

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: P893215

Luminaire Tested: 4MB-10HL-RFLW-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893215
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-10HL-RFLW-UNV-L940
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 4000K
Light Source: -
Ballast/Driver: -

Summary

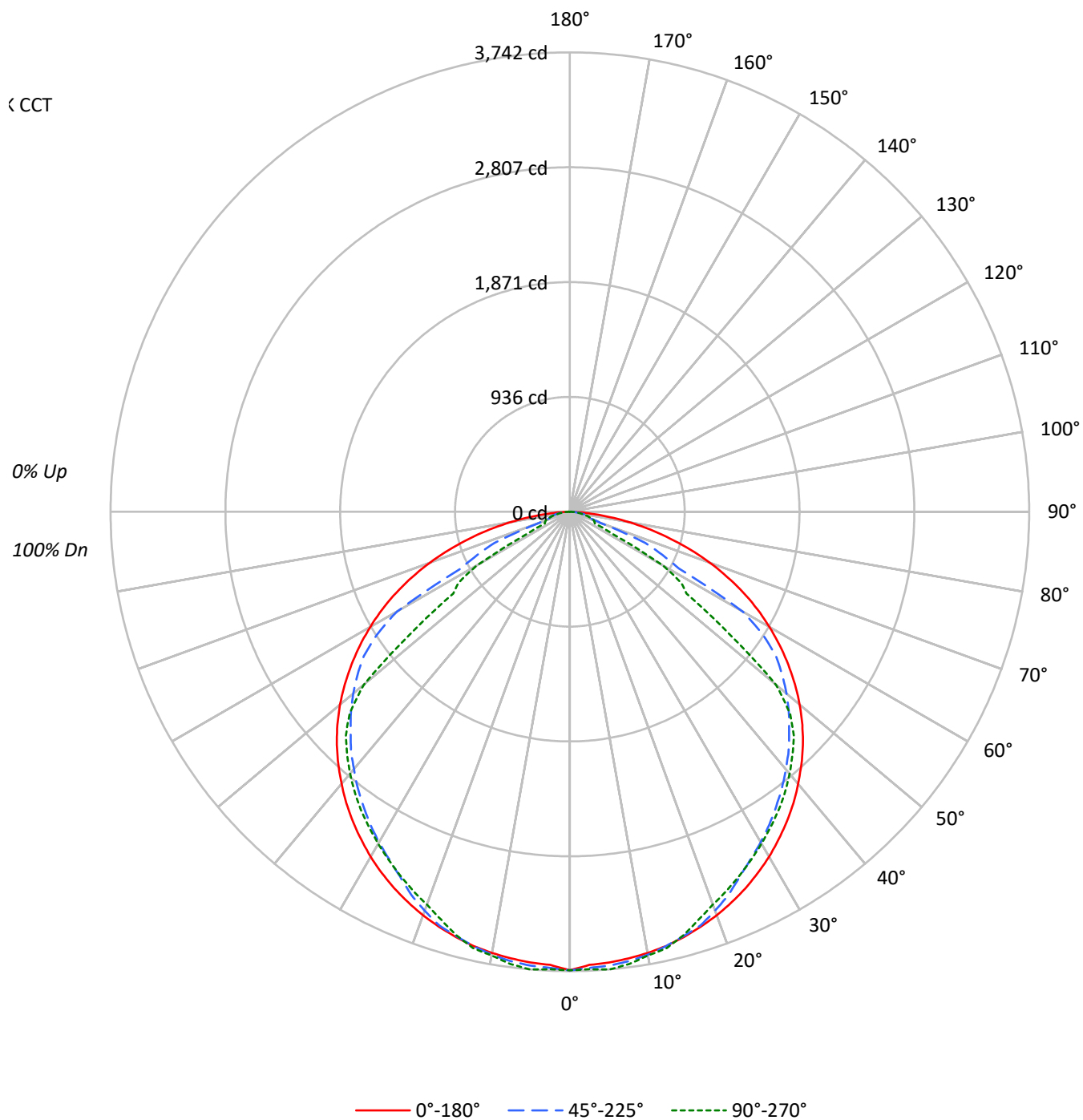
Lumens per Lamp: N/A
Luminaire Lumens: 9736.0 lumens
Efficiency: N/A
Efficacy: 129.0 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 75.5
Input Voltage (V): 120
Input Current (Ain): 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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	93	87	82	98	91	85	81	88	83	79		85	81	77		82
3	92	82	75	69	90	81	74	68	78	72	67		75	70	66		73
4	85	73	65	59	82	72	64	58	70	63	57		67	61	57		65
5	78	66	57	51	76	65	56	50	62	55	50		61	54	49		59
6	72	59	51	44	70	58	50	44	56	49	44		55	48	43		53
7	67	54	45	39	65	53	45	39	51	44	39		50	43	39		49
8	62	49	41	35	61	48	40	35	47	40	35		46	39	35		45
9	58	45	37	32	57	44	37	31	43	36	31		42	36	31		41
10	54	42	34	29	53	41	34	29	40	33	28		39	33	28		38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	48494	48494	48494
5°	48050	48364	48769
10°	48119	48301	48392
15°	48225	48116	48008
20°	48347	47790	47057
25°	48478	46944	46845
30°	48663	46626	46815
35°	48838	46448	47013
40°	49044	46391	47210
45°	49306	46368	47404
50°	49382	46546	44289
55°	49165	46403	26263
60°	48749	42292	22776
65°	47950	25567	6895
70°	46053	10137	7908
75°	42670	8313	8082
80°	36918	8779	7575
85°	26237	8224	7196

