

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: P893870

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893870
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-RFLW-UNV-L935
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 3500K
Light Source: -
Ballast/Driver: -

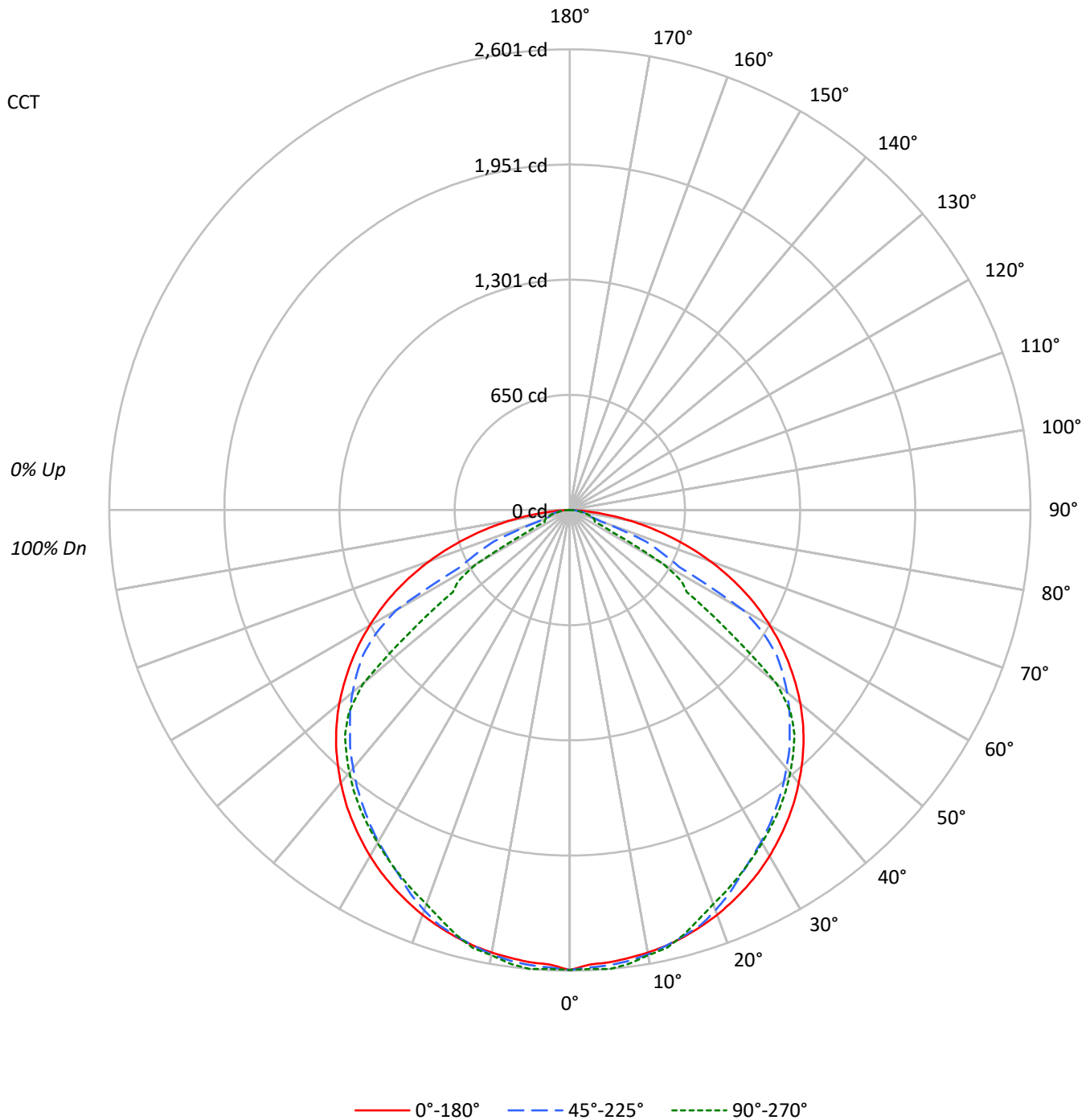
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6769.0 lumens
Efficiency: N/A
Efficacy: 130.7 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.21' 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	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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	85	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	49	49	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	43	43	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	38	38	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	34	34	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	31	31	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	28	28	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	33716	33716	33716
5°	33407	33626	33907
10°	33455	33582	33645
15°	33529	33453	33378
20°	33613	33226	32717
25°	33704	32638	32569
30°	33832	32417	32549
35°	33955	32293	32687
40°	34098	32254	32824
45°	34281	32237	32957
50°	34332	32360	30793
55°	34182	32263	18260
60°	33891	29403	15834
65°	33337	17775	4793
70°	32020	7046	5497
75°	29666	5780	5619
80°	25671	6102	5264
85°	18236	5721	5006

