

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: P893850

Luminaire Tested: 4MB-7HL-LVRA-UNV-L835

Issue Date: 11/11/2024

**Test Information**

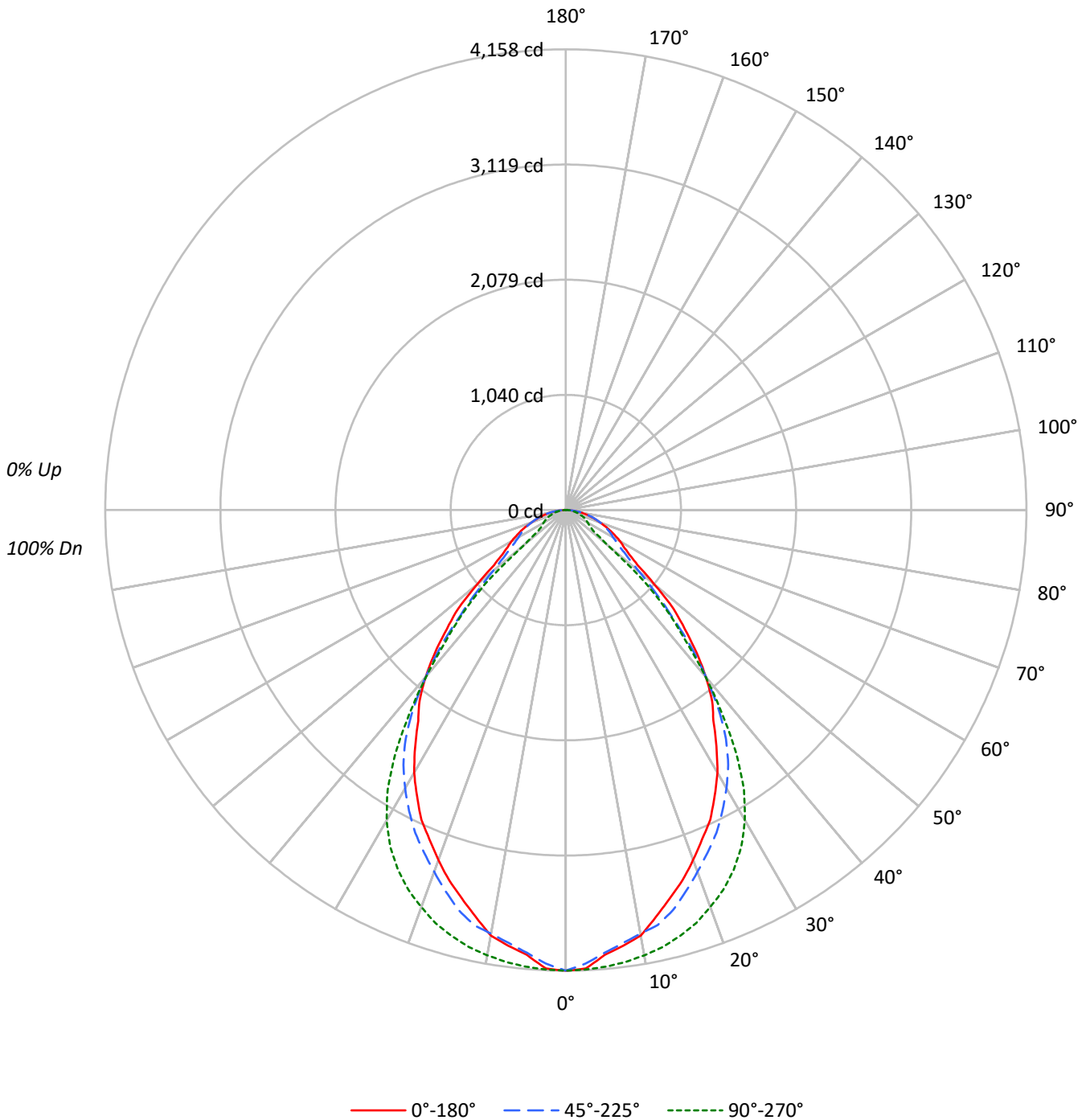
Test Method: LM-79-2019  
Report Number: P893850  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-7HL-LVRA-UNV-L835  
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 3500K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6748.0 lumens  
Efficiency: N/A  
Efficacy: 130.3 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): 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
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°	29583	29583	29583
5°	28785	28655	29551
10°	28174	28049	29482
15°	26719	27540	29316
20°	25453	26313	28869
25°	24212	25247	28132
30°	22495	23832	26561
35°	20170	21901	23297
40°	18274	18314	18214
45°	15279	13533	13197
50°	11542	9525	5397
55°	8681	7616	3403
60°	8067	7014	3279
65°	7505	7000	3283
70°	6867	6867	3233
75°	6510	6688	3123
80°	6015	6322	3204
85°	5249	5510	3502

