

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: P893532

Luminaire Tested: 4MB-4SL-LVRA-UNV-L850

Issue Date: 11/11/2024

**Test Information**

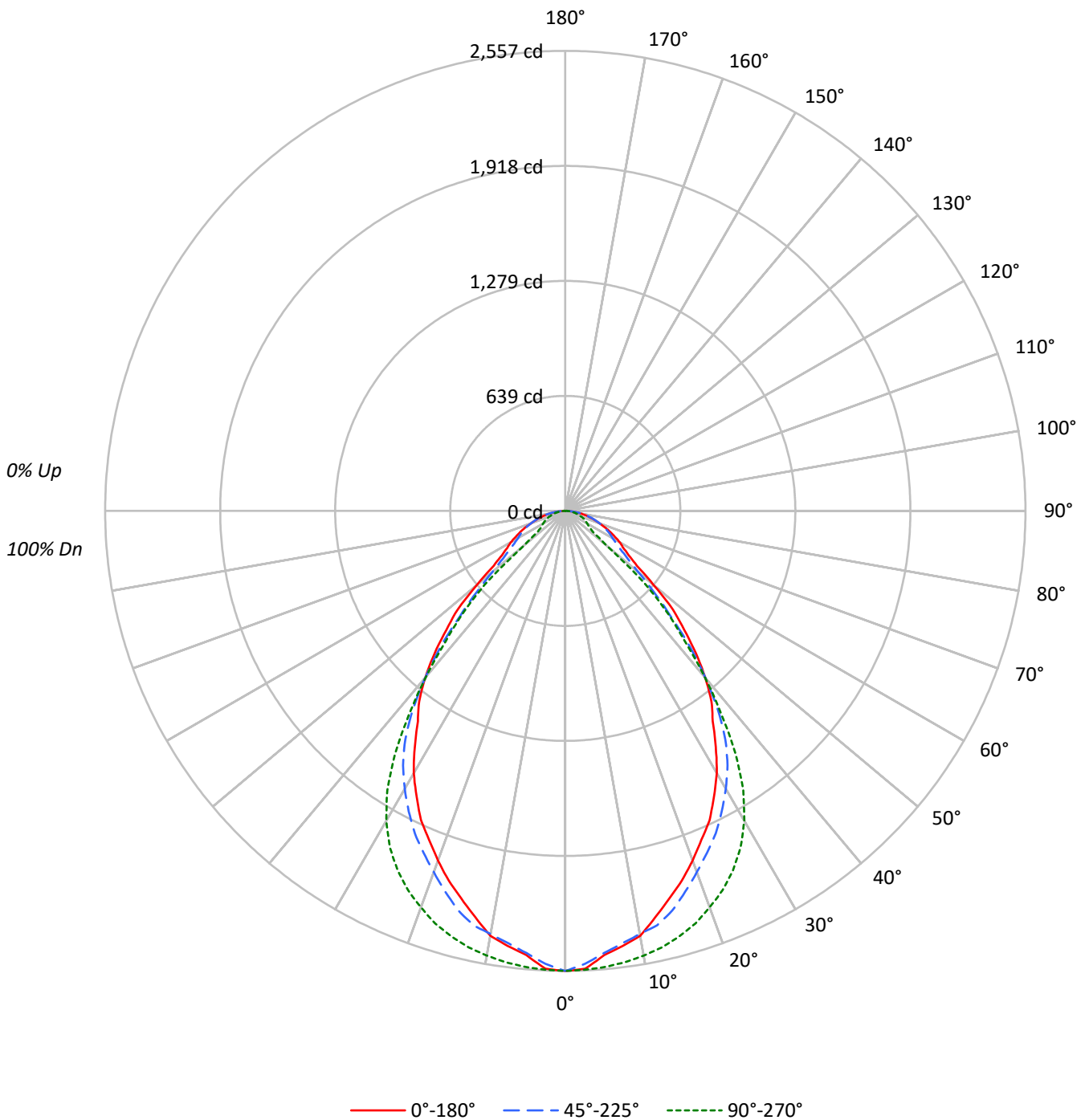
Test Method: LM-79-2019  
Report Number: P893532  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-4SL-LVRA-UNV-L850  
Description: 4000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 5000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4150.0 lumens  
Efficiency: N/A  
Efficacy: 139.3 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): 29.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 5.5  
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°	18194	18194	18194
5°	17703	17623	18173
10°	17326	17251	18131
15°	16432	16937	18030
20°	15654	16182	17754
25°	14890	15527	17301
30°	13834	14657	16335
35°	12404	13469	14328
40°	11238	11263	11201
45°	9397	8322	8117
50°	7097	5858	3320
55°	5338	4684	2093
60°	4961	4315	2016
65°	4616	4305	2019
70°	4223	4223	1989
75°	4003	4113	1922
80°	3700	3888	1971
85°	3225	3388	2155

