

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: P893858

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

Issue Date: 11/11/2024

**Test Information**

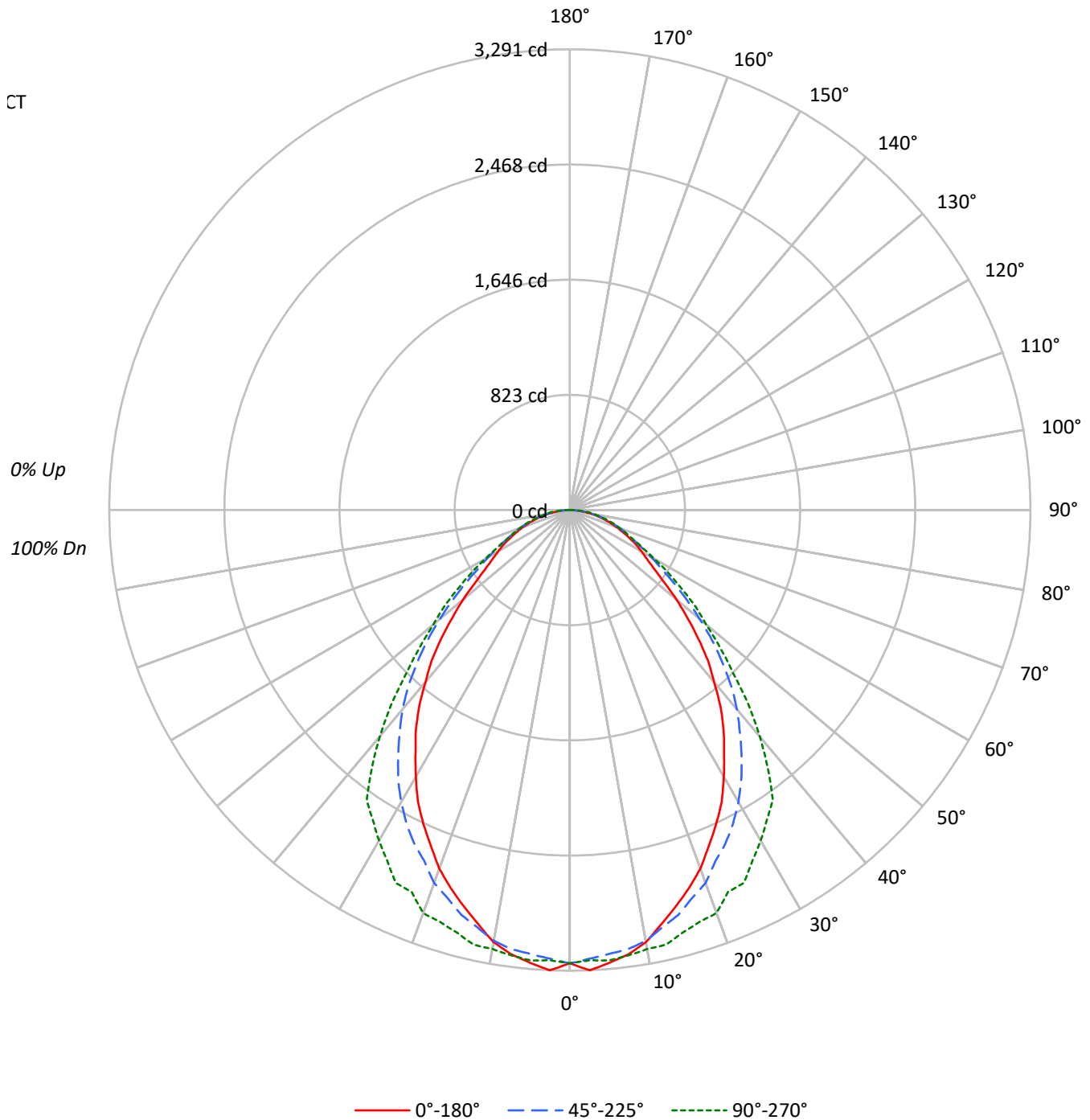
Test Method: LM-79-2019  
Report Number: P893858  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-7HL-LVRF-UNV-L835  
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 3500K C  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6565.0 lumens  
Efficiency: N/A  
Efficacy: 126.7 lumens/watt  
Spacing Criteria (0/90/45): 1.05 / 1.25 / 1.21  
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	47	47	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	38	38	38	37
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	35	35	35	33
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	32	32	32	30

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

	0°	45°	90°
0°	23037	23037	23037
5°	23187	22738	23063
10°	22645	22574	23008
15°	21576	22053	23008
20°	20639	21467	23196
25°	19431	20647	23078
30°	18076	19786	22403
35°	16647	18572	21969
40°	14888	17262	19617
45°	13052	15525	16636
50°	11015	13414	14079
55°	9137	11226	12008
60°	8403	9545	9904
65°	7871	8393	8458
70°	7329	7953	7893
75°	6840	7425	7689
80°	6384	6900	7375
85°	5372	5845	8139

