

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: P893912

Luminaire Tested: 4MB-8HL-AOL-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893912
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-19)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-8HL-AOL-UNV-L950
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 9
5000K CCT
Light Source: -
Ballast/Driver: -

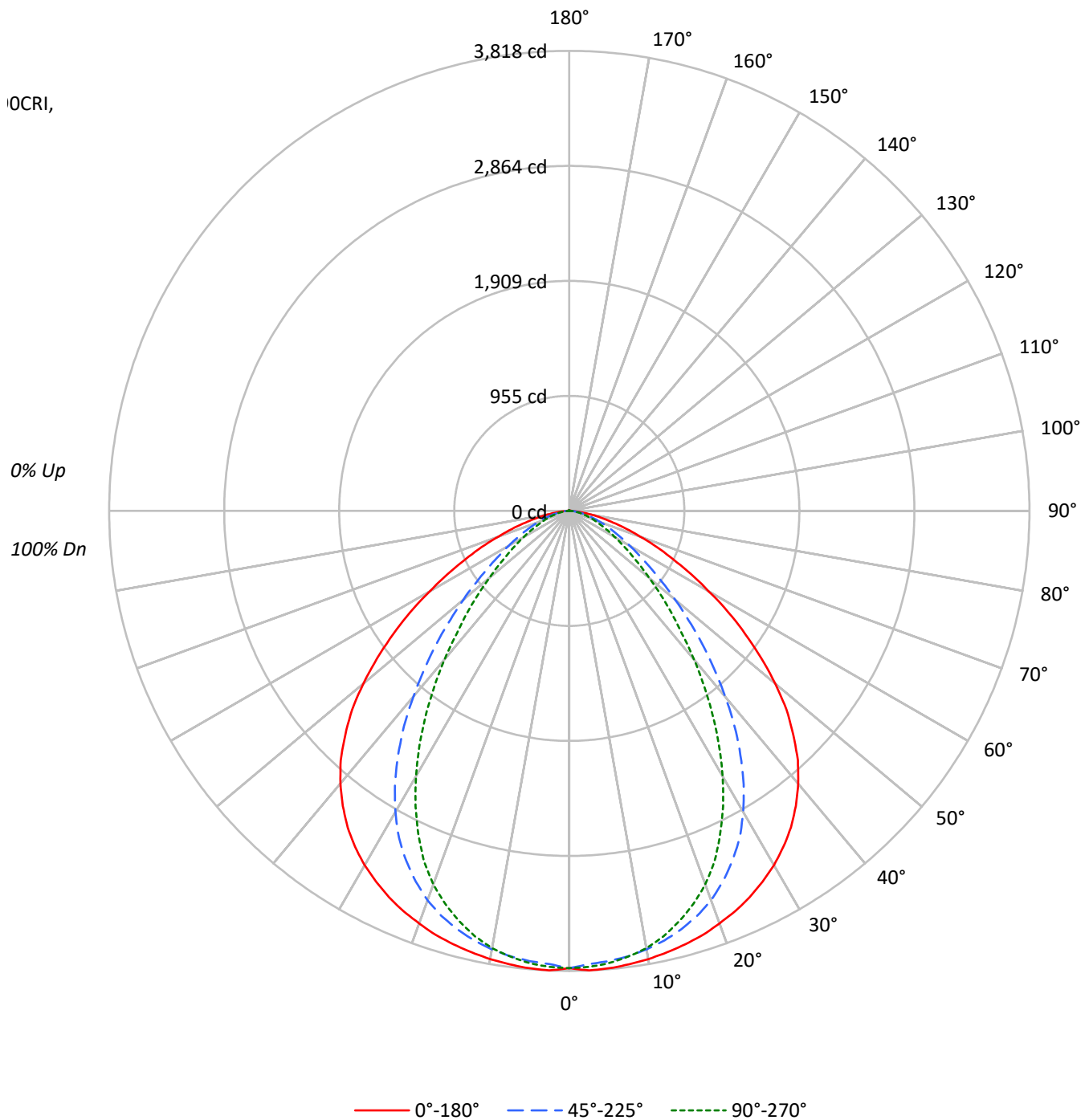
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7502.1 lumens
Efficiency: N/A
Efficacy: 129.6 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.05 / 1.16
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 57.9
Input Voltage (V): 120
Input Current (Ain): 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				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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	89	89	89	87
2	102	95	90	85	100	93	88	84	90	86	82	87	83	80	84	81	78	78	78	78	76
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	68	68	68	67
4	87	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	61	61	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	54	54	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	52	48	48	48	48	46
7	70	58	50	45	69	57	50	45	56	49	44	55	48	44	53	48	44	44	44	44	42
8	66	54	46	40	64	53	45	40	52	45	40	50	44	40	49	44	40	40	40	40	38
9	62	49	42	37	61	49	42	37	48	41	37	47	41	36	46	40	36	36	36	36	34
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	33	33	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	38651	38651	38651
5°	38953	38346	38515
10°	39061	38213	38112
15°	39253	37889	37175
20°	39485	37274	35750
25°	39764	35993	33287
30°	39932	33924	29925
35°	39869	30786	25837
40°	39283	26749	21427
45°	37853	22444	17253
50°	35346	18205	13697
55°	31664	14535	10968
60°	27235	11863	8966
65°	22864	9863	7415
70°	18664	8290	6363
75°	14803	7016	5418
80°	11519	6000	4680
85°	8881	5363	4043

