

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: P893965

Luminaire Tested: 4MB-8HL-RFLW-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893965
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-L930
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 3000K
Light Source: -
Ballast/Driver: -

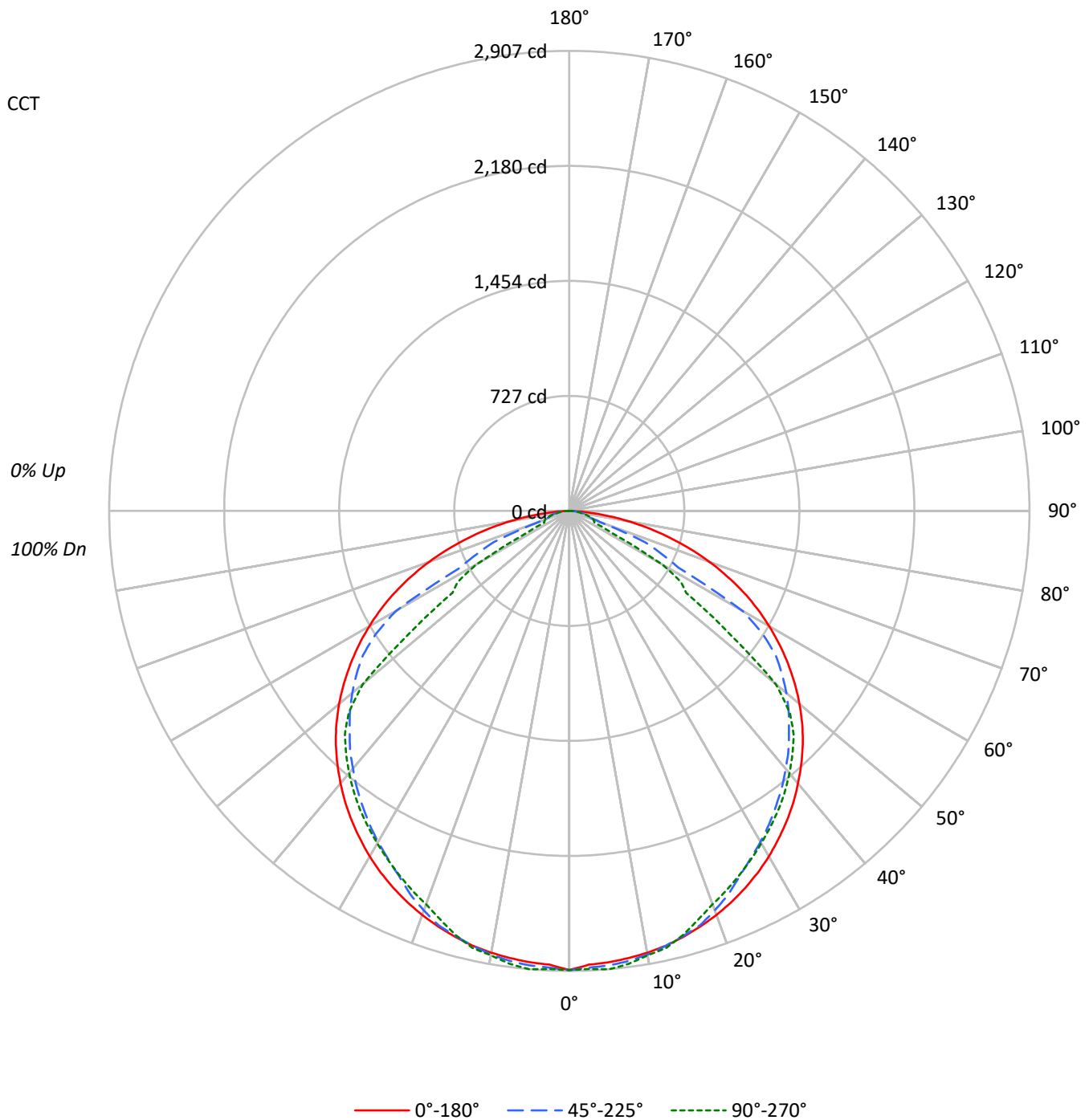
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7564.0 lumens
Efficiency: N/A
Efficacy: 130.6 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				
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°	37675	37675	37675
5°	37330	37575	37889
10°	37385	37526	37597
15°	37466	37381	37298
20°	37560	37129	36559
25°	37663	36472	36395
30°	37806	36224	36372
35°	37943	36085	36526
40°	38102	36041	36678
45°	38307	36024	36828
50°	38364	36160	34409
55°	38196	36050	20404
60°	37872	32857	17693
65°	37251	19864	5358
70°	35779	7874	6143
75°	33153	6462	6281
80°	28685	6820	5885
85°	20381	6392	5602

