

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: P894120

Luminaire Tested: 4MB-SC3-AOL-UNV-CC83-LOW-3500K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894120
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-14)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-SC3-AOL-UNV-CC83-LOW-3500K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 800
3500K CCT, LOW lumen setting
Light Source: -
Ballast/Driver: -

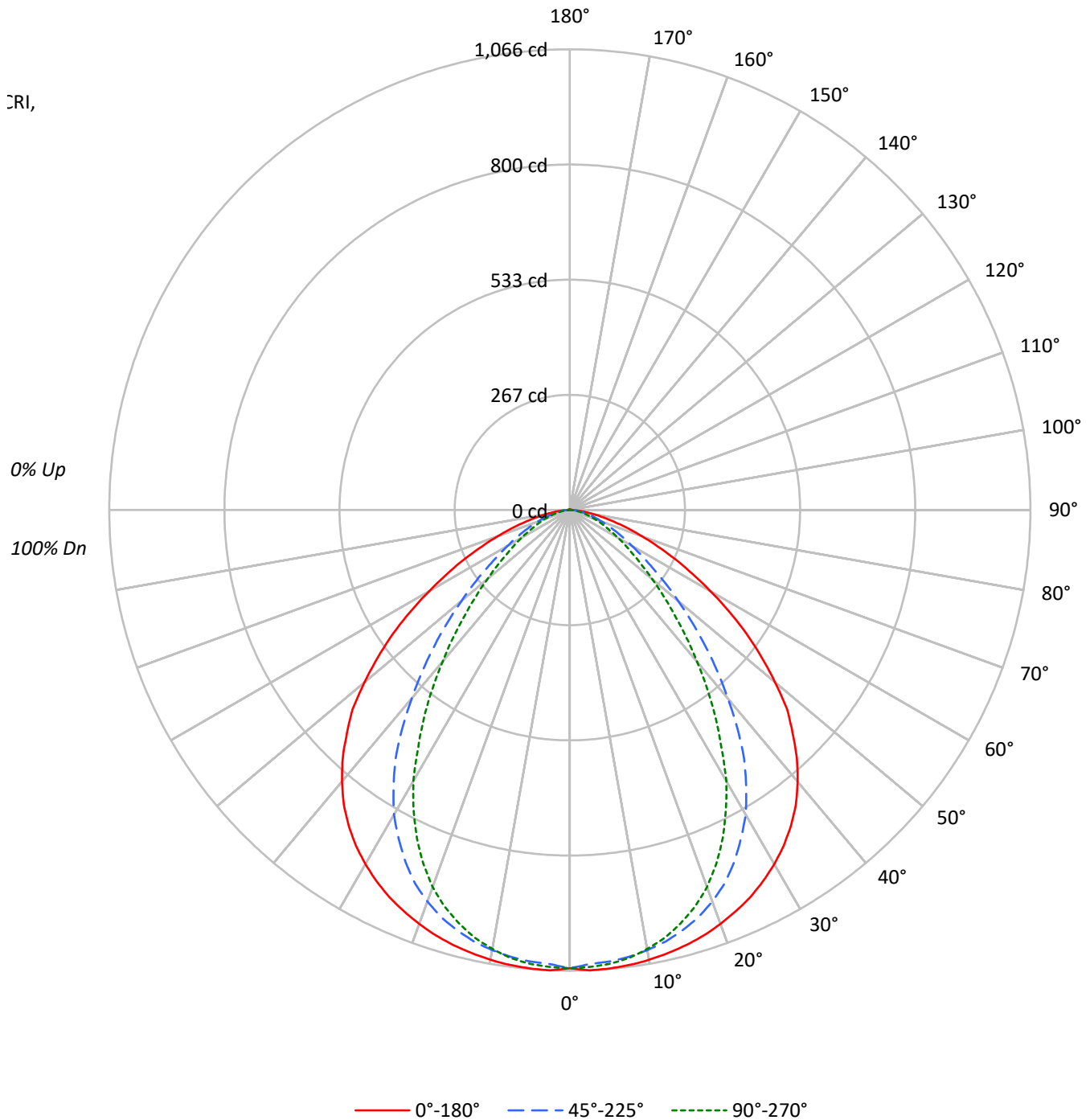
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2117.9 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16
Luminous Opening: Rectangular (W 0.27' x L: 3.98' x H: 0')
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				
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	100	100	100	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	87	87	87	87
2	102	95	89	85	100	93	88	84	90	85	82	87	83	80	84	81	78	76	76	76	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	70	76	72	68	66	66	66	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58	58	58	58
5	81	70	62	56	79	69	61	55	67	60	55	65	59	54	63	58	54	52	52	52	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46	46	46	46
7	70	58	50	45	69	57	50	44	56	49	44	54	48	44	53	48	43	42	42	42	42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38	38	38	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34	34	34	34
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31	31	31	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10798	10798	10798
5°	10886	10721	10777
10°	10930	10694	10666
15°	10986	10617	10441
20°	11046	10447	10061
25°	11108	10107	9409
30°	11127	9575	8520
35°	11091	8746	7328
40°	10906	7570	6090
45°	10501	6360	4929
50°	9826	5181	3947
55°	8878	4164	3164
60°	7656	3389	2621
65°	6480	2822	2154
70°	5288	2400	1828
75°	4238	2023	1554
80°	3302	1730	1337
85°	2559	1531	1204

