

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: P893254

Luminaire Tested: 4MB-2SL-AOL-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893254
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-14)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-2SL-AOL-UNV-L935
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 9
3500K CCT
Light Source: -
Ballast/Driver: -

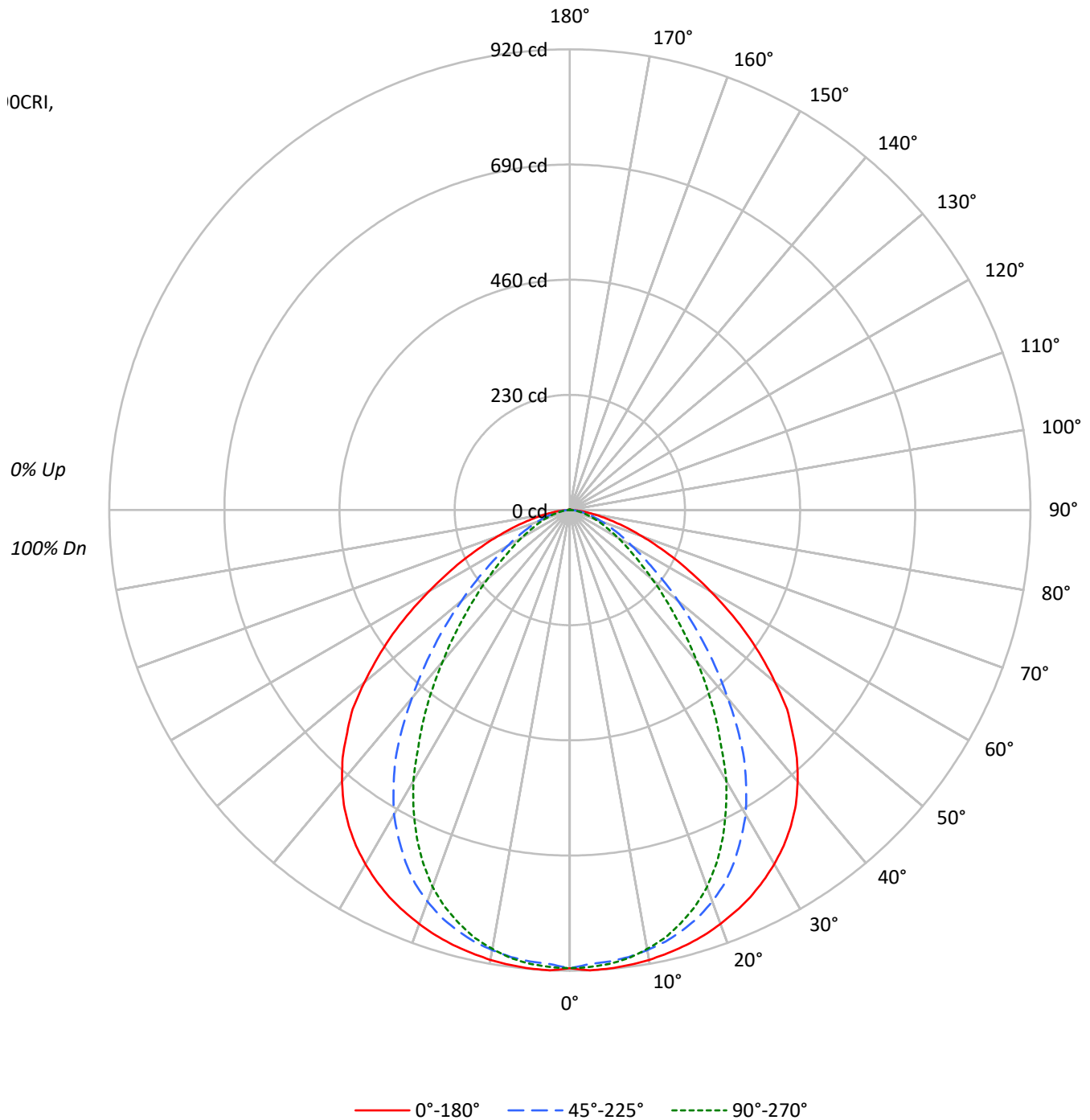
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1828.0 lumens
Efficiency: N/A
Efficacy: 132.5 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 13.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.92
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	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	87		
2	102	95	89	85	100	93	88	84	90	85	82	87	83	80	84	81	78	76		
3	94	85	78	73	92	84	77	72	81	75	71	78	73	70	76	72	68	66		
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58		
5	81	70	62	56	79	69	61	55	66	60	55	65	59	54	63	58	54	52		
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46		
7	70	58	50	45	69	57	50	44	56	49	44	54	48	44	53	48	43	42		
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38		
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34		
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9320	9320	9320
5°	9395	9253	9301
10°	9433	9230	9206
15°	9482	9164	9012
20°	9534	9016	8683
25°	9586	8722	8121
30°	9604	8264	7353
35°	9572	7549	6324
40°	9413	6533	5255
45°	9062	5490	4253
50°	8481	4471	3406
55°	7663	3594	2731
60°	6610	2925	2261
65°	5593	2436	1860
70°	4565	2072	1578
75°	3656	1747	1342
80°	2850	1496	1155
85°	2208	1320	1040