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 34332 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.0	3.6
10°-20°	704.3	10.4
20°-30°	1064.4	15.7
30°-40°	1298.7	19.2
40°-50°	1373.7	20.3
50°-60°	1137.8	16.8
60°-70°	632.5	9.3
70°-80°	256.4	3.8
80°-90°	55.3	0.8
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°	2014.6	29.8
0°-40°	3313.3	48.9
0°-60°	5824.8	86.1
0°-90°	6769.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6769.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2596	2596	2596	2596	2596	
5°	2563	2608	2580	2584	2601	244
15°	2494	2532	2488	2487	2483	704
25°	2352	2369	2278	2264	2273	1085
35°	2142	2116	2037	2045	2062	1341
45°	1867	1771	1756	1777	1795	1439
55°	1510	1408	1425	978	807	1349
65°	1085	995	578	194	156	1070
75°	591	330	115	114	112	624
85°	122	41	38	35	34	154
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2596.5	2596.5	2596.5	2596.5	2596.5
2.5°	2568.5	2613.3	2585.3	2590.9	2593.3
5°	2562.9	2608.5	2579.7	2583.7	2601.3
7.5°	2550.9	2597.3	2566.9	2569.3	2582.9
10°	2537.3	2579.7	2546.9	2542.9	2551.7
12.5°	2518.9	2557.3	2518.9	2520.5	2531.7
15°	2494.1	2532.5	2488.5	2486.9	2482.9
17.5°	2464.5	2500.5	2457.3	2431.7	2422.9
20°	2432.5	2460.5	2404.5	2365.2	2367.6
22.5°	2394.1	2418.1	2347.6	2311.6	2322.0
25°	2352.4	2369.2	2278.0	2263.6	2273.2
27.5°	2306.8	2319.6	2218.0	2214.8	2222.8
30°	2256.4	2261.2	2162.0	2160.4	2170.8
32.5°	2200.4	2192.4	2102.0	2103.6	2117.2
35°	2142.0	2115.6	2037.2	2045.2	2062.0
37.5°	2080.4	2033.2	1973.2	1983.6	2002.0
40°	2011.6	1947.6	1902.8	1918.8	1936.4
42.5°	1941.2	1858.0	1834.7	1849.9	1866.8
45°	1866.8	1770.7	1755.5	1777.1	1794.7
47.5°	1785.9	1685.1	1682.7	1699.5	1691.5
50°	1699.5	1596.3	1601.9	1579.5	1524.3
52.5°	1606.7	1504.3	1515.5	1418.7	1146.6
55°	1509.9	1407.5	1425.1	977.8	806.6
57.5°	1410.7	1308.2	1297.0	748.1	747.3
60°	1305.0	1207.4	1132.2	660.9	609.7
62.5°	1198.6	1102.6	695.3	497.7	280.1
65°	1085.0	994.6	578.5	194.4	156.0
67.5°	965.8	885.0	463.3	146.4	152.0
70°	843.4	771.3	185.6	141.6	144.8
72.5°	718.5	595.3	123.2	131.2	131.2
75°	591.3	329.7	115.2	113.6	112.0
77.5°	464.9	220.8	100.8	93.6	91.2
80°	343.3	79.2	81.6	72.8	70.4
82.5°	227.2	61.6	58.4	52.8	51.2
85°	122.4	40.8	38.4	35.2	33.6
87.5°	44.0	20.8	20.8	16.8	15.2
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	24.90	26.47	25.27	26.79	27.10	20.89	22.46	21.25	22.78	23.09
	3H	26.91	28.31	27.28	28.64	29.00	21.02	22.43	21.40	22.76	23.12
	4H	27.52	28.84	27.92	29.19	29.56	21.14	22.46	21.54	22.81	23.18
	6H	27.92	29.14	28.33	29.50	29.89	21.25	22.47	21.66	22.83	23.22
	8H	28.04	29.20	28.46	29.59	29.99	21.28	22.44	21.71	22.83	23.23
	12H	28.11	29.22	28.54	29.60	30.03	21.31	22.42	21.74	22.80	23.23
4H	2H	25.03	26.35	25.43	26.70	27.07	21.61	22.93	22.01	23.28	23.66
	3H	27.19	28.28	27.60	28.68	29.08	21.81	22.90	22.22	23.30	23.70
	4H	27.84	28.82	28.28	29.24	29.67	21.97	22.94	22.40	23.36	23.80
	6H	28.29	29.14	28.75	29.58	30.04	22.13	22.98	22.59	23.42	23.88
	8H	28.43	29.22	28.89	29.67	30.13	22.19	22.98	22.65	23.42	23.89
	12H	28.53	29.24	29.02	29.72	30.19	22.23	22.94	22.71	23.42	23.89
8H	4H	27.78	28.57	28.24	29.02	29.48	22.24	23.03	22.70	23.48	23.94
	6H	28.22	28.88	28.72	29.37	29.85	22.45	23.10	22.94	23.59	24.07
	8H	28.37	28.96	28.88	29.47	29.96	22.53	23.12	23.04	23.63	24.12
	12H	28.50	29.03	29.01	29.52	30.08	22.62	23.14	23.12	23.63	24.19
12H	4H	27.75	28.46	28.24	28.94	29.41	22.25	22.96	22.74	23.44	23.91
	6H	28.18	28.77	28.69	29.28	29.77	22.46	23.05	22.98	23.56	24.05
	8H	28.35	28.88	28.86	29.37	29.93	22.59	23.11	23.10	23.60	24.17