

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: P894133

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894133
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-MID-4000K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 900
4000K CCT, MID lumen setting
Light Source: -
Ballast/Driver: -

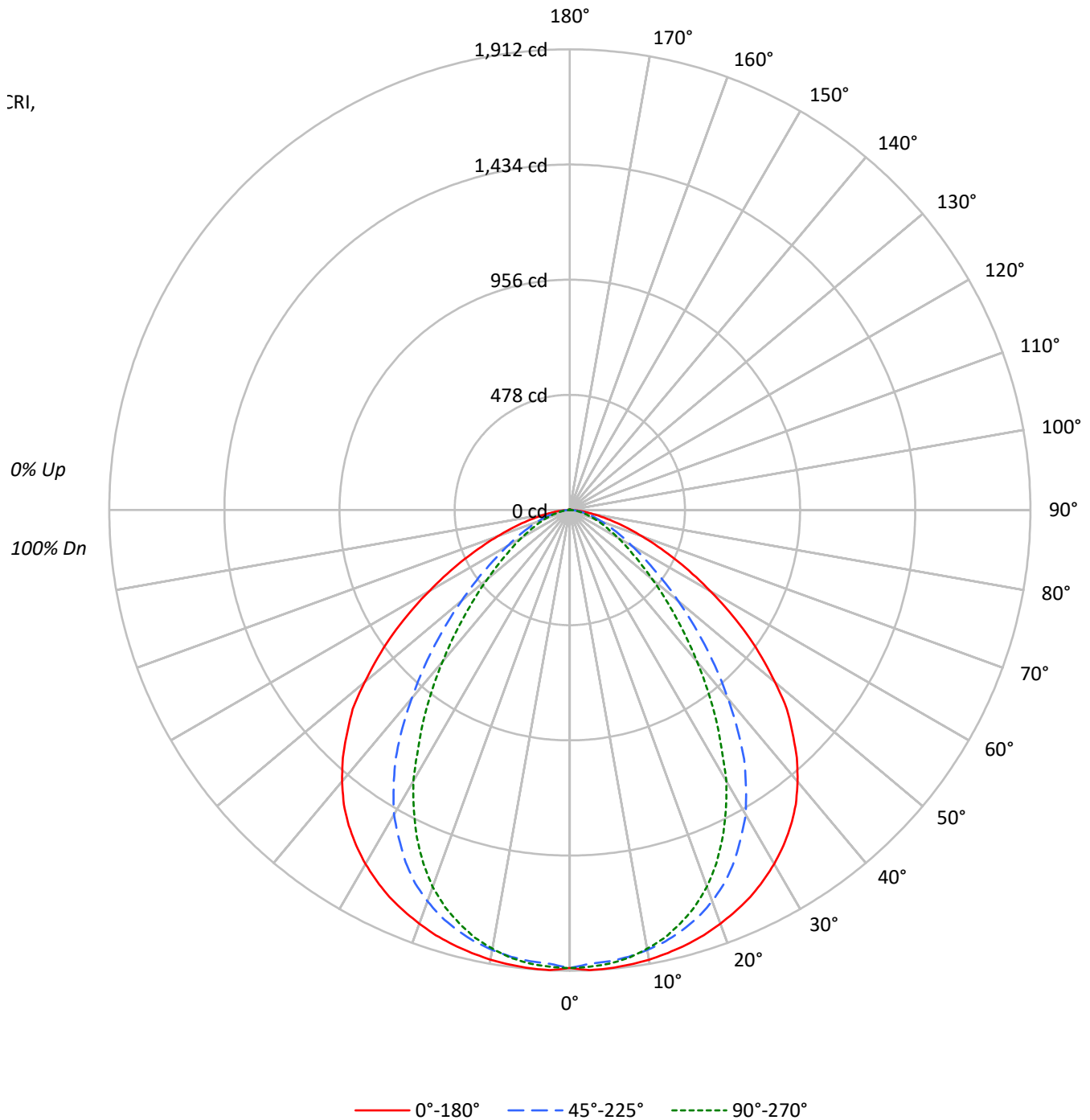
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3797.0 lumens
Efficiency: N/A
Efficacy: 113.3 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): 33.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9948
Total Harmonic Distortion (THDi): 5.65231997856897
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	66	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°	19358	19358	19358
5°	19516	19220	19321
10°	19595	19172	19121
15°	19696	19035	18719
20°	19803	18727	18035
25°	19913	18117	16868
30°	19948	17166	15274
35°	19883	15680	13138
40°	19551	13570	10917
45°	18824	11403	8835
50°	17615	9288	7076
55°	15916	7464	5673
60°	13726	6076	4697
65°	11615	5058	3863
70°	9481	4303	3278
75°	7594	3624	2790
80°	5918	3103	2399
85°	4592	2734	2162