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9062 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	4.7
10°-20°	246.6	13.5
20°-30°	359.4	19.7
30°-40°	387.4	21.2
40°-50°	324.8	17.8
50°-60°	219.9	12.0
60°-70°	125.4	6.9
70°-80°	57.3	3.1
80°-90°	15.0	0.8
90°-100°	1.9	0.1
100°-110°	1.3	0.1
110°-120°	0.7	0.0
120°-130°	0.4	0.0
130°-140°	0.4	0.0
140°-150°	0.3	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	692.7	37.9
0°-40°	1080.1	59.1
0°-60°	1624.8	88.9
0°-90°	1822.6	99.7
90°-120°	3.8	0.2
90°-150°	4.9	0.3
90°-180°	5.0	0.3
0°-180°	1828.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	915	915	915	915	915	
5°	919	916	905	912	910	87
15°	899	892	869	863	855	254
25°	853	831	776	740	723	393
35°	770	712	607	533	509	481
45°	629	525	381	314	295	484
55°	432	316	202	164	154	384
65°	232	161	101	82	77	232
75°	93	68	44	36	34	101
85°	19	16	11	10	9	22
90°	3	3	2	1	1	3
95°	4	2	1	1	1	3
105°	3	2	1	0	0	3
115°	1	1	0	0	0	1
125°	0	0	0	0	0	1
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	1	1	0
165°	0	1	1	1	1	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	915.1	915.1	915.1	915.1	915.1
2.5°	920.3	918.0	907.5	916.1	913.5
5°	919.0	916.1	905.1	912.5	909.8
7.5°	916.4	912.7	900.4	905.9	902.5
10°	912.2	907.7	892.5	895.7	890.2
12.5°	906.4	900.9	882.8	882.0	875.5
15°	899.3	891.5	869.2	863.4	854.7
17.5°	890.7	880.7	852.9	841.3	830.8
20°	879.7	866.8	831.9	813.5	801.2
22.5°	867.1	849.7	807.5	778.1	764.7
25°	853.1	830.6	776.2	740.5	722.7
27.5°	835.8	807.5	740.0	693.8	675.4
30°	816.7	780.7	702.7	643.7	625.3
32.5°	794.9	750.0	655.2	589.6	563.9
35°	769.9	711.9	607.2	532.9	508.7
37.5°	741.8	672.3	549.7	475.7	451.2
40°	708.0	625.3	491.4	418.2	395.3
42.5°	671.5	577.5	435.5	363.6	343.9
45°	629.2	525.0	381.2	314.2	295.3
47.5°	588.5	472.0	330.2	269.1	253.6
50°	535.3	415.5	282.2	227.9	215.0
52.5°	483.3	363.3	241.2	194.8	182.7
55°	431.6	315.8	202.4	164.1	153.8
57.5°	377.0	269.3	170.4	138.9	132.0
60°	324.5	229.2	143.6	116.6	111.0
62.5°	276.4	192.2	121.5	98.4	93.2
65°	232.1	161.4	101.1	81.9	77.2
67.5°	190.1	132.8	84.3	68.3	64.8
70°	153.3	107.6	69.6	56.2	53.0
72.5°	121.5	86.1	55.7	45.9	42.5
75°	92.9	68.3	44.4	36.2	34.1
77.5°	69.3	51.5	34.1	27.8	26.3
80°	48.6	37.3	25.5	21.0	19.7
82.5°	33.1	25.7	17.9	14.7	13.9
85°	18.9	16.0	11.3	9.5	8.9
87.5°	9.7	8.4	6.0	4.5	3.9
90°	2.6	2.6	1.6	1.3	1.1
92.5°	4.2	2.4	1.6	1.1	0.8
95°	3.9	2.4	1.3	0.8	0.8
97.5°	3.7	2.4	1.1	0.8	0.5
100°	3.4	2.1	1.1	0.5	0.5
102.5°	3.2	2.1	1.1	0.5	0.5
105°	2.6	1.8	0.8	0.5	0.3
107.5°	2.4	1.6	0.8	0.5	0.3
110°	1.8	1.3	0.8	0.5	0.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.6	1.3	0.5	0.5	0.3
115°	1.3	1.1	0.5	0.3	0.3
117.5°	1.1	0.8	0.5	0.3	0.3
120°	0.8	0.8	0.5	0.3	0.3
122.5°	0.8	0.5	0.5	0.3	0.3
125°	0.5	0.5	0.5	0.3	0.3
127.5°	0.5	0.5	0.5	0.3	0.3
130°	0.5	0.5	0.5	0.3	0.3
132.5°	0.5	0.5	0.5	0.5	0.3
135°	0.3	0.5	0.5	0.5	0.3
137.5°	0.5	0.5	0.5	0.5	0.5
140°	0.5	0.5	0.5	0.5	0.5
142.5°	0.5	0.5	0.5	0.5	0.5
145°	0.5	0.5	0.5	0.5	0.5
147.5°	0.5	0.5	0.5	0.5	0.5
150°	0.5	0.5	0.5	0.5	0.5
152.5°	0.5	0.5	0.5	0.5	0.5
155°	0.5	0.5	0.5	0.8	0.8
157.5°	0.5	0.5	0.8	0.8	0.8
160°	0.5	0.5	0.8	0.8	0.8
162.5°	0.5	0.5	0.8	0.8	0.8
165°	0.5	0.8	0.8	0.8	0.8
167.5°	0.5	0.8	0.8	0.8	1.1
170°	0.5	0.8	0.8	1.1	1.1
172.5°	0.5	0.8	0.8	1.1	1.1
175°	0.8	0.8	0.8	1.1	1.1
177.5°	0.8	0.8	0.8	1.1	1.1
180°	0.8	0.8	0.8	0.8	0.8



