

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: P893644

Luminaire Tested: 4MB-5SL-LVRA-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893644
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-5SL-LVRA-UNV-L850
Description: 5000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

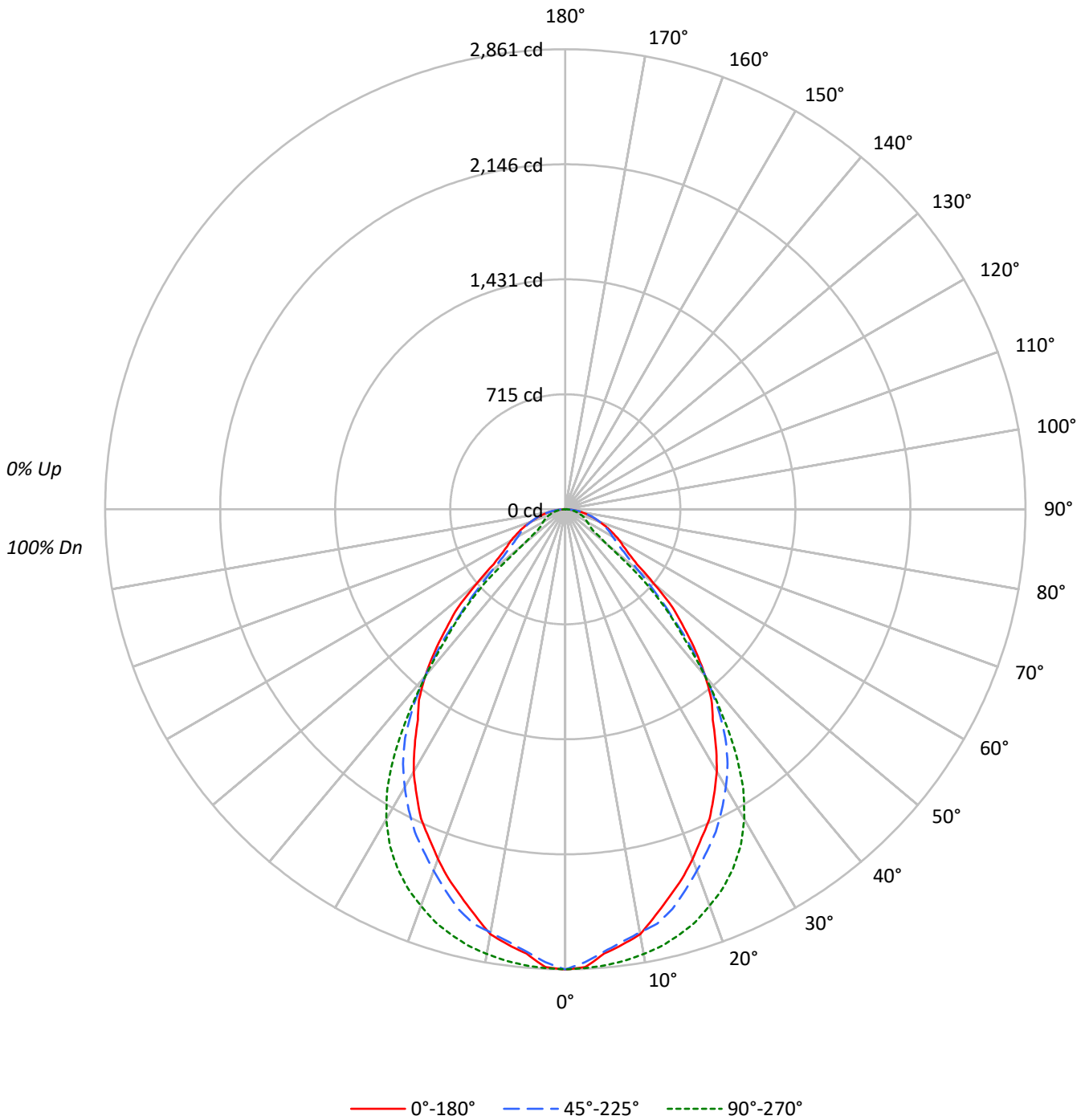
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4644.0 lumens
Efficiency: N/A
Efficacy: 132.7 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): 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

TEST NUMBER: P893644
CATALOG NUMBER: 4MB-5SL-LVRA-UNV-L850

Luminous Intensity Polar Plot





TEST NUMBER: P893644

CATALOG NUMBER: 4MB-5SL-LVRA-UNV-L850

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		
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78		
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69		
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62		
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55		
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50		
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45		
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41		
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38		
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20359	20359	20359
5°	19810	19720	20337
10°	19389	19304	20289
15°	18388	18953	20175
20°	17517	18109	19868
25°	16663	17375	19360
30°	15481	16402	18280
35°	13881	15072	16033
40°	12576	12604	12535
45°	10515	9312	9083
50°	7943	6555	3715
55°	5974	5242	2342
60°	5551	4827	2257
65°	5165	4817	2259
70°	4724	4724	2224
75°	4481	4602	2150
80°	4138	4351	2204
85°	3608	3796	2408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 10760 cd/sqm



