

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: P894123

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894123
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-3500K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS NO UPLIGHT, 800
3500K CCT, MID lumen setting
Light Source: -
Ballast/Driver: -

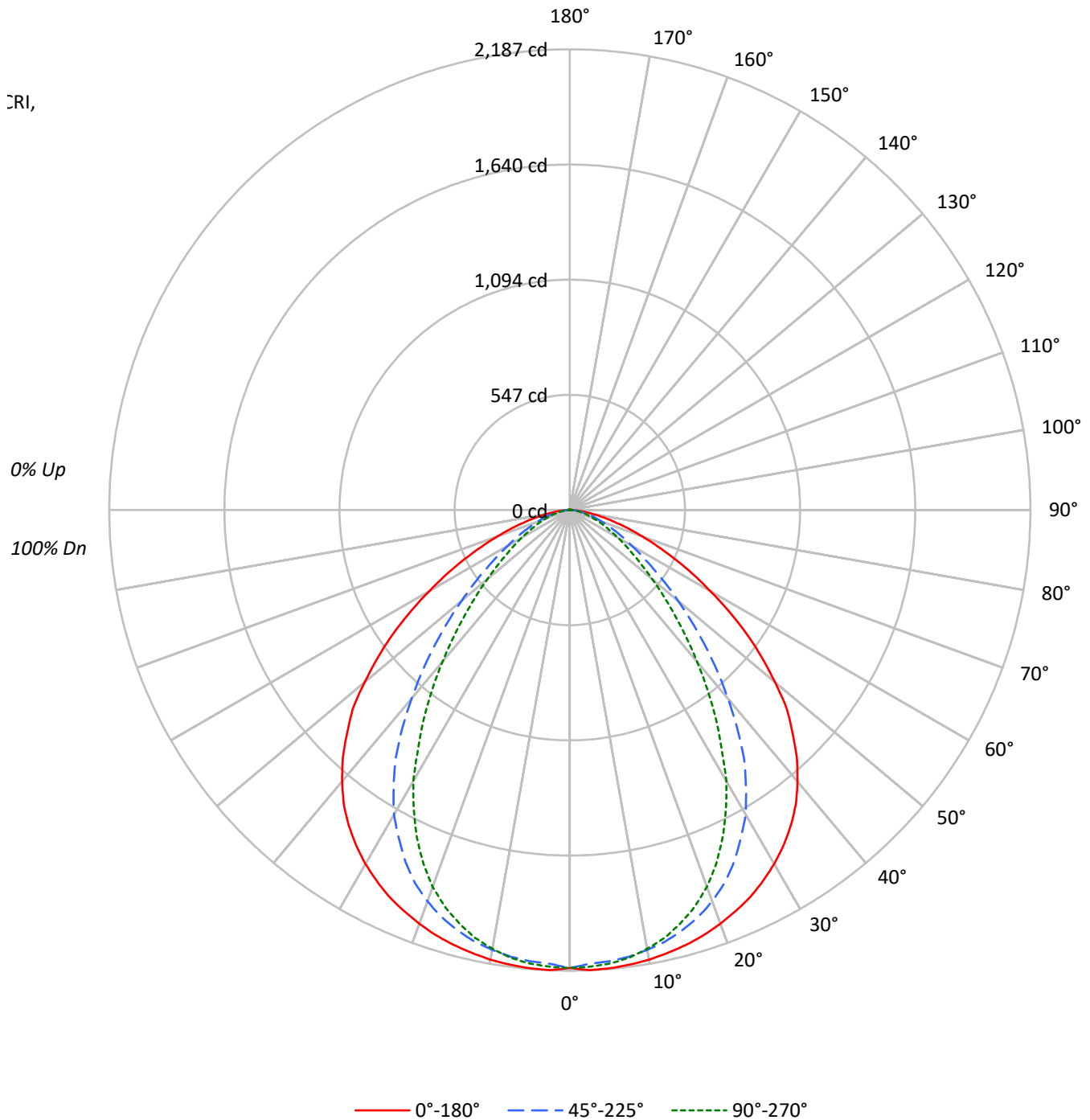
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4342.9 lumens
Efficiency: N/A
Efficacy: 129.6 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	100			100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	87			87
2	102	95	89	85	100	93	88	84	90	85	82	87	83	80	84	81	78	76			76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	70	76	72	68	66			66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58			58
5	81	70	62	56	79	69	61	55	67	60	55	65	59	54	63	58	54	52			52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46			46
7	70	58	50	45	69	57	50	44	56	49	44	54	48	44	53	48	43	42			42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38			38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34			34
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31			31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22141	22141	22141
5°	22322	21984	22098
10°	22412	21929	21871
15°	22528	21772	21411
20°	22650	21420	20629
25°	22776	20723	19294
30°	22816	19634	17470
35°	22742	17934	15027
40°	22361	15521	12486
45°	21531	13043	10105
50°	20149	10622	8093
55°	18205	8537	6490
60°	15702	6948	5373
65°	13285	5786	4420
70°	10845	4922	3752
75°	8688	4147	3191
80°	6768	3548	2745
85°	5247	3132	2477

