

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: P893946

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

Issue Date: 11/11/2024

**Test Information**

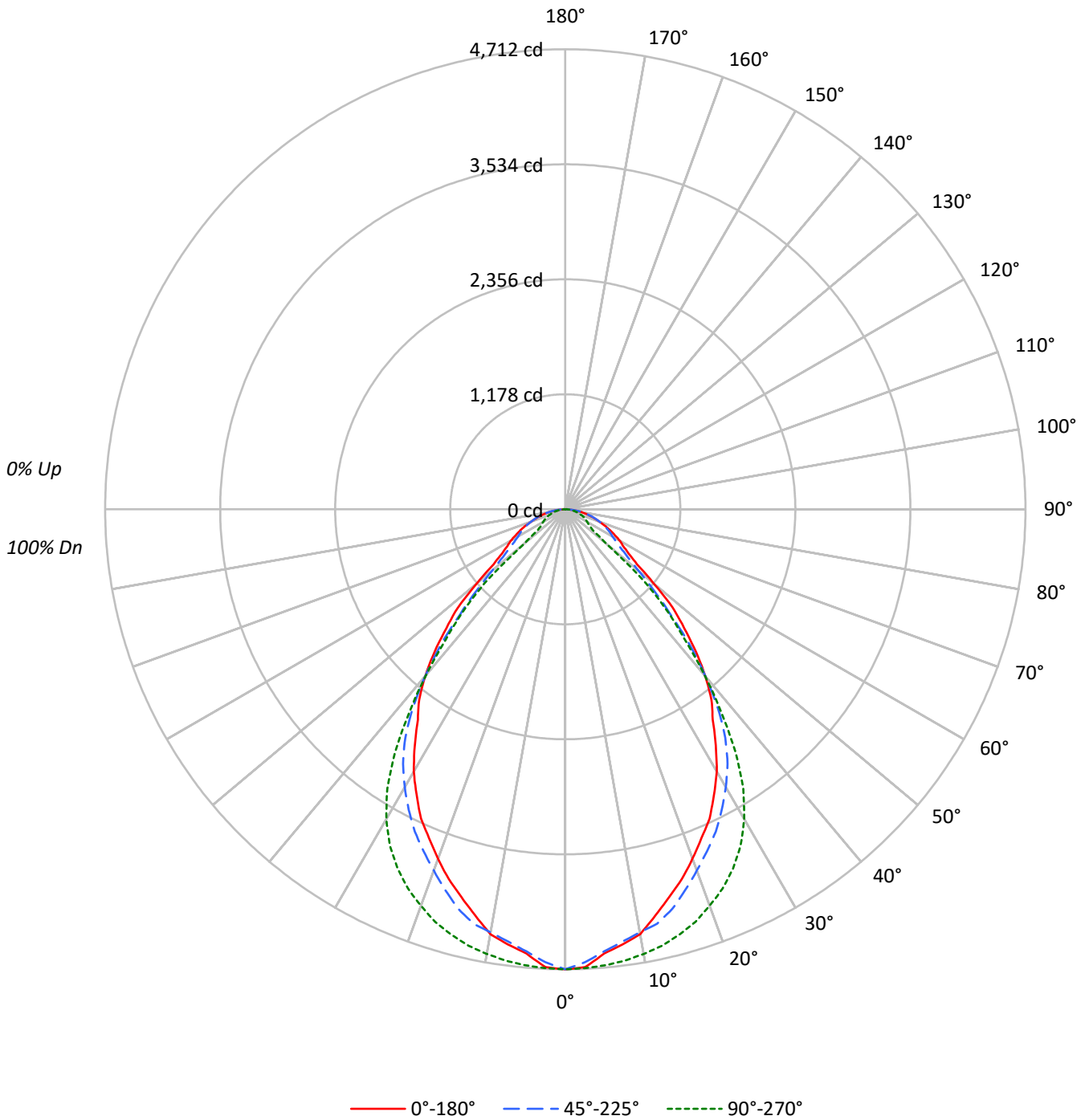
Test Method: LM-79-2019  
Report Number: P893946  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-8HL-LVRA-UNV-L835  
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 3500K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7647.0 lumens  
Efficiency: N/A  
Efficacy: 132.1 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12  
Luminous Opening: Rectangular (W 0.38' 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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78	78	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69	69	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62	62	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55	55	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50	50	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45	45	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41	41	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38	38	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35	35	35

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

	0°	45°	90°
0°	33524	33524	33524
5°	32620	32473	33488
10°	31927	31787	33409
15°	30279	31209	33222
20°	28844	29819	32715
25°	27438	28610	31880
30°	25491	27007	30101
35°	22857	24819	26401
40°	20708	20753	20641
45°	17315	15335	14956
50°	13079	10793	6116
55°	9837	8631	3857
60°	9141	7949	3715
65°	8505	7933	3721
70°	7780	7780	3663
75°	7378	7579	3538
80°	6818	7166	3630
85°	5951	6245	3967