TEST NUMBER: P893644

CATALOG NUMBER: 4MB-5SL-LVRA-UNV-L850

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.3	5.7
10°-20°	728.3	15.7
20°-30°	1032.7	22.2
30°-40°	1063.9	22.9
40°-50°	743.1	16.0
50°-60°	356.6	7.7
60°-70°	250.2	5.4
70°-80°	156.4	3.4
80°-90°	48.4	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°	2025.4	43.6
0°-40°	3089.3	66.5
0°-60°	4189.0	90.2
0°-90°	4644.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4644.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2861	2861	2861	2861	2861	
5°	2774	2770	2761	2833	2847	263
15°	2496	2515	2573	2647	2739	703
25°	2122	2144	2213	2363	2466	971
35°	1598	1642	1735	1771	1846	1007
45°	1045	1069	926	878	903	805
55°	482	458	423	271	189	451
65°	307	287	286	218	134	304
75°	163	161	167	144	78	172
85°	44	44	46	46	30	49
90°	0	0	0	0	0	



TEST NUMBER: P893644

CATALOG NUMBER: 4MB-5SL-LVRA-UNV-L850

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2861.4	2861.4	2861.4	2861.4	2861.4
2.5°	2850.4	2841.5	2820.1	2859.2	2856.3
5°	2773.7	2770.0	2761.1	2833.4	2847.4
7.5°	2730.2	2722.8	2712.5	2792.1	2831.2
10°	2683.7	2692.6	2671.9	2744.9	2808.3
12.5°	2587.8	2611.4	2639.5	2696.2	2780.3
15°	2496.4	2514.8	2573.1	2646.8	2739.0
17.5°	2410.8	2432.2	2482.4	2593.0	2691.1
20°	2313.5	2343.0	2391.7	2533.3	2624.0
22.5°	2213.2	2240.5	2301.7	2453.6	2554.6
25°	2122.5	2143.9	2213.2	2362.9	2466.1
27.5°	2002.3	2042.1	2107.7	2252.3	2360.7
30°	1884.3	1918.2	1996.4	2118.1	2225.0
32.5°	1741.9	1791.3	1877.6	1970.6	2059.8
35°	1598.1	1641.6	1735.3	1771.4	1845.9
37.5°	1493.4	1505.2	1558.3	1553.9	1595.9
40°	1354.0	1377.6	1357.0	1301.7	1349.6
42.5°	1203.6	1231.6	1148.3	1084.1	1101.1
45°	1045.0	1069.4	925.5	878.3	902.7
47.5°	907.8	905.6	746.3	714.6	680.7
50°	717.6	741.2	592.2	533.2	335.6
52.5°	560.5	569.3	488.2	340.7	220.5
55°	481.6	458.0	422.6	270.7	188.8
57.5°	427.7	398.2	374.6	251.5	172.6
60°	390.1	356.9	339.2	238.9	158.6
62.5°	347.4	321.5	314.9	227.9	146.0
65°	306.8	286.9	286.1	217.6	134.2
67.5°	266.2	255.2	258.1	205.0	120.9
70°	227.1	224.9	227.1	188.8	106.9
72.5°	194.0	191.7	197.6	168.1	91.4
75°	163.0	160.8	167.4	144.5	78.2
77.5°	129.8	131.3	135.7	120.2	65.6
80°	101.0	101.0	106.2	94.4	53.8
82.5°	72.3	73.0	76.0	69.3	42.0
85°	44.2	44.2	46.5	45.7	29.5
87.5°	14.7	17.0	19.9	21.4	14.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893644
 CATALOG NUMBER: 4MB-5SL-LVRA-UNV-L850

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	16.12	17.47	16.48	17.78	18.10	12.45	13.80	12.81	14.12	14.43
	3H	17.86	19.06	18.23	19.39	19.76	14.43	15.63	14.80	15.96	16.33
	4H	18.53	19.65	18.93	20.00	20.39	15.13	16.26	15.53	16.61	16.99
	6H	19.03	20.07	19.45	20.44	20.83	15.65	16.69	16.07	17.06	17.45
	8H	19.20	20.19	19.63	20.58	20.98	15.84	16.82	16.27	17.21	17.62
	12H	19.31	20.26	19.75	20.64	21.07	15.98	16.92	16.41	17.30	17.73
4H	2H	16.65	17.77	17.05	18.12	18.51	14.07	15.20	14.47	15.55	15.93
	3H	18.62	19.55	19.04	19.96	20.36	16.25	17.18	16.66	17.58	17.98
	4H	19.43	20.26	19.86	20.68	21.12	17.13	17.96	17.56	18.38	18.82
	6H	20.07	20.79	20.53	21.24	21.70	17.77	18.50	18.23	18.94	19.41
	8H	20.29	20.97	20.76	21.41	21.88	17.98	18.66	18.45	19.10	19.57
	12H	20.44	21.04	20.93	21.53	22.00	18.14	18.74	18.62	19.22	19.69
8H	4H	19.71	20.39	20.18	20.83	21.30	17.78	18.45	18.24	18.90	19.37
	6H	20.49	21.05	20.99	21.54	22.02	18.64	19.19	19.14	19.69	20.17
	8H	20.80	21.29	21.32	21.81	22.30	18.97	19.46	19.49	19.98	20.47
	12H	21.03	21.47	21.54	21.96	22.53	19.23	19.67	19.74	20.16	20.73
12H	4H	19.73	20.33	20.21	20.81	21.28	17.85	18.45	18.33	18.93	19.40
	6H	20.55	21.05	21.07	21.56	22.05	18.78	19.28	19.30	19.79	20.28
	8H	20.91	21.35	21.42	21.85	22.41	19.19	19.63	19.70	20.12	20.69