

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: P893810

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893810
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-19)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-AOL-UNV-L835
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 8
3500K CCT
Light Source: -
Ballast/Driver: -

Summary

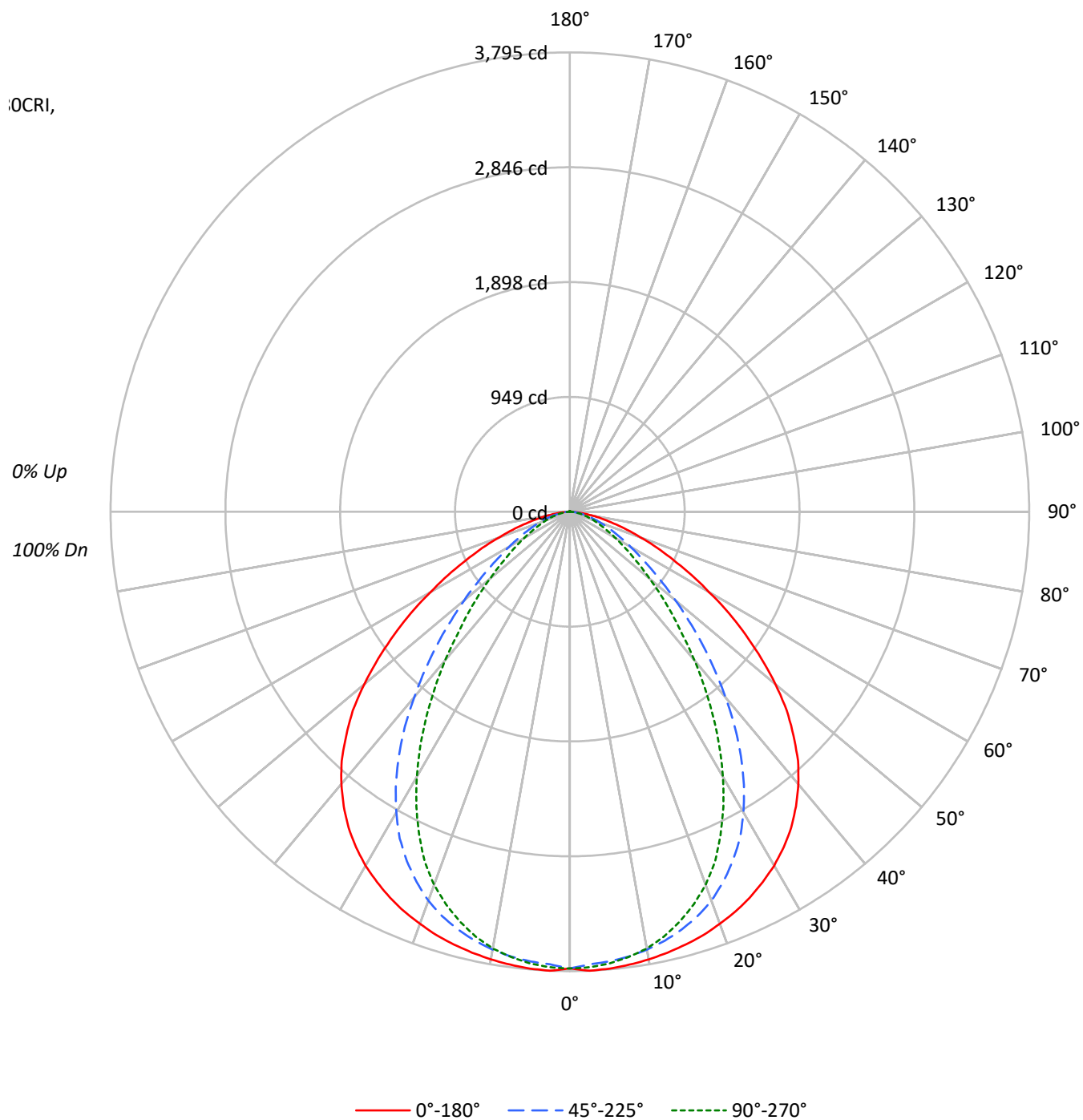
Lumens per Lamp: N/A
Luminaire Lumens: 7457.9 lumens
Efficiency: N/A
Efficacy: 144.0 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.05 / 1.16
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')
CIE Type: Direct