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10501 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.4	4.7
10°-20°	285.7	13.5
20°-30°	416.4	19.7
30°-40°	448.9	21.2
40°-50°	376.3	17.8
50°-60°	254.8	12.0
60°-70°	145.3	6.9
70°-80°	66.4	3.1
80°-90°	17.4	0.8
90°-100°	2.1	0.1
100°-110°	1.4	0.1
110°-120°	0.8	0.0
120°-130°	0.5	0.0
130°-140°	0.4	0.0
140°-150°	0.4	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	802.6	37.9
0°-40°	1251.5	59.1
0°-60°	1882.5	88.9
0°-90°	2111.7	99.7
90°-120°	4.3	0.2
90°-150°	5.6	0.3
90°-180°	6.0	0.3
0°-180°	2117.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1060	1060	1060	1060	1060	
5°	1065	1062	1049	1057	1054	101
15°	1042	1033	1007	1000	990	294
25°	988	962	899	858	837	455
35°	892	825	704	617	589	557
45°	729	608	442	364	342	561
55°	500	366	234	190	178	445
65°	269	187	117	95	89	268
75°	108	79	51	42	40	117
85°	22	19	13	11	10	26
90°	3	3	2	2	1	3
95°	5	3	2	1	1	4
105°	3	2	1	1	0	3
115°	2	1	1	0	0	1
125°	1	1	1	0	0	1
135°	0	1	1	1	0	0
145°	1	1	1	1	1	0
155°	1	1	1	1	1	0
165°	1	1	1	1	1	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°	1060.3	1060.3	1060.3	1060.3	1060.3
2.5°	1066.4	1063.6	1051.5	1061.5	1058.4
5°	1064.8	1061.5	1048.7	1057.2	1054.2
7.5°	1061.8	1057.5	1043.2	1049.6	1045.7
10°	1056.9	1051.8	1034.1	1037.8	1031.4
12.5°	1050.2	1043.8	1022.9	1021.9	1014.3
15°	1042.0	1032.9	1007.0	1000.4	990.3
17.5°	1032.0	1020.4	988.2	974.8	962.6
20°	1019.2	1004.3	963.9	942.6	928.3
22.5°	1004.6	984.5	935.6	901.5	886.0
25°	988.5	962.3	899.4	858.0	837.3
27.5°	968.4	935.6	857.4	803.9	782.6
30°	946.2	904.5	814.2	745.8	724.5
32.5°	921.0	869.0	759.2	683.1	653.3
35°	892.1	824.9	703.5	617.4	589.4
37.5°	859.5	778.9	636.9	551.1	522.8
40°	820.3	724.5	569.4	484.5	458.1
42.5°	778.0	669.1	504.6	421.2	398.4
45°	729.1	608.3	441.6	364.1	342.2
47.5°	681.9	546.9	382.6	311.8	293.8
50°	620.2	481.5	327.0	264.0	249.1
52.5°	559.9	420.9	279.5	225.7	211.7
55°	500.0	365.9	234.5	190.1	178.2
57.5°	436.8	312.1	197.4	160.9	153.0
60°	375.9	265.5	166.4	135.0	128.7
62.5°	320.3	222.6	140.8	114.1	108.0
65°	268.9	187.1	117.1	94.9	89.4
67.5°	220.2	153.9	97.6	79.1	75.1
70°	177.6	124.7	80.6	65.1	61.4
72.5°	140.8	99.8	64.5	53.2	49.3
75°	107.7	79.1	51.4	42.0	39.5
77.5°	80.3	59.6	39.5	32.2	30.4
80°	56.3	43.2	29.5	24.3	22.8
82.5°	38.3	29.8	20.7	17.0	16.1
85°	21.9	18.6	13.1	10.9	10.3
87.5°	11.3	9.7	7.0	5.2	4.6
90°	3.0	3.0	1.8	1.5	1.2
92.5°	4.9	2.7	1.8	1.2	0.9
95°	4.6	2.7	1.5	0.9	0.9
97.5°	4.3	2.7	1.2	0.9	0.6
100°	4.0	2.4	1.2	0.6	0.6
102.5°	3.6	2.4	1.2	0.6	0.6
105°	3.0	2.1	0.9	0.6	0.3
107.5°	2.7	1.8	0.9	0.6	0.3
110°	2.1	1.5	0.9	0.6	0.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.8	1.5	0.6	0.6	0.3
115°	1.5	1.2	0.6	0.3	0.3
117.5°	1.2	0.9	0.6	0.3	0.3
120°	0.9	0.9	0.6	0.3	0.3
122.5°	0.9	0.6	0.6	0.3	0.3
125°	0.6	0.6	0.6	0.3	0.3
127.5°	0.6	0.6	0.6	0.3	0.3
130°	0.6	0.6	0.6	0.3	0.3
132.5°	0.6	0.6	0.6	0.6	0.3
135°	0.3	0.6	0.6	0.6	0.3
137.5°	0.6	0.6	0.6	0.6	0.6
140°	0.6	0.6	0.6	0.6	0.6
142.5°	0.6	0.6	0.6	0.6	0.6
145°	0.6	0.6	0.6	0.6	0.6
147.5°	0.6	0.6	0.6	0.6	0.6
150°	0.6	0.6	0.6	0.6	0.6
152.5°	0.6	0.6	0.6	0.6	0.6
155°	0.6	0.6	0.6	0.9	0.9
157.5°	0.6	0.6	0.9	0.9	0.9
160°	0.6	0.6	0.9	0.9	0.9
162.5°	0.6	0.6	0.9	0.9	0.9
165°	0.6	0.9	0.9	0.9	0.9
167.5°	0.6	0.9	0.9	0.9	1.2
170°	0.6	0.9	0.9	1.2	1.2
172.5°	0.6	0.9	0.9	1.2	1.2
175°	0.9	0.9	0.9	1.2	1.2
177.5°	0.9	0.9	0.9	1.2	1.2
180°	0.9	0.9	0.9	0.9	0.9



