

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: P893216

Luminaire Tested: 4MB-10HL-RFLW-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893216
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-L950
Description: 10000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 5000K
Light Source: -
Ballast/Driver: -

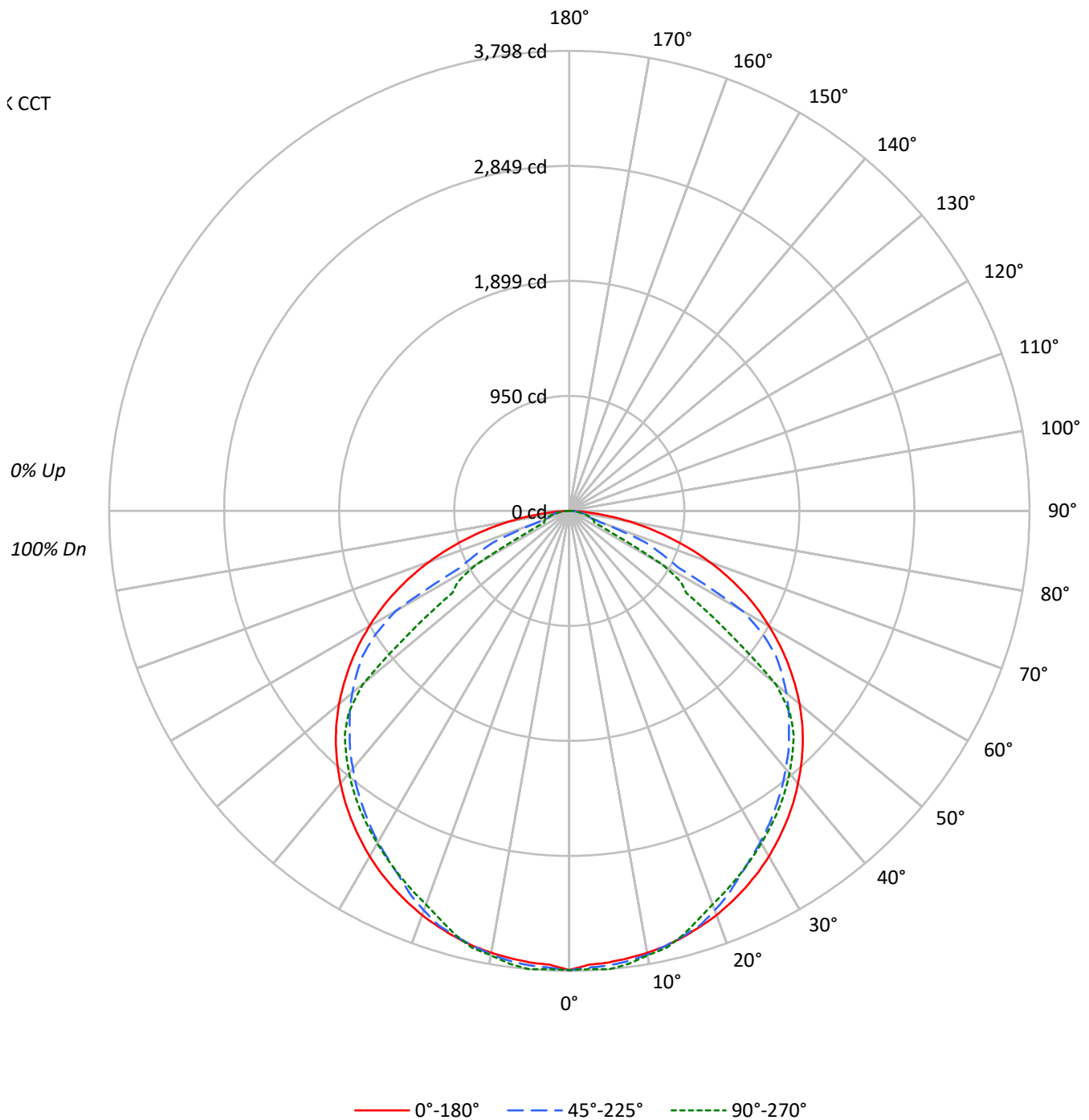
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9883.0 lumens
Efficiency: N/A
Efficacy: 130.9 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 (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	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°	49226	49226	49226
5°	48774	49094	49506
10°	48845	49030	49123
15°	48952	48843	48733
20°	49076	48511	47769
25°	49210	47653	47553
30°	49397	47330	47523
35°	49575	47150	47724
40°	49785	47091	47923
45°	50050	47068	48120
50°	50127	47247	44958
55°	49907	47105	26659
60°	49484	42931	23119
65°	48672	25951	6999
70°	46747	10289	8030
75°	43312	8439	8208
80°	37479	8914	7687
85°	26624	8358	7315

