

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: P894124

Luminaire Tested: 4MB-SC3-AOL-UNV-CC83-MID-4000K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894124
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-MID-4000K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 800
4000K CCT, MID lumen setting
Light Source: -
Ballast/Driver: -

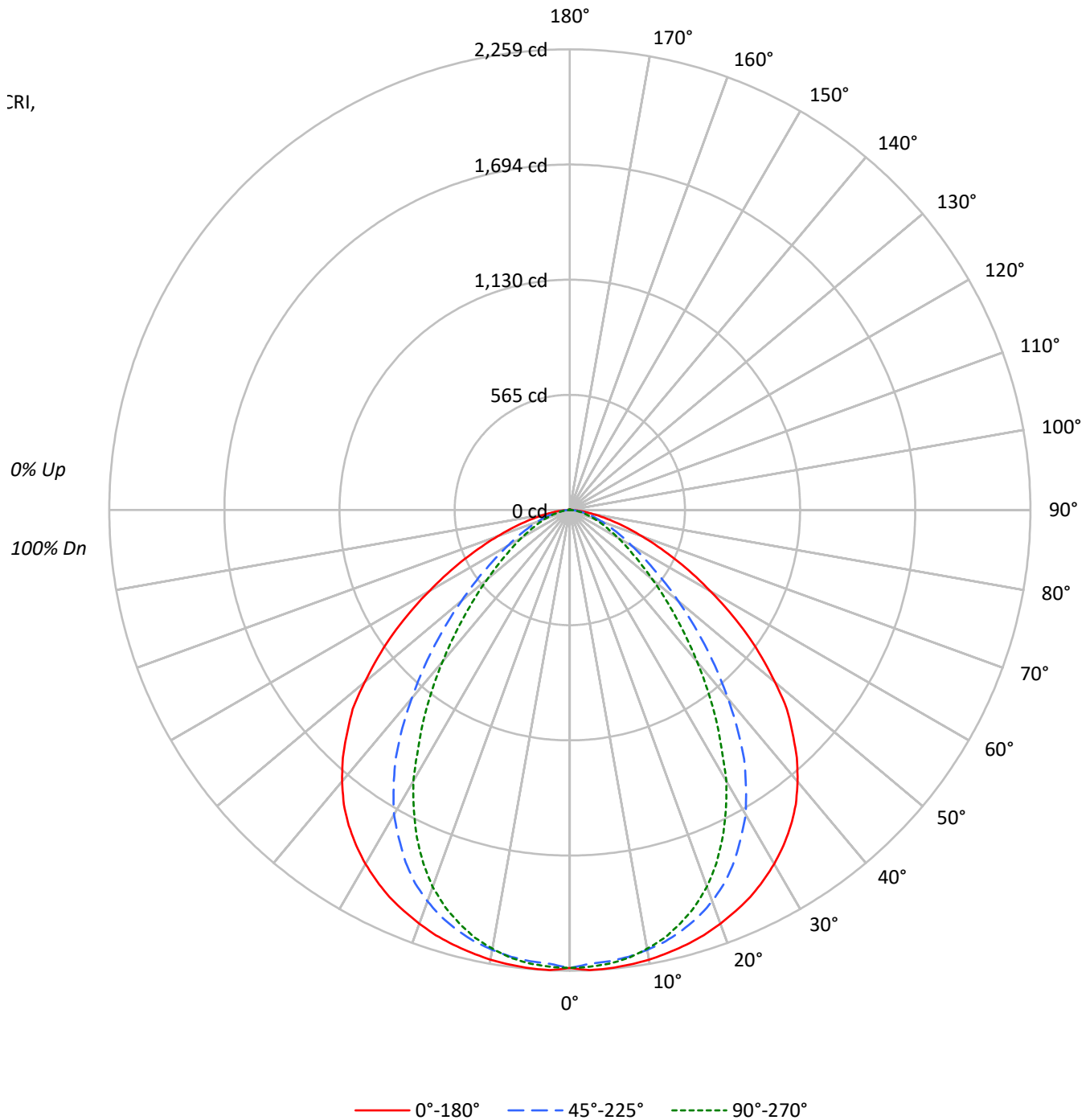
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4486.0 lumens
Efficiency: N/A
Efficacy: 133.9 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): 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°	22871	22871	22871
5°	23057	22708	22826
10°	23150	22651	22591
15°	23269	22489	22115
20°	23396	22125	21308
25°	23527	21405	19929
30°	23568	20280	18045
35°	23490	18525	15522
40°	23098	16032	12898
45°	22241	13472	10438
50°	20811	10972	8359
55°	18805	8819	6703
60°	16217	7178	5550
65°	13724	5976	4564
70°	11202	5083	3874
75°	8972	4285	3293
80°	6991	3666	2833
85°	5422	3237	2559

