

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: P893890

Luminaire Tested: 4MB-8HL-A-UNV-L835

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893890
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-8HL-A-UNV-L835
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTIC, 80CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

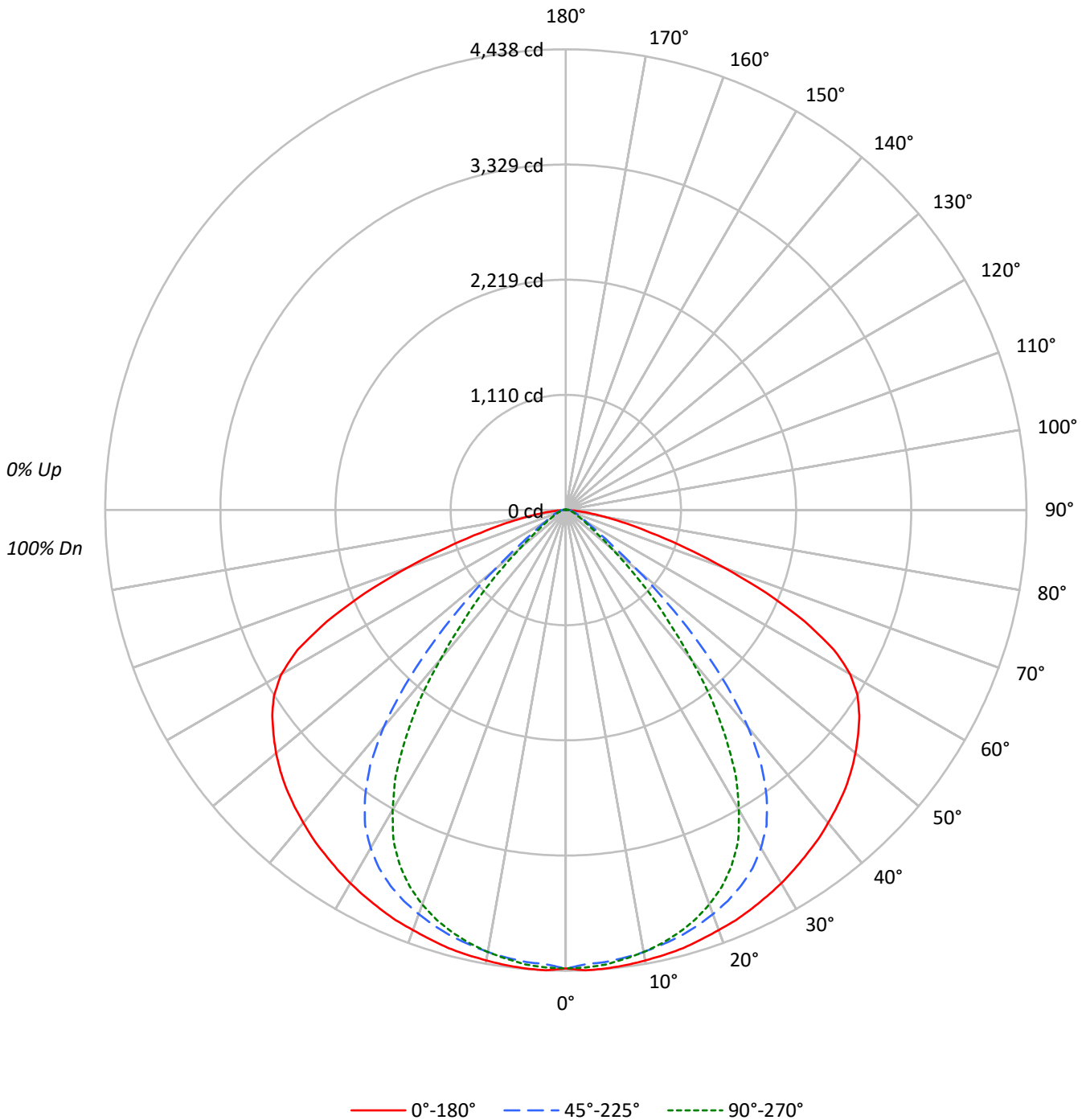
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8942.0 lumens
Efficiency: N/A
Efficacy: 154.4 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): 57.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.23
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	91	90	90	90	90	88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	79	79	79	77
3	95	86	80	74	93	85	79	74	82	77	72	79	75	71	77	73	70	70	70	70	68
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	62	62	62	60
5	82	71	63	57	80	70	63	57	68	61	56	66	60	56	64	59	55	55	55	55	53
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	50	50	50	48
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	45	45	45	43
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	41	41	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	37	37	37	35
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	43	38	34	34	34	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	44972	44972	44972
5°	45323	44675	44931
10°	45563	44708	44717
15°	46065	44816	44429
20°	46673	44900	43824
25°	47624	44884	42474
30°	48828	44214	39236
35°	50324	41939	33491
40°	52293	36323	25048
45°	54788	26138	16675
50°	57730	14323	9139
55°	61303	7040	5261
60°	64474	4642	3638
65°	61192	3803	2877
70°	48173	3454	2659
75°	33407	3415	2530
80°	21981	3425	3132
85°	12585	5270	5363

