

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: P894106

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894106
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-15)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-SC3-ACL-UNV-CC83-MID-4000K
Description: Selectable 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 80CRI, 4000K CC
MID lumen setting
Light Source: -
Ballast/Driver: -

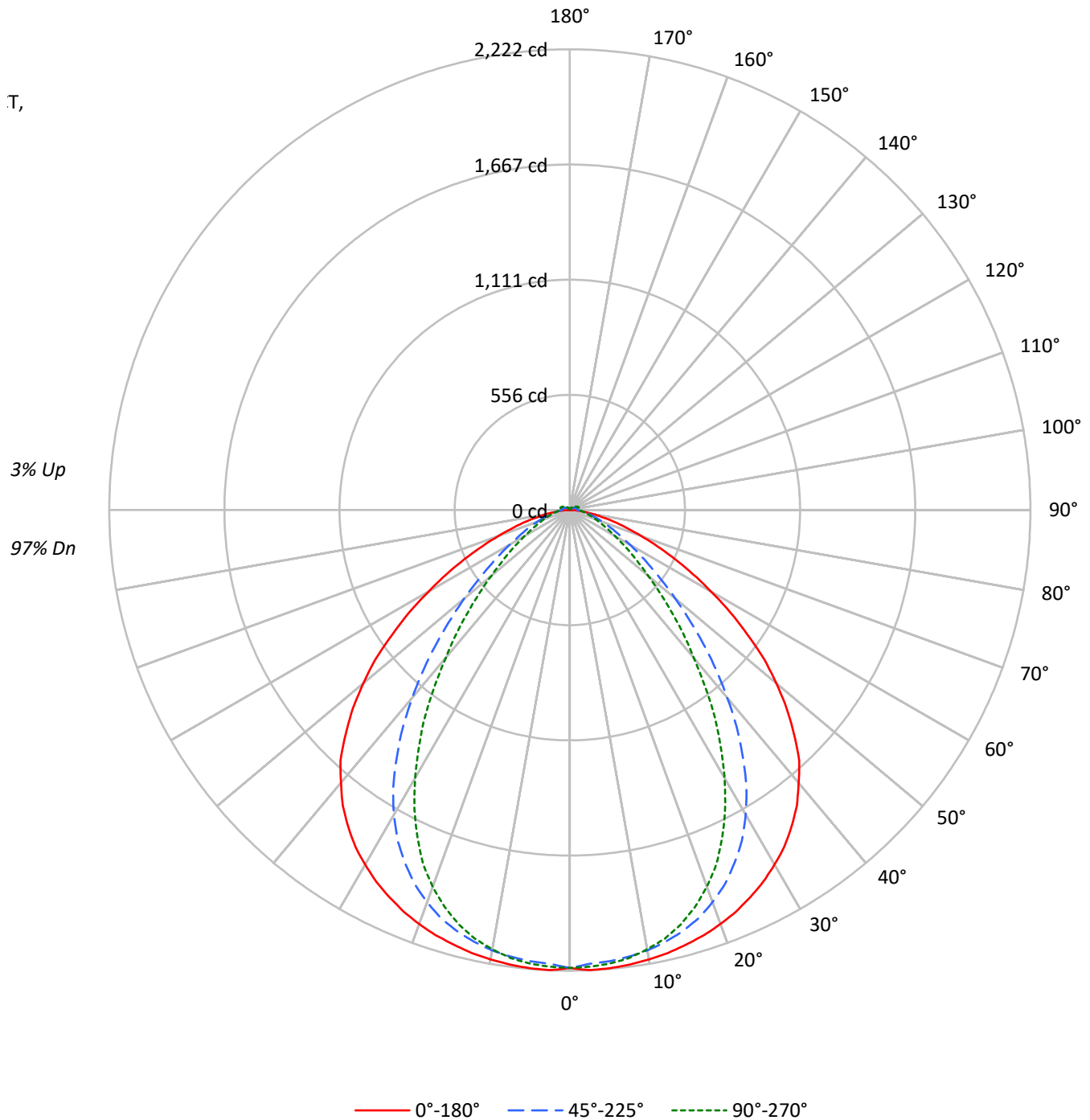
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4531.1 lumens
Efficiency: N/A
Efficacy: 135.3 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.06 / 1.16
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 3.98' x H: 0.08')
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				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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97				97
1	110	106	102	99	107	103	100	97	99	96	93	94	92	90	90	89	87	85				85
2	101	94	88	84	99	92	87	82	88	84	80	85	81	78	82	79	76	74				74
3	94	85	77	72	91	83	76	71	80	74	69	77	72	68	74	70	66	64				64
4	87	76	68	62	84	75	67	62	72	66	61	69	64	60	67	62	59	57				57
5	80	69	61	55	78	68	60	55	65	59	54	63	58	53	61	56	52	50				50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	47	56	51	47	45				45
7	70	57	50	44	68	57	49	44	55	48	43	53	47	43	52	46	42	40				40
8	65	53	45	40	64	52	45	40	51	44	39	49	43	39	48	42	38	37				37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33				33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22494	22494	22494
5°	22637	21884	21849
10°	22678	21409	21083
15°	22745	20852	20123
20°	22856	20086	18809
25°	22923	19022	17061
30°	22947	17560	14865
35°	22848	15518	12434
40°	22443	13108	9786
45°	21579	10582	7587
50°	20089	8210	5693
55°	17985	6286	4353
60°	15451	4832	3317
65°	12883	3811	2637
70°	10305	3059	2155
75°	8208	2464	1835
80°	6013	2034	1604
85°	4130	1729	1478

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21579 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.2	4.6
10°-20°	596.0	13.2
20°-30°	868.9	19.2
30°-40°	933.5	20.6
40°-50°	777.0	17.1
50°-60°	519.7	11.5
60°-70°	297.5	6.6
70°-80°	147.9	3.3
80°-90°	60.5	1.3
90°-100°	35.1	0.8
100°-110°	31.0	0.7
110°-120°	22.8	0.5
120°-130°	14.6	0.3
130°-140°	8.7	0.2