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 50°

Luminance: 49382 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	353.8	3.6
10°-20°	1013.0	10.4
20°-30°	1530.9	15.7
30°-40°	1867.9	19.2
40°-50°	1975.9	20.3
50°-60°	1636.5	16.8
60°-70°	909.8	9.3
70°-80°	368.8	3.8
80°-90°	79.5	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°	2897.7	29.8
0°-40°	4765.6	48.9
0°-60°	8378.0	86.1
0°-90°	9736.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9736.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3735	3735	3735	3735	3735	
5°	3686	3752	3710	3716	3742	351
15°	3587	3642	3579	3577	3571	1013
25°	3384	3408	3276	3256	3270	1561
35°	3081	3043	2930	2942	2966	1929
45°	2685	2547	2525	2556	2581	2070
55°	2172	2024	2050	1406	1160	1940
65°	1561	1430	832	280	224	1539
75°	850	474	166	163	161	898
85°	176	59	55	51	48	221
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3734.6	3734.6	3734.6	3734.6	3734.6
2.5°	3694.3	3758.8	3718.5	3726.5	3730.0
5°	3686.3	3751.9	3710.4	3716.2	3741.5
7.5°	3669.0	3735.7	3692.0	3695.5	3715.0
10°	3649.4	3710.4	3663.2	3657.5	3670.1
12.5°	3623.0	3678.2	3623.0	3625.3	3641.4
15°	3587.3	3642.5	3579.2	3576.9	3571.2
17.5°	3544.7	3596.5	3534.3	3497.5	3484.8
20°	3498.7	3538.9	3458.4	3402.0	3405.4
22.5°	3443.4	3477.9	3376.7	3324.9	3339.8
25°	3383.6	3407.7	3276.5	3255.8	3269.6
27.5°	3318.0	3336.4	3190.2	3185.6	3197.1
30°	3245.5	3252.4	3109.7	3107.4	3122.3
32.5°	3164.9	3153.4	3023.3	3025.6	3045.2
35°	3080.9	3042.9	2930.1	2941.6	2965.8
37.5°	2992.3	2924.4	2838.1	2853.0	2879.5
40°	2893.3	2801.2	2736.8	2759.8	2785.1
42.5°	2792.0	2672.3	2639.0	2660.8	2685.0
45°	2685.0	2546.9	2525.0	2556.1	2581.4
47.5°	2568.8	2423.7	2420.3	2444.5	2432.9
50°	2444.5	2296.0	2304.1	2271.8	2192.4
52.5°	2311.0	2163.6	2179.8	2040.5	1649.2
55°	2171.7	2024.4	2049.7	1406.4	1160.1
57.5°	2029.0	1881.7	1865.6	1076.1	1074.9
60°	1877.1	1736.7	1628.5	950.6	877.0
62.5°	1724.0	1585.9	1000.1	715.8	402.8
65°	1560.6	1430.5	832.1	279.7	224.4
67.5°	1389.1	1272.9	666.4	210.6	218.7
70°	1213.0	1109.4	267.0	203.7	208.3
72.5°	1033.5	856.3	177.2	188.7	188.7
75°	850.5	474.2	165.7	163.4	161.1
77.5°	668.7	317.6	145.0	134.7	131.2
80°	493.7	113.9	117.4	104.7	101.3
82.5°	326.8	88.6	84.0	76.0	73.7
85°	176.1	58.7	55.2	50.6	48.3
87.5°	63.3	29.9	29.9	24.2	21.9
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	26.16	27.74	26.53	28.05	28.36	22.15	23.73	22.52	24.04	24.35
	3H	28.17	29.58	28.55	29.90	30.27	22.29	23.69	22.66	24.02	24.38
	4H	28.78	30.10	29.18	30.45	30.83	22.40	23.72	22.80	24.07	24.45
	6H	29.18	30.40	29.59	30.77	31.16	22.51	23.73	22.92	24.10	24.49
	8H	29.30	30.46	29.73	30.85	31.25	22.55	23.71	22.97	24.09	24.50
	12H	29.37	30.48	29.80	30.86	31.29	22.57	23.68	23.00	24.06	24.49
4H	2H	26.29	27.61	26.69	27.96	28.34	22.88	24.20	23.28	24.55	24.92
	3H	28.45	29.54	28.86	29.94	30.34	23.08	24.16	23.49	24.56	24.96
	4H	29.11	30.08	29.54	30.50	30.94	23.23	24.21	23.66	24.62	25.06
	6H	29.55	30.40	30.01	30.84	31.30	23.40	24.25	23.85	24.69	25.15
	8H	29.69	30.49	30.16	30.93	31.40	23.45	24.24	23.91	24.69	25.15
	12H	29.80	30.51	30.28	30.98	31.46	23.50	24.20	23.98	24.68	25.15
8H	4H	29.04	29.84	29.51	30.28	30.75	23.50	24.30	23.97	24.74	25.21
	6H	29.49	30.14	29.98	30.63	31.11	23.71	24.37	24.21	24.86	25.33
	8H	29.63	30.22	30.15	30.73	31.22	23.79	24.38	24.31	24.89	25.38
	12H	29.77	30.29	30.27	30.78	31.34	23.88	24.40	24.39	24.89	25.46
12H	4H	29.02	29.73	29.50	30.20	30.67	23.52	24.23	24.00	24.70	25.17
	6H	29.44	30.03	29.96	30.54	31.03	23.73	24.32	24.24	24.83	25.31
	8H	29.62	30.14	30.13	30.63	31.19	23.85	24.37	24.36	24.87	25.43