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 9615 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	236.2	5.7
10°-20°	650.8	15.7
20°-30°	922.9	22.2
30°-40°	950.8	22.9
40°-50°	664.1	16.0
50°-60°	318.7	7.7
60°-70°	223.6	5.4
70°-80°	139.8	3.4
80°-90°	43.2	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°	1809.9	43.6
0°-40°	2760.7	66.5
0°-60°	3743.4	90.2
0°-90°	4150.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4150.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2557	2557	2557	2557	2557	
5°	2479	2475	2467	2532	2544	235
15°	2231	2247	2299	2365	2448	628
25°	1897	1916	1978	2112	2204	867
35°	1428	1467	1551	1583	1650	900
45°	934	956	827	785	807	719
55°	430	409	378	242	169	403
65°	274	256	256	194	120	272
75°	146	144	150	129	70	153
85°	40	40	42	41	26	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2557.1	2557.1	2557.1	2557.1	2557.1
2.5°	2547.2	2539.3	2520.1	2555.1	2552.4
5°	2478.6	2475.3	2467.4	2532.0	2544.5
7.5°	2439.7	2433.2	2423.9	2495.1	2530.0
10°	2398.2	2406.1	2387.7	2452.9	2509.6
12.5°	2312.6	2333.6	2358.7	2409.4	2484.6
15°	2230.8	2247.3	2299.4	2365.3	2447.7
17.5°	2154.4	2173.5	2218.3	2317.2	2404.8
20°	2067.4	2093.8	2137.2	2263.8	2344.8
22.5°	1977.8	2002.1	2056.8	2192.6	2282.9
25°	1896.7	1915.8	1977.8	2111.5	2203.8
27.5°	1789.3	1824.9	1883.5	2012.7	2109.6
30°	1683.8	1714.1	1784.0	1892.7	1988.3
32.5°	1556.6	1600.8	1677.9	1760.9	1840.7
35°	1428.1	1467.0	1550.7	1583.0	1649.6
37.5°	1334.5	1345.1	1392.5	1388.6	1426.2
40°	1210.0	1231.1	1212.6	1163.2	1206.0
42.5°	1075.5	1100.6	1026.1	968.8	983.9
45°	933.9	955.6	827.1	784.9	806.7
47.5°	811.3	809.3	666.9	638.6	608.3
50°	641.2	662.3	529.2	476.5	299.9
52.5°	500.9	508.8	436.3	304.5	197.1
55°	430.3	409.3	377.6	241.9	168.7
57.5°	382.2	355.9	334.8	224.7	154.2
60°	348.6	319.0	303.2	213.5	141.7
62.5°	310.4	287.3	281.4	203.6	130.5
65°	274.2	256.4	255.7	194.4	119.9
67.5°	237.9	228.0	230.7	183.2	108.1
70°	203.0	201.0	203.0	168.7	95.6
72.5°	173.3	171.3	176.6	150.3	81.7
75°	145.6	143.7	149.6	129.2	69.9
77.5°	116.0	117.3	121.3	107.4	58.7
80°	90.3	90.3	94.9	84.4	48.1
82.5°	64.6	65.2	67.9	61.9	37.6
85°	39.5	39.5	41.5	40.9	26.4
87.5°	13.2	15.2	17.8	19.1	13.2
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	15.73	17.08	16.09	17.39	17.71	12.06	13.41	12.42	13.72	14.04
	3H	17.46	18.67	17.84	19.00	19.37	14.03	15.24	14.41	15.57	15.93
	4H	18.14	19.26	18.54	19.61	20.00	14.74	15.87	15.14	16.22	16.60
	6H	18.64	19.68	19.06	20.05	20.44	15.26	16.30	15.68	16.67	17.06
	8H	18.81	19.80	19.24	20.19	20.59	15.45	16.43	15.88	16.82	17.23
	12H	18.92	19.87	19.36	20.25	20.68	15.59	16.53	16.02	16.91	17.34
4H	2H	16.26	17.38	16.66	17.73	18.12	13.68	14.81	14.08	15.16	15.54
	3H	18.23	19.16	18.65	19.57	19.97	15.86	16.79	16.27	17.19	17.59
	4H	19.04	19.87	19.47	20.29	20.73	16.74	17.57	17.17	17.99	18.43
	6H	19.68	20.40	20.14	20.85	21.31	17.38	18.11	17.84	18.55	19.02
	8H	19.90	20.58	20.37	21.02	21.49	17.59	18.27	18.06	18.71	19.18
	12H	20.05	20.65	20.54	21.13	21.61	17.75	18.35	18.23	18.83	19.30
8H	4H	19.32	20.00	19.79	20.44	20.91	17.39	18.06	17.86	18.51	18.98
	6H	20.10	20.66	20.60	21.15	21.63	18.25	18.80	18.75	19.30	19.78
	8H	20.41	20.90	20.92	21.42	21.91	18.58	19.08	19.10	19.59	20.08
	12H	20.64	21.08	21.15	21.57	22.14	18.84	19.28	19.35	19.78	20.34
12H	4H	19.34	19.94	19.82	20.42	20.89	17.46	18.06	17.95	18.54	19.02
	6H	20.16	20.66	20.68	21.17	21.66	18.39	18.89	18.91	19.40	19.89
	8H	20.52	20.96	21.03	21.45	22.02	18.80	19.24	19.31	19.73	20.30