

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: P894130

Luminaire Tested: 4MB-SC3-AOL-UNV-CC93-LOW-4000K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894130
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-CC93-LOW-4000K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 90C
4000K CCT, LOW lumen setting
Light Source: -
Ballast/Driver: -

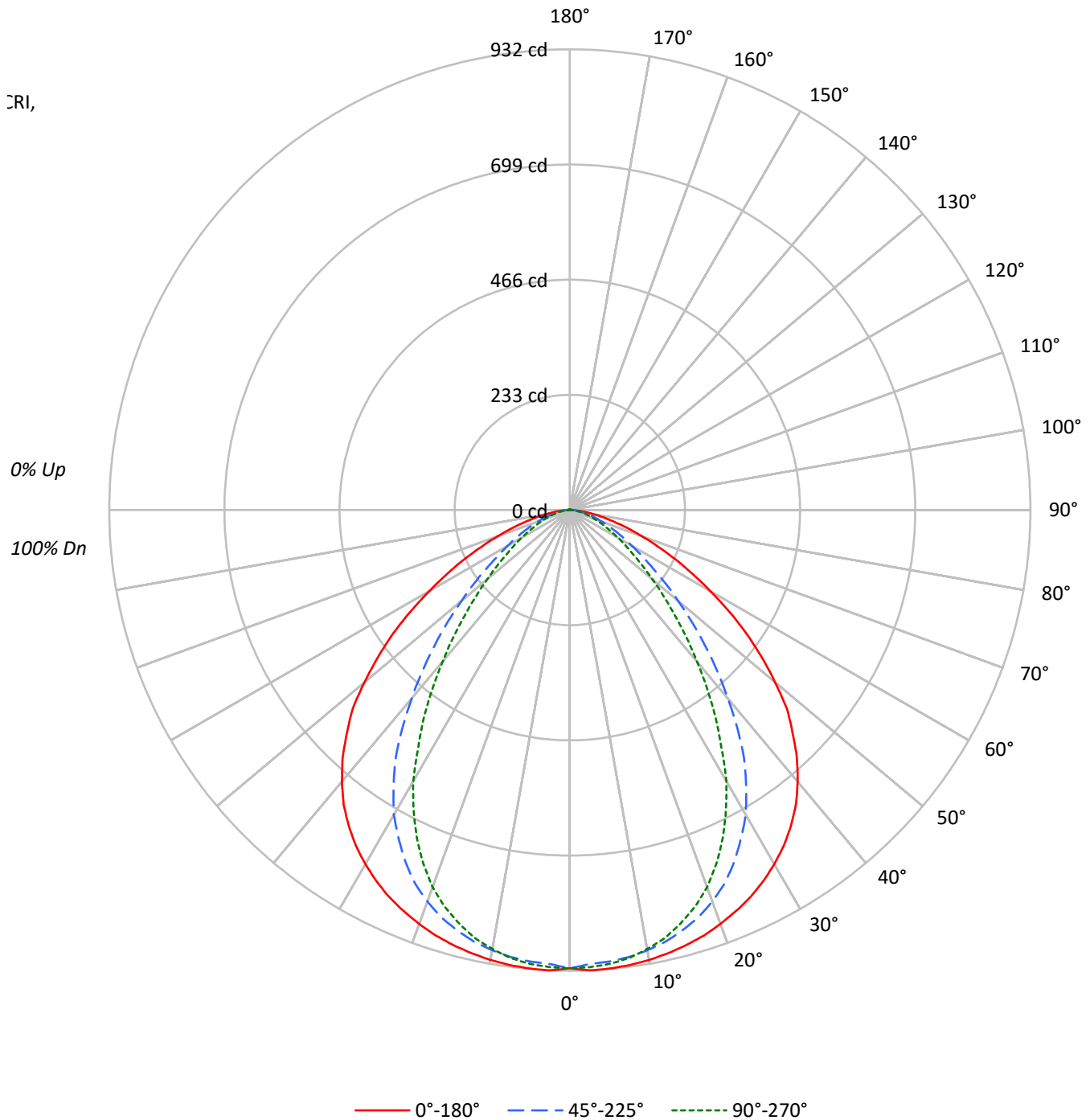
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1851.9 lumens
Efficiency: N/A
Efficacy: 110.9 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	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	89	89	89	87
2	102	95	89	85	100	93	88	84	90	85	82	87	83	80	84	81	78	78	78	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	70	76	72	68	68	68	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	60	60	60	58
5	81	70	62	56	79	69	61	55	67	60	55	65	59	54	63	58	54	54	54	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	48	48	48	46
7	70	58	50	45	69	57	50	44	56	49	44	54	48	44	53	48	43	43	43	43	42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	39	39	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	36	36	36	34
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	33	33	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9442	9442	9442
5°	9519	9375	9424
10°	9557	9351	9326
15°	9607	9285	9130
20°	9659	9134	8797
25°	9712	8837	8228
30°	9730	8373	7450
35°	9697	7647	6408
40°	9536	6619	5324
45°	9182	5562	4309
50°	8592	4530	3451
55°	7763	3640	2766
60°	6695	2964	2291
65°	5665	2468	1884
70°	4624	2099	1599
75°	3703	1767	1361
80°	2886	1513	1167
85°	2232	1332	1052

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9182 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.8	4.7
10°-20°	249.8	13.5
20°-30°	364.1	19.7
30°-40°	392.5	21.2
40°-50°	329.1	17.8
50°-60°	222.8	12.0
60°-70°	127.0	6.9
70°-80°	58.1	3.1
80°-90°	15.2	0.8
90°-100°	1.9	0.1
100°-110°	1.3	0.1
110°-120°	0.7	0.0
120°-130°	0.4	0.0
130°-140°	0.4	0.0
140°-150°	0.3	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	701.8	37.9
0°-40°	1094.3	59.1