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 37853 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	359.0	4.8
10°-20°	1019.1	13.6
20°-30°	1483.0	19.8
30°-40°	1594.3	21.3
40°-50°	1331.4	17.7
50°-60°	894.3	11.9
60°-70°	508.1	6.8
70°-80°	231.4	3.1
80°-90°	59.1	0.8
90°-100°	6.6	0.1
100°-110°	4.8	0.1
110°-120°	2.8	0.0
120°-130°	1.9	0.0
130°-140°	1.8	0.0
140°-150°	1.6	0.0
150°-160°	1.4	0.0
160°-170°	1.1	0.0
170°-180°	0.4	0.0
0°-30°	2861.1	38.1
0°-40°	4455.4	59.4
0°-60°	6681.1	89.1
0°-90°	7479.7	99.7
90°-120°	14.2	0.2
90°-150°	19.5	0.3
90°-180°	22.0	0.3
0°-180°	7502.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3795	3795	3795	3795	3795	
5°	3810	3800	3751	3781	3767	363
15°	3723	3693	3594	3565	3526	1052
25°	3539	3436	3203	3037	2962	1631
35°	3207	2950	2476	2180	2078	2001
45°	2628	2168	1558	1275	1198	2020
55°	1783	1282	819	656	618	1594
65°	949	652	409	328	308	953
75°	376	272	178	145	138	414
85°	76	62	46	37	35	86
90°	10	8	6	5	4	9
95°	12	8	5	3	3	10
105°	9	7	4	2	2	9
115°	4	4	2	2	2	5
125°	3	2	2	2	2	3
135°	2	2	2	2	2	2
145°	2	2	3	3	2	1
155°	2	3	3	3	3	1
165°	3	3	4	4	4	1
175°	3	4	4	4	4	0
180°	4	4	4	4	4	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3795.2	3795.2	3795.2	3795.2	3795.2
2.5°	3817.8	3807.3	3764.4	3797.5	3788.5
5°	3810.3	3799.8	3750.9	3781.0	3767.4
7.5°	3796.0	3785.5	3728.3	3750.1	3732.0
10°	3777.2	3762.1	3695.2	3701.2	3685.4
12.5°	3752.4	3729.8	3650.8	3640.2	3615.4
15°	3723.0	3692.9	3593.6	3565.0	3525.9
17.5°	3689.2	3645.5	3524.4	3464.2	3421.3
20°	3643.3	3587.6	3439.3	3343.8	3298.6
22.5°	3595.9	3519.9	3329.5	3203.1	3148.9
25°	3538.7	3436.3	3203.1	3036.8	2962.3
27.5°	3470.2	3342.3	3060.9	2851.7	2762.9
30°	3395.7	3231.7	2884.8	2644.0	2544.7
32.5°	3306.2	3101.5	2692.2	2416.8	2313.7
35°	3206.8	2949.5	2476.2	2179.8	2078.2
37.5°	3086.5	2773.5	2252.0	1937.5	1839.7
40°	2954.8	2592.1	2012.0	1696.7	1611.7
42.5°	2806.6	2382.9	1778.7	1475.5	1383.7
45°	2628.2	2167.7	1558.3	1274.6	1197.9
47.5°	2446.1	1930.0	1338.6	1081.2	1026.3
50°	2230.9	1706.5	1149.0	921.0	864.5
52.5°	2007.5	1486.8	972.1	781.8	731.4
55°	1783.3	1282.1	818.6	656.1	617.7
57.5°	1565.1	1094.0	688.5	554.5	521.4
60°	1337.1	928.5	582.4	467.3	440.2
62.5°	1141.4	784.8	489.1	393.5	370.9
65°	948.8	652.4	409.3	328.1	307.7
67.5°	787.0	538.7	339.3	272.4	255.1
70°	626.8	438.7	278.4	225.0	213.7
72.5°	499.6	349.9	225.7	182.8	171.6
75°	376.2	271.6	178.3	145.2	137.7
77.5°	282.9	206.2	137.7	112.9	104.6
80°	196.4	147.5	102.3	83.5	79.8
82.5°	125.7	101.6	70.7	59.4	54.9
85°	76.0	61.7	45.9	36.9	34.6
87.5°	36.1	30.1	23.3	18.1	16.6
90°	9.8	8.3	6.0	5.3	4.5
92.5°	11.3	8.3	5.3	3.8	3.0
95°	12.0	8.3	5.3	3.0	3.0
97.5°	12.0	9.0	4.5	3.0	2.3
100°	11.3	8.3	4.5	3.0	2.3
102.5°	9.8	7.5	3.8	2.3	2.3
105°	9.0	6.8	3.8	2.3	1.5
107.5°	7.5	6.0	3.0	2.3	1.5
110°	6.8	5.3	3.0	2.3	1.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.3	4.5	3.0	2.3	1.5
115°	4.5	3.8	2.3	1.5	1.5
117.5°	3.8	3.0	2.3	1.5	1.5
120°	3.8	3.0	2.3	1.5	1.5
122.5°	3.0	3.0	2.3	1.5	1.5
125°	3.0	2.3	2.3	1.5	1.5
127.5°	2.3	2.3	2.3	1.5	1.5
130°	2.3	2.3	2.3	2.3	1.5
132.5°	2.3	2.3	2.3	2.3	1.5
135°	2.3	2.3	2.3	2.3	2.3
137.5°	2.3	2.3	2.3	2.3	2.3
140°	2.3	2.3	2.3	2.3	2.3
142.5°	2.3	2.3	3.0	2.3	2.3
145°	2.3	2.3	3.0	3.0	2.3
147.5°	2.3	2.3	3.0	3.0	3.0
150°	2.3	2.3	3.0	3.0	3.0
152.5°	2.3	3.0	3.0	3.0	3.0
155°	2.3	3.0	3.0	3.0	3.0
157.5°	3.0	3.0	3.0	3.8	3.8
160°	3.0	3.0	3.8	3.8	3.8
162.5°	3.0	3.0	3.8	3.8	3.8
165°	3.0	3.0	3.8	4.5	4.5
167.5°	3.0	3.8	3.8	4.5	4.5
170°	3.0	3.8	3.8	4.5	4.5
172.5°	3.0	3.8	4.5	4.5	4.5
175°	3.0	3.8	4.5	4.5	4.5
177.5°	3.8	3.8	4.5	4.5	4.5
180°	4.5	4.5	4.5	4.5	4.5



