

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: P893948

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

Issue Date: 11/11/2024

**Test Information**

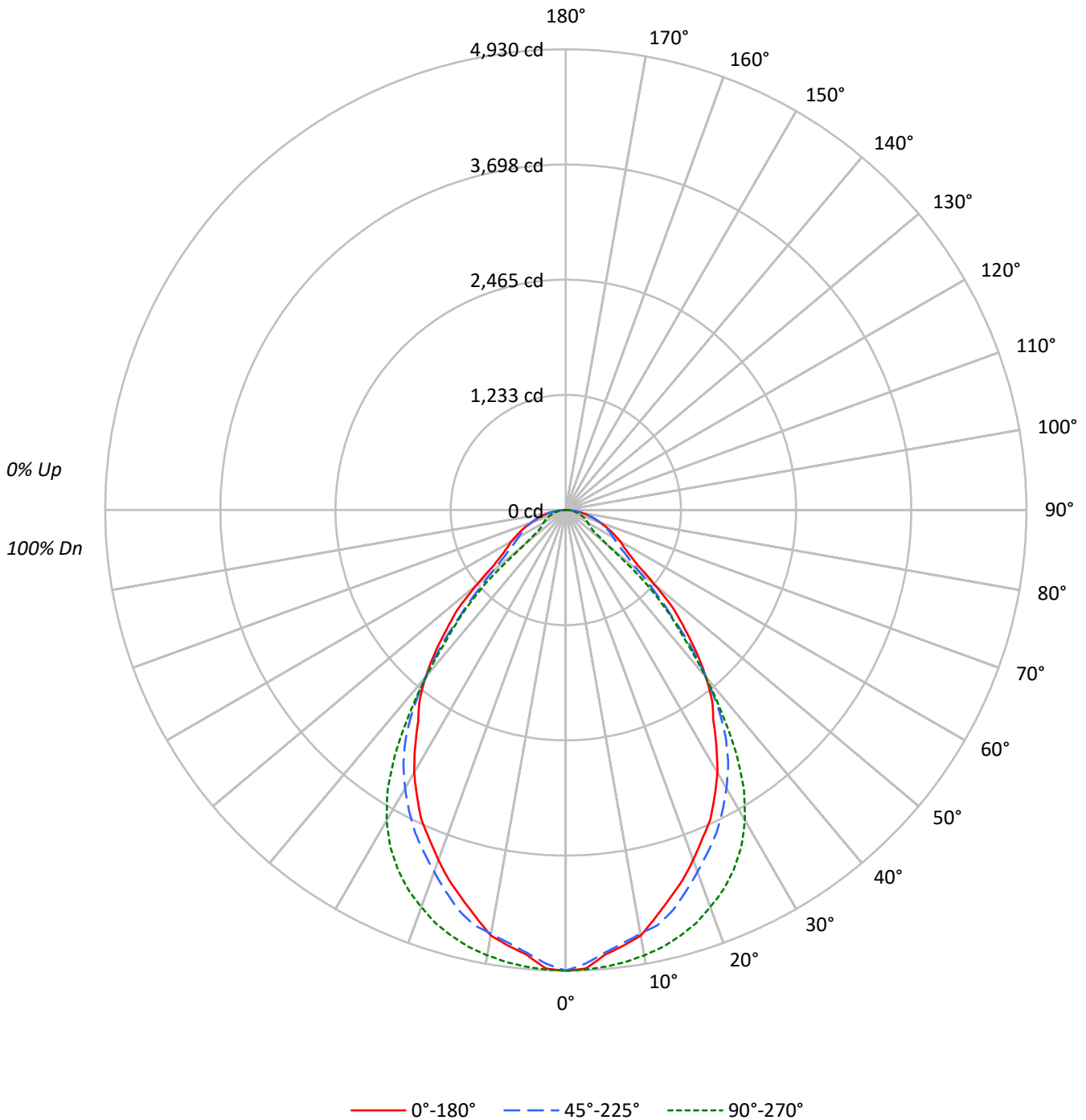
Test Method: LM-79-2019  
Report Number: P893948  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-8HL-LVRA-UNV-L850  
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 5000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8001.0 lumens  
Efficiency: N/A  
Efficacy: 138.2 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	102	100	
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	88	
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	80	78	
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	71	69	
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	63	62	
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	57	55	
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	52	50	
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	47	45	
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	43	41	
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	40	38	
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	37	35	

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

	0°	45°	90°
0°	35076	35076	35076
5°	34130	33976	35037
10°	33405	33258	34956
15°	31680	32654	34760
20°	30179	31199	34229
25°	28707	29934	33355
30°	26671	28258	31494
35°	23916	25968	27623
40°	21667	21714	21596
45°	18116	16045	15649
50°	13685	11294	6399
55°	10292	9031	4035
60°	9564	8317	3888
65°	8899	8300	3892
70°	8140	8140	3832
75°	7719	7928	3703
80°	7134	7498	3802
85°	6221	6531	4147

