

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: P893867

Luminaire Tested: 4MB-7HL-RFLW-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893867
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-L840
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 4000K
Light Source: -
Ballast/Driver: -

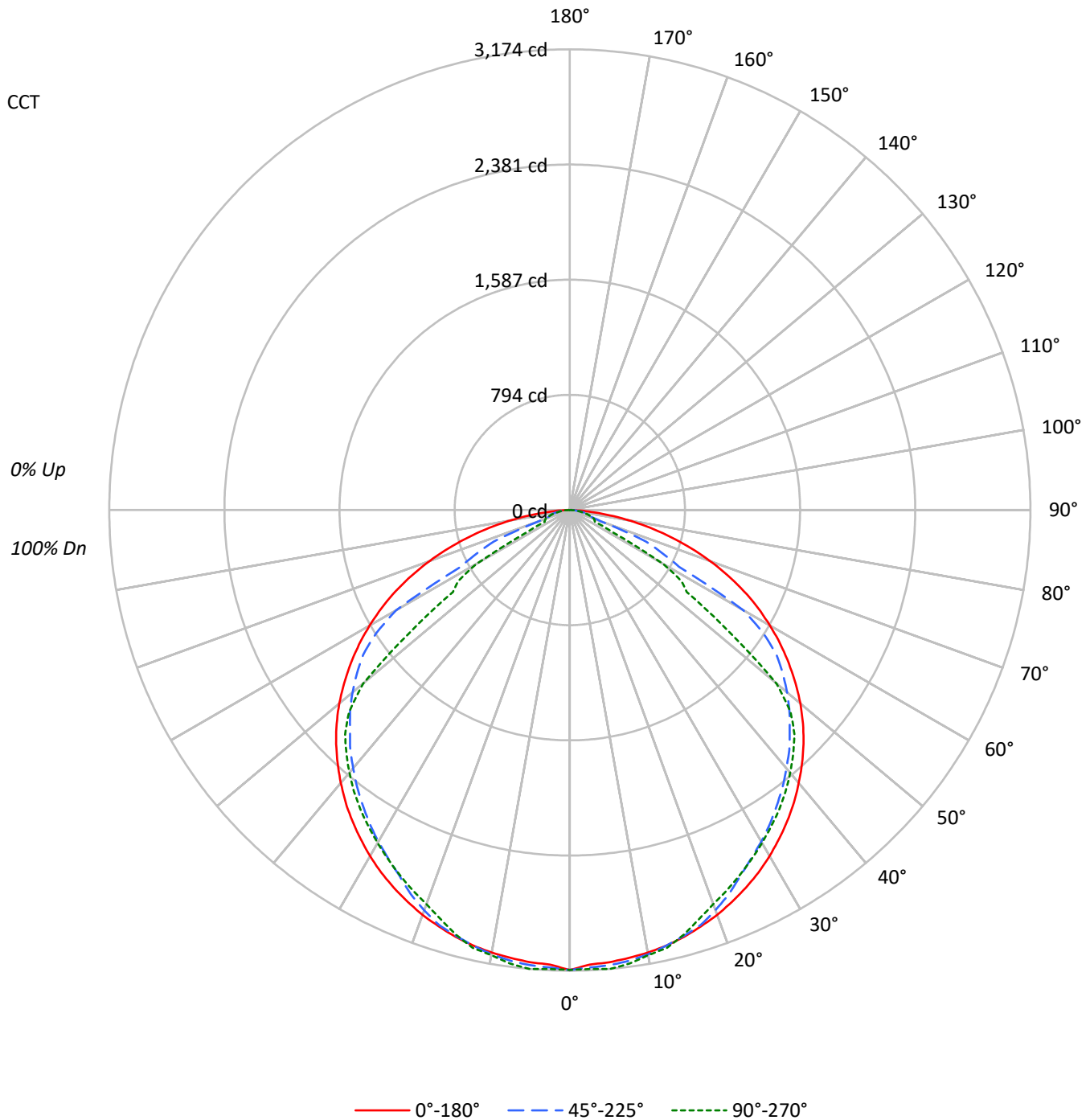
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8260.0 lumens
Efficiency: N/A
Efficacy: 159.5 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 (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				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°	41142	41142	41142
5°	40765	41032	41376
10°	40825	40979	41055
15°	40913	40821	40730
20°	41017	40545	39924
25°	41128	39827	39744
30°	41284	39557	39719
35°	41434	39406	39886
40°	41609	39358	40053
45°	41831	39339	40218
50°	41895	39489	37574
55°	41712	39369	22281
60°	41357	35880	19322
65°	40680	21689	5850
70°	39071	8599	6709
75°	36203	7054	6858
80°	31325	7448	6423
85°	22259	6987	6108

