

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: P893248

Luminaire Tested: 4MB-2SL-ACL-UNV-L950

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P893248  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-2SL-ACL-UNV-L950  
Description: 2000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 5000K (C)  
Light Source: -  
Ballast/Driver: -

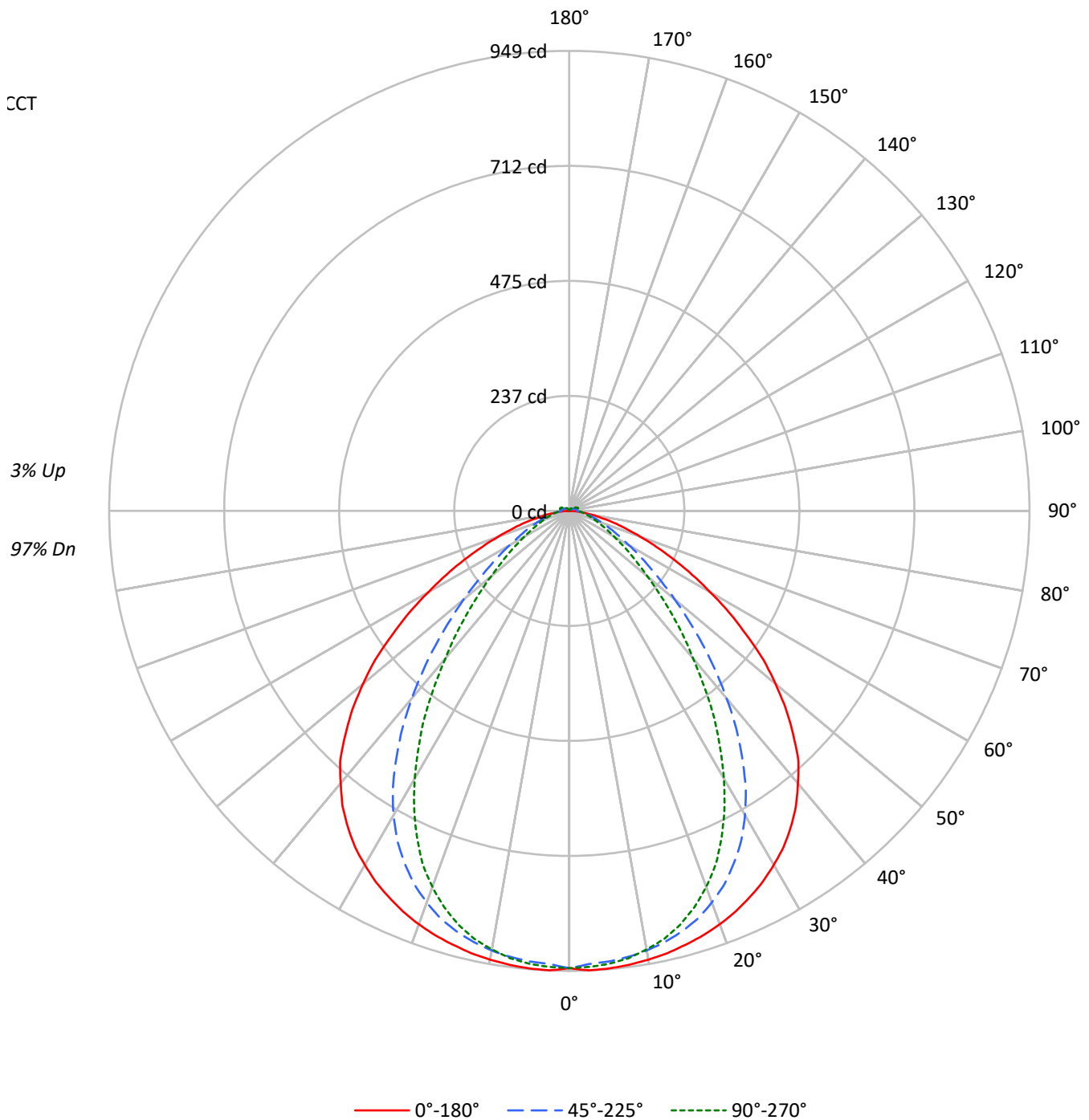
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1935.1 lumens  
Efficiency: N/A  
Efficacy: 140.2 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.08')  
CIE Type: Direct

