

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: P893898

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893898
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-20)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-8HL-ACL-UNV-L835
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 80CRI, 3500K (C)
Light Source: -
Ballast/Driver: -

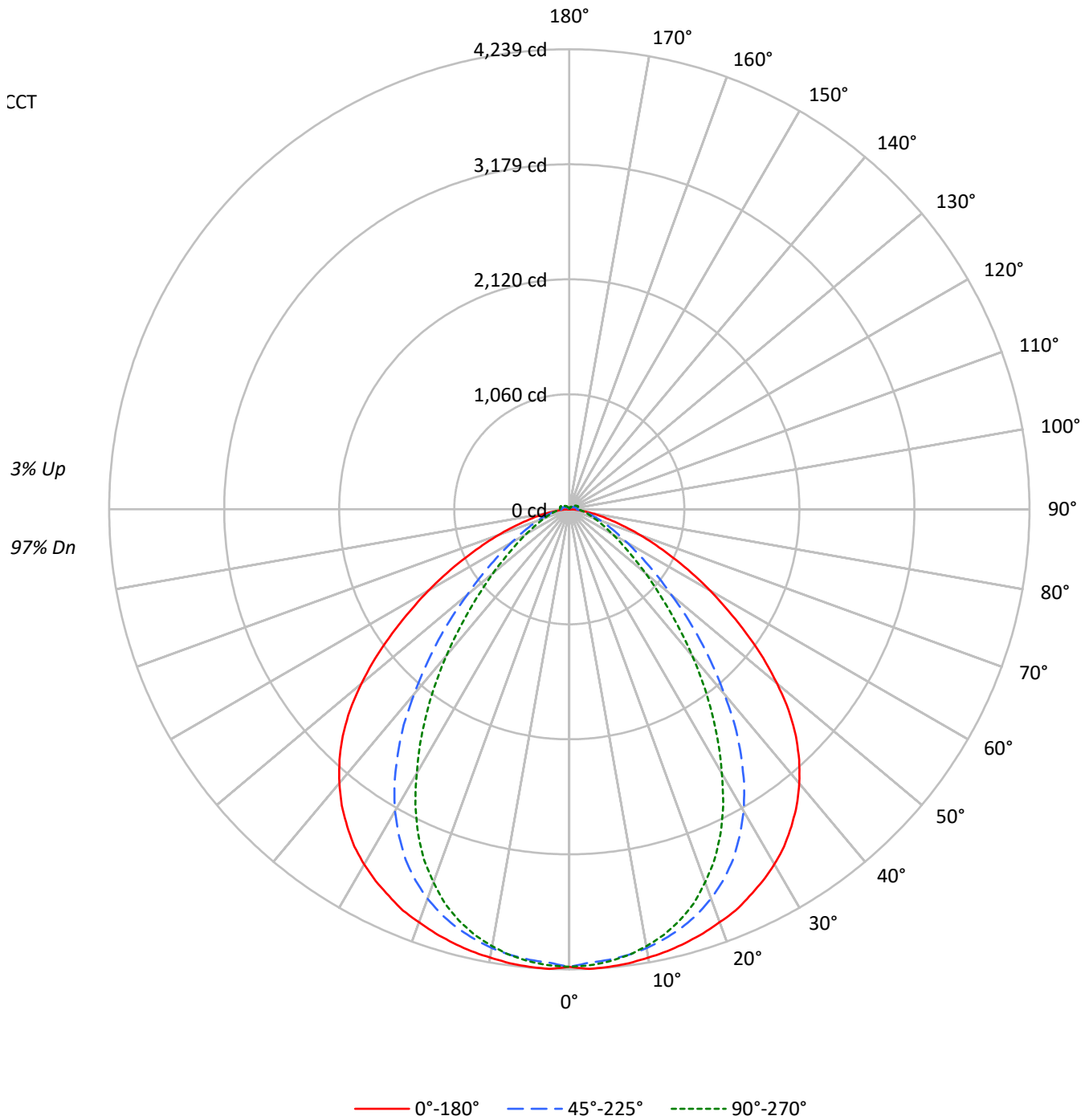
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8551.0 lumens
Efficiency: N/A
Efficacy: 147.7 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.05 / 1.15
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.08')
CIE Type: Direct