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			0
RW	70	50	30	10	70	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	100
1	111	107	103	100	108	104	101	98	100	98	95		96	94	92		93	91	89	88
2	102	95	90	85	100	93	88	84	90	86	82		87	83	80		84	81	78	76
3	95	85	78	73	92	84	77	72	81	75	71		78	74	70		76	72	68	67
4	87	77	69	63	85	76	69	63	73	67	62		71	66	61		69	64	61	59
5	81	70	62	56	79	69	61	56	67	60	55		65	59	54		63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49		59	53	49		58	52	48	46
7	70	58	50	45	69	57	50	45	56	49	44		55	48	44		53	48	44	42
8	66	54	46	40	64	53	45	40	52	45	40		50	44	40		49	44	40	38
9	62	49	42	37	61	49	42	37	48	41	37		47	41	36		46	40	36	34
10	58	46	39	34	57	45	38	34	44	38	33		44	38	33		43	37	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	38425	38425	38425
5°	38724	38121	38289
10°	38832	37989	37889
15°	39023	37667	36957
20°	39253	37057	35540
25°	39531	35782	33092
30°	39698	33726	29750
35°	39635	30605	25686
40°	39053	26592	21301
45°	37631	22311	17151
50°	35140	18097	13618
55°	31477	14450	10904
60°	27074	11793	8913
65°	22729	9805	7372
70°	18554	8242	6325
75°	14716	6977	5387
80°	11448	5965	4651
85°	8822	5328	4020

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 37631 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	356.9	4.8
10°-20°	1013.2	13.6
20°-30°	1474.3	19.8
30°-40°	1584.9	21.3
40°-50°	1323.6	17.7
50°-60°	889.1	11.9
60°-70°	505.1	6.8
70°-80°	230.1	3.1
80°-90°	58.7	0.8
90°-100°	6.6	0.1
100°-110°	4.7	0.1
110°-120°	2.8	0.0
120°-130°	1.9	0.0
130°-140°	1.7	0.0
140°-150°	1.6	0.0
150°-160°	1.4	0.0
160°-170°	1.0	0.0
170°-180°	0.4	0.0
0°-30°	2844.3	38.1
0°-40°	4429.2	59.4
0°-60°	6641.9	89.1
0°-90°	7435.8	99.7
90°-120°	14.1	0.2
90°-150°	19.2	0.3
90°-180°	22.0	0.3
0°-180°	7457.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3773	3773	3773	3773	3773	
5°	3788	3778	3729	3759	3745	360
15°	3701	3671	3572	3544	3505	1046
25°	3518	3416	3184	3019	2945	1621
35°	3188	2932	2462	2167	2066	1989
45°	2613	2155	1549	1267	1191	2008
55°	1773	1275	814	652	614	1584
65°	943	648	407	326	306	948
75°	374	270	177	144	137	411
85°	76	61	46	37	34	86
90°	10	8	6	5	4	9
95°	12	8	5	3	3	10
105°	9	7	4	2	2	9
115°	4	4	2	2	2	5
125°	3	2	2	2	2	3
135°	2	2	2	2	2	2
145°	2	2	3	3	2	1
155°	2	3	3	3	3	1
165°	3	3	4	4	4	1
175°	3	4	4	4	4	0
180°	4	4	4	4	4	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3773.0	3773.0	3773.0	3773.0	3773.0
2.5°	3795.4	3785.0	3742.3	3775.2	3766.3
5°	3787.9	3777.5	3728.9	3758.8	3745.3
7.5°	3773.7	3763.3	3706.4	3728.1	3710.2
10°	3755.0	3740.1	3673.5	3679.5	3663.8
12.5°	3730.4	3707.9	3629.4	3618.9	3594.2
15°	3701.2	3671.3	3572.5	3544.1	3505.2
17.5°	3667.5	3624.1	3503.7	3443.9	3401.2
20°	3621.9	3566.5	3419.2	3324.2	3279.3
22.5°	3574.8	3499.2	3310.0	3184.3	3130.4
25°	3517.9	3416.2	3184.3	3019.0	2944.9
27.5°	3449.8	3322.7	3042.9	2835.0	2746.7
30°	3375.8	3212.7	2867.9	2628.5	2529.8
32.5°	3286.8	3083.3	2676.4	2402.6	2300.1
35°	3188.0	2932.2	2461.7	2167.0	2066.0
37.5°	3068.4	2757.2	2238.8	1926.1	1828.9
40°	2937.5	2576.9	2000.2	1686.8	1602.2
42.5°	2790.1	2369.0	1768.3	1466.9	1375.6
45°	2612.8	2155.0	1549.1	1267.1	1190.8
47.5°	2431.8	1918.7	1330.7	1074.9	1020.3
50°	2217.9	1696.5	1142.2	915.6	859.5
52.5°	1995.7	1478.1	966.4	777.2	727.1
55°	1772.8	1274.6	813.8	652.3	614.1
57.5°	1555.9	1087.6	684.4	551.3	518.4
60°	1329.2	923.1	579.0	464.5	437.6
62.5°	1134.7	780.2	486.2	391.2	368.8
65°	943.2	648.5	406.9	326.1	305.9
67.5°	782.4	535.6	337.4	270.8	253.6
70°	623.1	436.1	276.8	223.7	212.4
72.5°	496.7	347.8	224.4	181.8	170.5
75°	374.0	270.0	177.3	144.4	136.9
77.5°	281.3	205.0	136.9	112.2	104.0
80°	195.2	146.6	101.7	83.0	79.3
82.5°	124.9	101.0	70.3	59.1	54.6
85°	75.5	61.3	45.6	36.7	34.4
87.5°	35.9	29.9	23.2	18.0	16.5
90°	9.7	8.2	6.0	5.2	4.5
92.5°	11.2	8.2	5.2	3.7	3.0
95°	12.0	8.2	5.2	3.0	3.0
97.5°	12.0	9.0	4.5	3.0	2.2
100°	11.2	8.2	4.5	3.0	2.2
102.5°	9.7	7.5	3.7	2.2	2.2
105°	9.0	6.7	3.7	2.2	1.5
107.5°	7.5	6.0	3.0	2.2	1.5
110°	6.7	5.2	3.0	2.2	1.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.2	4.5	3.0	2.2	1.5
115°	4.5	3.7	2.2	1.5	1.5
117.5°	3.7	3.0	2.2	1.5	1.5
120°	3.7	3.0	2.2	1.5	1.5
122.5°	3.0	3.0	2.2	1.5	1.5
125°	3.0	2.2	2.2	1.5	1.5
127.5°	2.2	2.2	2.2	1.5	1.5
130°	2.2	2.2	2.2	2.2	1.5
132.5°	2.2	2.2	2.2	2.2	1.5
135°	2.2	2.2	2.2	2.2	2.2
137.5°	2.2	2.2	2.2	2.2	2.2
140°	2.2	2.2	2.2	2.2	2.2
142.5°	2.2	2.2	3.0	2.2	2.2
145°	2.2	2.2	3.0	3.0	2.2
147.5°	2.2	2.2	3.0	3.0	3.0
150°	2.2	2.2	3.0	3.0	3.0
152.5°	2.2	3.0	3.0	3.0	3.0
155°	2.2	3.0	3.0	3.0	3.0
157.5°	3.0	3.0	3.0	3.7	3.7
160°	3.0	3.0	3.7	3.7	3.7
162.5°	3.0	3.0	3.7	3.7	3.7
165°	3.0	3.0	3.7	4.5	4.5
167.5°	3.0	3.7	3.7	4.5	4.5
170°	3.0	3.7	3.7	4.5	4.5
172.5°	3.0	3.7	4.5	4.5	4.5
175°	3.0	3.7	4.5	4.5	4.5
177.5°	3.7	3.7	4.5	4.5	4.5
180°	4.5	4.5	4.5	4.5	4.5

