

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: P893855

Luminaire Tested: 4MB-7HL-LVRA-UNV-L940

Issue Date: 11/11/2024

**Test Information**

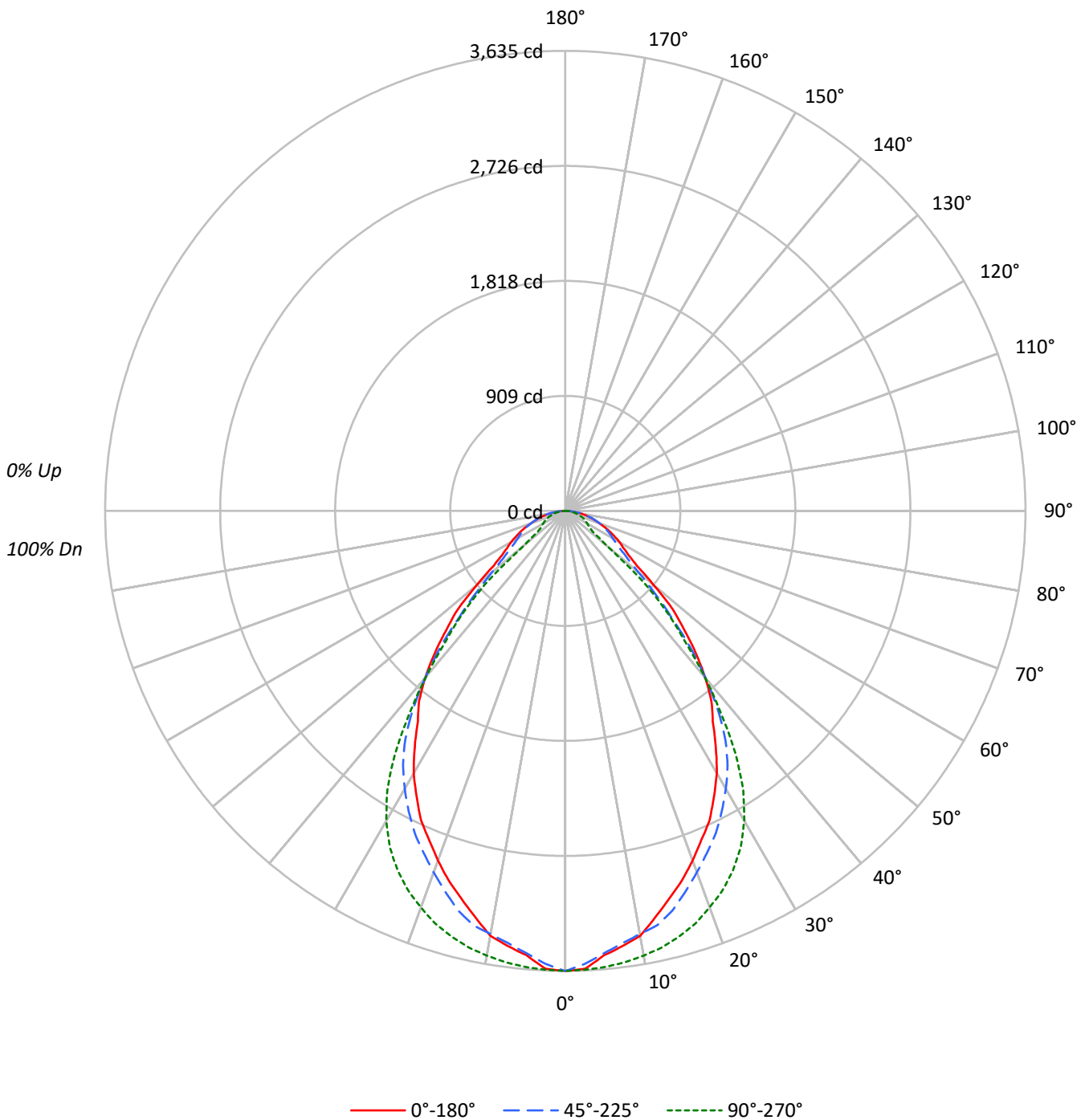
Test Method: LM-79-2019  
Report Number: P893855  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-7HL-LVRA-UNV-L940  
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5900.0 lumens  
Efficiency: N/A  
Efficacy: 113.9 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): 51.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 4  
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	90	90	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	80	80	80	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	71	71	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	63	63	63	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	57	57	57	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	52	52	52	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	47	47	47	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	43	43	43	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	40	40	40	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	37	37	37	35

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

	0°	45°	90°
0°	25865	25865	25865
5°	25168	25054	25837
10°	24633	24524	25777
15°	23361	24079	25632
20°	22255	23006	25241
25°	21169	22074	24596
30°	19668	20837	23223
35°	17636	19149	20370
40°	15977	16012	15925
45°	13358	11832	11539
50°	10090	8328	4719
55°	7589	6660	2976
60°	7052	6133	2866
65°	6562	6120	2870
70°	6004	6004	2827
75°	5693	5847	2730
80°	5261	5527	2803
85°	4588	4816	3061