140°-150°	4.9	0.1
150°-160°	2.5	0.1
160°-170°	1.0	0.0
170°-180°	0.2	0.0
0°-30°	1674.1	36.9
0°-40°	2607.7	57.6
0°-60°	3904.3	86.2
0°-90°	4410.2	97.3
90°-120°	88.9	2.0
90°-150°	117.1	2.6
90°-180°	121.0	2.7
0°-180°	4531.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2209	2209	2209	2209	2209	
5°	2218	2211	2185	2203	2196	211
15°	2169	2155	2103	2088	2069	613
25°	2060	2011	1880	1785	1740	950
35°	1865	1729	1455	1276	1220	1165
45°	1530	1271	908	735	692	1176
55°	1043	753	474	374	355	934
65°	559	379	238	193	183	558
75°	225	164	118	104	101	241
85°	44	49	55	57	58	51
90°	6	21	37	44	46	6
95°	10	21	37	44	46	8
105°	6	17	33	43	45	7
115°	3	10	26	35	39	3
125°	2	6	17	26	28	2
135°	1	5	12	17	19	1
145°	1	4	8	12	14	1
155°	1	3	5	7	9	1
165°	2	3	4	4	6	1
175°	2	2	3	3	3	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2208.7	2208.7	2208.7	2208.7	2208.7
2.5°	2221.6	2215.8	2190.7	2210.7	2204.9
5°	2218.4	2211.3	2184.9	2202.9	2195.9
7.5°	2211.3	2203.6	2173.3	2187.5	2179.8
10°	2201.0	2191.4	2156.6	2163.6	2151.4
12.5°	2188.1	2175.9	2132.7	2130.8	2117.3
15°	2169.4	2154.6	2103.1	2087.6	2068.9
17.5°	2150.1	2128.2	2065.1	2033.5	2007.7
20°	2125.0	2096.0	2012.9	1965.8	1933.6
22.5°	2096.0	2056.7	1954.2	1882.1	1848.6
25°	2059.9	2010.9	1879.5	1784.8	1740.3
27.5°	2021.2	1956.2	1798.3	1674.0	1623.1
30°	1974.9	1894.3	1697.2	1547.7	1492.9
32.5°	1925.9	1815.7	1586.3	1414.9	1355.0
35°	1864.7	1729.4	1454.9	1275.8	1219.7
37.5°	1798.3	1626.3	1324.7	1133.4	1070.2
40°	1717.8	1517.4	1181.7	992.3	929.8
42.5°	1637.9	1398.8	1044.5	864.7	810.6
45°	1529.6	1271.3	908.5	735.2	692.0
47.5°	1420.7	1134.7	778.3	630.2	587.6
50°	1299.6	1000.6	664.3	529.0	493.6
52.5°	1181.7	875.6	560.6	447.2	416.9
55°	1043.2	752.6	473.6	374.4	355.0
57.5°	918.2	638.5	399.5	317.0	299.0
60°	786.1	541.2	334.4	268.0	251.3
62.5°	670.1	454.9	281.6	227.4	215.8
65°	558.6	378.9	238.4	193.3	183.0
67.5°	456.2	316.4	201.0	164.9	156.6
70°	366.0	256.4	169.5	140.5	134.7
72.5°	288.0	206.2	141.1	121.1	116.0
75°	224.9	163.7	117.9	104.4	101.2
77.5°	162.4	127.6	98.6	89.6	87.6
80°	114.7	96.6	81.2	77.3	76.0
82.5°	76.0	70.2	67.0	67.0	66.4
85°	43.8	49.0	54.8	57.3	58.0
87.5°	22.6	32.9	43.8	49.0	49.6
90°	6.4	20.6	37.4	44.5	45.7
92.5°	9.7	20.6	36.7	44.5	45.7
95°	9.7	20.6	36.7	44.5	45.7
