

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: P893852

Luminaire Tested: 4MB-7HL-LVRA-UNV-L850

Issue Date: 11/11/2024

**Test Information**

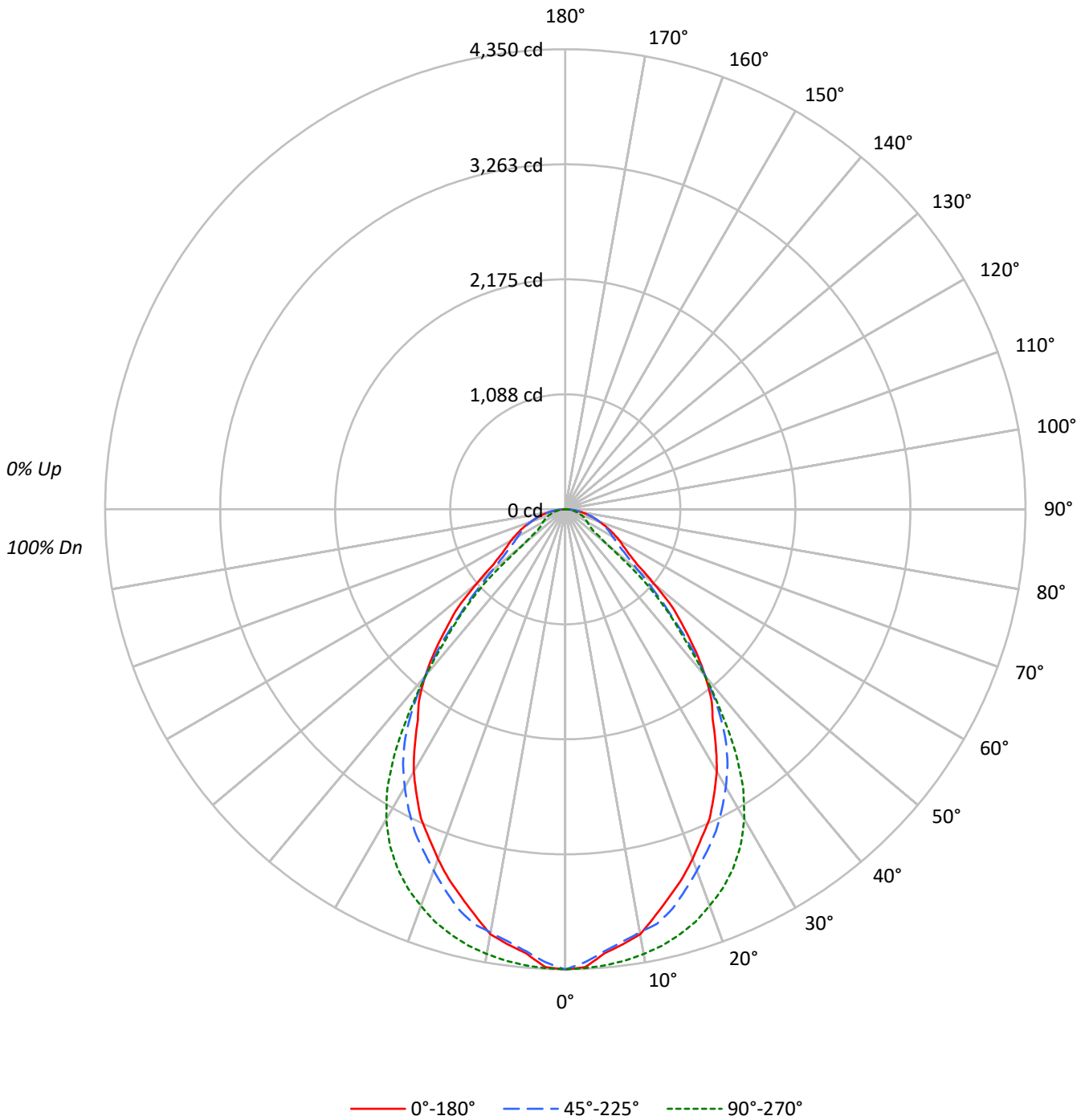
Test Method: LM-79-2019  
Report Number: P893852  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-7HL-LVRA-UNV-L850  
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 5000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7060.0 lumens  
Efficiency: N/A  
Efficacy: 136.3 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): 51.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 4  
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		0
RCR																			
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102		100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90		88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80		78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71		69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63		62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57		55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52		50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47		45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43		41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40		38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37		35

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

	0°	45°	90°
0°	30951	30951	30951
5°	30116	29980	30917
10°	29476	29346	30845
15°	27955	28814	30672
20°	26630	27530	30204
25°	25331	26414	29432
30°	23534	24935	27790
35°	21102	22914	24374
40°	19118	19160	19056
45°	15986	14157	13808
50°	12075	9965	5646
55°	9081	7969	3560
60°	8440	7338	3429
65°	7852	7323	3434
70°	7183	7183	3383
75°	6812	6996	3266
80°	6294	6613	3352
85°	5494	5763	3657