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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	23.00	24.43	23.37	24.75	25.07	17.68	19.11	18.05	19.43	19.75
	3H	24.31	25.59	24.70	25.93	26.30	18.69	19.97	19.07	20.30	20.67
	4H	24.73	25.93	25.14	26.28	26.67	19.03	20.22	19.43	20.58	20.97
	6H	24.99	26.09	25.41	26.47	26.87	19.26	20.36	19.68	20.73	21.13
	8H	25.06	26.10	25.49	26.50	26.91	19.32	20.37	19.76	20.77	21.18
	12H	25.09	26.09	25.52	26.48	26.91	19.36	20.36	19.80	20.75	21.19
4H	2H	22.99	24.19	23.40	24.54	24.93	18.32	19.52	18.73	19.87	20.26
	3H	24.46	25.45	24.88	25.86	26.27	19.51	20.50	19.93	20.91	21.32
	4H	24.97	25.86	25.41	26.28	26.73	19.93	20.82	20.37	21.24	21.69
	6H	25.34	26.11	25.81	26.56	27.03	20.25	21.01	20.71	21.46	21.93
	8H	25.44	26.16	25.91	26.61	27.08	20.34	21.05	20.81	21.51	21.98
	12H	25.51	26.14	26.00	26.63	27.11	20.41	21.04	20.90	21.53	22.01
8H	4H	24.95	25.67	25.42	26.12	26.59	20.27	20.99	20.75	21.44	21.92
	6H	25.37	25.96	25.88	26.46	26.95	20.67	21.26	21.17	21.76	22.24
	8H	25.51	26.04	26.04	26.56	27.06	20.81	21.34	21.33	21.85	22.35
	12H	25.63	26.10	26.15	26.60	27.17	20.93	21.39	21.44	21.89	22.47
12H	4H	24.92	25.56	25.41	26.05	26.52	20.32	20.95	20.81	21.44	21.92
	6H	25.34	25.87	25.86	26.38	26.88	20.74	21.26	21.26	21.78	22.28
	8H	25.51	25.98	26.03	26.48	27.05	20.93	21.39	21.44	21.89	22.46