

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: P893170

Luminaire Tested: 4MB-10HL-FLT-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893170
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-4)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-10HL-FLT-UNV-L835
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

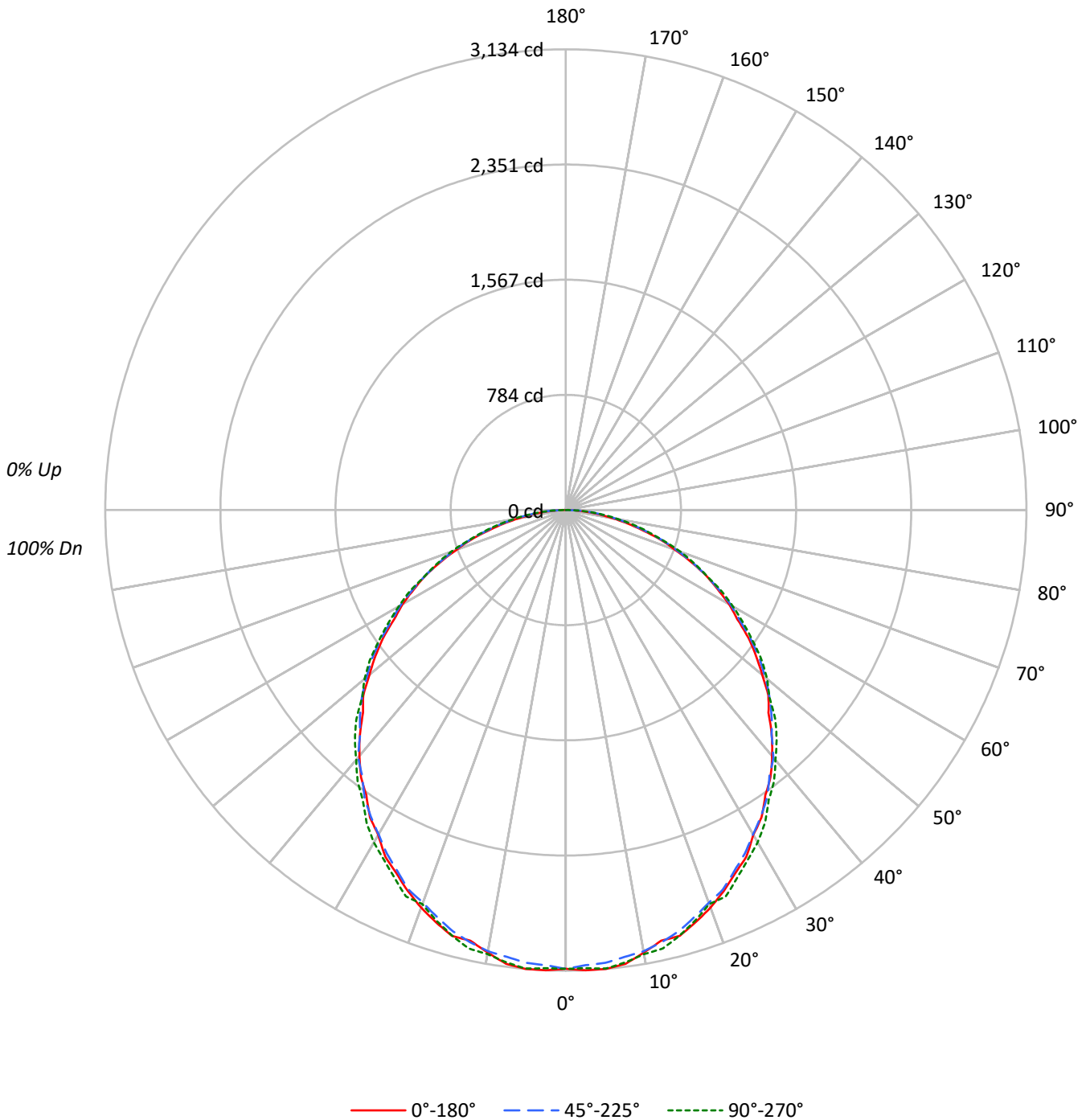
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8647.0 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.34
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 75.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 7.45
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	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	86	86	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	69	65	61	61	61	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	52	52	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	45	45	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	40	40	40	38
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	35	35	35	33
8	60	47	38	33	59	46	38	32	45	37	32	44	37	32	42	36	32	32	32	32	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	26	26	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22204	22204	22204
5°	22385	22086	22366
10°	22079	22020	22167
15°	22084	21856	22064
20°	21792	21526	21608
25°	21399	21282	21664
30°	20966	20932	21453
35°	20561	20736	20912
40°	20283	20408	20609
45°	19627	19926	20292
50°	19309	19592	19786
55°	18829	19063	19264
60°	18243	18512	18684
65°	17703	17770	17770
70°	16461	16854	17275
75°	15158	15749	16085
80°	13366	14525	15025
85°	11992	13429	14417