0°-60°	1646.1	88.9
0°-90°	1846.4	99.7
90°-120°	3.8	0.2
90°-150°	4.9	0.3
90°-180°	5.0	0.3
0°-180°	1851.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	927	927	927	927	927	
5°	931	928	917	924	922	89
15°	911	903	881	875	866	257
25°	864	842	786	750	732	398
35°	780	721	615	540	515	487
45°	638	532	386	318	299	491
55°	437	320	205	166	156	389
65°	235	164	102	83	78	235
75°	94	69	45	37	35	103
85°	19	16	11	10	9	22
90°	3	3	2	1	1	3
95°	4	2	1	1	1	3
105°	3	2	1	0	0	3
115°	1	1	0	0	0	1
125°	0	0	0	0	0	1
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	1	1	0
165°	0	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°	927.1	927.1	927.1	927.1	927.1
2.5°	932.4	930.0	919.4	928.2	925.5
5°	931.1	928.2	917.0	924.5	921.8
7.5°	928.4	924.7	912.2	917.8	914.3
10°	924.2	919.7	904.2	907.4	901.8
12.5°	918.3	912.8	894.4	893.6	887.0
15°	911.2	903.2	880.6	874.7	865.9
17.5°	902.4	892.3	864.1	852.4	841.7
20°	891.2	878.2	842.8	824.2	811.7
22.5°	878.4	860.9	818.1	788.3	774.7
25°	864.3	841.5	786.4	750.3	732.2
27.5°	846.8	818.1	749.7	702.9	684.3
30°	827.4	790.9	712.0	652.1	633.5
32.5°	805.3	759.8	663.8	597.3	571.3
35°	780.0	721.3	615.1	539.9	515.4
37.5°	751.6	681.1	556.9	481.9	457.2
40°	717.3	633.5	497.9	423.7	400.5
42.5°	680.3	585.1	441.2	368.3	348.4
45°	637.5	531.9	386.2	318.3	299.2
47.5°	596.3	478.2	334.6	272.6	256.9
50°	542.3	421.0	285.9	230.8	217.8
52.5°	489.6	368.1	244.4	197.3	185.1
55°	437.2	319.9	205.0	166.2	155.8
57.5°	381.9	272.9	172.6	140.7	133.8
60°	328.7	232.2	145.5	118.1	112.5
62.5°	280.0	194.7	123.1	99.7	94.4
65°	235.1	163.6	102.4	83.0	78.2
67.5°	192.5	134.6	85.4	69.1	65.7
70°	155.3	109.0	70.5	56.9	53.7
72.5°	123.1	87.2	56.4	46.5	43.1
75°	94.1	69.1	44.9	36.7	34.6
77.5°	70.2	52.1	34.6	28.2	26.6
80°	49.2	37.8	25.8	21.3	19.9
82.5°	33.5	26.1	18.1	14.9	14.1
85°	19.1	16.2	11.4	9.6	9.0
87.5°	9.8	8.5	6.1	4.5	4.0
90°	2.7	2.7	1.6	1.3	1.1
92.5°	4.3	2.4	1.6	1.1	0.8
95°	4.0	2.4	1.3	0.8	0.8
97.5°	3.7	2.4	1.1	0.8	0.5
100°	3.5	2.1	1.1	0.5	0.5
102.5°	3.2	2.1	1.1	0.5	0.5
105°	2.7	1.9	0.8	0.5	0.3
107.5°	2.4	1.6	0.8	0.5	0.3