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 41895 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.1	3.6
10°-20°	859.5	10.4
20°-30°	1298.8	15.7
30°-40°	1584.7	19.2
40°-50°	1676.3	20.3
50°-60°	1388.4	16.8
60°-70°	771.8	9.3
70°-80°	312.9	3.8
80°-90°	67.5	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°	2458.4	29.8
0°-40°	4043.1	48.9
0°-60°	7107.9	86.1
0°-90°	8260.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8260.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3168	3168	3168	3168	3168	
5°	3127	3183	3148	3153	3174	298
15°	3043	3090	3037	3035	3030	860
25°	2871	2891	2780	2762	2774	1324
35°	2614	2582	2486	2496	2516	1636
45°	2278	2161	2142	2169	2190	1756
55°	1842	1718	1739	1193	984	1646
65°	1324	1214	706	237	190	1306
75°	722	402	141	139	137	762
85°	149	50	47	43	41	188
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3168.4	3168.4	3168.4	3168.4	3168.4
2.5°	3134.2	3188.9	3154.7	3161.6	3164.5
5°	3127.4	3183.1	3147.9	3152.8	3174.3
7.5°	3112.8	3169.4	3132.3	3135.2	3151.8
10°	3096.2	3147.9	3107.9	3103.0	3113.7
12.5°	3073.7	3120.6	3073.7	3075.7	3089.3
15°	3043.4	3090.3	3036.6	3034.6	3029.8
17.5°	3007.3	3051.2	2998.5	2967.3	2956.5
20°	2968.3	3002.4	2934.1	2886.2	2889.2
22.5°	2921.4	2950.7	2864.8	2820.8	2833.5
25°	2870.6	2891.1	2779.8	2762.2	2774.0
27.5°	2815.0	2830.6	2706.6	2702.7	2712.4
30°	2753.4	2759.3	2638.2	2636.3	2649.0
32.5°	2685.1	2675.3	2565.0	2567.0	2583.6
35°	2613.8	2581.6	2485.9	2495.7	2516.2
37.5°	2538.6	2481.0	2407.8	2420.5	2443.0
40°	2454.7	2376.6	2321.9	2341.4	2362.9
42.5°	2368.7	2267.2	2238.9	2257.4	2277.9
45°	2277.9	2160.8	2142.2	2168.6	2190.1
47.5°	2179.3	2056.3	2053.4	2073.9	2064.1
50°	2073.9	1947.9	1954.8	1927.4	1860.0
52.5°	1960.6	1835.6	1849.3	1731.2	1399.2
55°	1842.5	1717.5	1739.0	1193.2	984.2
57.5°	1721.4	1596.4	1582.7	912.9	912.0
60°	1592.5	1473.4	1381.6	806.5	744.0
62.5°	1462.6	1345.5	848.5	607.3	341.7
65°	1324.0	1213.7	705.9	237.3	190.4
67.5°	1178.5	1079.9	565.3	178.7	185.5
70°	1029.1	941.2	226.5	172.8	176.7
72.5°	876.8	726.4	150.4	160.1	160.1
75°	721.6	402.3	140.6	138.6	136.7
77.5°	567.3	269.5	123.0	114.2	111.3
80°	418.9	96.7	99.6	88.9	85.9
82.5°	277.3	75.2	71.3	64.4	62.5
85°	149.4	49.8	46.9	43.0	41.0
87.5°	53.7	25.4	25.4	20.5	18.6
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	25.59	27.16	25.96	27.48	27.79	21.58	23.15	21.95	23.47	23.78
	3H	27.60	29.01	27.98	29.33	29.69	21.71	23.12	22.09	23.45	23.81
	4H	28.21	29.53	28.61	29.88	30.26	21.83	23.15	22.23	23.50	23.88
	6H	28.61	29.83	29.02	30.19	30.59	21.94	23.16	22.35	23.52	23.92
	8H	28.73	29.89	29.16	30.28	30.68	21.97	23.13	22.40	23.52	23.92
	12H	28.80	29.91	29.23	30.29	30.72	22.00	23.11	22.43	23.49	23.92
4H	2H	25.72	27.04	26.12	27.39	27.77	22.31	23.63	22.71	23.97	24.35
	3H	27.88	28.97	28.29	29.37	29.77	22.50	23.59	22.91	23.99	24.39
	4H	28.54	29.51	28.97	29.93	30.37	22.66	23.64	23.09	24.05	24.49
	6H	28.98	29.83	29.44	30.27	30.73	22.83	23.67	23.28	24.12	24.57
	8H	29.12	29.92	29.59	30.36	30.83	22.88	23.67	23.34	24.11	24.58
	12H	29.23	29.94	29.71	30.41	30.88	22.92	23.63	23.41	24.11	24.58
8H	4H	28.47	29.26	28.93	29.71	30.18	22.93	23.72	23.39	24.17	24.64
	6H	28.91	29.57	29.41	30.06	30.54	23.14	23.79	23.63	24.28	24.76
	8H	29.06	29.65	29.58	30.16	30.65	23.22	23.81	23.73	24.32	24.81
	12H	29.19	29.72	29.70	30.21	30.77	23.31	23.83	23.82	24.32	24.89
12H	4H	28.45	29.15	28.93	29.63	30.10	22.95	23.65	23.43	24.13	24.60
	6H	28.87	29.46	29.39	29.97	30.46	23.16	23.75	23.67	24.25	24.74
	8H	29.05	29.57	29.55	30.06	30.62	23.28	23.80	23.79	24.29	24.86