

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: P893964

Luminaire Tested: 4MB-8HL-RFLW-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893964
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-8HL-RFLW-UNV-L850
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 5000K
Light Source: -
Ballast/Driver: -

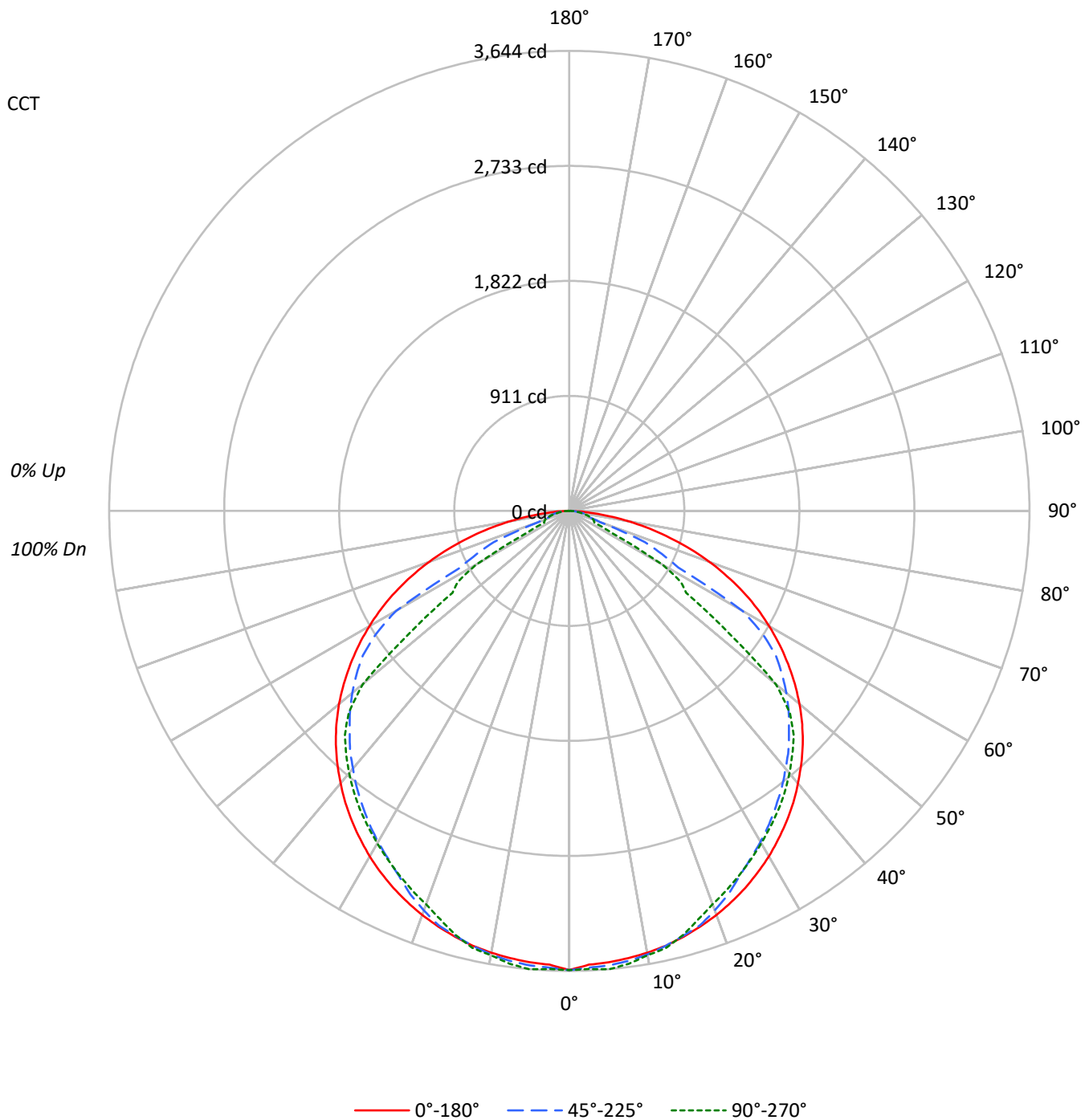
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9481.0 lumens
Efficiency: N/A
Efficacy: 163.7 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): 57.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.23
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°	47224	47224	47224
5°	46791	47097	47492
10°	46858	47036	47125
15°	46961	46856	46750
20°	47079	46538	45825
25°	47209	45715	45619
30°	47388	45404	45589
35°	47559	45232	45782
40°	47759	45176	45974
45°	48015	45154	46163
50°	48087	45325	43130
55°	47877	45187	25575
60°	47471	41183	22179
65°	46693	24897	6713
70°	44849	9871	7703
75°	41551	8098	7872
80°	35953	8547	7373
85°	25551	8016	7017