Input Watts (W): 13.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	0
RCR																					
0	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97			
1	110	106	102	99	107	103	100	97	99	96	93	94	92	90	90	89	87	85			
2	101	94	88	84	99	92	87	82	88	84	80	85	81	78	82	79	76	74			
3	94	85	77	72	91	83	76	71	80	74	69	77	72	68	74	70	66	64			
4	87	76	68	62	84	75	67	62	72	66	61	69	64	60	67	62	59	57			
5	80	69	61	55	78	68	60	55	65	59	54	63	58	53	61	56	52	50			
6	75	63	55	49	73	62	54	49	60	53	48	58	52	47	56	51	47	45			
7	70	57	50	44	68	57	49	44	55	48	43	53	47	43	52	46	42	40			
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	42	38	37			
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33			
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31			

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

	0°	45°	90°
0°	9607	9607	9607
5°	9668	9346	9331
10°	9685	9143	9004
15°	9714	8905	8594
20°	9761	8578	8033
25°	9790	8124	7286
30°	9800	7499	6349
35°	9757	6627	5310
40°	9585	5599	4179
45°	9215	4519	3240
50°	8579	3506	2431
55°	7681	2684	1859
60°	6598	2063	1416
65°	5503	1628	1125
70°	4401	1307	920
75°	3504	1053	783
80°	2569	869	686
85°	1763	738	632