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 13670 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	335.8	5.7
10°-20°	925.3	15.7
20°-30°	1312.1	22.2
30°-40°	1351.7	22.9
40°-50°	944.1	16.0
50°-60°	453.0	7.7
60°-70°	317.8	5.4
70°-80°	198.7	3.4
80°-90°	61.5	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°	2573.1	43.6
0°-40°	3924.8	66.5
0°-60°	5322.0	90.2
0°-90°	5900.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5900.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3635	3635	3635	3635	3635	
5°	3524	3519	3508	3600	3618	334
15°	3172	3195	3269	3363	3480	893
25°	2696	2724	2812	3002	3133	1233
35°	2030	2086	2205	2250	2345	1279
45°	1328	1359	1176	1116	1147	1023
55°	612	582	537	344	240	573
65°	390	364	364	276	170	386
75°	207	204	213	184	99	218
85°	56	56	59	58	38	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3635.3	3635.3	3635.3	3635.3	3635.3
2.5°	3621.3	3610.0	3582.9	3632.5	3628.8
5°	3523.8	3519.1	3507.9	3599.7	3617.5
7.5°	3468.6	3459.2	3446.1	3547.3	3596.9
10°	3409.5	3420.8	3394.5	3487.3	3567.9
12.5°	3287.7	3317.7	3353.3	3425.5	3532.3
15°	3171.5	3195.0	3269.0	3362.7	3479.8
17.5°	3062.9	3090.0	3153.7	3294.3	3418.9
20°	2939.2	2976.7	3038.5	3218.4	3333.6
22.5°	2811.8	2846.4	2924.2	3117.2	3245.6
25°	2696.5	2723.7	2811.8	3002.0	3133.1
27.5°	2543.8	2594.4	2677.8	2861.4	2999.1
30°	2393.9	2437.0	2536.3	2690.9	2826.7
32.5°	2213.1	2275.8	2385.5	2503.5	2616.9
35°	2030.4	2085.6	2204.6	2250.5	2345.2
37.5°	1897.3	1912.3	1979.8	1974.1	2027.5
40°	1720.2	1750.2	1724.0	1653.7	1714.6
42.5°	1529.1	1564.7	1458.8	1377.3	1398.9
45°	1327.6	1358.6	1175.9	1115.9	1146.8
47.5°	1153.4	1150.6	948.2	907.9	864.8
50°	911.6	941.6	752.4	677.4	426.3
52.5°	712.1	723.3	620.3	432.9	280.1
55°	611.8	581.8	536.9	343.9	239.9
57.5°	543.4	505.9	476.0	319.5	219.2
60°	495.6	453.5	431.0	303.6	201.4
62.5°	441.3	408.5	400.1	289.5	185.5
65°	389.8	364.5	363.5	276.4	170.5
67.5°	338.2	324.2	327.9	260.5	153.7
70°	288.6	285.8	288.6	239.9	135.9
72.5°	246.4	243.6	251.1	213.6	116.2
75°	207.1	204.3	212.7	183.6	99.3
77.5°	164.9	166.8	172.4	152.7	83.4
80°	128.4	128.4	134.9	119.9	68.4
82.5°	91.8	92.8	96.5	88.1	53.4
85°	56.2	56.2	59.0	58.1	37.5
87.5°	18.7	21.5	25.3	27.2	18.7
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	16.95	18.30	17.31	18.61	18.93	13.28	14.63	13.65	14.95	15.26
	3H	18.69	19.89	19.07	20.22	20.59	15.26	16.46	15.64	16.79	17.16
	4H	19.36	20.49	19.76	20.84	21.22	15.96	17.09	16.36	17.44	17.82
	6H	19.87	20.90	20.28	21.27	21.67	16.48	17.52	16.90	17.89	18.29
	8H	20.04	21.02	20.47	21.41	21.82	16.67	17.65	17.10	18.05	18.45
	12H	20.15	21.09	20.58	21.47	21.90	16.81	17.75	17.24	18.13	18.56
4H	2H	17.48	18.61	17.88	18.96	19.34	14.90	16.03	15.30	16.38	16.76
	3H	19.46	20.39	19.87	20.79	21.19	17.08	18.01	17.49	18.41	18.82
	4H	20.26	21.09	20.69	21.51	21.95	17.96	18.80	18.40	19.21	19.66
	6H	20.90	21.63	21.36	22.07	22.54	18.60	19.33	19.07	19.77	20.24
	8H	21.12	21.80	21.59	22.24	22.71	18.81	19.49	19.28	19.94	20.41
	12H	21.28	21.88	21.76	22.36	22.83	18.97	19.57	19.46	20.05	20.53
8H	4H	20.54	21.22	21.01	21.67	22.14	18.61	19.29	19.08	19.73	20.20
	6H	21.33	21.88	21.83	22.38	22.86	19.47	20.03	19.97	20.52	21.00
	8H	21.63	22.13	22.15	22.64	23.13	19.80	20.30	20.32	20.81	21.30
	12H	21.86	22.30	22.38	22.80	23.37	20.06	20.50	20.58	21.00	21.57
12H	4H	20.56	21.16	21.04	21.64	22.11	18.68	19.28	19.17	19.76	20.24
	6H	21.38	21.88	21.90	22.39	22.88	19.61	20.11	20.13	20.62	21.11
	8H	21.74	22.18	22.26	22.68	23.25	20.02	20.46	20.54	20.96	21.53