

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: P893962

Luminaire Tested: 4MB-8HL-RFLW-UNV-L835

Issue Date: 11/11/2024

**Test Information**

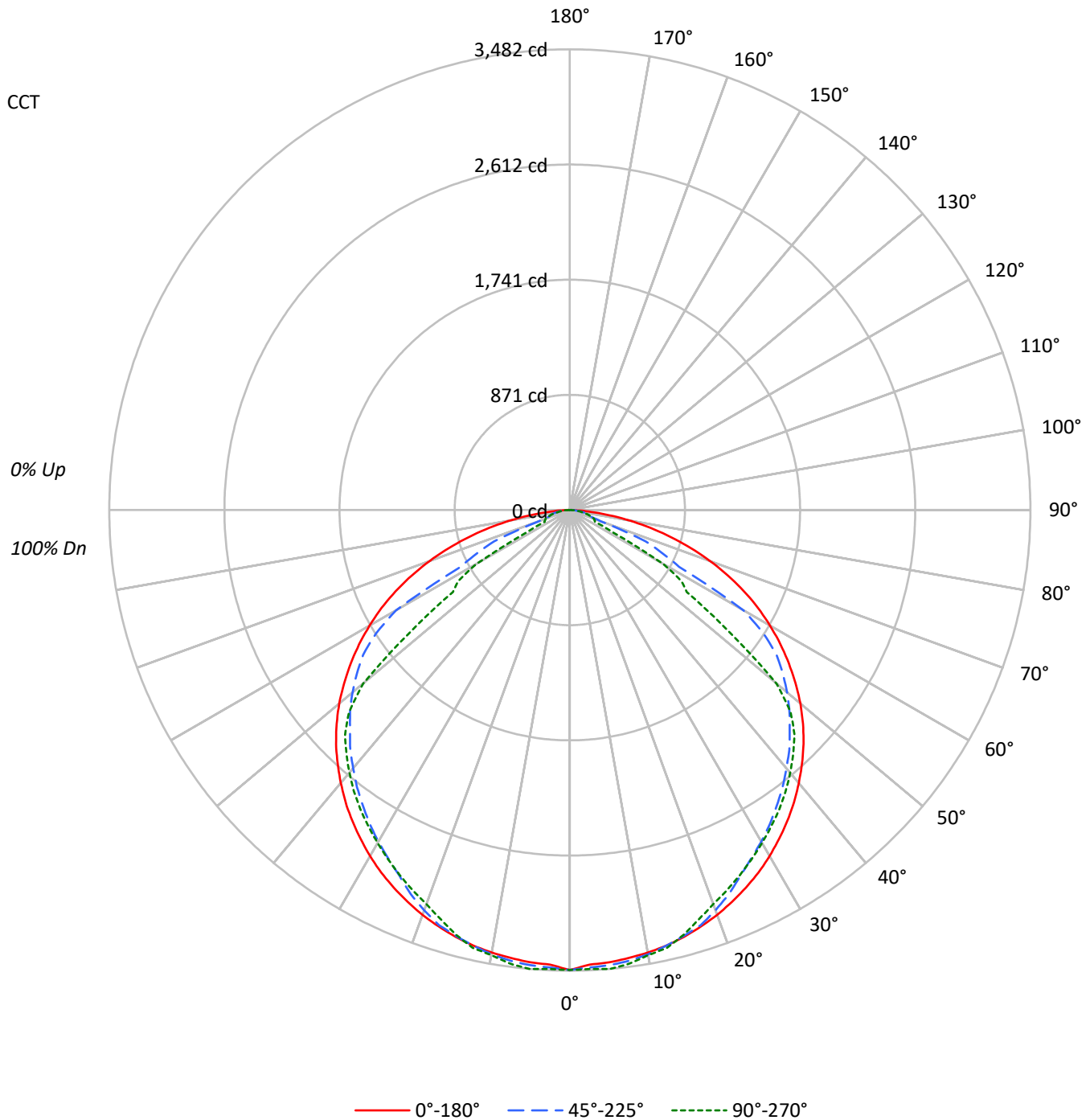
Test Method: LM-79-2019  
Report Number: P893962  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-8HL-RFLW-UNV-L835  
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 3500K  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9062.0 lumens  
Efficiency: N/A  
Efficacy: 156.5 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): 57.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	82	98	91	85	81	88	83	79	85	81	77	82	78	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	45137	45137	45137
5°	44723	45017	45393
10°	44788	44957	45043
15°	44885	44784	44684
20°	45000	44482	43800
25°	45121	43694	43603
30°	45293	43398	43575
35°	45457	43233	43759
40°	45649	43179	43942
45°	45893	43158	44122
50°	45962	43321	41223
55°	45762	43190	24445
60°	45372	39366	21199
65°	44632	23797	6419
70°	42863	9435	7362
75°	39715	7741	7526
80°	34361	8173	7052
85°	24419	7658	6704