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 16636 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	305.6	4.7
10°-20°	852.5	13.0
20°-30°	1227.7	18.7
30°-40°	1355.4	20.6
40°-50°	1163.0	17.7
50°-60°	792.3	12.1
60°-70°	498.4	7.6
70°-80°	283.8	4.3
80°-90°	86.3	1.3
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°	2385.8	36.3
0°-40°	3741.2	57.0
0°-60°	5696.5	86.8
0°-90°	6565.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6565.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3238	3238	3238	3238	3238	
5°	3246	3234	3184	3250	3229	306
15°	2929	2960	2994	3129	3124	825
25°	2475	2524	2630	2842	2940	1137
35°	1917	1991	2138	2372	2529	1192
45°	1297	1383	1543	1636	1653	999
55°	737	782	905	949	968	677
65°	468	475	498	523	502	464
75°	249	251	270	282	280	265
85°	66	68	72	85	100	76
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3237.8	3237.8	3237.8	3237.8	3237.8
2.5°	3291.1	3257.2	3208.8	3255.3	3219.4
5°	3246.5	3234.0	3183.6	3250.4	3229.1
7.5°	3201.1	3174.0	3165.2	3236.9	3208.8
10°	3134.3	3118.8	3124.6	3216.5	3184.6
12.5°	3028.8	3039.4	3053.0	3170.1	3179.8
15°	2929.1	2960.0	2993.9	3129.4	3123.6
17.5°	2831.3	2873.9	2905.8	3080.1	3084.9
20°	2725.8	2750.0	2835.2	3003.6	3063.6
22.5°	2595.1	2642.5	2716.1	2926.2	2953.3
25°	2475.1	2524.4	2630.0	2841.9	2939.7
27.5°	2349.2	2394.7	2525.4	2742.2	2825.5
30°	2200.2	2261.2	2408.3	2629.0	2726.8
32.5°	2051.1	2140.2	2281.5	2508.0	2621.2
35°	1916.6	1991.1	2138.2	2371.5	2529.3
37.5°	1767.5	1845.9	1995.0	2222.4	2323.1
40°	1602.9	1687.2	1858.5	2042.4	2112.1
42.5°	1461.6	1534.2	1706.5	1836.2	1891.4
45°	1297.1	1383.2	1542.9	1635.9	1653.3
47.5°	1138.3	1237.1	1380.3	1423.9	1457.8
50°	995.1	1072.5	1211.9	1239.0	1271.9
52.5°	848.9	931.2	1053.1	1080.2	1128.6
55°	736.6	782.1	905.0	948.6	968.0
57.5°	654.3	683.4	770.5	825.7	831.5
60°	590.5	605.0	670.8	712.4	696.0
62.5°	531.4	543.0	575.9	607.9	586.6
65°	467.5	475.3	498.5	522.7	502.4
67.5°	407.5	416.2	437.5	454.9	437.5
70°	352.3	359.1	382.3	390.1	379.4
72.5°	301.0	303.9	323.3	336.9	330.1
75°	248.8	250.7	270.1	281.7	279.7
77.5°	201.3	204.2	220.7	231.3	225.5
80°	155.8	157.8	168.4	183.9	180.0
82.5°	109.4	113.3	120.0	133.6	144.2
85°	65.8	67.8	71.6	85.2	99.7
87.5°	25.2	27.1	29.0	35.8	47.4
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	18.35	19.83	18.72	20.15	20.46	19.71	21.19	20.08	21.51	21.82
	3H	19.93	21.26	20.31	21.59	21.95	21.00	22.33	21.38	22.65	23.02
	4H	20.54	21.78	20.94	22.13	22.51	21.55	22.80	21.95	23.14	23.52
	6H	21.01	22.16	21.42	22.52	22.92	22.01	23.15	22.42	23.52	23.91
	8H	21.17	22.26	21.59	22.65	23.05	22.19	23.28	22.62	23.67	24.07
	12H	21.26	22.31	21.69	22.69	23.12	22.35	23.39	22.78	23.77	24.20
4H	2H	18.97	20.21	19.37	20.56	20.94	20.08	21.32	20.48	21.67	22.05
	3H	20.77	21.80	21.18	22.20	22.60	21.64	22.67	22.05	23.07	23.47
	4H	21.50	22.42	21.93	22.84	23.28	22.34	23.27	22.78	23.68	24.12
	6H	22.09	22.90	22.55	23.34	23.80	22.95	23.76	23.41	24.20	24.66
	8H	22.29	23.05	22.76	23.49	23.96	23.20	23.95	23.66	24.39	24.86
	12H	22.43	23.10	22.92	23.58	24.06	23.41	24.08	23.89	24.56	25.03
8H	4H	21.82	22.57	22.29	23.02	23.49	22.57	23.33	23.04	23.77	24.24
	6H	22.54	23.17	23.04	23.66	24.14	23.32	23.94	23.82	24.43	24.91
	8H	22.82	23.38	23.34	23.89	24.38	23.65	24.21	24.17	24.72	25.21
	12H	23.03	23.53	23.54	24.02	24.59	23.96	24.45	24.47	24.94	25.51
12H	4H	21.86	22.53	22.34	23.01	23.48	22.59	23.26	23.07	23.74	24.21
	6H	22.61	23.17	23.13	23.68	24.17	23.36	23.92	23.87	24.43	24.92
	8H	22.95	23.45	23.46	23.94	24.50	23.75	24.24	24.26	24.73	25.30