

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: P892706

Luminaire Tested: 2MB-4HL-ACL-UNV-L935

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P892706  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 2MB-4HL-ACL-UNV-L935  
Description: 4000 Lumen 2FT MICROBAY LINEAR BAY with AISLE OPTICS WITH CLEAR LENS, 90CRI, 3500K (C)  
Light Source: -  
Ballast/Driver: -

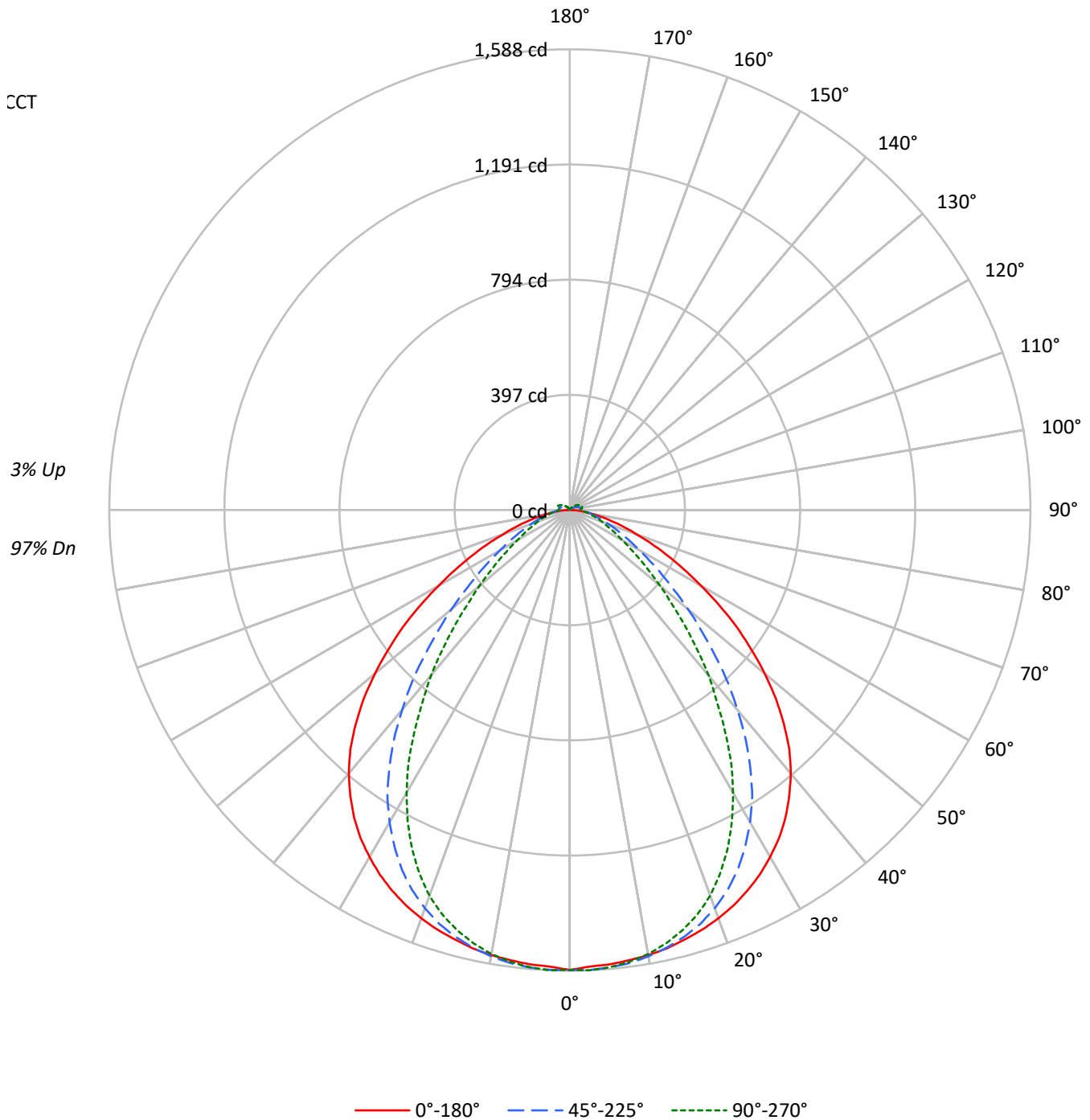
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3388.0 lumens  
Efficiency: N/A  
Efficacy: 122.8 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.09 / 1.19  
Luminous Opening: Rectangular w/ Sides (W: 0.27' x L: 1.98' x H: 0.08')  
CIE Type: Direct

Input Watts (W): 27.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 6.5  
Total Harmonic Distortion (THDi): 0.99  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P892706  
CATALOG NUMBER: 2MB-4HL-ACL-UNV-L935

