

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: P893844

Luminaire Tested: 4MB-7HL-LVR-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893844
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-6)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-LVR-UNV-L850
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

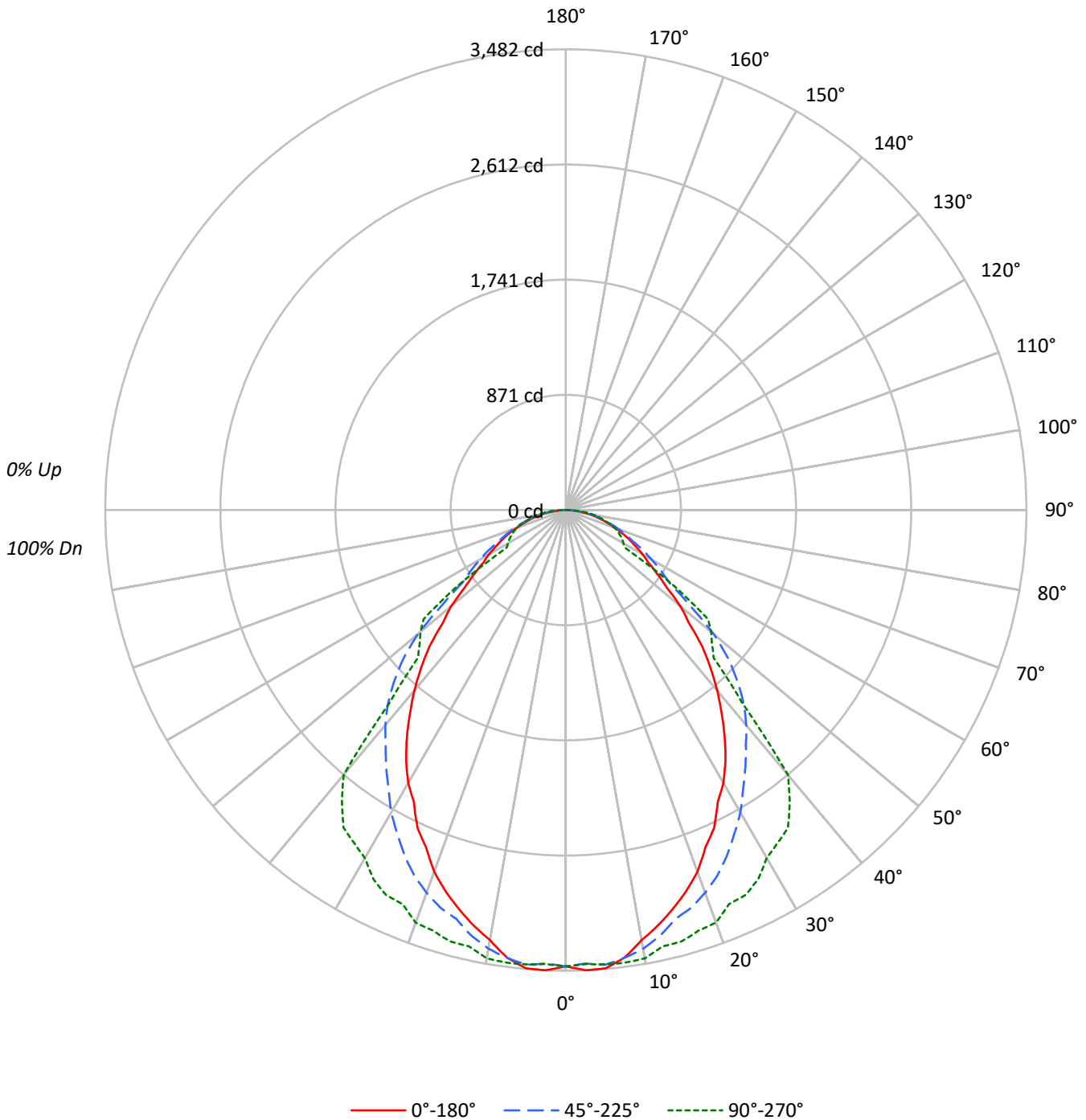
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7219.0 lumens
Efficiency: N/A
Efficacy: 139.4 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.32 / 1.26
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 51.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P893844
CATALOG NUMBER: 4MB-7HL-LVR-UNV-L850

Luminous Intensity Polar Plot





TEST NUMBER: P893844

CATALOG NUMBER: 4MB-7HL-LVR-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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	67	67	65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52	52	52	52	50
6	74	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24537	24537	24537
5°	24834	24639	24624
10°	23855	24324	24857
15°	23001	23568	24873
20°	22033	23305	25123
25°	20816	22622	25214
30°	19563	21677	24955
35°	18193	20559	25442
40°	16529	19708	24261
45°	14645	18497	15909
50°	12535	16166	15875
55°	10503	11798	12350
60°	9555	10651	7149
65°	8951	9430	7640
70°	8238	8933	8176
75°	7741	8382	8324
80°	7220	7928	8924
85°	6204	6612	9511

