

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: P893422

Luminaire Tested: 4MB-3SL-LVRA-UNV-L935

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893422
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-3SL-LVRA-UNV-L935
Description: 3000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3500K CCT
Light Source: -
Ballast/Driver: -

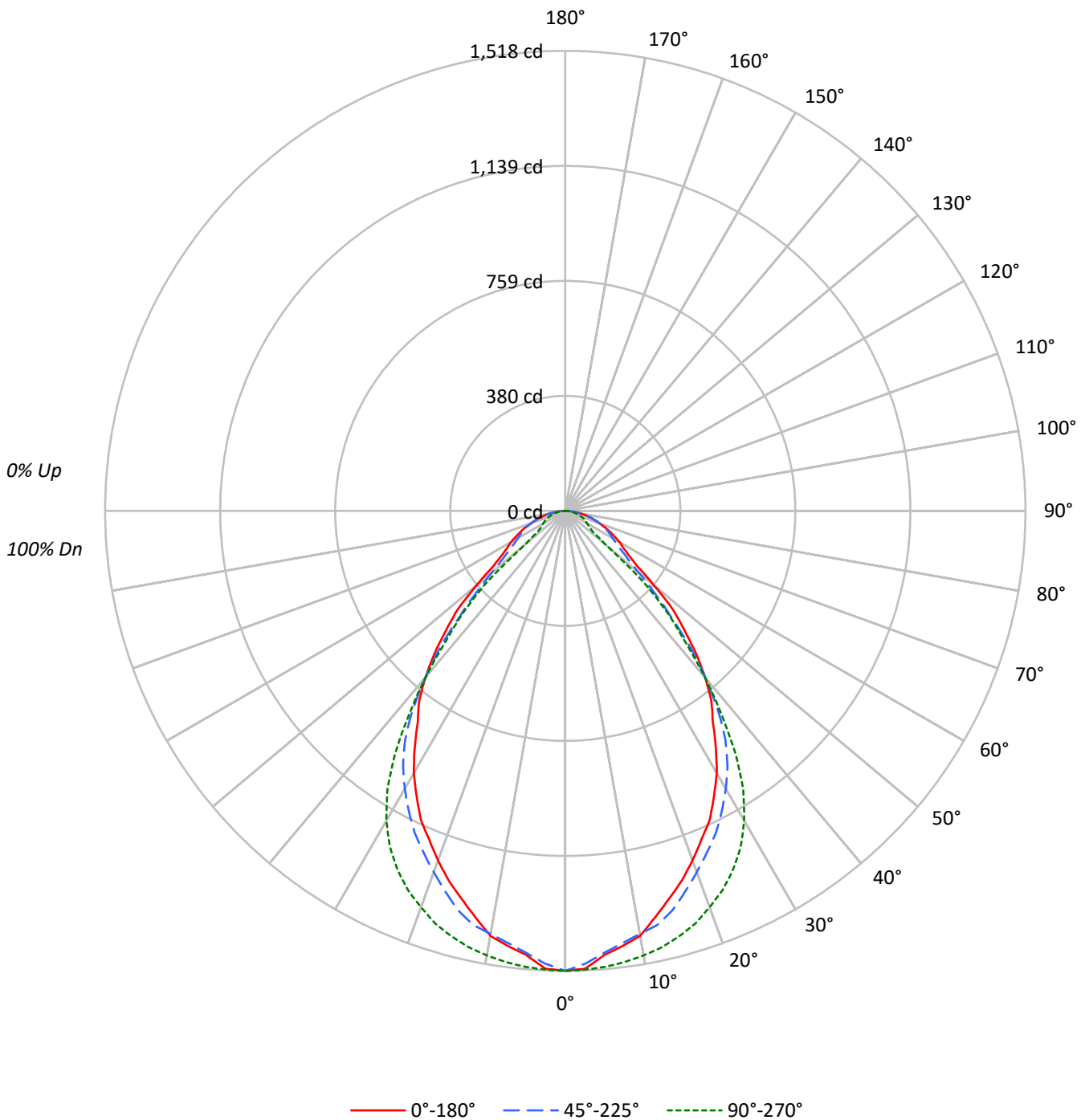
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2463.0 lumens
Efficiency: N/A
Efficacy: 116.7 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 21.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 5.2
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78	78	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69	69	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62	62	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55	55	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50	50	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45	45	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41	41	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38	38	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35	35	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10798	10798	10798
5°	10507	10459	10786
10°	10283	10238	10761
15°	9753	10052	10701
20°	9290	9604	10537
25°	8837	9215	10268
30°	8210	8699	9695
35°	7362	7994	8503
40°	6670	6685	6648
45°	5576	4939	4817
50°	4213	3477	1970
55°	3168	2780	1242
60°	2944	2560	1197
65°	2739	2556	1199
70°	2507	2507	1180
75°	2375	2441	1141
80°	2196	2307	1172
85°	1918	2008	1274

