

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: P893794

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893794
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-21)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-A-UNV-L835
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

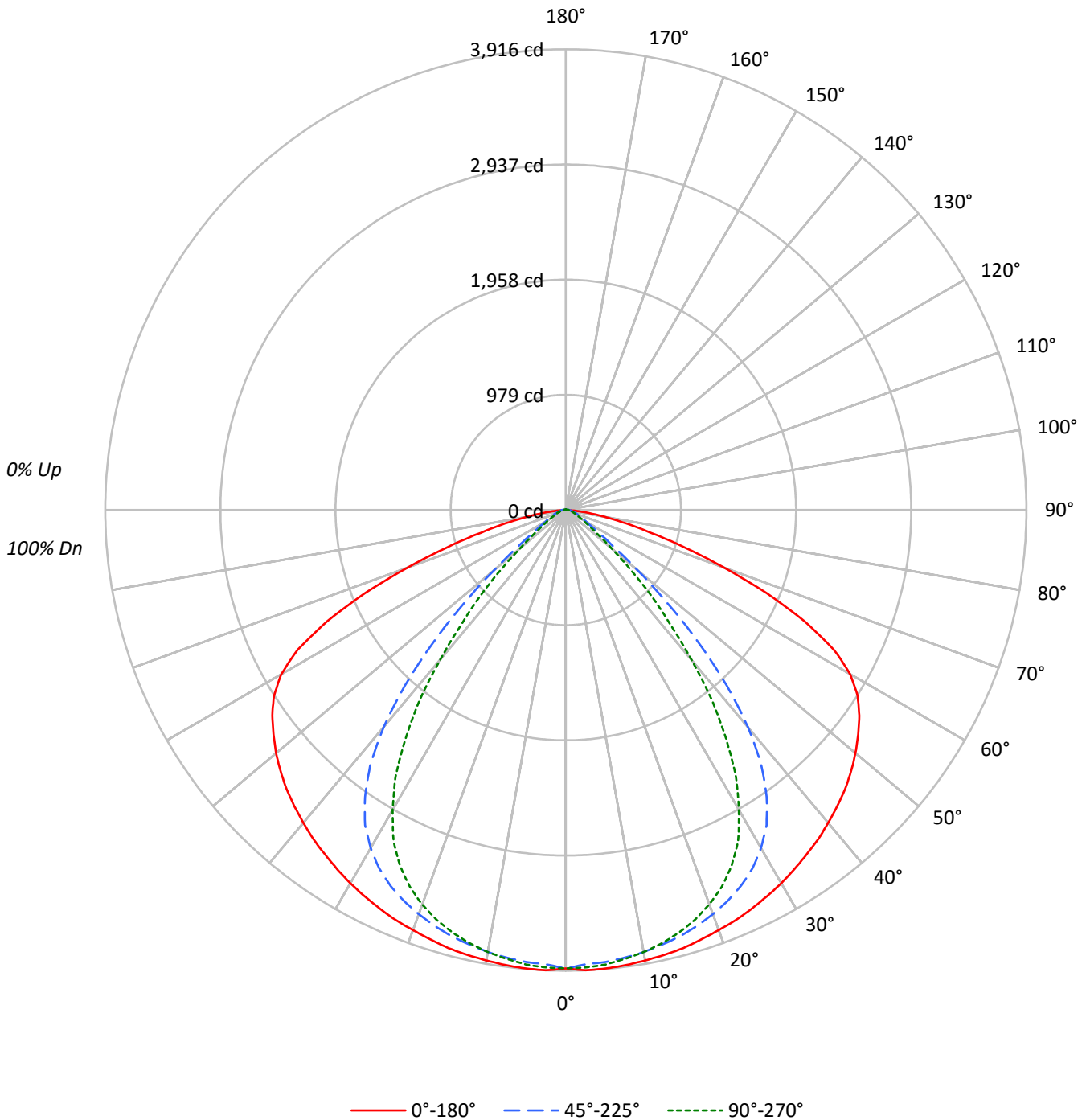
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7890.0 lumens
Efficiency: N/A
Efficacy: 152.3 lumens/watt
Spacing Criteria (0/90/45): 1.41 / 1.14 / 1.22
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 (A_{in}): 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