### Luminous Intensity Polar Plot





TEST NUMBER: P892706

CATALOG NUMBER: 2MB-4HL-ACL-UNV-L935

**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	109	109	109	104	104	104	99	99	99	99	99	99	97
1	109	105	102	98	106	103	99	96	98	95	93	94	91	89	89	88	86	89	88	86	84
2	101	94	88	83	98	92	86	82	88	83	79	84	80	77	81	77	75	81	77	75	73
3	93	84	77	71	90	82	75	70	79	73	68	76	71	67	73	69	65	73	69	65	63
4	86	75	68	62	84	74	67	61	71	65	60	68	63	59	66	61	58	66	61	58	56
5	80	68	60	54	78	67	59	54	65	58	53	62	57	52	60	55	51	60	55	51	49
6	74	62	54	48	72	61	53	48	59	52	47	57	51	46	55	50	46	55	50	46	44
7	69	57	49	43	67	56	48	43	54	47	42	52	46	42	51	45	41	51	45	41	39
8	65	52	44	39	63	51	44	39	50	43	38	48	42	38	47	42	37	47	42	37	36
9	61	48	40	35	59	47	40	35	46	39	35	45	39	35	44	38	34	44	38	34	32
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	35	31	41	35	31	30

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	32459	32459	32459
5°	32191	31827	31645
10°	32156	31099	30618
15°	32119	30245	29328
20°	32143	29158	27673
25°	32085	27688	25370
30°	31880	25657	22530
35°	31462	23048	19144
40°	30597	19825	15742
45°	29011	16354	12281
50°	26603	13054	9401
55°	23600	10178	7234
60°	19948	7899	5573
65°	16487	6254	4511
70°	13153	5042	3769
75°	10420	4163	3237
80°	7882	3543	2784
85°	5885	3050	2444

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 29011 cd/sqm



TEST NUMBER: P892706  
 CATALOG NUMBER: 2MB-4HL-ACL-UNV-L935

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.2	4.4
10°-20°	428.5	12.6
20°-30°	628.4	18.5
30°-40°	685.3	20.2
40°-50°	581.5	17.2
50°-60°	395.9	11.7
60°-70°	231.0	6.8
70°-80°	120.3	3.6
80°-90°	52.4	1.5
90°-100°	33.3	1.0
100°-110°	30.8	0.9
110°-120°	22.8	0.7
120°-130°	13.8	0.4
130°-140°	7.3	0.2
140°-150°	3.7	0.1
150°-160°	1.8	0.1
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	1207.2	35.6
0°-40°	1892.5	55.9
0°-60°	2869.9	84.7
0°-90°	3273.6	96.6
90°-120°	86.9	2.6
90°-150°	111.7	3.3
90°-180°	114.0	3.4
0°-180°	3388.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1585	1585	1585	1585	1585	
5°	1572	1579	1582	1584	1582	150
15°	1532	1536	1523	1509	1500	433
25°	1448	1428	1369	1316	1287	667
35°	1296	1229	1084	976	934	809
45°	1044	914	707	596	557	802
55°	701	558	388	311	293	625
65°	371	293	199	164	156	372
75°	152	131	102	93	89	166
85°	37	44	50	49	48	40
90°	6	20	35	38	37	6
95°	11	22	36	40	39	8
105°	3	17	34	43	44	4
115°	3	10	26	36	39	2
125°	1	5	15	24	28	1
135°	1	4	9	15	17	1
145°	1	3	6	9	10	1
155°	1	2	4	6	6	1
165°	1	1	3	3	4	0
175°	1	1	2	2	1	0
180°	1	1	1	1	1	



TEST NUMBER: P892706

CATALOG NUMBER: 2MB-4HL-ACL-UNV-L935

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1585.2	1585.2	1585.2	1585.2	1585.2
2.5°	1575.2	1582.5	1586.5	1589.1	1587.8
5°	1571.9	1579.2	1582.5	1583.8	1581.8
7.5°	1565.3	1573.2	1575.2	1573.9	1570.6
10°	1558.0	1564.6	1562.0	1558.7	1554.0
12.5°	1547.4	1552.0	1544.8	1537.5	1530.2
15°	1532.2	1536.1	1522.9	1509.0	1499.7
17.5°	1516.9	1515.6	1495.7	1473.2	1462.0
20°	1497.7	1490.4	1460.6	1428.2	1414.9
22.5°	1475.2	1462.6	1418.9	1375.2	1355.3
25°	1448.0	1427.5	1369.2	1315.6	1287.1
27.5°	1417.6	1388.4	1308.9	1242.0	1210.2
30°	1381.1	1341.4	1242.7	1160.6	1125.4
32.5°	1342.1	1291.0	1170.5	1067.8	1035.4
35°	1295.7	1229.4	1084.4	975.7	934.0
37.5°	1242.7	1158.6	996.3	877.0	833.3
40°	1185.1	1083.7	898.2	779.0	743.9
42.5°	1120.1	1004.2	806.8	681.6	646.5
45°	1044.0	914.1	706.8	595.5	557.1
47.5°	963.8	825.4	614.7	506.1	474.3
50°	877.0	732.0	532.6	433.2	405.4
52.5°	787.6	645.2	453.8	367.0	343.8
55°	700.8	557.8	387.5	311.3	293.4
57.5°	610.1	484.2	329.2	265.0	247.1
60°	522.6	410.0	276.9	223.9	210.0
62.5°	443.8	345.8	235.8	190.8	180.8
65°	371.0	292.8	198.7	164.3	155.7
67.5°	306.0	242.4	170.2	142.4	134.5
70°	245.1	198.1	142.4	122.5	117.2
72.5°	198.7	164.9	120.6	107.3	103.3
75°	152.4	131.2	102.0	92.7	88.8
77.5°	114.6	102.7	86.8	79.5	76.2
80°	82.8	79.5	72.9	68.9	65.6
82.5°	57.0	60.3	60.9	57.6	56.3
85°	37.1	44.4	50.3	49.0	47.7
87.5°	20.5	29.8	41.1	41.7	40.4
90°	6.0	19.9	35.1	37.8	37.1
92.5°	11.3	21.2	35.8	38.4	37.8
95°	11.3	21.9	36.4	39.7	39.1
97.5°	10.6	21.9	37.1	41.1	41.1
100°	5.3	21.2	37.1	42.4	42.4
102.5°	3.3	19.2	35.8	43.1	43.7
105°	3.3	16.6	33.8	43.1	43.7
107.5°	3.3	13.9	32.5	41.7	43.7
110°	2.6	11.9	30.5	39.7	42.4