Input Watts (W): 57.9
Input Voltage (V): 120
Input Current (A_{in}): 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				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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	100	100	100	97
1	110	106	102	99	107	103	100	97	99	96	94	94	92	90	90	89	87	87	87	87	85
2	101	94	89	84	99	92	87	83	88	84	80	85	81	78	82	79	76	76	76	76	74
3	94	85	78	72	91	83	76	71	80	74	70	77	72	68	74	70	67	67	67	67	65
4	87	76	69	63	84	75	68	62	72	66	61	70	64	60	67	63	59	59	59	59	57
5	81	69	61	55	78	68	60	55	66	59	54	63	58	53	61	56	52	52	52	52	50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	56	51	47	47	47	47	45
7	70	58	50	44	68	57	49	44	55	48	43	53	47	43	52	47	42	42	42	42	41
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	43	39	39	39	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	35	35	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	32	32	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42932	42932	42932
5°	43189	41738	41624
10°	43223	40754	40063
15°	43371	39586	38172
20°	43554	38098	35572
25°	43751	36082	32316
30°	43907	33229	27994
35°	43705	29382	23336
40°	43057	24641	18552
45°	41636	19850	14028
50°	38611	15174	10581
55°	34277	11624	7882
60°	29413	8942	6099
65°	24266	7007	4825
70°	19600	5616	3946
75°	14916	4589	3367
80°	11156	3760	2970
85°	7590	3183	2702

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 41636 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	398.8	4.7
10°-20°	1132.3	13.2
20°-30°	1648.2	19.3
30°-40°	1768.8	20.7
40°-50°	1463.6	17.1
50°-60°	970.0	11.3
60°-70°	552.7	6.5
70°-80°	274.1	3.2
80°-90°	110.8	1.3
90°-100°	65.1	0.8
100°-110°	57.9	0.7
110°-120°	43.7	0.5
120°-130°	29.0	0.3
130°-140°	17.8	0.2
140°-150°	10.2	0.1
150°-160°	5.2	0.1
160°-170°	2.2	0.0
170°-180°	0.5	0.0
0°-30°	3179.3	37.2
0°-40°	4948.1	57.9
0°-60°	7381.7	86.3
0°-90°	8319.2	97.3
90°-120°	166.7	2.0
90°-150°	223.8	2.6
90°-180°	232.0	2.7
0°-180°	8551.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4216	4216	4216	4216	4216	
5°	4232	4221	4167	4198	4183	403
15°	4137	4104	3992	3956	3925	1169
25°	3932	3829	3565	3371	3296	1814
35°	3567	3284	2755	2394	2289	2229
45°	2951	2397	1704	1373	1279	2261
55°	1988	1406	876	693	643	1779
65°	1052	705	438	354	335	1057
75°	409	304	220	192	186	451
85°	80	86	101	107	106	93
90°	11	36	69	84	86	10
95°	13	37	70	84	86	10
105°	10	28	63	80	85	11
115°	6	19	48	69	75	6
125°	3	13	35	51	57	3
135°	2	10	24	36	40	2
145°	3	8	16	25	28	2
155°	3	7	11	15	20	2
165°	4	5	8	9	12	1
175°	4	5	6	6	5	0
180°	5	5	5	5	5	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4215.5	4215.5	4215.5	4215.5	4215.5
2.5°	4239.2	4229.9	4181.6	4218.0	4207.0
5°	4232.4	4221.4	4167.2	4198.5	4183.3
7.5°	4218.0	4204.5	4143.4	4164.6	4146.0
10°	4195.1	4178.2	4105.3	4109.5	4088.3
12.5°	4170.6	4144.3	4055.2	4043.4	4017.1
15°	4136.6	4103.6	3992.5	3956.0	3924.7
17.5°	4097.6	4051.9	3914.5	3850.1	3809.4
20°	4049.3	3988.3	3817.9	3719.5	3656.8
22.5°	4002.7	3912.8	3702.5	3561.8	3495.7
25°	3931.5	3828.9	3565.2	3371.0	3296.4
27.5°	3861.1	3722.9	3396.5	3158.2	3071.7
30°	3778.8	3597.4	3211.6	2918.3	2811.5
32.5°	3683.9	3460.1	2997.1	2669.0	2555.4
35°	3566.9	3283.7	2754.7	2394.3	2289.2
37.5°	3441.4	3089.6	2504.5	2133.2	2024.7
40°	3295.6	2883.5	2221.4	1861.9	1762.7
42.5°	3133.6	2647.8	1958.5	1606.7	1507.5
45°	2951.4	2396.9	1704.2	1372.7	1279.4
47.5°	2741.9	2140.0	1458.3	1161.5	1083.5
50°	2497.8	1883.1	1227.7	975.0	917.4
52.5°	2251.9	1641.4	1042.0	826.6	764.8
55°	1988.2	1405.7	875.8	692.7	642.7
57.5°	1733.0	1197.2	731.7	580.8	546.0
60°	1496.4	1010.6	618.9	490.1	462.1
62.5°	1269.2	852.1	518.0	414.6	390.0
65°	1052.2	705.4	438.3	353.6	334.9
67.5°	861.4	589.3	369.7	301.8	287.4
70°	696.1	476.5	311.2	258.6	246.7
72.5°	541.8	382.4	261.1	223.8	213.7
75°	408.7	304.4	219.6	191.6	185.7
77.5°	307.8	236.5	181.4	165.3	161.1
80°	212.8	176.4	150.1	143.3	140.7
82.5°	135.7	126.3	122.9	122.9	122.9
85°	80.5	86.5	100.9	106.8	106.0
87.5°	38.2	56.8	81.4	92.4	94.1
90°	11.0	35.6	68.7	83.9	86.5
92.5°	12.7	36.5	68.7	83.9	86.5
95°	12.7	37.3	69.5	83.9	86.5
97.5°	12.7	35.6	68.7	84.8	87.3
100°	12.7	34.8	67.8	83.9	87.3
102.5°	11.0	32.2	65.3	83.1	86.5
105°	10.2	28.0	62.7	80.5	84.8
107.5°	8.5	25.4	60.2	78.0	83.1
110°	7.6	22.9	56.8	75.5	81.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.8	20.3	52.6	72.9	78.0
115°	5.9	18.7	48.3	68.7	74.6
117.5°	5.1	17.0	44.1	64.4	71.2
120°	4.2	15.3	40.7	60.2	66.1
122.5°	4.2	14.4	37.3	55.1	61.9
125°	3.4	12.7	34.8	50.9	56.8
127.5°	3.4	11.9	31.4	46.6	51.7
130°	2.5	11.9	28.8	43.2	48.3
132.5°	2.5	11.0	25.4	39.0	44.1
135°	2.5	10.2	23.7	35.6	39.8
137.5°	2.5	10.2	21.2	33.1	37.3
140°	3.4	9.3	18.7	29.7	33.9
142.5°	3.4	8.5	17.8	27.1	30.5
145°	3.4	7.6	16.1	24.6	28.0
147.5°	3.4	7.6	14.4	22.0	25.4
150°	3.4	6.8	13.6	19.5	22.9
152.5°	3.4	6.8	12.7	17.0	21.2
155°	3.4	6.8	11.0	15.3	19.5
157.5°	3.4	5.9	10.2	13.6	17.0
160°	4.2	5.9	9.3	11.9	15.3
162.5°	4.2	5.9	8.5	11.0	13.6
165°	4.2	5.1	7.6	9.3	11.9
167.5°	4.2	5.1	7.6	8.5	10.2
170°	4.2	5.1	6.8	6.8	7.6
172.5°	4.2	5.1	5.9	6.8	5.1
175°	4.2	5.1	5.9	5.9	5.1
177.5°	4.2	5.1	5.1	5.9	5.1
180°	5.1	5.1	5.1	5.1	5.1