TEST NUMBER: P893794
CATALOG NUMBER: 4MB-7HL-A-UNV-L835

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	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	91	90	90	90	88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	79	79	77
3	95	86	80	74	93	85	79	74	82	77	72	79	75	71	77	73	70	70	70	68
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	62	62	60
5	82	71	63	57	80	70	63	57	68	61	56	66	60	56	64	59	55	55	55	53
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	50	50	48
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	45	45	43
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	41	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	37	37	35
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	43	38	34	34	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	39682	39682	39682
5°	39991	39419	39644
10°	40202	39448	39455
15°	40646	39543	39202
20°	41183	39618	38668
25°	42021	39604	37477
30°	43083	39012	34621
35°	44403	37004	29551
40°	46140	32049	22101
45°	48342	23063	14714
50°	50939	12639	8065
55°	54091	6213	4643
60°	56889	4096	3210
65°	53994	3354	2538
70°	42503	3049	2346
75°	29476	3014	2231
80°	19395	3026	2762
85°	11101	4651	4732

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 60°
 Luminance: 56889 cd/sqm



TEST NUMBER: P893794
 CATALOG NUMBER: 4MB-7HL-A-UNV-L835

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	369.5	4.7
10°-20°	1066.5	13.5
20°-30°	1624.8	20.6
30°-40°	1845.2	23.4
40°-50°	1481.7	18.8
50°-60°	794.8	10.1
60°-70°	420.4	5.3
70°-80°	190.6	2.4
80°-90°	60.7	0.8
90°-100°	18.8	0.2
100°-110°	6.7	0.1
110°-120°	2.1	0.0
120°-130°	1.6	0.0
130°-140°	1.6	0.0
140°-150°	1.7	0.0
150°-160°	1.6	0.0
160°-170°	1.2	0.0
170°-180°	0.5	0.0
0°-30°	3060.9	38.8
0°-40°	4906.1	62.2
0°-60°	7182.5	91.0
0°-90°	7854.2	99.5
90°-120°	27.6	0.4
90°-150°	32.5	0.4
90°-180°	36.0	0.5
0°-180°	7890.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3896	3896	3896	3896	3896	
5°	3912	3904	3856	3888	3878	373
15°	3855	3831	3750	3740	3718	1090
25°	3740	3680	3524	3401	3335	1728
35°	3572	3420	2976	2545	2377	2241
45°	3356	2840	1601	1114	1022	2593
55°	3046	1136	350	273	262	2716
65°	2241	264	139	113	105	2167
75°	749	151	77	60	57	847
85°	95	57	40	40	40	130
90°	4	26	29	33	32	6
95°	4	10	23	20	19	3
105°	2	2	4	10	12	2
115°	2	2	2	3	3	1
125°	2	2	2	2	2	1
135°	2	2	2	2	2	1
145°	2	2	3	3	3	1
155°	3	3	4	4	4	1
165°	3	4	4	5	4	1
175°	4	4	5	6	5	0
180°	5	5	5	5	5	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3896.4	3896.4	3896.4	3896.4	3896.4
2.5°	3916.2	3908.9	3864.7	3901.5	3891.9
5°	3911.8	3903.7	3855.9	3888.3	3877.9
7.5°	3902.3	3891.9	3838.2	3864.7	3848.5
10°	3887.5	3877.2	3814.6	3833.0	3815.3
12.5°	3872.8	3855.1	3783.7	3789.6	3772.6
15°	3855.1	3830.8	3750.5	3740.2	3718.1
17.5°	3827.9	3800.6	3707.1	3682.8	3651.8
20°	3799.9	3763.0	3655.5	3606.2	3567.9
22.5°	3774.1	3723.3	3596.6	3517.8	3466.2
25°	3739.5	3679.8	3524.4	3401.4	3335.1
27.5°	3701.9	3629.0	3435.3	3251.1	3172.3
30°	3663.6	3567.9	3317.4	3062.6	2944.0
32.5°	3618.7	3500.8	3176.0	2834.3	2694.3
35°	3571.5	3419.8	2976.4	2544.8	2376.9
37.5°	3526.6	3326.3	2730.4	2193.5	2044.7
40°	3470.6	3217.3	2410.7	1816.3	1662.4
42.5°	3415.4	3049.3	2027.7	1454.7	1307.4
45°	3356.5	2840.1	1601.3	1113.7	1021.6
47.5°	3289.4	2553.6	1171.9	810.9	731.4
50°	3215.1	2141.2	797.7	552.4	509.0
52.5°	3133.3	1658.7	518.5	380.8	355.8
55°	3046.4	1136.5	349.9	273.3	261.5
57.5°	2941.8	712.2	259.3	205.5	198.9
60°	2793.0	461.8	201.1	165.7	157.6
62.5°	2569.1	330.7	168.7	135.5	128.9
65°	2240.6	264.4	139.2	112.7	105.3
67.5°	1847.3	226.1	119.3	96.5	91.3
70°	1427.4	198.9	102.4	84.0	78.8
72.5°	1065.1	173.8	88.4	72.9	66.3
75°	749.1	151.0	76.6	60.4	56.7
77.5°	526.6	130.4	63.3	51.6	50.8
80°	330.7	108.3	51.6	47.9	47.1
82.5°	201.1	85.4	44.9	44.2	43.5
85°	95.0	56.7	39.8	39.8	40.5
87.5°	30.9	37.6	33.9	35.4	35.4
90°	3.7	25.8	28.7	33.1	31.7
92.5°	3.7	18.4	26.5	26.5	21.4
95°	3.7	10.3	22.8	19.9	19.2
97.5°	3.7	5.2	16.9	19.2	18.4
100°	3.7	2.9	12.5	16.9	18.4
102.5°	2.9	2.2	8.1	14.0	15.5
105°	2.2	1.5	4.4	10.3	12.5
107.5°	1.5	1.5	2.9	7.4	8.8
110°	1.5	0.7	2.2	5.2	5.9



