

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: P893583

Luminaire Tested: 4MB-5SL-ACL-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893583
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-5SL-ACL-UNV-L940
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 4000K (C)
Light Source: -
Ballast/Driver: -

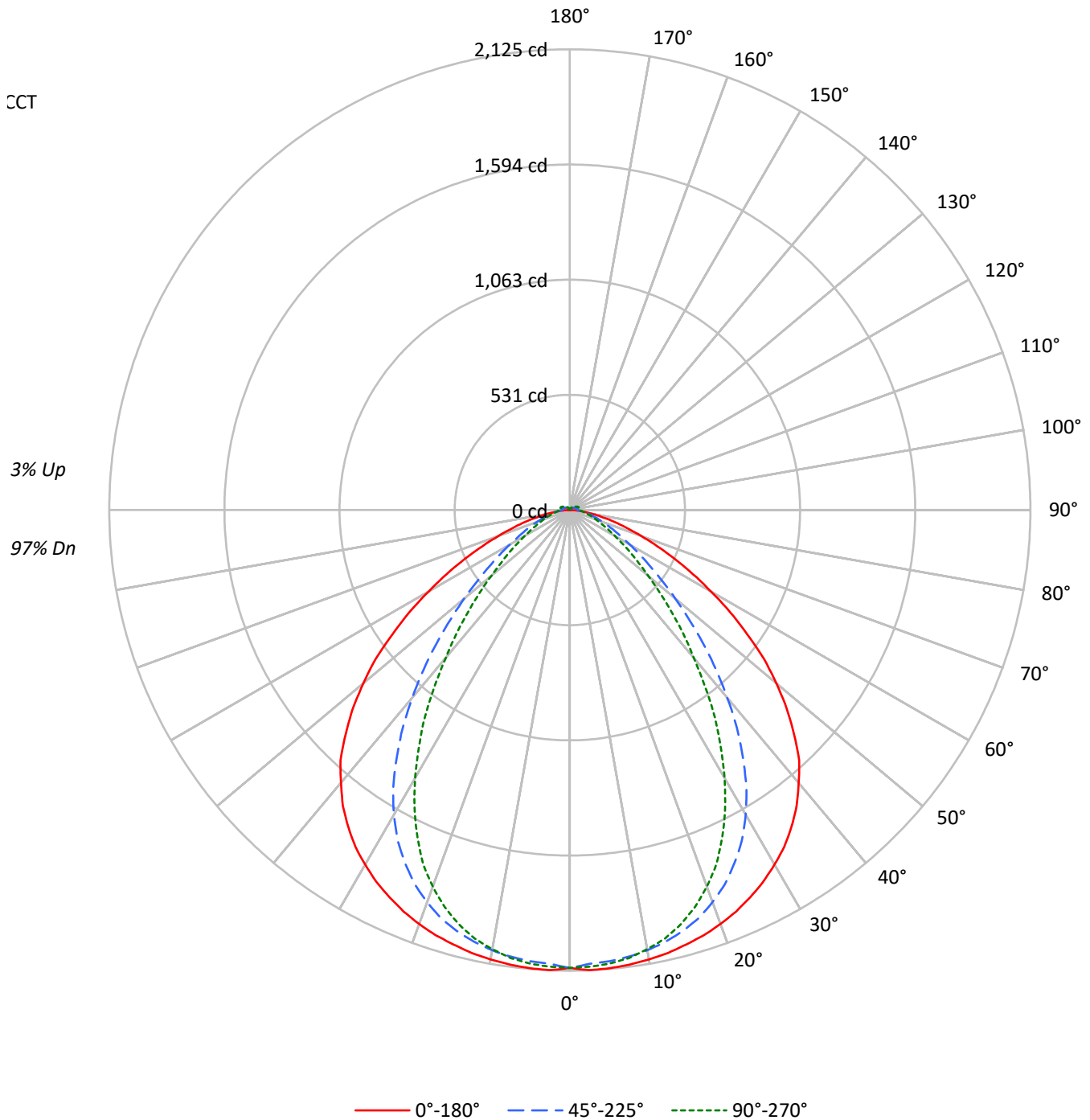
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4332.9 lumens
Efficiency: N/A
Efficacy: 123.8 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): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 9.55
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	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°	21511	21511	21511
5°	21649	20927	20894
10°	21686	20473	20161
15°	21751	19941	19243
20°	21857	19208	17987
25°	21922	18191	16316
30°	21944	16793	14216
35°	21850	14840	11890
40°	21462	12536	9358
45°	20636	10119	7256
50°	19211	7852	5444
55°	17199	6011	4163
60°	14775	4621	3172
65°	12320	3645	2521
70°	9855	2925	2060
75°	7847	2357	1753
80°	5751	1944	1535
85°	3951	1653	1415