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 50127 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	359.1	3.6
10°-20°	1028.3	10.4
20°-30°	1554.0	15.7
30°-40°	1896.1	19.2
40°-50°	2005.7	20.3
50°-60°	1661.2	16.8
60°-70°	923.5	9.3
70°-80°	374.3	3.8
80°-90°	80.7	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°	2941.5	29.8
0°-40°	4837.5	48.9
0°-60°	8504.5	86.1
0°-90°	9883.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9883.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3791	3791	3791	3791	3791	
5°	3742	3808	3766	3772	3798	356
15°	3641	3698	3633	3631	3625	1029
25°	3435	3459	3326	3305	3319	1584
35°	3127	3089	2974	2986	3011	1958
45°	2726	2585	2563	2595	2620	2101
55°	2204	2055	2081	1428	1178	1970
65°	1584	1452	845	284	228	1562
75°	863	481	168	166	164	912
85°	179	60	56	51	49	224
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3791.0	3791.0	3791.0	3791.0	3791.0
2.5°	3750.1	3815.5	3774.6	3782.8	3786.3
5°	3741.9	3808.5	3766.4	3772.3	3798.0
7.5°	3724.4	3792.1	3747.8	3751.3	3771.1
10°	3704.5	3766.4	3718.5	3712.7	3725.6
12.5°	3677.7	3733.7	3677.7	3680.0	3696.3
15°	3641.4	3697.5	3633.3	3630.9	3625.1
17.5°	3598.2	3650.8	3587.7	3550.3	3537.5
20°	3551.5	3592.4	3510.6	3453.4	3456.9
22.5°	3495.4	3530.5	3427.6	3375.1	3390.3
25°	3434.7	3459.2	3326.0	3305.0	3319.0
27.5°	3368.1	3386.8	3238.4	3233.7	3245.4
30°	3294.5	3301.5	3156.6	3154.3	3169.5
32.5°	3212.7	3201.0	3069.0	3071.3	3091.2
35°	3127.4	3088.9	2974.4	2986.1	3010.6
37.5°	3037.5	2968.5	2880.9	2896.1	2923.0
40°	2937.0	2843.5	2778.1	2801.5	2827.2
42.5°	2834.2	2712.7	2678.8	2701.0	2725.5
45°	2725.5	2585.3	2563.1	2594.7	2620.4
47.5°	2607.5	2460.3	2456.8	2481.4	2469.7
50°	2481.4	2330.7	2338.8	2306.1	2225.5
52.5°	2345.8	2196.3	2212.7	2071.3	1674.1
55°	2204.5	2055.0	2080.7	1427.6	1177.6
57.5°	2059.6	1910.1	1893.7	1092.3	1091.1
60°	1905.4	1762.9	1653.1	965.0	890.2
62.5°	1750.0	1609.9	1015.2	726.7	408.9
65°	1584.1	1452.1	844.6	283.9	227.8
67.5°	1410.1	1292.1	676.4	213.8	222.0
70°	1231.3	1126.2	271.0	206.8	211.5
72.5°	1049.1	869.2	179.9	191.6	191.6
75°	863.3	481.3	168.2	165.9	163.6
77.5°	678.8	322.4	147.2	136.7	133.2
80°	501.2	115.7	119.2	106.3	102.8
82.5°	331.8	90.0	85.3	77.1	74.8
85°	178.7	59.6	56.1	51.4	49.1
87.5°	64.3	30.4	30.4	24.5	22.2
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	26.22	27.79	26.58	28.10	28.42	22.21	23.78	22.57	24.09	24.41
	3H	28.22	29.63	28.60	29.96	30.32	22.34	23.74	22.71	24.07	24.43
	4H	28.83	30.15	29.23	30.50	30.88	22.46	23.77	22.85	24.12	24.50
	6H	29.23	30.45	29.65	30.82	31.21	22.56	23.78	22.98	24.15	24.54
	8H	29.35	30.51	29.78	30.90	31.30	22.60	23.76	23.02	24.15	24.55
	12H	29.42	30.53	29.85	30.92	31.34	22.62	23.73	23.05	24.11	24.54
4H	2H	26.34	27.66	26.74	28.01	28.39	22.93	24.25	23.33	24.60	24.97
	3H	28.50	29.59	28.91	29.99	30.39	23.13	24.22	23.54	24.62	25.02
	4H	29.16	30.14	29.59	30.55	30.99	23.28	24.26	23.71	24.68	25.11
	6H	29.60	30.45	30.06	30.90	31.35	23.45	24.30	23.91	24.74	25.20
	8H	29.75	30.54	30.21	30.98	31.45	23.50	24.29	23.96	24.74	25.20
	12H	29.85	30.56	30.33	31.04	31.51	23.55	24.26	24.03	24.73	25.20
8H	4H	29.10	29.89	29.56	30.33	30.80	23.56	24.35	24.02	24.79	25.26
	6H	29.54	30.19	30.03	30.68	31.16	23.76	24.42	24.26	24.91	25.39
	8H	29.69	30.28	30.20	30.78	31.27	23.85	24.43	24.36	24.94	25.43
	12H	29.82	30.34	30.33	30.83	31.40	23.93	24.45	24.44	24.95	25.51
12H	4H	29.07	29.78	29.55	30.26	30.73	23.57	24.28	24.05	24.76	25.23
	6H	29.50	30.09	30.01	30.60	31.08	23.78	24.37	24.29	24.88	25.37
	8H	29.67	30.19	30.18	30.68	31.25	23.90	24.43	24.41	24.92	25.48