TEST NUMBER: P893794

CATALOG NUMBER: 4MB-7HL-A-UNV-L835

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.5	0.7	2.2	3.7	3.7
115°	1.5	1.5	1.5	2.9	2.9
117.5°	1.5	1.5	1.5	2.2	2.2
120°	1.5	1.5	1.5	2.2	1.5
122.5°	1.5	1.5	1.5	2.2	1.5
125°	1.5	1.5	1.5	2.2	1.5
127.5°	1.5	1.5	2.2	2.2	1.5
130°	1.5	1.5	2.2	2.2	1.5
132.5°	1.5	1.5	2.2	2.2	2.2
135°	2.2	1.5	2.2	2.2	2.2
137.5°	2.2	2.2	2.2	2.9	2.2
140°	2.2	2.2	2.9	2.9	2.2
142.5°	2.2	2.2	2.9	2.9	2.9
145°	2.2	2.2	2.9	2.9	2.9
147.5°	2.2	2.2	2.9	3.7	2.9
150°	2.2	2.9	3.7	3.7	2.9
152.5°	2.2	2.9	3.7	3.7	3.7
155°	2.9	2.9	3.7	4.4	3.7
157.5°	2.9	2.9	3.7	4.4	3.7
160°	2.9	2.9	4.4	4.4	4.4
162.5°	2.9	3.7	4.4	5.2	4.4
165°	2.9	3.7	4.4	5.2	4.4
167.5°	2.9	3.7	4.4	5.2	5.2
170°	2.9	3.7	5.2	5.2	5.2
172.5°	3.7	3.7	5.2	5.9	5.2
175°	3.7	3.7	5.2	5.9	5.2
177.5°	3.7	3.7	5.2	5.9	5.2
180°	5.2	5.2	5.2	5.2	5.2



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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	22.45	23.84	22.83	24.17	24.49	10.67	12.05	11.04	12.38	12.70
	3H	25.35	26.59	25.74	26.93	27.30	11.62	12.86	12.01	13.20	13.57
	4H	26.14	27.29	26.55	27.65	28.04	12.04	13.19	12.45	13.55	13.95
	6H	26.57	27.63	27.00	28.01	28.42	12.52	13.58	12.94	13.96	14.37
	8H	26.67	27.68	27.11	28.08	28.49	12.83	13.84	13.27	14.24	14.65
	12H	26.71	27.67	27.15	28.06	28.51	13.24	14.20	13.68	14.59	15.03
4H	2H	22.27	23.42	22.68	23.78	24.17	11.18	12.33	11.59	12.69	13.09
	3H	25.18	26.13	25.60	26.54	26.95	12.39	13.34	12.81	13.75	14.16
	4H	25.98	26.82	26.42	27.25	27.70	12.93	13.77	13.37	14.20	14.65
	6H	26.51	27.24	26.97	27.69	28.17	13.57	14.30	14.03	14.75	15.22
	8H	26.65	27.33	27.12	27.79	28.27	13.97	14.65	14.44	15.11	15.59
	12H	26.73	27.33	27.22	27.82	28.31	14.50	15.10	14.99	15.59	16.08
8H	4H	25.87	26.55	26.34	27.00	27.48	13.49	14.18	13.97	14.63	15.11
	6H	26.40	26.96	26.90	27.46	27.95	14.27	14.83	14.77	15.33	15.82
	8H	26.56	27.07	27.09	27.59	28.09	14.79	15.29	15.31	15.81	16.32
	12H	26.68	27.13	27.20	27.63	28.21	15.49	15.94	16.01	16.44	17.02
12H	4H	25.83	26.43	26.32	26.92	27.41	13.74	14.35	14.23	14.84	15.32
	6H	26.34	26.85	26.87	27.37	27.87	14.54	15.04	15.07	15.57	16.07
	8H	26.53	26.98	27.05	27.48	28.06	15.13	15.58	15.66	16.08	16.66