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18824 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.0	4.7
10°-20°	512.2	13.5
20°-30°	746.6	19.7
30°-40°	804.7	21.2
40°-50°	674.6	17.8
50°-60°	456.7	12.0
60°-70°	260.4	6.9
70°-80°	119.1	3.1
80°-90°	31.2	0.8
90°-100°	3.8	0.1
100°-110°	2.6	0.1
110°-120°	1.4	0.0
120°-130°	0.8	0.0
130°-140°	0.8	0.0
140°-150°	0.7	0.0
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	1438.8	37.9
0°-40°	2243.5	59.1
0°-60°	3374.9	88.9
0°-90°	3785.6	99.7
90°-120°	7.9	0.2
90°-150°	10.2	0.3
90°-180°	11.0	0.3
0°-180°	3797.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1901	1901	1901	1901	1901	
5°	1909	1903	1880	1895	1890	182
15°	1868	1852	1805	1793	1775	528
25°	1772	1725	1612	1538	1501	816
35°	1599	1479	1261	1107	1057	998
45°	1307	1090	792	653	613	1006
55°	896	656	420	341	320	798
65°	482	335	210	170	160	481
75°	193	142	92	75	71	210
85°	39	33	23	20	18	46
90°	6	6	3	3	2	5
95°	8	5	3	2	2	6
105°	6	4	2	1	0	6
115°	3	2	1	0	0	3
125°	1	1	1	0	0	1
135°	0	1	1	1	0	1
145°	1	1	1	1	1	1
155°	1	1	1	2	2	1
165°	1	2	2	2	2	0
175°	2	2	2	2	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1900.8	1900.8	1900.8	1900.8	1900.8
2.5°	1911.7	1906.8	1885.0	1903.0	1897.5
5°	1909.0	1903.0	1880.1	1895.3	1889.9
7.5°	1903.5	1895.9	1870.2	1881.7	1874.6
10°	1894.8	1885.5	1853.9	1860.4	1849.0
12.5°	1882.8	1871.3	1833.7	1832.1	1818.4
15°	1868.1	1851.7	1805.4	1793.4	1775.4
17.5°	1850.1	1829.4	1771.6	1747.6	1725.8
20°	1827.2	1800.5	1727.9	1689.8	1664.1
22.5°	1801.0	1765.0	1677.2	1616.2	1588.3
25°	1772.1	1725.2	1612.3	1538.2	1501.1
27.5°	1736.1	1677.2	1537.1	1441.1	1403.0
30°	1696.3	1621.6	1459.7	1337.0	1298.8
32.5°	1651.1	1557.8	1361.0	1224.7	1171.2
35°	1599.3	1478.7	1261.2	1106.9	1056.7
37.5°	1540.9	1396.4	1141.8	988.0	937.3
40°	1470.6	1298.8	1020.7	868.6	821.2
42.5°	1394.8	1199.6	904.6	755.2	714.3
45°	1307.0	1090.5	791.7	652.7	613.4
47.5°	1222.5	980.4	685.9	558.9	526.7
50°	1111.8	863.1	586.2	473.3	446.6
52.5°	1003.8	754.6	501.1	404.6	379.5
55°	896.4	655.9	420.4	340.8	319.5
57.5°	783.0	559.4	353.9	288.4	274.3
60°	673.9	476.0	298.3	242.1	230.6
62.5°	574.2	399.1	252.5	204.5	193.6
65°	482.0	335.3	209.9	170.1	160.3
67.5°	394.8	275.9	175.0	141.8	134.7
70°	318.4	223.6	144.5	116.7	110.1
72.5°	252.5	178.8	115.6	95.4	88.3
75°	193.0	141.8	92.1	75.2	70.9
77.5°	143.9	106.9	70.9	57.8	54.5
80°	100.9	77.4	52.9	43.6	40.9
82.5°	68.7	53.4	37.1	30.5	28.9
85°	39.3	33.3	23.4	19.6	18.5
87.5°	20.2	17.4	12.5	9.3	8.2
90°	5.5	5.5	3.3	2.7	2.2
92.5°	8.7	4.9	3.3	2.2	1.6
95°	8.2	4.9	2.7	1.6	1.6
97.5°	7.6	4.9	2.2	1.6	1.1
100°	7.1	4.4	2.2	1.1	1.1
102.5°	6.5	4.4	2.2	1.1	1.1
105°	5.5	3.8	1.6	1.1	0.5
107.5°	4.9	3.3	1.6	1.1	0.5
110°	3.8	2.7	1.6	1.1	0.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.3	2.7	1.1	1.1	0.5
115°	2.7	2.2	1.1	0.5	0.5
117.5°	2.2	1.6	1.1	0.5	0.5
120°	1.6	1.6	1.1	0.5	0.5
122.5°	1.6	1.1	1.1	0.5	0.5
125°	1.1	1.1	1.1	0.5	0.5
127.5°	1.1	1.1	1.1	0.5	0.5
130°	1.1	1.1	1.1	0.5	0.5
132.5°	1.1	1.1	1.1	1.1	0.5
135°	0.5	1.1	1.1	1.1	0.5
137.5°	1.1	1.1	1.1	1.1	1.1
140°	1.1	1.1	1.1	1.1	1.1
142.5°	1.1	1.1	1.1	1.1	1.1
145°	1.1	1.1	1.1	1.1	1.1
147.5°	1.1	1.1	1.1	1.1	1.1
150°	1.1	1.1	1.1	1.1	1.1
152.5°	1.1	1.1	1.1	1.1	1.1
155°	1.1	1.1	1.1	1.6	1.6
157.5°	1.1	1.1	1.6	1.6	1.6
160°	1.1	1.1	1.6	1.6	1.6
162.5°	1.1	1.1	1.6	1.6	1.6
165°	1.1	1.6	1.6	1.6	1.6
167.5°	1.1	1.6	1.6	1.6	2.2
170°	1.1	1.6	1.6	2.2	2.2
172.5°	1.1	1.6	1.6	2.2	2.2
175°	1.6	1.6	1.6	2.2	2.2
177.5°	1.6	1.6	1.6	2.2	2.2
180°	1.6	1.6	1.6	1.6	1.6