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 60°
 Luminance: 64474 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	418.8	4.7
10°-20°	1208.7	13.5
20°-30°	1841.4	20.6
30°-40°	2091.2	23.4
40°-50°	1679.2	18.8
50°-60°	900.8	10.1
60°-70°	476.4	5.3
70°-80°	216.0	2.4
80°-90°	68.8	0.8
90°-100°	21.3	0.2
100°-110°	7.7	0.1
110°-120°	2.4	0.0
120°-130°	1.8	0.0
130°-140°	1.9	0.0
140°-150°	2.0	0.0
150°-160°	1.8	0.0
160°-170°	1.4	0.0
170°-180°	0.5	0.0
0°-30°	3469.0	38.8
0°-40°	5560.2	62.2
0°-60°	8140.2	91.0
0°-90°	8901.4	99.5
90°-120°	31.3	0.4
90°-150°	36.9	0.4
90°-180°	41.0	0.5
0°-180°	8942.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4416	4416	4416	4416	4416	
5°	4433	4424	4370	4407	4395	422
15°	4369	4342	4251	4239	4214	1235
25°	4238	4170	3994	3855	3780	1958
35°	4048	3876	3373	2884	2694	2540
45°	3804	3219	1815	1262	1158	2938
55°	3453	1288	396	310	296	3078
65°	2539	300	158	128	119	2456
75°	849	171	87	68	64	960
85°	108	64	45	45	46	147
90°	4	29	33	38	36	7
95°	4	12	26	22	22	3
105°	2	2	5	12	14	3
115°	2	2	2	3	3	2
125°	2	2	2	2	2	2
135°	2	2	2	2	2	2
145°	2	2	3	3	3	2
155°	3	3	4	5	4	1
165°	3	4	5	6	5	1
175°	4	4	6	7	6	0
180°	6	6	6	6	6	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4415.9	4415.9	4415.9	4415.9	4415.9
2.5°	4438.4	4430.1	4380.0	4421.7	4410.9
5°	4433.4	4424.2	4370.0	4406.7	4395.0
7.5°	4422.6	4410.9	4349.9	4380.0	4361.6
10°	4405.9	4394.2	4323.2	4344.1	4324.1
12.5°	4389.2	4369.1	4288.2	4294.8	4275.6
15°	4369.1	4341.6	4250.6	4238.9	4213.9
17.5°	4338.2	4307.4	4201.3	4173.8	4138.7
20°	4306.5	4264.8	4142.9	4087.0	4043.6
22.5°	4277.3	4219.7	4076.1	3986.8	3928.4
25°	4238.1	4170.5	3994.3	3854.9	3779.8
27.5°	4195.5	4112.9	3893.3	3684.6	3595.3
30°	4152.1	4043.6	3759.8	3470.9	3336.5
32.5°	4101.2	3967.6	3599.5	3212.2	3053.6
35°	4047.7	3875.8	3373.3	2884.1	2693.8
37.5°	3996.8	3769.8	3094.5	2485.9	2317.3
40°	3933.4	3646.2	2732.2	2058.5	1884.1
42.5°	3870.8	3455.9	2298.1	1648.7	1481.7
45°	3804.0	3218.8	1814.8	1262.2	1157.8
47.5°	3728.0	2894.1	1328.1	919.1	828.9
50°	3643.7	2426.6	904.0	626.1	576.8
52.5°	3551.1	1879.9	587.7	431.6	403.2
55°	3452.6	1288.0	396.5	309.7	296.3
57.5°	3334.0	807.2	293.8	232.9	225.4
60°	3165.4	523.4	227.9	187.8	178.6
62.5°	2911.6	374.8	191.2	153.6	146.1
65°	2539.3	299.7	157.8	127.7	119.4
67.5°	2093.6	256.3	135.2	109.4	103.5
70°	1617.8	225.4	116.0	95.2	89.3
72.5°	1207.1	197.0	100.2	82.6	75.1
75°	849.0	171.1	86.8	68.5	64.3
77.5°	596.9	147.8	71.8	58.4	57.6
80°	374.8	122.7	58.4	54.3	53.4
82.5°	227.9	96.8	50.9	50.1	49.3
85°	107.7	64.3	45.1	45.1	45.9
87.5°	35.1	42.6	38.4	40.1	40.1
90°	4.2	29.2	32.6	37.6	35.9
92.5°	4.2	20.9	30.1	30.1	24.2
95°	4.2	11.7	25.9	22.5	21.7
97.5°	4.2	5.8	19.2	21.7	20.9
100°	4.2	3.3	14.2	19.2	20.9
102.5°	3.3	2.5	9.2	15.9	17.5
105°	2.5	1.7	5.0	11.7	14.2
107.5°	1.7	1.7	3.3	8.3	10.0
110°	1.7	0.8	2.5	5.8	6.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.7	0.8	2.5	4.2	4.2
115°	1.7	1.7	1.7	3.3	3.3
117.5°	1.7	1.7	1.7	2.5	2.5
120°	1.7	1.7	1.7	2.5	1.7
122.5°	1.7	1.7	1.7	2.5	1.7
125°	1.7	1.7	1.7	2.5	1.7
127.5°	1.7	1.7	2.5	2.5	1.7
130°	1.7	1.7	2.5	2.5	1.7
132.5°	1.7	1.7	2.5	2.5	2.5
135°	2.5	1.7	2.5	2.5	2.5
137.5°	2.5	2.5	2.5	3.3	2.5
140°	2.5	2.5	3.3	3.3	2.5
142.5°	2.5	2.5	3.3	3.3	3.3
145°	2.5	2.5	3.3	3.3	3.3
147.5°	2.5	2.5	3.3	4.2	3.3
150°	2.5	3.3	4.2	4.2	3.3
152.5°	2.5	3.3	4.2	4.2	4.2
155°	3.3	3.3	4.2	5.0	4.2
157.5°	3.3	3.3	4.2	5.0	4.2
160°	3.3	3.3	5.0	5.0	5.0
162.5°	3.3	4.2	5.0	5.8	5.0
165°	3.3	4.2	5.0	5.8	5.0
167.5°	3.3	4.2	5.0	5.8	5.8
170°	3.3	4.2	5.8	5.8	5.8
172.5°	4.2	4.2	5.8	6.7	5.8
175°	4.2	4.2	5.8	6.7	5.8
177.5°	4.2	4.2	5.8	6.7	5.8
180°	5.8	5.8	5.8	5.8	5.8