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 20292 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.4	3.4
10°-20°	841.8	9.7
20°-30°	1262.7	14.6
30°-40°	1499.6	17.3
40°-50°	1535.4	17.8
50°-60°	1375.6	15.9
60°-70°	1045.0	12.1
70°-80°	608.7	7.0
80°-90°	182.8	2.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2399.9	27.8
0°-40°	3899.5	45.1
0°-60°	6810.5	78.8
0°-90°	8647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8647.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3121	3121	3121	3121	3121	
5°	3134	3122	3092	3111	3132	297
15°	2998	3018	2967	2979	2995	842
25°	2726	2750	2711	2746	2760	1258
35°	2367	2420	2387	2397	2408	1488
45°	1951	1999	1980	1996	2017	1517
55°	1518	1541	1537	1554	1553	1352
65°	1052	1052	1056	1069	1056	1033
75°	551	561	573	590	585	587
85°	147	150	164	175	177	165
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3120.7	3120.7	3120.7	3120.7	3120.7
2.5°	3134.2	3119.4	3099.2	3105.9	3119.4
5°	3134.2	3122.1	3092.4	3111.3	3131.5
7.5°	3114.0	3130.2	3065.5	3065.5	3103.2
10°	3056.0	3087.0	3047.9	3043.9	3068.2
12.5°	3000.8	3057.4	3011.5	3025.0	3054.7
15°	2998.1	3018.3	2967.1	2979.2	2995.4
17.5°	2940.1	2960.3	2905.0	2928.0	2928.0
20°	2878.1	2882.1	2843.0	2892.9	2853.8
22.5°	2806.6	2848.4	2794.5	2810.7	2844.4
25°	2725.8	2750.0	2710.9	2746.0	2759.5
27.5°	2659.7	2689.4	2635.4	2677.2	2681.3
30°	2551.9	2584.2	2547.8	2574.8	2611.2
32.5°	2479.1	2489.8	2471.0	2511.4	2522.2
35°	2367.2	2419.8	2387.4	2396.8	2407.6
37.5°	2289.0	2305.2	2276.9	2309.2	2326.7
40°	2183.8	2208.1	2197.3	2202.7	2218.9
42.5°	2074.6	2100.3	2072.0	2111.0	2123.2
45°	1950.6	1999.2	1980.3	1996.5	2016.7
47.5°	1869.7	1885.9	1880.5	1890.0	1876.5
50°	1744.4	1760.6	1770.0	1782.1	1787.5
52.5°	1632.5	1644.6	1662.1	1668.9	1681.0
55°	1517.9	1540.8	1536.8	1554.3	1553.0
57.5°	1384.4	1418.1	1407.4	1433.0	1433.0
60°	1282.0	1287.4	1300.9	1313.0	1313.0
62.5°	1163.4	1170.1	1176.8	1187.6	1195.7
65°	1051.5	1051.5	1055.5	1069.0	1055.5
67.5°	922.1	916.7	930.2	946.3	945.0
70°	791.3	798.0	810.2	830.4	830.4
72.5°	679.4	679.4	692.9	703.7	702.3
75°	551.4	560.8	572.9	590.4	585.1
77.5°	436.8	443.5	463.7	479.9	481.3
80°	326.2	333.0	354.5	370.7	366.7
82.5°	227.8	237.3	257.5	269.6	268.3
85°	146.9	149.6	164.5	175.2	176.6
87.5°	67.4	72.8	83.6	87.6	87.6
90°	0.0	0.0	0.0	0.0	0.0



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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	22.30	23.94	22.67	24.25	24.57	22.41	24.04	22.77	24.36	24.67
	3H	24.08	25.56	24.46	25.89	26.25	24.24	25.73	24.62	26.05	26.41
	4H	24.74	26.14	25.14	26.49	26.86	24.94	26.34	25.34	26.69	27.06
	6H	25.22	26.51	25.63	26.88	27.27	25.49	26.79	25.90	27.15	27.54
	8H	25.37	26.61	25.79	27.00	27.39	25.68	26.92	26.10	27.31	27.71
	12H	25.47	26.66	25.90	27.04	27.47	25.82	27.01	26.25	27.39	27.82
4H	2H	22.95	24.34	23.34	24.69	25.07	23.03	24.43	23.43	24.77	25.15
	3H	24.95	26.12	25.36	26.52	26.92	25.09	26.27	25.50	26.66	27.06
	4H	25.74	26.80	26.17	27.21	27.65	25.93	26.99	26.36	27.40	27.84
	6H	26.34	27.27	26.79	27.71	28.16	26.62	27.55	27.07	27.99	28.44
	8H	26.54	27.41	27.00	27.85	28.31	26.86	27.73	27.32	28.18	28.64
	12H	26.69	27.47	27.17	27.95	28.41	27.06	27.85	27.54	28.32	28.79
8H	4H	26.07	26.95	26.53	27.39	27.85	26.24	27.11	26.70	27.56	28.02
	6H	26.80	27.52	27.29	28.01	28.49	27.07	27.79	27.56	28.28	28.75
	8H	27.07	27.72	27.58	28.23	28.71	27.40	28.05	27.91	28.56	29.04
	12H	27.30	27.87	27.80	28.36	28.92	27.69	28.26	28.19	28.75	29.31
12H	4H	26.12	26.90	26.60	27.38	27.85	26.28	27.06	26.76	27.53	28.00
	6H	26.87	27.52	27.38	28.03	28.51	27.12	27.78	27.63	28.28	28.77
	8H	27.21	27.78	27.71	28.27	28.83	27.52	28.10	28.03	28.59	29.15