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 50°  
 Luminance: 45962 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	329.3	3.6
10°-20°	942.9	10.4
20°-30°	1424.9	15.7
30°-40°	1738.6	19.2
40°-50°	1839.1	20.3
50°-60°	1523.2	16.8
60°-70°	846.8	9.3
70°-80°	343.3	3.8
80°-90°	74.0	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°	2697.1	29.8
0°-40°	4435.7	48.9
0°-60°	7798.0	86.1
0°-90°	9062.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9062.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3476	3476	3476	3476	3476	
5°	3431	3492	3454	3459	3482	326
15°	3339	3390	3331	3329	3324	943
25°	3149	3172	3050	3030	3043	1453
35°	2868	2832	2727	2738	2760	1795
45°	2499	2371	2350	2379	2403	1926
55°	2021	1884	1908	1309	1080	1806
65°	1453	1332	774	260	209	1432
75°	792	441	154	152	150	836
85°	164	55	51	47	45	206
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3476.1	3476.1	3476.1	3476.1	3476.1
2.5°	3438.6	3498.5	3461.1	3468.6	3471.8
5°	3431.1	3492.1	3453.6	3458.9	3482.5
7.5°	3415.0	3477.1	3436.4	3439.6	3457.8
10°	3396.8	3453.6	3409.6	3404.3	3416.1
12.5°	3372.1	3423.6	3372.1	3374.3	3389.3
15°	3338.9	3390.4	3331.4	3329.3	3323.9
17.5°	3299.3	3347.5	3289.7	3255.4	3243.6
20°	3256.5	3293.9	3219.0	3166.5	3169.7
22.5°	3205.0	3237.2	3142.9	3094.7	3108.6
25°	3149.3	3171.8	3049.7	3030.4	3043.3
27.5°	3088.3	3105.4	2969.4	2965.1	2975.8
30°	3020.8	3027.2	2894.4	2892.2	2906.2
32.5°	2945.8	2935.1	2814.0	2816.2	2834.4
35°	2867.6	2832.3	2727.3	2738.0	2760.5
37.5°	2785.1	2721.9	2641.6	2655.5	2680.1
40°	2693.0	2607.3	2547.3	2568.7	2592.3
42.5°	2598.7	2487.3	2456.3	2476.6	2499.1
45°	2499.1	2370.6	2350.2	2379.1	2402.7
47.5°	2390.9	2256.0	2252.7	2275.2	2264.5
50°	2275.2	2137.0	2144.5	2114.6	2040.6
52.5°	2151.0	2013.9	2028.9	1899.2	1535.0
55°	2021.4	1884.2	1907.8	1309.0	1079.8
57.5°	1888.5	1751.4	1736.4	1001.6	1000.5
60°	1747.1	1616.4	1515.8	884.8	816.3
62.5°	1604.7	1476.1	930.9	666.3	374.9
65°	1452.6	1331.5	774.5	260.3	208.9
67.5°	1292.9	1184.7	620.2	196.0	203.5
70°	1129.0	1032.6	248.5	189.6	193.9
72.5°	961.9	797.0	165.0	175.7	175.7
75°	791.6	441.3	154.3	152.1	150.0
77.5°	622.4	295.7	135.0	125.3	122.1
80°	459.5	106.0	109.3	97.5	94.3
82.5°	304.2	82.5	78.2	70.7	68.6
85°	163.9	54.6	51.4	47.1	45.0
87.5°	58.9	27.9	27.9	22.5	20.4
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	25.91	27.49	26.28	27.80	28.11	21.90	23.48	22.27	23.79	24.10
	3H	27.92	29.33	28.30	29.66	30.02	22.04	23.44	22.41	23.77	24.13
	4H	28.53	29.85	28.93	30.20	30.58	22.15	23.47	22.55	23.82	24.20
	6H	28.93	30.15	29.34	30.52	30.91	22.26	23.48	22.67	23.85	24.24
	8H	29.05	30.21	29.48	30.60	31.00	22.30	23.46	22.72	23.85	24.25
	12H	29.12	30.23	29.55	30.61	31.04	22.32	23.43	22.75	23.81	24.24
4H	2H	26.04	27.36	26.44	27.71	28.09	22.63	23.95	23.03	24.30	24.67
	3H	28.20	29.29	28.61	29.69	30.09	22.83	23.92	23.24	24.31	24.72
	4H	28.86	29.84	29.29	30.25	30.69	22.98	23.96	23.41	24.37	24.81
	6H	29.30	30.15	29.76	30.59	31.05	23.15	24.00	23.60	24.44	24.90
	8H	29.44	30.24	29.91	30.68	31.15	23.20	23.99	23.66	24.44	24.90
	12H	29.55	30.26	30.03	30.74	31.21	23.25	23.96	23.73	24.43	24.90
8H	4H	28.79	29.59	29.26	30.03	30.50	23.25	24.05	23.72	24.49	24.96
	6H	29.24	29.89	29.73	30.38	30.86	23.46	24.12	23.96	24.61	25.08
	8H	29.38	29.97	29.90	30.48	30.97	23.54	24.13	24.06	24.64	25.13
	12H	29.52	30.04	30.03	30.53	31.09	23.63	24.15	24.14	24.64	25.21
12H	4H	28.77	29.48	29.25	29.95	30.42	23.27	23.98	23.75	24.45	24.93
	6H	29.19	29.79	29.71	30.29	30.78	23.48	24.07	23.99	24.58	25.06
	8H	29.37	29.89	29.88	30.38	30.94	23.60	24.12	24.11	24.62	25.18