

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: P894111

Luminaire Tested: 4MB-SC3-ACL-UNV-CC93-LOW-3500K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894111
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-15)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-SC3-ACL-UNV-CC93-LOW-3500K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 3500K CC
LOW lumen setting
Light Source: -
Ballast/Driver: -

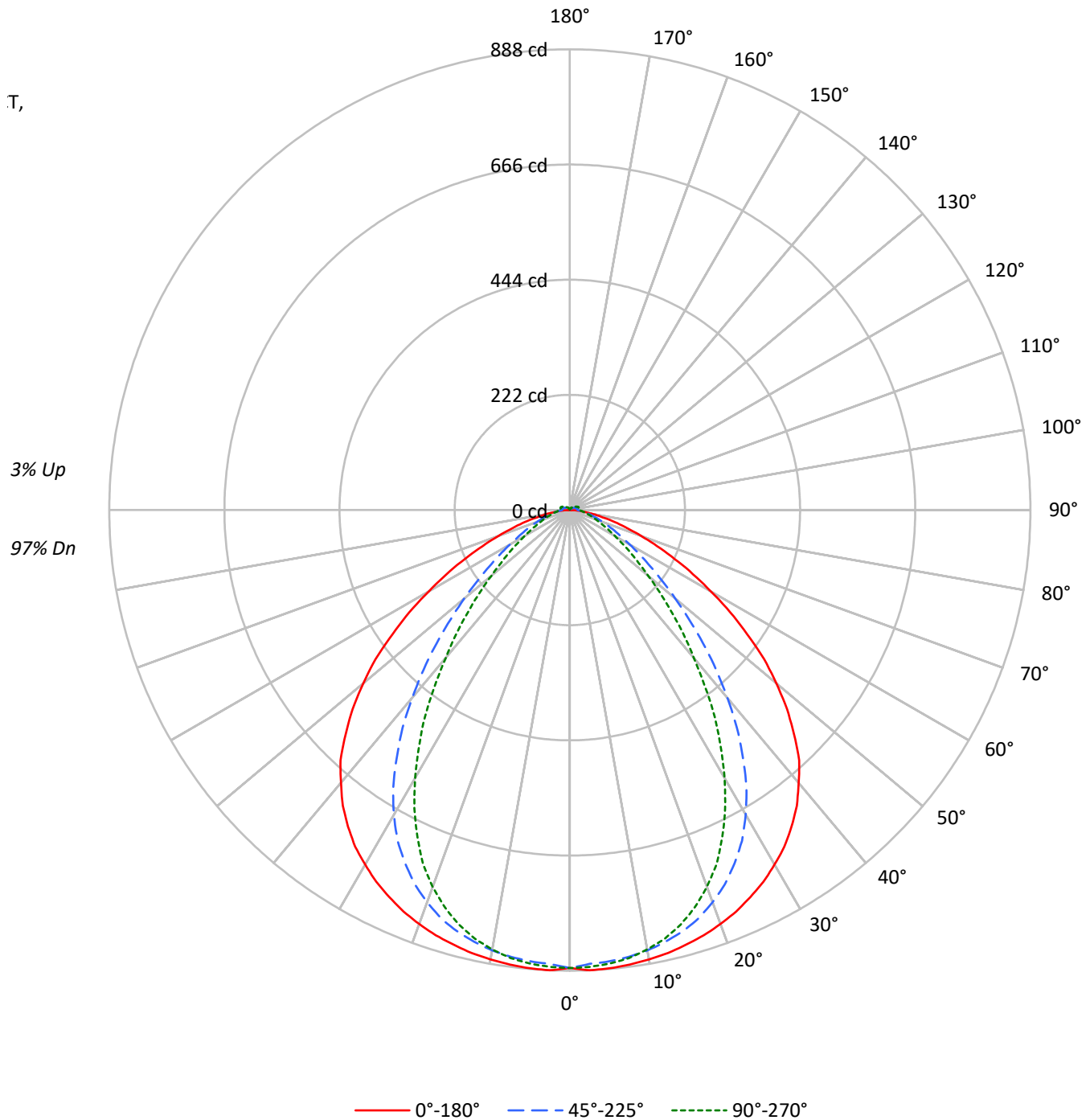
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1811.0 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.08')
CIE Type: Direct