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 48087 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	344.5	3.6
10°-20°	986.5	10.4
20°-30°	1490.8	15.7
30°-40°	1819.0	19.2
40°-50°	1924.1	20.3
50°-60°	1593.7	16.8
60°-70°	885.9	9.3
70°-80°	359.1	3.8
80°-90°	77.4	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°	2821.8	29.8
0°-40°	4640.8	48.9
0°-60°	8158.5	86.1
0°-90°	9481.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9481.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3637	3637	3637	3637	3637	
5°	3590	3654	3613	3619	3644	342
15°	3493	3547	3486	3483	3478	987
25°	3295	3318	3191	3170	3184	1520
35°	3000	2963	2853	2865	2888	1878
45°	2615	2480	2459	2489	2514	2016
55°	2115	1971	1996	1370	1130	1889
65°	1520	1393	810	272	218	1499
75°	828	462	161	159	157	874
85°	172	57	54	49	47	215
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3636.8	3636.8	3636.8	3636.8	3636.8
2.5°	3597.5	3660.3	3621.1	3628.9	3632.3
5°	3589.7	3653.6	3613.2	3618.8	3643.5
7.5°	3572.9	3637.9	3595.3	3598.7	3617.7
10°	3553.8	3613.2	3567.3	3561.7	3574.0
12.5°	3528.1	3581.9	3528.1	3530.3	3546.0
15°	3493.3	3547.1	3485.5	3483.2	3477.6
17.5°	3451.9	3502.3	3441.8	3405.9	3393.6
20°	3407.0	3446.2	3367.8	3312.9	3316.2
22.5°	3353.2	3386.9	3288.2	3237.8	3252.4
25°	3295.0	3318.5	3190.7	3170.5	3184.0
27.5°	3231.1	3249.0	3106.7	3102.2	3113.4
30°	3160.5	3167.2	3028.2	3026.0	3040.5
32.5°	3082.0	3070.8	2944.2	2946.4	2965.5
35°	3000.2	2963.2	2853.4	2864.6	2888.1
37.5°	2913.9	2847.8	2763.7	2778.3	2804.1
40°	2817.5	2727.9	2665.1	2687.5	2712.2
42.5°	2718.9	2602.3	2569.8	2591.1	2614.7
45°	2614.7	2480.2	2458.9	2489.1	2513.8
47.5°	2501.5	2360.3	2356.9	2380.4	2369.2
50°	2380.4	2235.9	2243.7	2212.3	2135.0
52.5°	2250.4	2107.0	2122.7	1987.1	1606.0
55°	2114.8	1971.4	1996.0	1369.5	1129.7
57.5°	1975.8	1832.4	1816.7	1047.9	1046.8
60°	1827.9	1691.2	1585.8	925.7	854.0
62.5°	1678.9	1544.4	973.9	697.1	392.3
65°	1519.7	1393.1	810.3	272.3	218.5
67.5°	1352.7	1239.5	648.9	205.1	212.9
70°	1181.3	1080.4	260.0	198.4	202.9
72.5°	1006.4	833.8	172.6	183.8	183.8
75°	828.2	461.7	161.4	159.1	156.9
77.5°	651.1	309.3	141.2	131.1	127.8
80°	480.8	111.0	114.3	102.0	98.6
82.5°	318.3	86.3	81.8	74.0	71.7
85°	171.5	57.2	53.8	49.3	47.1
87.5°	61.6	29.1	29.1	23.5	21.3
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	26.07	27.64	26.44	27.96	28.27	22.06	23.63	22.43	23.95	24.26
	3H	28.08	29.49	28.45	29.81	30.17	22.19	23.60	22.57	23.93	24.29
	4H	28.69	30.01	29.09	30.36	30.73	22.31	23.63	22.71	23.98	24.36
	6H	29.09	30.31	29.50	30.67	31.06	22.42	23.64	22.83	24.00	24.39
	8H	29.21	30.37	29.63	30.76	31.16	22.45	23.61	22.88	24.00	24.40
	12H	29.28	30.39	29.71	30.77	31.20	22.48	23.59	22.91	23.97	24.40
4H	2H	26.20	27.52	26.60	27.87	28.25	22.79	24.11	23.19	24.45	24.83
	3H	28.36	29.45	28.77	29.85	30.25	22.98	24.07	23.39	24.47	24.87
	4H	29.01	29.99	29.45	30.41	30.85	23.14	24.12	23.57	24.53	24.97
	6H	29.46	30.31	29.92	30.75	31.21	23.30	24.15	23.76	24.60	25.05
	8H	29.60	30.39	30.06	30.84	31.30	23.36	24.15	23.82	24.59	25.06
	12H	29.71	30.41	30.19	30.89	31.36	23.40	24.11	23.88	24.59	25.06
8H	4H	28.95	29.74	29.41	30.19	30.65	23.41	24.20	23.87	24.65	25.11
	6H	29.39	30.05	29.89	30.54	31.02	23.62	24.27	24.11	24.76	25.24
	8H	29.54	30.13	30.05	30.64	31.13	23.70	24.29	24.21	24.80	25.29
	12H	29.67	30.20	30.18	30.69	31.25	23.79	24.31	24.30	24.80	25.36
12H	4H	28.92	29.63	29.41	30.11	30.58	23.42	24.13	23.91	24.61	25.08
	6H	29.35	29.94	29.86	30.45	30.94	23.63	24.23	24.15	24.73	25.22
	8H	29.52	30.05	30.03	30.54	31.10	23.76	24.28	24.27	24.77	25.34