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21531 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.9	4.7
10°-20°	585.9	13.5
20°-30°	853.9	19.7
30°-40°	920.5	21.2
40°-50°	771.6	17.8
50°-60°	522.4	12.0
60°-70°	297.9	6.9
70°-80°	136.2	3.1
80°-90°	35.7	0.8
90°-100°	4.4	0.1
100°-110°	3.0	0.1
110°-120°	1.6	0.0
120°-130°	0.9	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°	1645.7	37.9
0°-40°	2566.1	59.1
0°-60°	3860.2	88.9
0°-90°	4330.0	99.7
90°-120°	9.0	0.2
90°-150°	11.5	0.3
90°-180°	13.0	0.3
0°-180°	4342.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2174	2174	2174	2174	2174	
5°	2184	2177	2150	2168	2162	208
15°	2137	2118	2065	2051	2031	604
25°	2027	1973	1844	1759	1717	934
35°	1829	1691	1442	1266	1209	1142
45°	1495	1247	906	746	702	1151
55°	1025	750	481	390	366	913
65°	551	384	240	195	183	550
75°	221	162	105	86	81	241
85°	45	38	27	22	21	52
90°	6	6	4	3	2	6
95°	9	6	3	2	2	7
105°	6	4	2	1	1	7
115°	3	2	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	2	2	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2174.1	2174.1	2174.1	2174.1	2174.1
2.5°	2186.6	2181.0	2156.0	2176.6	2170.4
5°	2183.5	2176.6	2150.4	2167.9	2161.6
7.5°	2177.2	2168.5	2139.2	2152.3	2144.2
10°	2167.2	2156.6	2120.5	2128.0	2114.9
12.5°	2153.5	2140.4	2097.4	2095.5	2079.9
15°	2136.7	2118.0	2065.0	2051.2	2030.7
17.5°	2116.1	2092.4	2026.3	1998.9	1973.9
20°	2089.9	2059.4	1976.4	1932.7	1903.4
22.5°	2060.0	2018.8	1918.4	1848.6	1816.7
25°	2026.9	1973.3	1844.2	1759.4	1717.0
27.5°	1985.8	1918.4	1758.1	1648.4	1604.7
30°	1940.2	1854.8	1669.6	1529.2	1485.6
32.5°	1888.5	1781.8	1556.7	1400.8	1339.6
35°	1829.2	1691.4	1442.5	1266.0	1208.7
37.5°	1762.5	1597.2	1306.0	1130.1	1072.1
40°	1682.0	1485.6	1167.5	993.5	939.2
42.5°	1595.3	1372.1	1034.7	863.8	817.0
45°	1494.9	1247.3	905.6	746.5	701.6
47.5°	1398.3	1121.4	784.6	639.3	602.5
50°	1271.7	987.3	670.4	541.3	510.8
52.5°	1148.2	863.2	573.2	462.8	434.1
55°	1025.3	750.3	480.8	389.8	365.5
57.5°	895.6	639.9	404.8	329.9	313.7
60°	770.9	544.5	341.1	276.9	263.8
62.5°	656.7	456.5	288.8	233.9	221.4
65°	551.3	383.6	240.1	194.6	183.4
67.5°	451.5	315.6	200.2	162.2	154.0
70°	364.2	255.7	165.3	133.5	126.0
72.5°	288.8	204.6	132.2	109.1	101.0
75°	220.8	162.2	105.4	86.1	81.1
77.5°	164.6	122.2	81.1	66.1	62.4
80°	115.4	88.6	60.5	49.9	46.8
82.5°	78.6	61.1	42.4	34.9	33.1
85°	44.9	38.0	26.8	22.5	21.2
87.5°	23.1	20.0	14.3	10.6	9.4
90°	6.2	6.2	3.7	3.1	2.5
92.5°	10.0	5.6	3.7	2.5	1.9
95°	9.4	5.6	3.1	1.9	1.9
97.5°	8.7	5.6	2.5	1.9	1.2
100°	8.1	5.0	2.5	1.2	1.2
102.5°	7.5	5.0	2.5	1.2	1.2
105°	6.2	4.4	1.9	1.2	0.6
107.5°	5.6	3.7	1.9	1.2	0.6
110°	4.4	3.1	1.9	1.2	0.6