110°	1.9	1.3	0.8	0.5	0.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1.6	1.3	0.5	0.5	0.3
115°	1.3	1.1	0.5	0.3	0.3
117.5°	1.1	0.8	0.5	0.3	0.3
120°	0.8	0.8	0.5	0.3	0.3
122.5°	0.8	0.5	0.5	0.3	0.3
125°	0.5	0.5	0.5	0.3	0.3
127.5°	0.5	0.5	0.5	0.3	0.3
130°	0.5	0.5	0.5	0.3	0.3
132.5°	0.5	0.5	0.5	0.5	0.3
135°	0.3	0.5	0.5	0.5	0.3
137.5°	0.5	0.5	0.5	0.5	0.5
140°	0.5	0.5	0.5	0.5	0.5
142.5°	0.5	0.5	0.5	0.5	0.5
145°	0.5	0.5	0.5	0.5	0.5
147.5°	0.5	0.5	0.5	0.5	0.5
150°	0.5	0.5	0.5	0.5	0.5
152.5°	0.5	0.5	0.5	0.5	0.5
155°	0.5	0.5	0.5	0.8	0.8
157.5°	0.5	0.5	0.8	0.8	0.8
160°	0.5	0.5	0.8	0.8	0.8
162.5°	0.5	0.5	0.8	0.8	0.8
165°	0.5	0.8	0.8	0.8	0.8
167.5°	0.5	0.8	0.8	0.8	1.1
170°	0.5	0.8	0.8	1.1	1.1
172.5°	0.5	0.8	0.8	1.1	1.1
175°	0.8	0.8	0.8	1.1	1.1
177.5°	0.8	0.8	0.8	1.1	1.1
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	18.17	19.61	18.54	19.93	20.25	13.01	14.45	13.38	14.77	15.09
	3H	19.48	20.76	19.86	21.10	21.47	14.02	15.31	14.41	15.64	16.01
	4H	19.90	21.10	20.31	21.46	21.84	14.36	15.56	14.77	15.91	16.30
	6H	20.17	21.27	20.59	21.65	22.05	14.58	15.69	15.00	16.06	16.46
	8H	20.24	21.29	20.67	21.69	22.10	14.65	15.70	15.09	16.10	16.51
	12H	20.28	21.28	20.71	21.67	22.11	14.70	15.70	15.13	16.09	16.52
4H	2H	18.17	19.37	18.57	19.72	20.11	13.64	14.84	14.04	15.19	15.58
	3H	19.63	20.62	20.05	21.03	21.44	14.83	15.82	15.25	16.23	16.64
	4H	20.16	21.04	20.60	21.47	21.91	15.25	16.13	15.69	16.56	17.00
	6H	20.54	21.30	21.00	21.75	22.22	15.56	16.33	16.02	16.78	17.25
	8H	20.65	21.36	21.12	21.81	22.29	15.65	16.37	16.12	16.82	17.30
	12H	20.72	21.36	21.21	21.85	22.33	15.72	16.36	16.21	16.85	17.33
8H	4H	20.14	20.86	20.61	21.31	21.78	15.58	16.30	16.05	16.75	17.23
	6H	20.57	21.16	21.08	21.66	22.15	15.98	16.57	16.48	17.06	17.55
	8H	20.73	21.26	21.25	21.77	22.27	16.12	16.65	16.64	17.16	17.66
	12H	20.86	21.33	21.37	21.82	22.40	16.24	16.71	16.76	17.21	17.78
12H	4H	20.11	20.75	20.60	21.23	21.71	15.63	16.27	16.12	16.75	17.23
	6H	20.54	21.07	21.06	21.59	22.08	16.04	16.57	16.57	17.09	17.59
	8H	20.73	21.20	21.25	21.70	22.27	16.23	16.70	16.75	17.20	17.77