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 15635 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	384.1	5.7
10°-20°	1058.3	15.7
20°-30°	1500.6	22.2
30°-40°	1546.0	22.9
40°-50°	1079.8	16.0
50°-60°	518.1	7.7
60°-70°	363.5	5.4
70°-80°	227.3	3.4
80°-90°	70.3	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°	2943.0	43.6
0°-40°	4489.0	66.5
0°-60°	6086.9	90.2
0°-90°	6748.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6748.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4158	4158	4158	4158	4158	
5°	4030	4025	4012	4117	4138	381
15°	3627	3654	3739	3846	3980	1021
25°	3084	3115	3216	3433	3583	1410
35°	2322	2385	2522	2574	2682	1463
45°	1518	1554	1345	1276	1312	1170
55°	700	666	614	393	274	656
65°	446	417	416	316	195	442
75°	237	234	243	210	114	249
85°	64	64	68	66	43	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4157.8	4157.8	4157.8	4157.8	4157.8
2.5°	4141.8	4128.9	4097.8	4154.6	4150.3
5°	4030.3	4025.0	4012.1	4117.1	4137.5
7.5°	3967.1	3956.4	3941.4	4057.1	4113.9
10°	3899.6	3912.4	3882.4	3988.5	4080.7
12.5°	3760.3	3794.6	3835.3	3917.8	4040.0
15°	3627.4	3654.2	3738.8	3846.0	3979.9
17.5°	3503.1	3534.2	3607.0	3767.8	3910.3
20°	3361.6	3404.5	3475.2	3681.0	3812.8
22.5°	3215.9	3255.5	3344.5	3565.2	3712.0
25°	3084.1	3115.2	3215.9	3433.4	3583.4
27.5°	2909.4	2967.3	3062.6	3272.7	3430.2
30°	2738.0	2787.2	2900.8	3077.7	3233.0
32.5°	2531.1	2602.9	2728.3	2863.3	2993.0
35°	2322.2	2385.4	2521.5	2574.0	2682.2
37.5°	2170.0	2187.1	2264.3	2257.9	2319.0
40°	1967.5	2001.8	1971.8	1891.4	1961.0
42.5°	1748.9	1789.6	1668.5	1575.3	1599.9
45°	1518.5	1553.8	1344.9	1276.3	1311.6
47.5°	1319.1	1315.9	1084.5	1038.4	989.1
50°	1042.7	1077.0	860.5	774.8	487.6
52.5°	814.4	827.3	709.4	495.1	320.4
55°	699.8	665.5	614.0	393.3	274.3
57.5°	621.5	578.7	544.4	365.4	250.8
60°	566.9	518.7	492.9	347.2	230.4
62.5°	504.7	467.2	457.6	331.1	212.2
65°	445.8	416.9	415.8	316.1	195.0
67.5°	386.8	370.8	375.1	297.9	175.7
70°	330.1	326.8	330.1	274.3	155.4
72.5°	281.8	278.6	287.2	244.3	132.9
75°	236.8	233.6	243.3	210.0	113.6
77.5°	188.6	190.7	197.2	174.7	95.4
80°	146.8	146.8	154.3	137.2	78.2
82.5°	105.0	106.1	110.4	100.7	61.1
85°	64.3	64.3	67.5	66.4	42.9
87.5°	21.4	24.6	28.9	31.1	21.4
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	17.42	18.77	17.78	19.08	19.40	13.75	15.10	14.11	15.41	15.73
	3H	19.15	20.36	19.53	20.69	21.05	15.72	16.93	16.10	17.26	17.62
	4H	19.82	20.95	20.23	21.30	21.69	16.43	17.56	16.83	17.91	18.29
	6H	20.33	21.37	20.75	21.74	22.13	16.95	17.99	17.36	18.36	18.75
	8H	20.50	21.49	20.93	21.88	22.28	17.14	18.12	17.57	18.51	18.92
	12H	20.61	21.56	21.04	21.94	22.37	17.28	18.22	17.71	18.60	19.03
4H	2H	17.95	19.07	18.35	19.42	19.81	15.37	16.50	15.77	16.85	17.23
	3H	19.92	20.85	20.33	21.26	21.66	17.55	18.48	17.96	18.88	19.28
	4H	20.72	21.56	21.16	21.98	22.42	18.43	19.26	18.86	19.68	20.12
	6H	21.37	22.09	21.83	22.54	23.00	19.07	19.79	19.53	20.24	20.70
	8H	21.59	22.26	22.06	22.71	23.18	19.28	19.96	19.75	20.40	20.87
	12H	21.74	22.34	22.23	22.82	23.30	19.44	20.04	19.92	20.52	20.99
8H	4H	21.01	21.69	21.48	22.13	22.60	19.08	19.75	19.54	20.20	20.67
	6H	21.79	22.35	22.29	22.84	23.32	19.94	20.49	20.44	20.99	21.47
	8H	22.09	22.59	22.61	23.11	23.60	20.27	20.76	20.78	21.28	21.77
	12H	22.33	22.77	22.84	23.26	23.83	20.53	20.97	21.04	21.46	22.03
12H	4H	21.03	21.63	21.51	22.11	22.58	19.15	19.75	19.63	20.23	20.70
	6H	21.84	22.34	22.36	22.86	23.35	20.07	20.57	20.59	21.09	21.58
	8H	22.21	22.65	22.72	23.14	23.71	20.49	20.93	21.00	21.42	21.99