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 17717 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	435.2	5.7
10°-20°	1199.2	15.7
20°-30°	1700.6	22.2
30°-40°	1751.9	22.9
40°-50°	1223.7	16.0
50°-60°	587.2	7.7
60°-70°	411.9	5.4
70°-80°	257.6	3.4
80°-90°	79.7	1.0
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°	3335.0	43.6
0°-40°	5087.0	66.5
0°-60°	6897.8	90.2
0°-90°	7647.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7647.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4712	4712	4712	4712	4712	
5°	4567	4561	4547	4666	4689	432
15°	4111	4141	4237	4358	4510	1158
25°	3495	3530	3644	3891	4061	1598
35°	2632	2703	2857	2917	3040	1658
45°	1721	1761	1524	1446	1486	1326
55°	793	754	696	446	311	743
65°	505	472	471	358	221	501
75°	268	265	276	238	129	283
85°	73	73	76	75	49	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4711.8	4711.8	4711.8	4711.8	4711.8
2.5°	4693.5	4679.0	4643.8	4708.1	4703.3
5°	4567.2	4561.2	4546.6	4665.6	4688.7
7.5°	4495.6	4483.5	4466.5	4597.6	4662.0
10°	4419.1	4433.7	4399.7	4519.9	4624.3
12.5°	4261.2	4300.1	4346.2	4439.7	4578.2
15°	4110.6	4141.0	4236.9	4358.4	4510.2
17.5°	3969.8	4005.0	4087.6	4269.7	4431.2
20°	3809.5	3858.1	3938.2	4171.4	4320.7
22.5°	3644.3	3689.3	3790.0	4040.2	4206.6
25°	3495.0	3530.2	3644.3	3890.8	4060.9
27.5°	3297.0	3362.6	3470.7	3708.7	3887.2
30°	3102.7	3158.6	3287.3	3487.7	3663.8
32.5°	2868.3	2949.7	3091.8	3244.8	3391.7
35°	2631.5	2703.2	2857.4	2916.9	3039.6
37.5°	2459.1	2478.5	2566.0	2558.7	2627.9
40°	2229.6	2268.4	2234.4	2143.4	2222.3
42.5°	1981.9	2028.0	1890.8	1785.1	1813.1
45°	1720.8	1760.8	1524.0	1446.3	1486.4
47.5°	1494.9	1491.2	1228.9	1176.7	1120.9
50°	1181.6	1220.4	975.1	878.0	552.5
52.5°	922.9	937.5	803.9	561.0	363.1
55°	793.0	754.1	695.8	445.7	310.9
57.5°	704.3	655.8	616.9	414.1	284.2
60°	642.4	587.8	558.6	393.5	261.1
62.5°	572.0	529.5	518.5	375.2	240.4
65°	505.2	472.4	471.2	358.2	221.0
67.5°	438.4	420.2	425.0	337.6	199.2
70°	374.0	370.4	374.0	310.9	176.1
72.5°	319.4	315.7	325.5	276.9	150.6
75°	268.4	264.7	275.7	238.0	128.7
77.5°	213.7	216.2	223.4	197.9	108.1
80°	166.4	166.4	174.9	155.4	88.6
82.5°	119.0	120.2	125.1	114.2	69.2
85°	72.9	72.9	76.5	75.3	48.6
87.5°	24.3	27.9	32.8	35.2	24.3
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	17.85	19.20	18.22	19.52	19.83	14.18	15.54	14.55	15.85	16.16
	3H	19.59	20.80	19.97	21.12	21.49	16.16	17.37	16.54	17.69	18.06
	4H	20.26	21.39	20.66	21.74	22.12	16.86	17.99	17.26	18.34	18.72
	6H	20.77	21.80	21.18	22.17	22.57	17.39	18.42	17.80	18.79	19.19
	8H	20.94	21.92	21.37	22.31	22.72	17.57	18.56	18.00	18.95	19.35
	12H	21.05	21.99	21.48	22.37	22.80	17.71	18.65	18.14	19.04	19.47
4H	2H	18.38	19.51	18.78	19.86	20.24	15.80	16.93	16.21	17.28	17.66
	3H	20.36	21.29	20.77	21.69	22.09	17.98	18.91	18.39	19.32	19.72
	4H	21.16	21.99	21.59	22.41	22.86	18.86	19.70	19.30	20.12	20.56
	6H	21.80	22.53	22.26	22.97	23.44	19.50	20.23	19.97	20.67	21.14
	8H	22.02	22.70	22.49	23.15	23.62	19.71	20.39	20.18	20.84	21.31
	12H	22.18	22.78	22.66	23.26	23.73	19.87	20.47	20.36	20.95	21.43
8H	4H	21.44	22.12	21.91	22.57	23.04	19.51	20.19	19.98	20.63	21.10
	6H	22.23	22.78	22.73	23.28	23.76	20.37	20.93	20.87	21.42	21.90
	8H	22.53	23.03	23.05	23.54	24.03	20.70	21.20	21.22	21.71	22.20
	12H	22.76	23.20	23.28	23.70	24.27	20.96	21.40	21.48	21.90	22.47
12H	4H	21.46	22.06	21.95	22.54	23.02	19.58	20.18	20.07	20.67	21.14
	6H	22.28	22.78	22.80	23.29	23.78	20.51	21.01	21.03	21.52	22.01
	8H	22.64	23.08	23.16	23.58	24.15	20.92	21.36	21.44	21.86	22.43