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 16358 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	401.8	5.7
10°-20°	1107.2	15.7
20°-30°	1570.0	22.2
30°-40°	1617.5	22.9
40°-50°	1129.7	16.0
50°-60°	542.1	7.7
60°-70°	380.3	5.4
70°-80°	237.8	3.4
80°-90°	73.5	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°	3079.0	43.6
0°-40°	4696.5	66.5
0°-60°	6368.3	90.2
0°-90°	7060.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7060.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4350	4350	4350	4350	4350	
5°	4217	4211	4198	4308	4329	399
15°	3795	3823	3912	4024	4164	1069
25°	3227	3259	3365	3592	3749	1475
35°	2430	2496	2638	2693	2806	1531
45°	1589	1626	1407	1335	1372	1224
55°	732	696	642	412	287	686
65°	466	436	435	331	204	462
75°	248	244	254	220	119	261
85°	67	67	71	70	45	75
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4350.1	4350.1	4350.1	4350.1	4350.1
2.5°	4333.3	4319.8	4287.3	4346.7	4342.2
5°	4216.7	4211.0	4197.6	4307.5	4328.8
7.5°	4150.5	4139.3	4123.6	4244.7	4304.1
10°	4079.9	4093.3	4061.9	4172.9	4269.3
12.5°	3934.1	3970.0	4012.6	4098.9	4226.7
15°	3795.1	3823.1	3911.7	4023.8	4164.0
17.5°	3665.0	3697.6	3773.8	3942.0	4091.1
20°	3517.1	3561.9	3635.9	3851.2	3989.1
22.5°	3364.6	3406.1	3499.1	3730.1	3883.7
25°	3226.7	3259.2	3364.6	3592.2	3749.1
27.5°	3043.9	3104.5	3204.3	3424.0	3588.8
30°	2864.5	2916.1	3035.0	3220.0	3382.5
32.5°	2648.2	2723.3	2854.5	2995.7	3131.4
35°	2429.5	2495.7	2638.1	2693.0	2806.2
37.5°	2270.3	2288.3	2369.0	2362.3	2426.2
40°	2058.4	2094.3	2062.9	1978.8	2051.7
42.5°	1829.7	1872.3	1745.6	1648.1	1673.9
45°	1588.7	1625.7	1407.0	1335.3	1372.3
47.5°	1380.1	1376.8	1134.6	1086.4	1034.8
50°	1090.9	1126.8	900.3	810.6	510.1
52.5°	852.1	865.5	742.2	518.0	335.2
55°	732.1	696.2	642.4	411.5	287.0
57.5°	650.3	605.4	569.5	382.3	262.3
60°	593.1	542.6	515.7	363.3	241.0
62.5°	528.1	488.8	478.7	346.4	222.0
65°	466.4	436.1	435.0	330.7	204.0
67.5°	404.7	387.9	392.4	311.7	183.9
70°	345.3	342.0	345.3	287.0	162.6
72.5°	294.9	291.5	300.5	255.6	139.0
75°	247.8	244.4	254.5	219.7	118.8
77.5°	197.3	199.6	206.3	182.7	99.8
80°	153.6	153.6	161.4	143.5	81.8
82.5°	109.9	111.0	115.5	105.4	63.9
85°	67.3	67.3	70.6	69.5	44.8
87.5°	22.4	25.8	30.3	32.5	22.4
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	17.57	18.93	17.94	19.24	19.55	13.90	15.26	14.27	15.57	15.89
	3H	19.31	20.52	19.69	20.85	21.21	15.88	17.09	16.26	17.42	17.78
	4H	19.98	21.11	20.38	21.46	21.84	16.58	17.71	16.99	18.06	18.44
	6H	20.49	21.53	20.90	21.90	22.29	17.11	18.15	17.52	18.52	18.91
	8H	20.66	21.65	21.09	22.04	22.44	17.29	18.28	17.72	18.67	19.07
	12H	20.77	21.71	21.20	22.10	22.53	17.43	18.37	17.86	18.76	19.19
4H	2H	18.10	19.23	18.50	19.58	19.96	15.53	16.65	15.93	17.00	17.39
	3H	20.08	21.01	20.49	21.41	21.82	17.70	18.63	18.12	19.04	19.44
	4H	20.88	21.72	21.32	22.14	22.58	18.58	19.42	19.02	19.84	20.28
	6H	21.53	22.25	21.99	22.69	23.16	19.23	19.95	19.69	20.40	20.86
	8H	21.75	22.42	22.21	22.87	23.34	19.44	20.11	19.90	20.56	21.03
	12H	21.90	22.50	22.38	22.98	23.45	19.59	20.19	20.08	20.68	21.15
8H	4H	21.17	21.84	21.63	22.29	22.76	19.23	19.91	19.70	20.36	20.83
	6H	21.95	22.50	22.45	23.00	23.48	20.09	20.65	20.59	21.14	21.62
	8H	22.25	22.75	22.77	23.26	23.76	20.42	20.92	20.94	21.43	21.93
	12H	22.49	22.93	23.00	23.42	23.99	20.69	21.13	21.20	21.62	22.19
12H	4H	21.18	21.78	21.67	22.26	22.74	19.31	19.91	19.79	20.39	20.86
	6H	22.00	22.50	22.52	23.01	23.51	20.23	20.73	20.75	21.24	21.74
	8H	22.37	22.81	22.88	23.30	23.87	20.64	21.09	21.16	21.58	22.15