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 38364 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.8	3.6
10°-20°	787.0	10.4
20°-30°	1189.4	15.7
30°-40°	1451.2	19.2
40°-50°	1535.1	20.3
50°-60°	1271.4	16.8
60°-70°	706.8	9.3
70°-80°	286.5	3.8
80°-90°	61.8	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°	2251.3	29.8
0°-40°	3702.4	48.9
0°-60°	6508.9	86.1
0°-90°	7564.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7564.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2901	2901	2901	2901	2901	
5°	2864	2915	2883	2887	2907	272
15°	2787	2830	2781	2779	2774	787
25°	2629	2648	2546	2530	2540	1213
35°	2394	2364	2276	2285	2304	1498
45°	2086	1979	1962	1986	2006	1608
55°	1687	1573	1592	1093	901	1507
65°	1212	1111	646	217	174	1196
75°	661	368	129	127	125	698
85°	137	46	43	39	38	172
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2901.4	2901.4	2901.4	2901.4	2901.4
2.5°	2870.1	2920.2	2888.9	2895.2	2897.9
5°	2863.9	2914.9	2882.7	2887.1	2906.8
7.5°	2850.5	2902.3	2868.4	2871.0	2886.2
10°	2835.3	2882.7	2846.0	2841.5	2851.4
12.5°	2814.7	2857.6	2814.7	2816.5	2829.0
15°	2787.0	2829.9	2780.7	2778.9	2774.5
17.5°	2753.9	2794.1	2745.9	2717.3	2707.4
20°	2718.1	2749.4	2686.9	2643.0	2645.7
22.5°	2675.2	2702.1	2623.4	2583.1	2594.8
25°	2628.7	2647.5	2545.6	2529.5	2540.2
27.5°	2577.8	2592.1	2478.5	2474.9	2483.9
30°	2521.4	2526.8	2415.9	2414.1	2425.8
32.5°	2458.8	2449.9	2348.9	2350.7	2365.9
35°	2393.6	2364.1	2276.4	2285.4	2304.2
37.5°	2324.7	2272.0	2204.9	2216.5	2237.1
40°	2247.8	2176.3	2126.2	2144.1	2163.8
42.5°	2169.2	2076.2	2050.2	2067.2	2086.0
45°	2086.0	1978.7	1961.7	1985.9	2005.5
47.5°	1995.7	1883.0	1880.3	1899.1	1890.2
50°	1899.1	1783.8	1790.0	1765.0	1703.3
52.5°	1795.4	1681.0	1693.5	1585.3	1281.3
55°	1687.2	1572.8	1592.4	1092.6	901.3
57.5°	1576.3	1461.9	1449.4	836.0	835.1
60°	1458.3	1349.2	1265.2	738.5	681.3
62.5°	1339.4	1232.1	777.0	556.1	312.9
65°	1212.4	1111.4	646.5	217.3	174.4
67.5°	1079.2	988.9	517.7	163.6	169.9
70°	942.4	861.9	207.4	158.3	161.8
72.5°	802.9	665.2	137.7	146.6	146.6
75°	660.8	368.4	128.8	127.0	125.2
77.5°	519.5	246.8	112.7	104.6	101.9
80°	383.6	88.5	91.2	81.4	78.7
82.5°	253.9	68.8	65.3	59.0	57.2
85°	136.8	45.6	42.9	39.3	37.6
87.5°	49.2	23.2	23.2	18.8	17.0
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	25.29	26.86	25.65	27.17	27.49	21.28	22.85	21.64	23.16	23.48
	3H	27.29	28.70	27.67	29.03	29.39	21.41	22.82	21.79	23.14	23.50
	4H	27.90	29.22	28.30	29.57	29.95	21.53	22.85	21.93	23.19	23.57
	6H	28.30	29.52	28.72	29.89	30.28	21.63	22.85	22.05	23.22	23.61
	8H	28.42	29.58	28.85	29.97	30.37	21.67	22.83	22.09	23.22	23.62
	12H	28.49	29.60	28.92	29.99	30.41	21.69	22.80	22.12	23.18	23.61
4H	2H	25.42	26.73	25.81	27.08	27.46	22.00	23.32	22.40	23.67	24.05
	3H	27.58	28.66	27.99	29.06	29.46	22.20	23.29	22.61	23.69	24.09
	4H	28.23	29.21	28.66	29.62	30.06	22.35	23.33	22.79	23.75	24.18
	6H	28.68	29.52	29.13	29.97	30.43	22.52	23.37	22.98	23.81	24.27
	8H	28.82	29.61	29.28	30.05	30.52	22.57	23.36	23.03	23.81	24.28
	12H	28.92	29.63	29.40	30.11	30.58	22.62	23.33	23.10	23.81	24.28
8H	4H	28.17	28.96	28.63	29.40	29.87	22.63	23.42	23.09	23.86	24.33
	6H	28.61	29.26	29.11	29.76	30.23	22.83	23.49	23.33	23.98	24.46
	8H	28.76	29.35	29.27	29.86	30.34	22.92	23.51	23.43	24.01	24.50
	12H	28.89	29.41	29.40	29.90	30.47	23.00	23.52	23.51	24.02	24.58
12H	4H	28.14	28.85	28.62	29.33	29.80	22.64	23.35	23.12	23.83	24.30
	6H	28.57	29.16	29.08	29.67	30.15	22.85	23.44	23.36	23.95	24.44
	8H	28.74	29.26	29.25	29.75	30.32	22.97	23.50	23.48	23.99	24.55