

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: P893945

Luminaire Tested: 4MB-8HL-LVRA-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893945
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-L830
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

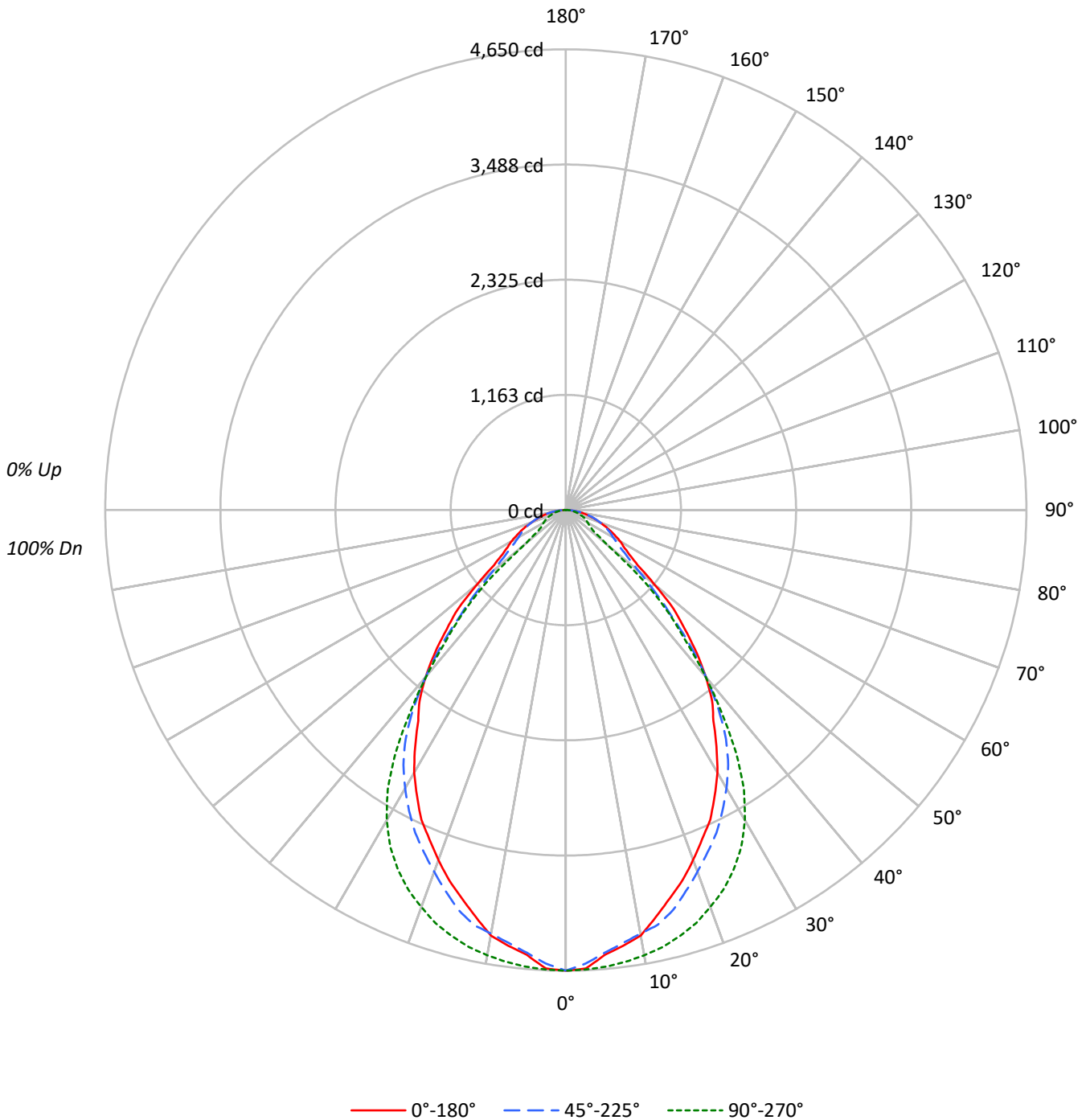
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7546.0 lumens
Efficiency: N/A
Efficacy: 130.3 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): 57.9
Input Voltage (V): 120
Input Current (A_{in}): 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		
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°	33081	33081	33081
5°	32189	32044	33045
10°	31505	31367	32968
15°	29879	30797	32783
20°	28463	29425	32283
25°	27075	28232	31459
30°	25154	26651	29703
35°	22555	24491	26052
40°	20434	20479	20368
45°	17085	15132	14759
50°	12906	10652	6035
55°	9707	8517	3806
60°	9020	7844	3666
65°	8393	7829	3672
70°	7678	7678	3616
75°	7279	7477	3491
80°	6728	7072	3585
85°	5870	6163	3910