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9215 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.3	4.6
10°-20°	254.5	13.2
20°-30°	371.1	19.2
30°-40°	398.7	20.6
40°-50°	331.8	17.1
50°-60°	221.9	11.5
60°-70°	127.0	6.6
70°-80°	63.2	3.3
80°-90°	25.8	1.3
90°-100°	15.0	0.8
100°-110°	13.2	0.7
110°-120°	9.7	0.5
120°-130°	6.2	0.3
130°-140°	3.7	0.2
140°-150°	2.1	0.1
150°-160°	1.1	0.1
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	714.9	36.9
0°-40°	1113.6	57.5
0°-60°	1667.4	86.2
0°-90°	1883.4	97.3
90°-120°	38.0	2.0
90°-150°	50.0	2.6
90°-180°	52.0	2.7
0°-180°	1935.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	943	943	943	943	943	
5°	947	944	933	941	938	90
15°	926	920	898	892	884	262
25°	880	859	803	762	743	406
35°	796	738	621	545	521	497
45°	653	543	388	314	296	502
55°	446	321	202	160	152	399
65°	239	162	102	82	78	238
75°	96	70	50	45	43	103
85°	19	21	23	24	25	22
90°	3	9	16	19	20	3
95°	4	9	16	19	20	3
105°	3	7	14	18	19	3
115°	1	4	11	15	16	1
125°	1	3	7	11	12	1
135°	1	2	5	7	8	0
145°	1	2	3	5	6	0
155°	1	1	2	3	4	0
165°	1	1	2	2	2	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°	943.3	943.3	943.3	943.3	943.3
2.5°	948.8	946.3	935.6	944.1	941.6
5°	947.4	944.4	933.1	940.8	937.8
7.5°	944.4	941.1	928.1	934.2	930.9
10°	940.0	935.8	921.0	924.0	918.8
12.5°	934.5	929.2	910.8	910.0	904.2
15°	926.5	920.1	898.1	891.5	883.6
17.5°	918.2	908.9	881.9	868.4	857.4
20°	907.5	895.1	859.6	839.5	825.8
22.5°	895.1	878.3	834.6	803.8	789.4
25°	879.7	858.8	802.7	762.2	743.2
27.5°	863.2	835.4	768.0	714.9	693.1
30°	843.4	809.0	724.8	660.9	637.6
32.5°	822.5	775.4	677.5	604.3	578.7
35°	796.3	738.5	621.3	544.8	520.9
37.5°	768.0	694.5	565.7	484.0	457.0
40°	733.6	648.0	504.7	423.8	397.1
42.5°	699.5	597.4	446.0	369.3	346.2
45°	653.2	542.9	388.0	314.0	295.5
47.5°	606.7	484.6	332.4	269.1	250.9
50°	555.0	427.3	283.7	225.9	210.8
52.5°	504.7	373.9	239.4	191.0	178.0
55°	445.5	321.4	202.2	159.9	151.6
57.5°	392.1	272.7	170.6	135.4	127.7
60°	335.7	231.1	142.8	114.5	107.3
62.5°	286.2	194.3	120.2	97.1	92.2
65°	238.6	161.8	101.8	82.5	78.1
67.5°	194.8	135.1	85.9	70.4	66.9
70°	156.3	109.5	72.4	60.0	57.5
72.5°	123.0	88.1	60.3	51.7	49.5
75°	96.0	69.9	50.4	44.6	43.2
77.5°	69.3	54.5	42.1	38.2	37.4
80°	49.0	41.3	34.7	33.0	32.5
82.5°	32.5	30.0	28.6	28.6	28.3
85°	18.7	20.9	23.4	24.5	24.8
87.5°	9.6	14.0	18.7	20.9	21.2
90°	2.8	8.8	16.0	19.0	19.5
92.5°	4.1	8.8	15.7	19.0	19.5
95°	4.1	8.8	15.7	19.0	19.5
97.5°	3.9	8.5	15.7	19.0	19.5
100°	3.6	8.0	15.4	19.0	19.5
102.5°	3.0	7.7	14.9	18.7	19.5
105°	2.8	7.2	14.0	18.4	19.3
107.5°	2.5	6.1	13.2	17.6	18.7
110°	1.9	5.2	12.7	16.8	18.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	1.7	4.7	11.8	16.0	17.3
115°	1.4	4.1	11.0	15.1	16.5
117.5°	1.1	3.9	9.9	14.0	15.4
120°	0.8	3.6	9.1	13.2	14.3
122.5°	0.8	3.3	8.0	12.1	13.2
125°	0.8	2.8	7.4	11.0	12.1
127.5°	0.6	2.5	6.6	9.9	11.0
130°	0.6	2.5	6.1	9.1	9.9
132.5°	0.6	2.2	5.5	8.3	9.1
135°	0.6	2.2	5.0	7.4	8.3
137.5°	0.6	1.9	4.4	6.9	7.7
140°	0.6	1.9	4.1	6.1	6.9
142.5°	0.6	1.7	3.6	5.8	6.3
145°	0.6	1.7	3.3	5.0	5.8
147.5°	0.6	1.7	3.0	4.7	5.2
150°	0.6	1.4	2.8	3.9	4.7
152.5°	0.6	1.4	2.5	3.6	4.4
155°	0.6	1.4	2.2	3.0	3.9
157.5°	0.6	1.4	2.2	2.8	3.3
160°	0.8	1.1	1.9	2.5	3.0
162.5°	0.8	1.1	1.7	2.2	2.8
165°	0.8	1.1	1.7	1.9	2.5
167.5°	0.8	1.1	1.4	1.7	1.9
170°	0.8	0.8	1.4	1.4	1.4
172.5°	0.8	0.8	1.1	1.4	1.1
175°	0.8	0.8	1.1	1.1	1.1
177.5°	0.8	0.8	1.1	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	16.59	17.99	17.01	18.36	18.74	11.89	13.28	12.30	13.65	14.04
	3H	17.69	18.93	18.11	19.32	19.75	13.03	14.27	13.46	14.66	15.09
	4H	17.99	19.16	18.44	19.56	20.01	13.53	14.69	13.98	15.10	15.55
	6H	18.14	19.21	18.60	19.64	20.09	14.03	15.10	14.49	15.53	15.99
	8H	18.16	19.18	18.63	19.62	20.09	14.29	15.31	14.76	15.76	16.22
	12H	18.15	19.13	18.63	19.56	20.06	14.59	15.56	15.06	16.00	16.49
4H	2H	16.58	17.74	17.02	18.15	18.59	12.39	13.55	12.83	13.96	14.40
	3H	17.81	18.77	18.27	19.23	19.70	13.70	14.66	14.16	15.12	15.58
	4H	18.20	19.06	18.68	19.53	20.04	14.30	15.16	14.77	15.63	16.13
	6H	18.43	19.18	18.93	19.67	20.20	14.92	15.67	15.42	16.16	16.68
	8H	18.47	19.17	18.98	19.67	20.20	15.24	15.94	15.75	16.43	16.96
	12H	18.48	19.11	19.01	19.64	20.17	15.61	16.24	16.14	16.76	17.30
8H	4H	18.18	18.89	18.69	19.38	19.91	14.53	15.24	15.04	15.73	16.26
	6H	18.46	19.04	19.00	19.58	20.12	15.26	15.84	15.80	16.38	16.92
	8H	18.54	19.06	19.09	19.61	20.17	15.66	16.18	16.22	16.74	17.29
	12H	18.58	19.04	19.14	19.58	20.21	16.15	16.62	16.71	17.16	17.78
12H	4H	18.16	18.79	18.69	19.32	19.85	14.55	15.18	15.08	15.70	16.24
	6H	18.44	18.96	19.00	19.52	20.07	15.29	15.82	15.85	16.37	16.93
	8H	18.55	19.01	19.10	19.55	20.18	15.75	16.22	16.31	16.76	17.38