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 20636 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.1	4.6
10°-20°	569.9	13.2
20°-30°	830.9	19.2
30°-40°	892.7	20.6
40°-50°	743.0	17.1
50°-60°	496.9	11.5
60°-70°	284.5	6.6
70°-80°	141.4	3.3
80°-90°	57.9	1.3
90°-100°	33.6	0.8
100°-110°	29.6	0.7
110°-120°	21.7	0.5
120°-130°	14.0	0.3
130°-140°	8.3	0.2
140°-150°	4.7	0.1
150°-160°	2.4	0.1
160°-170°	1.0	0.0
170°-180°	0.2	0.0
0°-30°	1601.0	36.9
0°-40°	2493.7	57.6
0°-60°	3733.7	86.2
0°-90°	4217.4	97.3
90°-120°	84.9	2.0
90°-150°	111.9	2.6
90°-180°	115.0	2.7
0°-180°	4332.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2112	2112	2112	2112	2112	
5°	2122	2115	2089	2107	2100	202
15°	2075	2060	2011	1996	1978	587
25°	1970	1923	1797	1707	1664	908
35°	1783	1654	1391	1220	1166	1114
45°	1463	1216	869	703	662	1125
55°	998	720	453	358	340	894
65°	534	362	228	185	175	534
75°	215	156	113	100	97	231
85°	42	47	52	55	56	49
90°	6	20	36	42	44	6
95°	9	20	35	42	44	7
105°	6	16	31	41	43	7
115°	3	9	25	34	37	3
125°	2	6	17	25	27	1
135°	1	5	11	17	18	1
145°	1	4	7	11	13	1
155°	1	3	5	7	9	1
165°	2	2	4	4	6	1
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°	2112.2	2112.2	2112.2	2112.2	2112.2
2.5°	2124.6	2119.0	2095.0	2114.1	2108.5
5°	2121.5	2114.7	2089.4	2106.7	2099.9
7.5°	2114.7	2107.3	2078.3	2091.9	2084.5
10°	2104.8	2095.6	2062.3	2069.1	2057.4
12.5°	2092.5	2080.8	2039.5	2037.7	2024.7
15°	2074.6	2060.5	2011.2	1996.4	1978.5
17.5°	2056.2	2035.2	1974.8	1944.6	1920.0
20°	2032.1	2004.4	1924.9	1879.9	1849.1
22.5°	2004.4	1966.8	1868.8	1799.8	1767.8
25°	1969.9	1923.1	1797.4	1706.8	1664.3
27.5°	1932.9	1870.7	1719.7	1600.8	1552.1
30°	1888.6	1811.5	1623.0	1480.0	1427.7
32.5°	1841.7	1736.4	1517.0	1353.1	1295.8
35°	1783.2	1653.8	1391.3	1220.0	1166.4
37.5°	1719.7	1555.2	1266.8	1083.8	1023.5
40°	1642.7	1451.1	1130.1	948.9	889.1
42.5°	1566.3	1337.7	998.8	826.9	775.1
45°	1462.8	1215.7	868.8	703.0	661.8
47.5°	1358.7	1085.1	744.3	602.6	561.9
50°	1242.8	956.9	635.3	505.9	472.0
52.5°	1130.1	837.4	536.1	427.6	398.7
55°	997.6	719.7	452.9	358.0	339.5
57.5°	878.0	610.6	382.0	303.2	285.9
60°	751.7	517.6	319.8	256.3	240.3
62.5°	640.8	435.0	269.3	217.5	206.4
65°	534.2	362.3	228.0	184.9	175.0
67.5°	436.2	302.5	192.2	157.7	149.7
70°	350.0	245.2	162.1	134.3	128.8
72.5°	275.4	197.2	134.9	115.8	110.9
75°	215.0	156.5	112.8	99.8	96.7
77.5°	155.3	122.0	94.3	85.6	83.8
80°	109.7	92.4	77.6	73.9	72.7
82.5°	72.7	67.2	64.1	64.1	63.5
85°	41.9	46.8	52.4	54.8	55.5
87.5°	21.6	31.4	41.9	46.8	47.4
90°	6.2	19.7	35.7	42.5	43.7
92.5°	9.2	19.7	35.1	42.5	43.7
95°	9.2	19.7	35.1	42.5	43.7
97.5°	8.6	19.1	35.1	42.5	43.7
100°	8.0	17.9	34.5	42.5	43.7
102.5°	6.8	17.3	33.3	41.9	43.7
105°	6.2	16.0	31.4	41.3	43.1
107.5°	5.5	13.6	29.6	39.4	41.9
110°	4.3	11.7	28.3	37.6	40.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.7	10.5	26.5	35.7	38.8
115°	3.1	9.2	24.6	33.9	37.0
117.5°	2.5	8.6	22.2	31.4	34.5
120°	1.8	8.0	20.3	29.6	32.0
122.5°	1.8	7.4	17.9	27.1	29.6
125°	1.8	6.2	16.6	24.6	27.1
127.5°	1.2	5.5	14.8	22.2	24.6
130°	1.2	5.5	13.6	20.3	22.2
132.5°	1.2	4.9	12.3	18.5	20.3
135°	1.2	4.9	11.1	16.6	18.5
137.5°	1.2	4.3	9.9	15.4	17.3
140°	1.2	4.3	9.2	13.6	15.4
142.5°	1.2	3.7	8.0	12.9	14.2
145°	1.2	3.7	7.4	11.1	12.9
147.5°	1.2	3.7	6.8	10.5	11.7
150°	1.2	3.1	6.2	8.6	10.5
152.5°	1.2	3.1	5.5	8.0	9.9
155°	1.2	3.1	4.9	6.8	8.6
157.5°	1.2	3.1	4.9	6.2	7.4
160°	1.8	2.5	4.3	5.5	6.8
162.5°	1.8	2.5	3.7	4.9	6.2
165°	1.8	2.5	3.7	4.3	5.5
167.5°	1.8	2.5	3.1	3.7	4.3
170°	1.8	1.8	3.1	3.1	3.1
172.5°	1.8	1.8	2.5	3.1	2.5
175°	1.8	1.8	2.5	2.5	2.5
177.5°	1.8	1.8	2.5	2.5	2.5
180°	1.8	1.8	1.8	1.8	1.8