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 22241 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.7	4.7
10°-20°	605.2	13.5
20°-30°	882.1	19.7
30°-40°	950.8	21.2
40°-50°	797.0	17.8
50°-60°	539.6	12.0
60°-70°	307.7	6.9
70°-80°	140.7	3.1
80°-90°	36.9	0.8
90°-100°	4.5	0.1
100°-110°	3.1	0.1
110°-120°	1.7	0.0
120°-130°	1.0	0.0
130°-140°	0.9	0.0
140°-150°	0.8	0.0
150°-160°	0.7	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	1699.9	37.9
0°-40°	2650.6	59.1
0°-60°	3987.3	88.9
0°-90°	4472.6	99.7
90°-120°	9.3	0.2
90°-150°	12.0	0.3
90°-180°	13.0	0.3
0°-180°	4486.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2246	2246	2246	2246	2246	
5°	2255	2248	2221	2239	2233	215
15°	2207	2188	2133	2119	2098	624
25°	2094	2038	1905	1817	1774	965
35°	1889	1747	1490	1308	1248	1180
45°	1544	1288	935	771	725	1189
55°	1059	775	497	403	378	943
65°	570	396	248	201	189	568
75°	228	168	109	89	84	249
85°	46	39	28	23	22	54
90°	6	6	4	3	3	6
95°	10	6	3	2	2	8
105°	6	4	2	1	1	7
115°	3	3	1	1	1	3
125°	1	1	1	1	1	1
135°	1	1	1	1	1	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	3	3	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2245.7	2245.7	2245.7	2245.7	2245.7
2.5°	2258.6	2252.8	2227.0	2248.3	2241.8
5°	2255.4	2248.3	2221.2	2239.3	2232.8
7.5°	2248.9	2239.9	2209.6	2223.1	2214.8
10°	2238.6	2227.7	2190.3	2198.0	2184.5
12.5°	2224.4	2210.9	2166.5	2164.5	2148.4
15°	2207.0	2187.7	2133.0	2118.8	2097.5
17.5°	2185.8	2161.3	2093.0	2064.7	2038.9
20°	2158.7	2127.2	2041.5	1996.4	1966.1
22.5°	2127.8	2085.3	1981.6	1909.4	1876.6
25°	2093.7	2038.3	1904.9	1817.3	1773.5
27.5°	2051.1	1981.6	1816.0	1702.6	1657.5
30°	2004.1	1915.9	1724.5	1579.6	1534.5
32.5°	1950.6	1840.5	1607.9	1446.9	1383.7
35°	1889.4	1747.1	1490.0	1307.7	1248.5
37.5°	1820.5	1649.8	1349.0	1167.3	1107.4
40°	1737.4	1534.5	1205.9	1026.2	970.2
42.5°	1647.9	1417.2	1068.7	892.2	843.9
45°	1544.2	1288.4	935.4	771.1	724.7
47.5°	1444.3	1158.3	810.4	660.3	622.3
50°	1313.5	1019.8	692.5	559.2	527.6
52.5°	1186.0	891.6	592.0	478.0	448.4
55°	1059.1	775.0	496.7	402.6	377.5
57.5°	925.1	661.0	418.1	340.8	324.0
60°	796.2	562.4	352.4	286.0	272.5
62.5°	678.3	471.6	298.3	241.6	228.7
65°	569.5	396.2	248.0	201.0	189.4
67.5°	466.4	326.0	206.8	167.5	159.1
70°	376.2	264.1	170.7	137.9	130.1
72.5°	298.3	211.3	136.6	112.7	104.4
75°	228.0	167.5	108.9	88.9	83.7
77.5°	170.1	126.3	83.7	68.3	64.4
80°	119.2	91.5	62.5	51.5	48.3
82.5°	81.2	63.1	43.8	36.1	34.1
85°	46.4	39.3	27.7	23.2	21.9
87.5°	23.8	20.6	14.8	11.0	9.7
90°	6.4	6.4	3.9	3.2	2.6
92.5°	10.3	5.8	3.9	2.6	1.9
95°	9.7	5.8	3.2	1.9	1.9
97.5°	9.0	5.8	2.6	1.9	1.3
100°	8.4	5.2	2.6	1.3	1.3
102.5°	7.7	5.2	2.6	1.3	1.3
105°	6.4	4.5	1.9	1.3	0.6
107.5°	5.8	3.9	1.9	1.3	0.6
110°	4.5	3.2	1.9	1.3	0.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.9	3.2	1.3	1.3	0.6
115°	3.2	2.6	1.3	0.6	0.6
117.5°	2.6	1.9	1.3	0.6	0.6
120°	1.9	1.9	1.3	0.6	0.6
122.5°	1.9	1.3	1.3	0.6	0.6
125°	1.3	1.3	1.3	0.6	0.6
127.5°	1.3	1.3	1.3	0.6	0.6
130°	1.3	1.3	1.3	0.6	0.6
132.5°	1.3	1.3	1.3	1.3	0.6
135°	0.6	1.3	1.3	1.3	0.6
137.5°	1.3	1.3	1.3	1.3	1.3
140°	1.3	1.3	1.3	1.3	1.3
142.5°	1.3	1.3	1.3	1.3	1.3
145°	1.3	1.3	1.3	1.3	1.3
147.5°	1.3	1.3	1.3	1.3	1.3
150°	1.3	1.3	1.3	1.3	1.3
152.5°	1.3	1.3	1.3	1.3	1.3
155°	1.3	1.3	1.3	1.9	1.9
157.5°	1.3	1.3	1.9	1.9	1.9
160°	1.3	1.3	1.9	1.9	1.9
162.5°	1.3	1.3	1.9	1.9	1.9
165°	1.3	1.9	1.9	1.9	1.9
167.5°	1.3	1.9	1.9	1.9	2.6
170°	1.3	1.9	1.9	2.6	2.6
172.5°	1.3	1.9	1.9	2.6	2.6
175°	1.9	1.9	1.9	2.6	2.6
177.5°	1.9	1.9	1.9	2.6	2.6
180°	1.9	1.9	1.9	1.9	1.9