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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	22.98	24.41	23.35	24.73	25.05	17.66	19.09	18.03	19.41	19.73
	3H	24.29	25.57	24.68	25.91	26.28	18.67	19.95	19.05	20.28	20.65
	4H	24.71	25.91	25.12	26.26	26.65	19.01	20.20	19.41	20.56	20.95
	6H	24.97	26.07	25.39	26.45	26.85	19.24	20.34	19.66	20.71	21.11
	8H	25.03	26.08	25.47	26.48	26.89	19.30	20.35	19.74	20.75	21.16
	12H	25.07	26.07	25.50	26.46	26.89	19.34	20.34	19.78	20.73	21.17
4H	2H	22.97	24.17	23.38	24.52	24.91	18.30	19.50	18.71	19.85	20.24
	3H	24.44	25.43	24.86	25.84	26.24	19.49	20.48	19.91	20.89	21.30
	4H	24.95	25.84	25.39	26.26	26.71	19.91	20.80	20.35	21.22	21.67
	6H	25.32	26.09	25.79	26.54	27.01	20.23	20.99	20.69	21.44	21.91
	8H	25.42	26.14	25.89	26.59	27.06	20.32	21.03	20.79	21.49	21.96
	12H	25.49	26.12	25.98	26.61	27.09	20.39	21.02	20.88	21.51	21.99
8H	4H	24.93	25.65	25.40	26.10	26.57	20.25	20.97	20.73	21.42	21.90
	6H	25.35	25.94	25.86	26.44	26.93	20.65	21.24	21.15	21.74	22.22
	8H	25.49	26.02	26.02	26.54	27.03	20.79	21.32	21.31	21.83	22.33
	12H	25.61	26.08	26.13	26.58	27.15	20.91	21.37	21.42	21.87	22.45
12H	4H	24.90	25.54	25.39	26.02	26.50	20.30	20.93	20.79	21.42	21.90
	6H	25.32	25.85	25.84	26.36	26.86	20.72	21.24	21.24	21.76	22.26
	8H	25.49	25.96	26.01	26.46	27.03	20.91	21.37	21.42	21.87	22.44