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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	22.89	24.28	23.26	24.60	24.93	11.10	12.49	11.47	12.81	13.14
	3H	25.79	27.02	26.18	27.36	27.74	12.06	13.29	12.45	13.63	14.01
	4H	26.57	27.72	26.98	28.08	28.48	12.48	13.63	12.89	13.99	14.38
	6H	27.01	28.07	27.43	28.45	28.85	12.96	14.02	13.38	14.40	14.80
	8H	27.11	28.11	27.54	28.51	28.93	13.27	14.27	13.70	14.67	15.09
	12H	27.15	28.11	27.59	28.50	28.94	13.67	14.63	14.11	15.03	15.47
4H	2H	22.70	23.85	23.11	24.21	24.61	11.62	12.77	12.03	13.13	13.52
	3H	25.62	26.56	26.04	26.97	27.39	12.83	13.77	13.25	14.18	14.60
	4H	26.41	27.26	26.86	27.69	28.14	13.37	14.21	13.81	14.64	15.09
	6H	26.94	27.67	27.41	28.13	28.60	14.00	14.73	14.47	15.18	15.66
	8H	27.08	27.77	27.56	28.22	28.70	14.40	15.09	14.88	15.54	16.02
	12H	27.16	27.77	27.66	28.26	28.74	14.93	15.54	15.43	16.03	16.51
8H	4H	26.30	26.98	26.78	27.44	27.92	13.93	14.61	14.40	15.07	15.55
	6H	26.83	27.39	27.34	27.90	28.39	14.70	15.26	15.21	15.76	16.26
	8H	27.00	27.50	27.52	28.02	28.52	15.22	15.73	15.75	16.25	16.75
	12H	27.12	27.56	27.64	28.07	28.64	15.92	16.37	16.45	16.87	17.45
12H	4H	26.26	26.87	26.75	27.36	27.84	14.18	14.78	14.67	15.27	15.76
	6H	26.78	27.28	27.30	27.80	28.31	14.97	15.48	15.50	16.00	16.50
	8H	26.97	27.41	27.49	27.92	28.50	15.57	16.02	16.09	16.52	17.10