TEST NUMBER: P894123

CATALOG NUMBER: 4MB-SC3-AOL-UNV-CC83-MID-3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.7	3.1	1.2	1.2	0.6
115°	3.1	2.5	1.2	0.6	0.6
117.5°	2.5	1.9	1.2	0.6	0.6
120°	1.9	1.9	1.2	0.6	0.6
122.5°	1.9	1.2	1.2	0.6	0.6
125°	1.2	1.2	1.2	0.6	0.6
127.5°	1.2	1.2	1.2	0.6	0.6
130°	1.2	1.2	1.2	0.6	0.6
132.5°	1.2	1.2	1.2	1.2	0.6
135°	0.6	1.2	1.2	1.2	0.6
137.5°	1.2	1.2	1.2	1.2	1.2
140°	1.2	1.2	1.2	1.2	1.2
142.5°	1.2	1.2	1.2	1.2	1.2
145°	1.2	1.2	1.2	1.2	1.2
147.5°	1.2	1.2	1.2	1.2	1.2
150°	1.2	1.2	1.2	1.2	1.2
152.5°	1.2	1.2	1.2	1.2	1.2
155°	1.2	1.2	1.2	1.9	1.9
157.5°	1.2	1.2	1.9	1.9	1.9
160°	1.2	1.2	1.9	1.9	1.9
162.5°	1.2	1.2	1.9	1.9	1.9
165°	1.2	1.9	1.9	1.9	1.9
167.5°	1.2	1.9	1.9	1.9	2.5
170°	1.2	1.9	1.9	2.5	2.5
172.5°	1.2	1.9	1.9	2.5	2.5
175°	1.9	1.9	1.9	2.5	2.5
177.5°	1.9	1.9	1.9	2.5	2.5
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	21.13	22.57	21.50	22.89	23.21	15.97	17.41	16.34	17.73	18.05
	3H	22.44	23.72	22.82	24.06	24.43	16.99	18.27	17.37	18.60	18.97
	4H	22.86	24.06	23.27	24.42	24.81	17.32	18.52	17.73	18.88	19.26
	6H	23.13	24.23	23.55	24.61	25.01	17.55	18.65	17.96	19.03	19.43
	8H	23.20	24.25	23.63	24.65	25.06	17.61	18.66	18.05	19.06	19.47
	12H	23.24	24.24	23.68	24.63	25.07	17.66	18.66	18.09	19.05	19.49
4H	2H	21.13	22.33	21.53	22.68	23.07	16.60	17.80	17.00	18.15	18.54
	3H	22.59	23.58	23.01	23.99	24.40	17.79	18.78	18.21	19.19	19.60
	4H	23.12	24.00	23.56	24.43	24.88	18.21	19.10	18.65	19.52	19.97
	6H	23.50	24.26	23.96	24.71	25.18	18.52	19.29	18.99	19.74	20.21
	8H	23.61	24.32	24.08	24.78	25.25	18.61	19.33	19.09	19.78	20.26
	12H	23.68	24.32	24.17	24.81	25.29	18.69	19.32	19.17	19.81	20.29
8H	4H	23.10	23.82	23.57	24.27	24.74	18.54	19.26	19.01	19.71	20.19
	6H	23.53	24.12	24.04	24.62	25.11	18.94	19.53	19.44	20.03	20.51
	8H	23.69	24.22	24.21	24.74	25.23	19.08	19.61	19.60	20.13	20.62
	12H	23.82	24.29	24.34	24.79	25.36	19.20	19.67	19.72	20.17	20.74
12H	4H	23.07	23.71	23.56	24.20	24.68	18.59	19.23	19.08	19.71	20.19
	6H	23.50	24.03	24.02	24.55	25.04	19.00	19.53	19.53	20.05	20.55
	8H	23.69	24.16	24.21	24.66	25.23	19.19	19.66	19.71	20.16	20.74