

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: P893860

Luminaire Tested: 4MB-7HL-LVRF-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893860
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-L850
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 5000K C
Light Source: -
Ballast/Driver: -

Summary

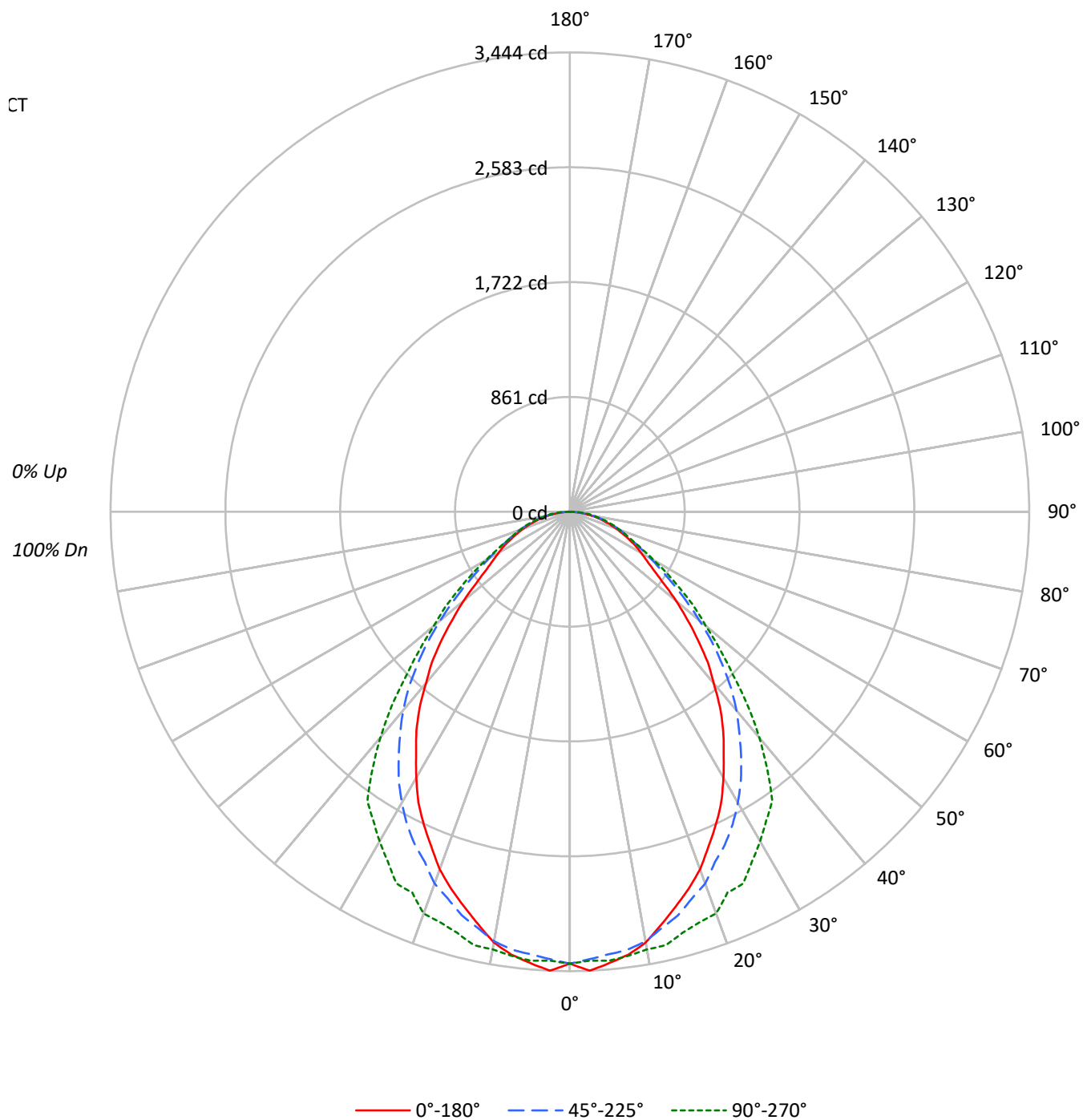
Lumens per Lamp: N/A
Luminaire Lumens: 6869.0 lumens
Efficiency: N/A
Efficacy: 132.6 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.25 / 1.21
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 51.8
Input Voltage (V): 120
Input Current (Ain): 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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	108	104	100	97	100	97	94		96	93	91		92
2	102	94	88	83	99	92	87	82	89	84	80		86	82	78		83
3	94	84	77	71	91	83	76	70	80	74	69		77	72	68		75
4	87	76	68	62	84	74	67	61	72	66	61		70	64	60		68
5	80	68	60	54	78	67	60	54	65	59	53		63	58	53		62
6	75	62	54	48	73	61	54	48	60	53	48		58	52	47		57
7	70	57	49	43	68	56	49	43	55	48	43		53	47	42		52
8	65	52	44	39	64	52	44	39	50	44	39		49	43	39		48
9	61	48	41	36	60	48	40	35	47	40	35		46	40	35		45
10	57	45	37	33	56	44	37	32	43	37	32		43	36	32		42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24104	24104	24104
5°	24261	23791	24131
10°	23693	23620	24074
15°	22575	23074	24074
20°	21594	22461	24271
25°	20331	21602	24147
30°	18913	20702	23439
35°	17418	19432	22986
40°	15578	18060	20525
45°	13655	16244	17405
50°	11524	14035	14731
55°	9560	11747	12563
60°	8791	9988	10362
65°	8236	8781	8849
70°	7670	8323	8259
75°	7156	7769	8046
80°	6683	7220	7719
85°	5625	6114	8515