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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	20.66	22.10	21.03	22.42	22.74	15.51	16.94	15.88	17.26	17.59
	3H	21.97	23.25	22.36	23.59	23.96	16.52	17.80	16.90	18.14	18.51
	4H	22.40	23.60	22.80	23.95	24.34	16.85	18.05	17.26	18.41	18.80
	6H	22.66	23.77	23.08	24.14	24.54	17.08	18.18	17.50	18.56	18.96
	8H	22.73	23.78	23.17	24.18	24.59	17.15	18.20	17.58	18.59	19.00
	12H	22.77	23.78	23.21	24.17	24.60	17.19	18.19	17.63	18.58	19.02
4H	2H	20.66	21.86	21.07	22.22	22.60	16.13	17.33	16.54	17.68	18.07
	3H	22.13	23.12	22.54	23.52	23.93	17.33	18.31	17.74	18.72	19.13
	4H	22.65	23.54	23.09	23.96	24.41	17.74	18.63	18.18	19.05	19.50
	6H	23.03	23.80	23.49	24.25	24.72	18.05	18.82	18.52	19.27	19.74
	8H	23.14	23.86	23.61	24.31	24.78	18.15	18.86	18.62	19.31	19.79
	12H	23.22	23.85	23.71	24.34	24.82	18.22	18.85	18.71	19.34	19.82
8H	4H	22.63	23.35	23.10	23.80	24.28	18.08	18.79	18.55	19.24	19.72
	6H	23.07	23.66	23.57	24.15	24.64	18.47	19.06	18.97	19.56	20.04
	8H	23.22	23.75	23.74	24.27	24.77	18.61	19.14	19.13	19.66	20.15
	12H	23.35	23.82	23.87	24.32	24.89	18.73	19.20	19.25	19.70	20.27
12H	4H	22.61	23.24	23.09	23.73	24.21	18.12	18.76	18.61	19.25	19.73
	6H	23.03	23.56	23.55	24.08	24.58	18.54	19.07	19.06	19.58	20.08
	8H	23.22	23.69	23.74	24.19	24.76	18.73	19.20	19.24	19.69	20.27