Input Watts (W): 16.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9915
Total Harmonic Distortion (THDi): 6.67573310469889
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	97				97
1	110	106	102	99	107	103	100	97	99	96	93	94	92	90	90	89	87	85				85
2	101	94	88	84	99	92	87	82	88	84	80	85	81	78	82	79	76	74				74
3	94	85	77	72	91	83	76	71	80	74	69	77	72	68	74	70	66	64				64
4	87	76	68	62	84	75	67	62	72	66	61	69	64	60	67	62	59	57				57
5	80	69	61	55	78	68	60	55	65	59	54	63	58	53	61	56	52	50				50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	47	56	51	47	45				45
7	70	57	50	44	68	57	49	44	55	48	43	53	47	43	52	46	42	40				40
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	42	38	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33				33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8991	8991	8991
5°	9048	8747	8733
10°	9064	8557	8427
15°	9091	8335	8043
20°	9135	8028	7518
25°	9162	7603	6819
30°	9171	7018	5941
35°	9132	6202	4970
40°	8970	5239	3911
45°	8625	4229	3033
50°	8029	3281	2276
55°	7187	2512	1740
60°	6176	1932	1325
65°	5150	1524	1053
70°	4119	1222	861
75°	3281	984	732
80°	2401	812	642
85°	1650	691	591

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8625 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.6	4.6
10°-20°	238.2	13.2
20°-30°	347.3	19.2
30°-40°	373.1	20.6
40°-50°	310.5	17.1
50°-60°	207.7	11.5
60°-70°	118.9	6.6
70°-80°	59.1	3.3
80°-90°	24.2	1.3
90°-100°	14.0	0.8
100°-110°	12.4	0.7
110°-120°	9.1	0.5
120°-130°	5.9	0.3
130°-140°	3.5	0.2
140°-150°	2.0	0.1
150°-160°	1.0	0.1
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	669.1	36.9
0°-40°	1042.3	57.6
0°-60°	1560.5	86.2
0°-90°	1762.7	97.3
90°-120°	35.5	2.0
90°-150°	46.8	2.6
90°-180°	48.0	2.7
0°-180°	1811.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	883	883	883	883	883	
5°	887	884	873	880	878	84
15°	867	861	841	834	827	245
25°	823	804	751	713	696	380
35°	745	691	582	510	488	465
45°	611	508	363	294	277	470
55°	417	301	189	150	142	373
65°	223	151	95	77	73	223
75°	90	65	47	42	40	96
85°	18	20	22	23	23	20
90°	3	8	15	18	18	2
95°	4	8	15	18	18	3
105°	3	7	13	17	18	3
115°	1	4	10	14	16	1
125°	1	3	7	10	11	1
135°	0	2	5	7	8	0
145°	0	2	3	5	5	0
155°	0	1	2	3	4	0
165°	1	1	2	2	2	0
175°	1	1	1	1	1	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	882.8	882.8	882.8	882.8	882.8
2.5°	888.0	885.6	875.6	883.6	881.3
5°	886.7	883.8	873.3	880.5	877.7
7.5°	883.8	880.8	868.7	874.3	871.2
10°	879.7	875.9	862.0	864.8	859.9
12.5°	874.6	869.7	852.4	851.7	846.2
15°	867.1	861.2	840.6	834.4	826.9
17.5°	859.4	850.6	825.4	812.8	802.5
20°	849.3	837.7	804.5	785.7	772.9
22.5°	837.7	822.0	781.1	752.2	738.9
25°	823.3	803.8	751.2	713.4	695.6
27.5°	807.9	781.9	718.8	669.1	648.7
30°	789.3	757.1	678.3	618.6	596.7
32.5°	769.8	725.7	634.0	565.5	541.6
35°	745.3	691.2	581.5	509.9	487.5
37.5°	718.8	650.0	529.5	453.0	427.8
40°	686.6	606.5	472.3	396.6	371.6
42.5°	654.6	559.1	417.5	345.6	324.0
45°	611.4	508.1	363.1	293.8	276.6
47.5°	567.9	453.5	311.1	251.9	234.9
50°	519.4	399.9	265.5	211.4	197.3
52.5°	472.3	350.0	224.1	178.7	166.6
55°	416.9	300.8	189.3	149.6	141.9
57.5°	367.0	255.2	159.7	126.7	119.5
60°	314.2	216.3	133.7	107.1	100.4
62.5°	267.8	181.8	112.5	90.9	86.3
65°	223.3	151.4	95.3	77.3	73.1
67.5°	182.3	126.4	80.3	65.9	62.6
70°	146.3	102.5	67.7	56.1	53.8
72.5°	115.1	82.4	56.4	48.4	46.4
75°	89.9	65.4	47.1	41.7	40.4
77.5°	64.9	51.0	39.4	35.8	35.0
80°	45.8	38.6	32.4	30.9	30.4
82.5°	30.4	28.1	26.8	26.8	26.5
85°	17.5	19.6	21.9	22.9	23.2
87.5°	9.0	13.1	17.5	19.6	19.8
90°	2.6	8.2	14.9	17.8	18.3
92.5°	3.9	8.2	14.7	17.8	18.3
95°	3.9	8.2	14.7	17.8	18.3
97.5°	3.6	8.0	14.7	17.8	18.3
100°	3.3	7.5	14.4	17.8	18.3
102.5°	2.8	7.2	13.9	17.5	18.3
105°	2.6	6.7	13.1	17.3	18.0
107.5°	2.3	5.7	12.4	16.5	17.5
110°	1.8	4.9	11.8	15.7	17.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.5	4.4	11.1	14.9	16.2
115°	1.3	3.9	10.3	14.2	15.5
117.5°	1.0	3.6	9.3	13.1	14.4
120°	0.8	3.3	8.5	12.4	13.4
122.5°	0.8	3.1	7.5	11.3	12.4
125°	0.8	2.6	7.0	10.3	11.3
127.5°	0.5	2.3	6.2	9.3	10.3
130°	0.5	2.3	5.7	8.5	9.3
132.5°	0.5	2.1	5.2	7.7	8.5
135°	0.5	2.1	4.6	7.0	7.7
137.5°	0.5	1.8	4.1	6.4	7.2
140°	0.5	1.8	3.9	5.7	6.4
142.5°	0.5	1.5	3.3	5.4	5.9
145°	0.5	1.5	3.1	4.6	5.4
147.5°	0.5	1.5	2.8	4.4	4.9
150°	0.5	1.3	2.6	3.6	4.4
152.5°	0.5	1.3	2.3	3.3	4.1
155°	0.5	1.3	2.1	2.8	3.6
157.5°	0.5	1.3	2.1	2.6	3.1
160°	0.8	1.0	1.8	2.3	2.8
162.5°	0.8	1.0	1.5	2.1	2.6
165°	0.8	1.0	1.5	1.8	2.3
167.5°	0.8	1.0	1.3	1.5	1.8
170°	0.8	0.8	1.3	1.3	1.3
172.5°	0.8	0.8	1.0	1.3	1.0
175°	0.8	0.8	1.0	1.0	1.0
177.5°	0.8	0.8	1.0	1.0	1.0
180°	0.8	0.8	0.8	0.8	0.8