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 17405 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.8	4.7
10°-20°	892.0	13.0
20°-30°	1284.6	18.7
30°-40°	1418.2	20.6
40°-50°	1216.9	17.7
50°-60°	829.0	12.1
60°-70°	521.5	7.6
70°-80°	296.9	4.3
80°-90°	90.3	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°	2496.3	36.3
0°-40°	3914.5	57.0
0°-60°	5960.3	86.8
0°-90°	6869.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6869.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3388	3388	3388	3388	3388	
5°	3397	3384	3331	3401	3379	321
15°	3065	3097	3132	3274	3268	863
25°	2590	2641	2752	2974	3076	1189
35°	2005	2083	2237	2481	2646	1247
45°	1357	1447	1614	1712	1730	1046
55°	771	818	947	992	1013	708
65°	489	497	522	547	526	486
75°	260	262	283	295	293	277
85°	69	71	75	89	104	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3387.8	3387.8	3387.8	3387.8	3387.8
2.5°	3443.5	3408.0	3357.4	3406.0	3368.5
5°	3396.9	3383.7	3331.1	3400.9	3378.7
7.5°	3349.3	3320.9	3311.8	3386.8	3357.4
10°	3279.4	3263.2	3269.3	3365.5	3332.1
12.5°	3169.0	3180.1	3194.3	3316.9	3327.0
15°	3064.7	3097.1	3132.5	3274.3	3268.3
17.5°	2962.4	3007.0	3040.4	3222.7	3227.7
20°	2852.0	2877.3	2966.5	3142.7	3205.5
22.5°	2715.3	2764.9	2841.9	3061.7	3090.0
25°	2589.7	2641.3	2751.7	2973.5	3075.8
27.5°	2458.0	2505.6	2642.4	2869.2	2956.3
30°	2302.1	2365.9	2519.8	2750.7	2853.0
32.5°	2146.1	2239.3	2387.1	2624.1	2742.6
35°	2005.3	2083.3	2237.2	2481.3	2646.4
37.5°	1849.3	1931.4	2087.4	2325.4	2430.7
40°	1677.2	1765.3	1944.5	2137.0	2209.9
42.5°	1529.3	1605.3	1785.5	1921.3	1979.0
45°	1357.1	1447.3	1614.4	1711.6	1729.8
47.5°	1191.0	1294.3	1444.2	1489.8	1525.3
50°	1041.1	1122.2	1268.0	1296.4	1330.8
52.5°	888.2	974.3	1101.9	1130.3	1180.9
55°	770.7	818.3	947.0	992.5	1012.8
57.5°	684.6	715.0	806.2	863.9	870.0
60°	617.8	633.0	701.9	745.4	728.2
62.5°	556.0	568.2	602.6	636.0	613.7
65°	489.2	497.3	521.6	546.9	525.6
67.5°	426.4	435.5	457.8	476.0	457.8
70°	368.7	375.7	400.1	408.2	397.0
72.5°	315.0	318.0	338.3	352.4	345.4
75°	260.3	262.3	282.6	294.7	292.7
77.5°	210.7	213.7	230.9	242.1	236.0
80°	163.1	165.1	176.2	192.4	188.4
82.5°	114.4	118.5	125.6	139.8	150.9
85°	68.9	70.9	74.9	89.1	104.3
87.5°	26.3	28.4	30.4	37.5	49.6
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	18.51	19.99	18.88	20.30	20.62	19.87	21.35	20.24	21.66	21.98
	3H	20.09	21.41	20.47	21.74	22.11	21.16	22.48	21.54	22.81	23.17
	4H	20.70	21.94	21.10	22.29	22.67	21.71	22.95	22.11	23.30	23.68
	6H	21.17	22.31	21.58	22.68	23.07	22.16	23.31	22.58	23.68	24.07
	8H	21.32	22.41	21.75	22.80	23.21	22.35	23.44	22.78	23.83	24.23
	12H	21.42	22.46	21.85	22.85	23.28	22.51	23.55	22.94	23.93	24.36
4H	2H	19.12	20.37	19.52	20.71	21.09	20.24	21.48	20.64	21.83	22.21
	3H	20.93	21.96	21.34	22.36	22.76	21.79	22.82	22.21	23.22	23.63
	4H	21.65	22.58	22.09	22.99	23.43	22.50	23.42	22.93	23.84	24.28
	6H	22.25	23.05	22.71	23.50	23.96	23.11	23.91	23.57	24.36	24.82
	8H	22.45	23.20	22.92	23.65	24.12	23.35	24.11	23.82	24.55	25.02
	12H	22.59	23.26	23.07	23.74	24.21	23.57	24.24	24.05	24.72	25.19
8H	4H	21.98	22.73	22.44	23.18	23.64	22.73	23.48	23.20	23.93	24.40
	6H	22.70	23.32	23.20	23.82	24.30	23.48	24.10	23.97	24.59	25.07
	8H	22.98	23.54	23.49	24.05	24.54	23.81	24.37	24.32	24.88	25.37
	12H	23.19	23.69	23.70	24.18	24.75	24.11	24.61	24.62	25.10	25.67
12H	4H	22.02	22.69	22.50	23.17	23.64	22.75	23.42	23.23	23.90	24.37
	6H	22.77	23.33	23.29	23.84	24.33	23.51	24.07	24.03	24.58	25.07
	8H	23.11	23.60	23.62	24.10	24.66	23.90	24.40	24.41	24.89	25.46