.40	26.24	25.84	26.67	27.12	12.35	13.20	12.79	13.62	14.07
	6H	25.93	26.66	26.40	27.11	27.59	12.99	13.72	13.45	14.17	14.64
	8H	26.07	26.75	26.55	27.21	27.69	13.39	14.07	13.86	14.52	15.01
	12H	26.15	26.76	26.64	27.25	27.73	13.92	14.52	14.41	15.01	15.50
8H	4H	25.29	25.97	25.76	26.42	26.90	12.91	13.60	13.39	14.05	14.53
	6H	25.82	26.38	26.33	26.88	27.37	13.68	14.25	14.19	14.75	15.24
	8H	25.98	26.49	26.51	27.01	27.51	14.21	14.71	14.73	15.23	15.73
	12H	26.10	26.55	26.62	27.05	27.63	14.91	15.36	15.43	15.86	16.44
12H	4H	25.25	25.85	25.74	26.34	26.83	13.16	13.77	13.65	14.26	14.74
	6H	25.76	26.27	26.29	26.79	27.29	13.96	14.46	14.49	14.99	15.49
	8H	25.95	26.40	26.47	26.90	27.48	14.55	15.00	15.07	15.50	16.08