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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	18.64	20.08	19.01	20.40	20.72	13.48	14.92	13.85	15.24	15.56
	3H	19.94	21.23	20.33	21.56	21.93	14.49	15.77	14.87	16.11	16.48
	4H	20.37	21.57	20.78	21.92	22.31	14.83	16.02	15.23	16.38	16.77
	6H	20.64	21.74	21.05	22.11	22.51	15.05	16.16	15.47	16.53	16.93
	8H	20.71	21.76	21.14	22.15	22.56	15.12	16.17	15.55	16.56	16.97
	12H	20.75	21.75	21.18	22.14	22.58	15.16	16.16	15.60	16.55	16.99
4H	2H	18.63	19.83	19.04	20.19	20.58	14.10	15.30	14.51	15.66	16.05
	3H	20.10	21.09	20.52	21.50	21.90	15.30	16.29	15.72	16.69	17.10
	4H	20.62	21.51	21.06	21.93	22.38	15.71	16.60	16.15	17.02	17.47
	6H	21.00	21.77	21.47	22.22	22.69	16.02	16.79	16.49	17.24	17.71
	8H	21.11	21.83	21.58	22.28	22.76	16.12	16.83	16.59	17.29	17.76
	12H	21.19	21.83	21.68	22.31	22.79	16.19	16.83	16.68	17.31	17.79
8H	4H	20.61	21.32	21.08	21.77	22.25	16.05	16.77	16.52	17.22	17.69
	6H	21.04	21.63	21.54	22.13	22.61	16.44	17.03	16.95	17.53	18.02
	8H	21.19	21.72	21.72	22.24	22.74	16.58	17.11	17.10	17.63	18.13
	12H	21.32	21.79	21.84	22.29	22.87	16.70	17.17	17.22	17.67	18.25
12H	4H	20.58	21.22	21.07	21.70	22.18	16.10	16.73	16.58	17.22	17.70
	6H	21.01	21.54	21.53	22.05	22.55	16.51	17.04	17.03	17.56	18.05
	8H	21.20	21.66	21.71	22.16	22.74	16.70	17.17	17.22	17.67	18.24