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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	21.73	23.11	22.14	23.49	23.87	16.85	18.23	17.26	18.61	18.99
	3H	22.82	24.06	23.25	24.45	24.88	17.99	19.23	18.42	19.62	20.05
	4H	23.12	24.28	23.56	24.68	25.13	18.49	19.65	18.94	20.06	20.51
	6H	23.26	24.33	23.72	24.75	25.21	19.00	20.07	19.46	20.49	20.95
	8H	23.28	24.29	23.75	24.74	25.21	19.27	20.28	19.74	20.73	21.19
	12H	23.27	24.24	23.74	24.68	25.17	19.56	20.53	20.04	20.97	21.47
4H	2H	21.70	22.86	22.15	23.27	23.71	17.35	18.51	17.80	18.91	19.36
	3H	22.94	23.89	23.39	24.35	24.82	18.67	19.62	19.13	20.08	20.55
	4H	23.31	24.17	23.79	24.64	25.14	19.26	20.12	19.74	20.59	21.10
	6H	23.54	24.28	24.04	24.78	25.31	19.89	20.64	20.40	21.13	21.66
	8H	23.57	24.27	24.08	24.77	25.30	20.22	20.92	20.73	21.41	21.94
	12H	23.58	24.20	24.11	24.73	25.27	20.59	21.21	21.12	21.74	22.28
8H	4H	23.29	23.99	23.80	24.49	25.02	19.51	20.21	20.02	20.70	21.24
	6H	23.56	24.14	24.11	24.68	25.22	20.24	20.82	20.78	21.36	21.90
	8H	23.63	24.15	24.19	24.70	25.26	20.65	21.17	21.21	21.73	22.28
	12H	23.67	24.13	24.22	24.67	25.29	21.14	21.60	21.70	22.14	22.77
12H	4H	23.27	23.89	23.80	24.42	24.96	19.52	20.15	20.05	20.68	21.21
	6H	23.54	24.06	24.10	24.62	25.17	20.28	20.80	20.84	21.35	21.91
	8H	23.64	24.10	24.20	24.64	25.27	20.74	21.20	21.30	21.74	22.37