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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	21.24	22.68	21.61	23.00	23.32	16.09	17.52	16.46	17.84	18.17
	3H	22.55	23.83	22.94	24.17	24.54	17.10	18.38	17.48	18.72	19.09
	4H	22.98	24.18	23.38	24.53	24.92	17.43	18.63	17.84	18.99	19.38
	6H	23.24	24.35	23.66	24.72	25.12	17.66	18.76	18.08	19.14	19.54
	8H	23.31	24.36	23.75	24.76	25.17	17.73	18.78	18.16	19.17	19.58
	12H	23.35	24.36	23.79	24.75	25.18	17.77	18.77	18.20	19.16	19.60
4H	2H	21.24	22.44	21.65	22.80	23.18	16.71	17.91	17.12	18.26	18.65
	3H	22.71	23.69	23.12	24.10	24.51	17.91	18.89	18.32	19.30	19.71
	4H	23.23	24.12	23.67	24.54	24.99	18.32	19.21	18.76	19.63	20.08
	6H	23.61	24.38	24.07	24.83	25.30	18.63	19.40	19.10	19.85	20.32
	8H	23.72	24.44	24.19	24.89	25.36	18.73	19.44	19.20	19.89	20.37
	12H	23.80	24.43	24.29	24.92	25.40	18.80	19.43	19.29	19.92	20.40
8H	4H	23.21	23.93	23.68	24.38	24.86	18.66	19.37	19.13	19.82	20.30
	6H	23.65	24.23	24.15	24.73	25.22	19.05	19.64	19.55	20.14	20.62
	8H	23.80	24.33	24.32	24.85	25.35	19.19	19.72	19.71	20.24	20.73
	12H	23.93	24.40	24.45	24.90	25.47	19.31	19.78	19.83	20.28	20.85
12H	4H	23.19	23.82	23.67	24.31	24.79	18.70	19.34	19.19	19.83	20.31
	6H	23.61	24.14	24.13	24.66	25.16	19.12	19.65	19.64	20.16	20.66
	8H	23.80	24.27	24.32	24.77	25.34	19.31	19.78	19.82	20.27	20.85