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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	19.40	20.79	19.81	21.16	21.54	14.69	16.08	15.10	16.46	16.84
	3H	20.49	21.73	20.91	22.12	22.55	15.83	17.07	16.26	17.46	17.89
	4H	20.80	21.96	21.24	22.36	22.81	16.33	17.50	16.78	17.90	18.35
	6H	20.94	22.01	21.40	22.44	22.90	16.83	17.91	17.29	18.33	18.79
	8H	20.96	21.98	21.43	22.42	22.89	17.09	18.11	17.56	18.56	19.02
	12H	20.95	21.93	21.43	22.37	22.86	17.39	18.36	17.86	18.80	19.29
4H	2H	19.38	20.54	19.82	20.95	21.39	15.19	16.35	15.64	16.76	17.20
	3H	20.61	21.58	21.07	22.03	22.50	16.50	17.46	16.96	17.92	18.39
	4H	21.00	21.86	21.48	22.33	22.84	17.10	17.96	17.57	18.43	18.93
	6H	21.23	21.98	21.73	22.48	23.00	17.72	18.47	18.22	18.96	19.49
	8H	21.27	21.97	21.78	22.47	23.00	18.04	18.74	18.55	19.23	19.77
	12H	21.28	21.91	21.81	22.44	22.97	18.41	19.04	18.94	19.57	20.10
8H	4H	20.99	21.69	21.50	22.18	22.71	17.34	18.04	17.85	18.53	19.06
	6H	21.26	21.84	21.81	22.38	22.92	18.06	18.64	18.60	19.18	19.72
	8H	21.34	21.86	21.90	22.41	22.97	18.46	18.99	19.02	19.54	20.09
	12H	21.38	21.84	21.94	22.38	23.01	18.96	19.42	19.51	19.96	20.58
12H	4H	20.96	21.59	21.49	22.12	22.65	17.35	17.98	17.88	18.50	19.04
	6H	21.24	21.76	21.80	22.32	22.87	18.10	18.62	18.65	19.17	19.73
	8H	21.35	21.81	21.90	22.35	22.98	18.56	19.02	19.11	19.56	20.18