TEST NUMBER: P892706

CATALOG NUMBER: 2MB-4HL-ACL-UNV-L935

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.6	10.6	28.5	38.4	41.1
115°	2.6	9.9	25.8	36.4	39.1
117.5°	2.0	8.6	22.5	33.8	37.1
120°	2.0	7.3	19.9	31.1	34.4
122.5°	1.3	6.6	17.2	27.8	31.8
125°	1.3	5.3	15.2	24.5	28.5
127.5°	1.3	5.3	13.9	21.9	25.2
130°	1.3	4.6	11.9	19.2	21.9
132.5°	1.3	4.6	10.6	16.6	19.2
135°	1.3	4.0	9.3	14.6	17.2
137.5°	1.3	4.0	8.6	12.6	15.2
140°	1.3	3.3	7.3	11.3	13.2
142.5°	1.3	3.3	6.6	9.9	11.3
145°	1.3	2.6	6.0	8.6	9.9
147.5°	1.3	2.6	5.3	7.3	8.6
150°	1.3	2.6	5.3	6.6	7.3
152.5°	1.3	2.0	4.6	6.0	6.6
155°	1.3	2.0	4.0	6.0	6.0
157.5°	1.3	2.0	3.3	5.3	6.0
160°	1.3	2.0	3.3	4.6	5.3
162.5°	1.3	2.0	2.6	3.3	4.6
165°	1.3	1.3	2.6	3.3	4.0
167.5°	1.3	1.3	2.0	2.6	3.3
170°	1.3	1.3	2.0	2.0	2.0
172.5°	1.3	1.3	2.0	2.0	1.3
175°	1.3	1.3	2.0	2.0	1.3
177.5°	1.3	1.3	2.0	2.0	1.3
180°	1.3	1.3	1.3	1.3	1.3



TEST NUMBER: P892706  
 CATALOG NUMBER: 2MB-4HL-ACL-UNV-L935

**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	20.78	22.18	21.20	22.56	22.96	16.88	18.28	17.31	18.67	19.07
	3H	21.81	23.05	22.24	23.45	23.90	18.09	19.33	18.52	19.73	20.18
	4H	22.10	23.27	22.56	23.69	24.15	18.62	19.79	19.08	20.21	20.67
	6H	22.25	23.33	22.72	23.77	24.24	19.13	20.21	19.60	20.64	21.12
	8H	22.28	23.30	22.76	23.76	24.24	19.37	20.40	19.86	20.85	21.34
	12H	22.28	23.26	22.76	23.71	24.22	19.63	20.61	20.11	21.06	21.57
4H	2H	20.81	21.98	21.27	22.40	22.86	17.38	18.55	17.84	18.97	19.43
	3H	22.01	22.97	22.48	23.44	23.93	18.77	19.73	19.24	20.20	20.69
	4H	22.40	23.27	22.89	23.75	24.27	19.41	20.28	19.90	20.76	21.28
	6H	22.64	23.40	23.16	23.91	24.45	20.04	20.80	20.55	21.30	21.84
	8H	22.69	23.40	23.21	23.91	24.46	20.34	21.05	20.86	21.56	22.11
	12H	22.72	23.35	23.26	23.89	24.44	20.67	21.30	21.21	21.84	22.39
8H	4H	22.42	23.13	22.94	23.64	24.18	19.65	20.35	20.17	20.86	21.41
	6H	22.73	23.32	23.28	23.87	24.43	20.39	20.98	20.95	21.53	22.09
	8H	22.82	23.35	23.39	23.92	24.49	20.78	21.31	21.35	21.88	22.45
	12H	22.89	23.36	23.46	23.91	24.55	21.22	21.69	21.79	22.24	22.88
12H	4H	22.41	23.04	22.95	23.58	24.13	19.66	20.29	20.20	20.83	21.38
	6H	22.72	23.25	23.29	23.82	24.39	20.44	20.96	21.01	21.53	22.10
	8H	22.86	23.32	23.42	23.88	24.52	20.88	21.35	21.45	21.90	22.54