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 17484 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	429.5	5.7
10°-20°	1183.4	15.7
20°-30°	1678.1	22.2
30°-40°	1728.8	22.9
40°-50°	1207.5	16.0
50°-60°	579.4	7.7
60°-70°	406.5	5.4
70°-80°	254.2	3.4
80°-90°	78.6	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°	3291.0	43.6
0°-40°	5019.8	66.5
0°-60°	6806.7	90.2
0°-90°	7546.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7546.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4650	4650	4650	4650	4650	
5°	4507	4501	4487	4604	4627	427
15°	4056	4086	4181	4301	4451	1142
25°	3449	3484	3596	3840	4007	1577
35°	2597	2668	2820	2878	2999	1636
45°	1698	1738	1504	1427	1467	1308
55°	782	744	687	440	307	733
65°	498	466	465	354	218	494
75°	265	261	272	235	127	279
85°	72	72	76	74	48	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4649.5	4649.5	4649.5	4649.5	4649.5
2.5°	4631.5	4617.2	4582.4	4645.9	4641.1
5°	4506.9	4500.9	4486.6	4604.0	4626.8
7.5°	4436.2	4424.2	4407.5	4536.9	4600.4
10°	4360.7	4375.1	4341.6	4460.2	4563.2
12.5°	4204.9	4243.3	4288.8	4381.1	4517.7
15°	4056.4	4086.3	4181.0	4300.8	4450.6
17.5°	3917.3	3952.1	4033.6	4213.3	4372.7
20°	3759.2	3807.1	3886.2	4116.3	4263.7
22.5°	3596.2	3640.5	3740.0	3986.8	4151.0
25°	3448.8	3483.5	3596.2	3839.5	4007.2
27.5°	3253.5	3318.2	3424.8	3659.7	3835.9
30°	3061.7	3116.9	3243.9	3441.6	3615.4
32.5°	2830.5	2910.7	3051.0	3201.9	3346.9
35°	2596.8	2667.5	2819.7	2878.4	2999.4
37.5°	2426.6	2445.8	2532.1	2524.9	2593.2
40°	2200.1	2238.5	2204.9	2115.1	2192.9
42.5°	1955.7	2001.2	1865.8	1761.5	1789.1
45°	1698.0	1737.6	1503.9	1427.2	1466.8
47.5°	1475.1	1471.6	1212.7	1161.2	1106.1
50°	1166.0	1204.3	962.3	866.4	545.2
52.5°	910.7	925.1	793.3	553.6	358.3
55°	782.5	744.2	686.6	439.8	306.8
57.5°	695.0	647.1	608.8	408.6	280.4
60°	633.9	580.0	551.2	388.3	257.6
62.5°	564.4	522.5	511.7	370.3	237.3
65°	498.5	466.2	465.0	353.5	218.1
67.5°	432.6	414.6	419.4	333.1	196.5
70°	369.1	365.5	369.1	306.8	173.8
72.5°	315.2	311.6	321.2	273.2	148.6
75°	264.8	261.2	272.0	234.9	127.0
77.5°	210.9	213.3	220.5	195.3	106.7
80°	164.2	164.2	172.6	153.4	87.5
82.5°	117.4	118.6	123.4	112.6	68.3
85°	71.9	71.9	75.5	74.3	47.9
87.5°	24.0	27.6	32.4	34.8	24.0
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	17.80	19.16	18.17	19.47	19.78	14.14	15.49	14.50	15.80	16.12
	3H	19.54	20.75	19.92	21.08	21.44	16.11	17.32	16.49	17.65	18.01
	4H	20.21	21.34	20.62	21.69	22.07	16.82	17.94	17.22	18.29	18.68
	6H	20.72	21.76	21.13	22.13	22.52	17.34	18.38	17.75	18.75	19.14
	8H	20.89	21.88	21.32	22.27	22.67	17.52	18.51	17.95	18.90	19.30
	12H	21.00	21.94	21.43	22.33	22.76	17.66	18.61	18.10	18.99	19.42
4H	2H	18.33	19.46	18.74	19.81	20.19	15.76	16.89	16.16	17.24	17.62
	3H	20.31	21.24	20.72	21.64	22.05	17.94	18.87	18.35	19.27	19.67
	4H	21.11	21.95	21.55	22.37	22.81	18.82	19.65	19.25	20.07	20.51
	6H	21.76	22.48	22.22	22.93	23.39	19.46	20.18	19.92	20.63	21.09
	8H	21.98	22.65	22.44	23.10	23.57	19.67	20.34	20.14	20.79	21.26
	12H	22.13	22.73	22.62	23.21	23.69	19.83	20.43	20.31	20.91	21.38
8H	4H	21.40	22.07	21.86	22.52	22.99	19.46	20.14	19.93	20.59	21.06
	6H	22.18	22.74	22.68	23.23	23.71	20.33	20.88	20.83	21.38	21.86
	8H	22.48	22.98	23.00	23.50	23.99	20.65	21.15	21.17	21.67	22.16
	12H	22.72	23.16	23.23	23.65	24.22	20.92	21.36	21.43	21.85	22.42
12H	4H	21.41	22.01	21.90	22.50	22.97	19.54	20.14	20.02	20.62	21.09
	6H	22.23	22.73	22.75	23.25	23.74	20.46	20.96	20.98	21.48	21.97
	8H	22.60	23.04	23.11	23.53	24.10	20.88	21.32	21.39	21.81	22.38