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 5706 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.2	5.7
10°-20°	386.3	15.7
20°-30°	547.7	22.2
30°-40°	564.3	22.9
40°-50°	394.1	16.0
50°-60°	189.1	7.7
60°-70°	132.7	5.4
70°-80°	83.0	3.4
80°-90°	25.7	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1074.2	43.6
0°-40°	1638.4	66.5
0°-60°	2221.7	90.2
0°-90°	2463.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2463.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1518	1518	1518	1518	1518	
5°	1471	1469	1464	1503	1510	139
15°	1324	1334	1365	1404	1453	373
25°	1126	1137	1174	1253	1308	515
35°	848	871	920	940	979	534
45°	554	567	491	466	479	427
55°	255	243	224	144	100	239
65°	163	152	152	115	71	161
75°	86	85	89	77	42	91
85°	24	24	25	24	16	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1517.6	1517.6	1517.6	1517.6	1517.6
2.5°	1511.7	1507.0	1495.7	1516.4	1514.9
5°	1471.1	1469.1	1464.4	1502.7	1510.2
7.5°	1448.0	1444.1	1438.6	1480.8	1501.6
10°	1423.3	1428.0	1417.1	1455.8	1489.4
12.5°	1372.5	1385.0	1399.9	1430.0	1474.6
15°	1324.0	1333.8	1364.7	1403.8	1452.7
17.5°	1278.6	1290.0	1316.6	1375.2	1427.2
20°	1227.0	1242.6	1268.4	1343.5	1391.7
22.5°	1173.8	1188.3	1220.7	1301.3	1354.9
25°	1125.7	1137.0	1173.8	1253.2	1307.9
27.5°	1061.9	1083.0	1117.9	1194.5	1252.0
30°	999.3	1017.3	1058.8	1123.3	1180.0
32.5°	923.9	950.1	995.8	1045.1	1092.4
35°	847.6	870.7	920.3	939.5	979.0
37.5°	792.0	798.3	826.5	824.1	846.4
40°	718.1	730.6	719.7	690.3	715.8
42.5°	638.3	653.2	609.0	575.0	584.0
45°	554.2	567.1	490.9	465.8	478.7
47.5°	481.5	480.3	395.8	379.0	361.0
50°	380.6	393.1	314.1	282.8	178.0
52.5°	297.3	302.0	258.9	180.7	116.9
55°	255.4	242.9	224.1	143.5	100.1
57.5°	226.9	211.2	198.7	133.4	91.5
60°	206.9	189.3	179.9	126.7	84.1
62.5°	184.2	170.5	167.0	120.9	77.4
65°	162.7	152.2	151.8	115.4	71.2
67.5°	141.2	135.3	136.9	108.7	64.1
70°	120.5	119.3	120.5	100.1	56.7
72.5°	102.9	101.7	104.8	89.2	48.5
75°	86.4	85.3	88.8	76.7	41.5
77.5°	68.8	69.6	72.0	63.8	34.8
80°	53.6	53.6	56.3	50.1	28.6
82.5°	38.3	38.7	40.3	36.8	22.3
85°	23.5	23.5	24.6	24.3	15.6
87.5°	7.8	9.0	10.6	11.3	7.8
90°	0.0	0.0	0.0	0.0	0.0



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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	13.91	15.27	14.28	15.58	15.89	10.25	11.60	10.61	11.91	12.23
	3H	15.65	16.86	16.03	17.19	17.55	12.22	13.43	12.60	13.76	14.12
	4H	16.32	17.45	16.73	17.80	18.18	12.93	14.05	13.33	14.40	14.79
	6H	16.83	17.87	17.24	18.24	18.63	13.45	14.49	13.86	14.86	15.25
	8H	17.00	17.99	17.43	18.38	18.78	13.64	14.62	14.06	15.01	15.42
	12H	17.11	18.05	17.54	18.44	18.87	13.77	14.72	14.21	15.10	15.53
4H	2H	14.44	15.57	14.85	15.92	16.30	11.87	13.00	12.27	13.35	13.73
	3H	16.42	17.35	16.83	17.75	18.16	14.05	14.98	14.46	15.38	15.78
	4H	17.22	18.06	17.66	18.48	18.92	14.93	15.76	15.36	16.18	16.62
	6H	17.87	18.59	18.33	19.04	19.50	15.57	16.29	16.03	16.74	17.20
	8H	18.09	18.76	18.55	19.21	19.68	15.78	16.46	16.25	16.90	17.37
	12H	18.24	18.84	18.73	19.32	19.80	15.94	16.54	16.42	17.02	17.49
8H	4H	17.51	18.18	17.98	18.63	19.10	15.58	16.25	16.04	16.70	17.17
	6H	18.29	18.85	18.79	19.34	19.82	16.44	16.99	16.94	17.49	17.97
	8H	18.59	19.09	19.11	19.61	20.10	16.77	17.26	17.29	17.78	18.27
	12H	18.83	19.27	19.34	19.76	20.33	17.03	17.47	17.54	17.96	18.53
12H	4H	17.52	18.12	18.01	18.61	19.08	15.65	16.25	16.13	16.73	17.20
	6H	18.34	18.84	18.86	19.36	19.85	16.57	17.07	17.09	17.59	18.08
	8H	18.71	19.15	19.22	19.64	20.21	16.99	17.43	17.50	17.92	18.49