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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	16.36	17.76	16.78	18.13	18.51	11.66	13.05	12.07	13.42	13.81
	3H	17.46	18.70	17.88	19.09	19.52	12.80	14.04	13.22	14.43	14.86
	4H	17.76	18.93	18.21	19.33	19.78	13.30	14.46	13.75	14.87	15.31
	6H	17.91	18.98	18.37	19.41	19.86	13.80	14.87	14.26	15.30	15.75
	8H	17.93	18.95	18.40	19.39	19.86	14.06	15.08	14.53	15.52	15.99
	12H	17.92	18.90	18.40	19.33	19.83	14.35	15.33	14.83	15.77	16.26
4H	2H	16.35	17.51	16.79	17.92	18.36	12.16	13.32	12.60	13.73	14.17
	3H	17.58	18.54	18.04	19.00	19.47	13.47	14.43	13.93	14.89	15.35
	4H	17.97	18.83	18.45	19.30	19.80	14.06	14.93	14.54	15.40	15.90
	6H	18.20	18.95	18.70	19.44	19.97	14.68	15.43	15.19	15.93	16.45
	8H	18.24	18.94	18.75	19.44	19.97	15.01	15.71	15.52	16.20	16.73
	12H	18.25	18.88	18.78	19.41	19.94	15.38	16.01	15.91	16.53	17.07
8H	4H	17.95	18.66	18.46	19.15	19.68	14.30	15.00	14.81	15.50	16.03
	6H	18.23	18.81	18.77	19.35	19.89	15.03	15.61	15.57	16.15	16.69
	8H	18.30	18.83	18.86	19.38	19.93	15.43	15.95	15.99	16.51	17.06
	12H	18.35	18.81	18.91	19.35	19.98	15.92	16.39	16.48	16.93	17.55
12H	4H	17.93	18.56	18.46	19.09	19.62	14.32	14.94	14.85	15.47	16.01
	6H	18.21	18.73	18.77	19.29	19.84	15.06	15.59	15.62	16.14	16.69
	8H	18.32	18.78	18.87	19.32	19.95	15.52	15.99	16.08	16.53	17.15