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 18538 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	455.4	5.7
10°-20°	1254.8	15.7
20°-30°	1779.3	22.2
30°-40°	1833.0	22.9
40°-50°	1280.3	16.0
50°-60°	614.3	7.7
60°-70°	431.0	5.4
70°-80°	269.5	3.4
80°-90°	83.3	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°	3489.4	43.6
0°-40°	5322.5	66.5
0°-60°	7217.2	90.2
0°-90°	8001.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8001.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4930	4930	4930	4930	4930	
5°	4779	4772	4757	4882	4906	452
15°	4301	4333	4433	4560	4719	1211
25°	3657	3694	3813	4071	4249	1672
35°	2753	2828	2990	3052	3180	1735
45°	1800	1842	1595	1513	1555	1387
55°	830	789	728	466	325	777
65°	529	494	493	375	231	524
75°	281	277	288	249	135	296
85°	76	76	80	79	51	85
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4929.9	4929.9	4929.9	4929.9	4929.9
2.5°	4910.8	4895.6	4858.7	4926.1	4921.0
5°	4778.7	4772.3	4757.1	4881.6	4905.7
7.5°	4703.7	4691.0	4673.2	4810.4	4877.8
10°	4623.7	4638.9	4603.3	4729.1	4838.4
12.5°	4458.5	4499.1	4547.4	4645.3	4790.1
15°	4300.9	4332.7	4433.1	4560.1	4719.0
17.5°	4153.5	4190.4	4276.8	4467.4	4636.4
20°	3985.8	4036.7	4120.5	4364.5	4520.7
22.5°	3813.0	3860.0	3965.5	4227.2	4401.3
25°	3656.7	3693.6	3813.0	4071.0	4248.8
27.5°	3449.6	3518.3	3631.3	3880.4	4067.1
30°	3246.3	3304.8	3439.5	3649.1	3833.4
32.5°	3001.1	3086.3	3234.9	3395.0	3548.7
35°	2753.4	2828.3	2989.7	3051.9	3180.3
37.5°	2572.9	2593.3	2684.7	2677.1	2749.5
40°	2332.8	2373.5	2337.9	2242.6	2325.2
42.5°	2073.6	2121.9	1978.3	1867.8	1897.0
45°	1800.4	1842.4	1594.6	1513.3	1555.2
47.5°	1564.1	1560.3	1285.8	1231.2	1172.8
50°	1236.3	1276.9	1020.3	918.6	578.1
52.5°	965.6	980.9	841.1	587.0	379.9
55°	829.7	789.0	728.0	466.3	325.3
57.5°	736.9	686.1	645.5	433.3	297.3
60°	672.1	615.0	584.5	411.7	273.2
62.5°	598.4	554.0	542.5	392.6	251.6
65°	528.6	494.3	493.0	374.8	231.2
67.5°	458.7	439.6	444.7	353.2	208.4
70°	391.3	387.5	391.3	325.3	184.2
72.5°	334.2	330.4	340.5	289.7	157.6
75°	280.8	277.0	288.4	249.0	134.7
77.5°	223.6	226.2	233.8	207.1	113.1
80°	174.1	174.1	183.0	162.6	92.8
82.5°	124.5	125.8	130.9	119.4	72.4
85°	76.2	76.2	80.0	78.8	50.8
87.5°	25.4	29.2	34.3	36.8	25.4
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	18.01	19.36	18.37	19.67	19.99	14.34	15.69	14.70	16.01	16.32
	3H	19.75	20.95	20.12	21.28	21.65	16.32	17.52	16.69	17.85	18.22
	4H	20.42	21.54	20.82	21.89	22.28	17.02	18.15	17.42	18.50	18.88
	6H	20.92	21.96	21.34	22.33	22.73	17.54	18.58	17.96	18.95	19.34
	8H	21.09	22.08	21.52	22.47	22.88	17.73	18.71	18.16	19.10	19.51
	12H	21.20	22.15	21.64	22.53	22.96	17.87	18.81	18.30	19.19	19.62
4H	2H	18.54	19.66	18.94	20.01	20.40	15.96	17.09	16.36	17.44	17.82
	3H	20.51	21.44	20.93	21.85	22.25	18.14	19.07	18.55	19.47	19.88
	4H	21.32	22.15	21.75	22.57	23.01	19.02	19.85	19.45	20.27	20.72
	6H	21.96	22.68	22.42	23.13	23.59	19.66	20.39	20.12	20.83	21.30
	8H	22.18	22.86	22.65	23.30	23.77	19.87	20.55	20.34	20.99	21.46
	12H	22.33	22.93	22.82	23.42	23.89	20.03	20.63	20.51	21.11	21.58
8H	4H	21.60	22.28	22.07	22.72	23.19	19.67	20.34	20.14	20.79	21.26
	6H	22.38	22.94	22.88	23.43	23.91	20.53	21.08	21.03	21.58	22.06
	8H	22.69	23.19	23.21	23.70	24.19	20.86	21.36	21.38	21.87	22.36
	12H	22.92	23.36	23.43	23.86	24.42	21.12	21.56	21.63	22.05	22.62
12H	4H	21.62	22.22	22.10	22.70	23.17	19.74	20.34	20.23	20.82	21.30
	6H	22.44	22.94	22.96	23.45	23.94	20.67	21.17	21.19	21.68	22.17
	8H	22.80	23.24	23.31	23.74	24.31	21.08	21.52	21.59	22.01	22.58