97.5°	9.0	20.0	36.7	44.5	45.7
100°	8.4	18.7	36.1	44.5	45.7
102.5°	7.1	18.0	34.8	43.8	45.7
105°	6.4	16.8	32.9	43.2	45.1
107.5°	5.8	14.2	30.9	41.2	43.8
110°	4.5	12.2	29.6	39.3	42.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.9	11.0	27.7	37.4	40.6
115°	3.2	9.7	25.8	35.4	38.7
117.5°	2.6	9.0	23.2	32.9	36.1
120°	1.9	8.4	21.3	30.9	33.5
122.5°	1.9	7.7	18.7	28.4	30.9
125°	1.9	6.4	17.4	25.8	28.4
127.5°	1.3	5.8	15.5	23.2	25.8
130°	1.3	5.8	14.2	21.3	23.2
132.5°	1.3	5.2	12.9	19.3	21.3
135°	1.3	5.2	11.6	17.4	19.3
137.5°	1.3	4.5	10.3	16.1	18.0
140°	1.3	4.5	9.7	14.2	16.1
142.5°	1.3	3.9	8.4	13.5	14.8
145°	1.3	3.9	7.7	11.6	13.5
147.5°	1.3	3.9	7.1	11.0	12.2
150°	1.3	3.2	6.4	9.0	11.0
152.5°	1.3	3.2	5.8	8.4	10.3
155°	1.3	3.2	5.2	7.1	9.0
157.5°	1.3	3.2	5.2	6.4	7.7
160°	1.9	2.6	4.5	5.8	7.1
162.5°	1.9	2.6	3.9	5.2	6.4
165°	1.9	2.6	3.9	4.5	5.8
167.5°	1.9	2.6	3.2	3.9	4.5
170°	1.9	1.9	3.2	3.2	3.2
172.5°	1.9	1.9	2.6	3.2	2.6
175°	1.9	1.9	2.6	2.6	2.6
177.5°	1.9	1.9	2.6	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	19.55	20.94	19.96	21.31	21.70	14.85	16.24	15.26	16.61	16.99
	3H	20.64	21.89	21.07	22.27	22.70	15.99	17.23	16.41	17.62	18.05
	4H	20.95	22.11	21.40	22.52	22.97	16.49	17.65	16.93	18.06	18.50
	6H	21.10	22.17	21.56	22.59	23.05	16.99	18.06	17.45	18.48	18.94
	8H	21.12	22.14	21.59	22.58	23.05	17.25	18.27	17.72	18.71	19.18
	12H	21.11	22.08	21.59	22.52	23.02	17.54	18.52	18.02	18.95	19.45
4H	2H	19.53	20.70	19.98	21.10	21.55	15.34	16.51	15.79	16.91	17.36
	3H	20.77	21.73	21.23	22.19	22.65	16.66	17.62	17.12	18.07	18.54
	4H	21.15	22.02	21.63	22.49	22.99	17.25	18.12	17.73	18.58	19.09
	6H	21.39	22.14	21.89	22.63	23.16	17.87	18.62	18.38	19.12	19.64
	8H	21.43	22.13	21.94	22.62	23.15	18.19	18.89	18.70	19.39	19.92
	12H	21.44	22.06	21.97	22.59	23.13	18.57	19.19	19.10	19.72	20.26
8H	4H	21.14	21.84	21.65	22.34	22.87	17.49	18.19	18.00	18.69	19.22
	6H	21.42	22.00	21.96	22.54	23.08	18.21	18.79	18.76	19.34	19.88
	8H	21.49	22.01	22.05	22.57	23.12	18.62	19.14	19.18	19.70	20.25
	12H	21.54	22.00	22.09	22.54	23.17	19.11	19.57	19.67	20.11	20.74
12H	4H	21.12	21.74	21.65	22.27	22.81	17.51	18.13	18.03	18.66	19.19
	6H	21.40	21.92	21.96	22.48	23.03	18.25	18.77	18.81	19.33	19.88
	8H	21.50	21.97	22.06	22.51	23.13	18.71	19.17	19.27	19.71	20.34