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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	18.12	19.56	18.49	19.88	20.20	12.97	14.41	13.34	14.73	15.05
	3H	19.43	20.71	19.82	21.05	21.42	13.98	15.26	14.36	15.60	15.97
	4H	19.86	21.06	20.26	21.41	21.80	14.31	15.51	14.72	15.87	16.26
	6H	20.12	21.23	20.54	21.60	22.00	14.54	15.64	14.96	16.02	16.42
	8H	20.19	21.24	20.63	21.64	22.05	14.61	15.66	15.04	16.05	16.46
	12H	20.23	21.24	20.67	21.63	22.06	14.65	15.65	15.09	16.04	16.48
4H	2H	18.12	19.32	18.53	19.68	20.06	13.59	14.79	14.00	15.15	15.53
	3H	19.59	20.58	20.00	20.98	21.39	14.79	15.78	15.21	16.18	16.59
	4H	20.11	21.00	20.55	21.42	21.87	15.20	16.09	15.64	16.51	16.96
	6H	20.49	21.26	20.96	21.71	22.18	15.51	16.28	15.98	16.73	17.20
	8H	20.60	21.32	21.07	21.77	22.25	15.61	16.32	16.08	16.78	17.25
	12H	20.68	21.32	21.17	21.80	22.28	15.68	16.32	16.17	16.80	17.28
8H	4H	20.09	20.81	20.57	21.26	21.74	15.54	16.25	16.01	16.71	17.18
	6H	20.53	21.12	21.03	21.62	22.10	15.93	16.52	16.43	17.02	17.51
	8H	20.68	21.21	21.20	21.73	22.23	16.07	16.60	16.59	17.12	17.62
	12H	20.81	21.28	21.33	21.78	22.35	16.19	16.66	16.71	17.16	17.74
12H	4H	20.07	20.70	20.56	21.19	21.67	15.58	16.22	16.07	16.71	17.19
	6H	20.49	21.02	21.02	21.54	22.04	16.00	16.53	16.52	17.05	17.54
	8H	20.68	21.15	21.20	21.65	22.23	16.19	16.66	16.71	17.16	17.73