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 18497 cd/sqm



TEST NUMBER: P893844
 CATALOG NUMBER: 4MB-7HL-LVR-UNV-L850

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	327.7	4.5
10°-20°	916.9	12.7
20°-30°	1336.4	18.5
30°-40°	1528.8	21.2
40°-50°	1307.8	18.1
50°-60°	862.4	11.9
60°-70°	521.4	7.2
70°-80°	319.0	4.4
80°-90°	98.5	1.4
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°	2581.0	35.8
0°-40°	4109.8	56.9
0°-60°	6280.1	87.0
0°-90°	7219.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7219.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3449	3449	3449	3449	3449	
5°	3477	3474	3450	3443	3448	326
15°	3123	3159	3200	3404	3377	878
25°	2652	2692	2882	3128	3212	1213
35°	2095	2200	2367	2739	2929	1305
45°	1456	1568	1838	1718	1581	1114
55°	847	894	951	1127	996	770
65°	532	545	560	500	454	526
75°	282	289	305	319	303	297
85°	76	75	81	96	116	86
90°	0	0	0	0	0	



TEST NUMBER: P893844

CATALOG NUMBER: 4MB-7HL-LVR-UNV-L850

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3448.7	3448.7	3448.7	3448.7	3448.7
2.5°	3482.2	3472.0	3430.5	3470.0	3434.6
5°	3477.1	3474.1	3449.8	3442.7	3447.7
7.5°	3410.3	3417.4	3413.3	3489.3	3450.8
10°	3301.9	3316.1	3366.7	3473.1	3440.6
12.5°	3216.8	3227.9	3295.8	3453.8	3377.9
15°	3122.6	3159.1	3199.6	3404.2	3376.8
17.5°	3021.3	3055.8	3152.0	3337.3	3334.3
20°	2909.9	2973.7	3078.0	3250.2	3318.1
22.5°	2759.0	2845.1	2992.0	3210.7	3223.9
25°	2651.6	2692.2	2881.6	3127.7	3211.7
27.5°	2488.6	2565.5	2759.0	3008.2	3146.9
30°	2381.2	2445.0	2638.5	2938.3	3037.5
32.5°	2246.5	2322.5	2495.7	2862.3	2981.8
35°	2094.6	2199.9	2367.0	2738.7	2929.2
37.5°	1934.5	2038.9	2236.4	2636.4	2780.3
40°	1779.6	1868.7	2121.9	2513.9	2612.1
42.5°	1620.6	1716.8	1991.3	2271.8	1964.9
45°	1455.5	1567.9	1838.3	1717.8	1581.1
47.5°	1260.0	1397.7	1669.2	1380.5	1498.0
50°	1132.4	1207.3	1460.5	1301.5	1434.2
52.5°	963.2	1064.5	1172.9	1215.4	1355.2
55°	846.7	894.3	951.1	1127.3	995.6
57.5°	739.4	781.9	847.8	795.1	530.7
60°	671.5	690.8	748.5	568.2	502.4
62.5°	594.5	613.8	656.3	530.7	482.1
65°	531.7	544.9	560.1	500.3	453.8
67.5°	464.9	472.0	488.2	461.9	426.4
70°	396.0	406.2	429.4	422.4	393.0
72.5°	335.3	344.4	364.6	374.8	347.4
75°	281.6	288.7	304.9	319.0	302.8
77.5°	223.8	230.9	252.2	267.4	260.3
80°	176.2	177.2	193.5	208.6	217.8
82.5°	123.6	125.6	137.7	154.0	172.2
85°	76.0	75.0	81.0	96.2	116.5
87.5°	29.4	28.4	33.4	40.5	59.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893844
 CATALOG NUMBER: 4MB-7HL-LVR-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	18.94	20.42	19.31	20.74	21.05	18.62	20.10	18.99	20.41	20.73
	3H	20.50	21.83	20.88	22.16	22.52	20.24	21.56	20.62	21.89	22.26
	4H	21.10	22.35	21.50	22.69	23.07	20.99	22.23	21.39	22.58	22.96
	6H	21.56	22.71	21.97	23.07	23.47	21.66	22.80	22.07	23.17	23.56
	8H	21.71	22.80	22.14	23.19	23.60	21.93	23.02	22.36	23.41	23.82
	12H	21.81	22.86	22.24	23.24	23.67	22.15	23.20	22.59	23.58	24.01
4H	2H	19.54	20.78	19.94	21.13	21.51	19.28	20.52	19.68	20.87	21.25
	3H	21.33	22.35	21.74	22.76	23.16	21.17	22.20	21.58	22.60	23.00
	4H	22.05	22.98	22.49	23.40	23.84	22.06	22.99	22.50	23.41	23.84
	6H	22.64	23.44	23.09	23.88	24.35	22.87	23.67	23.33	24.12	24.58
	8H	22.83	23.59	23.30	24.03	24.50	23.20	23.95	23.66	24.40	24.86
	12H	22.97	23.64	23.46	24.12	24.60	23.47	24.14	23.95	24.62	25.09
8H	4H	22.38	23.13	22.84	23.57	24.04	22.38	23.14	22.85	23.58	24.05
	6H	23.09	23.71	23.58	24.20	24.68	23.33	23.96	23.83	24.45	24.93
	8H	23.35	23.92	23.87	24.43	24.92	23.75	24.31	24.27	24.82	25.31
	12H	23.56	24.06	24.07	24.55	25.12	24.12	24.62	24.63	25.11	25.67
12H	4H	22.41	23.09	22.90	23.57	24.04	22.41	23.08	22.89	23.56	24.03
	6H	23.16	23.72	23.67	24.23	24.72	23.39	23.95	23.90	24.46	24.95
	8H	23.48	23.98	23.99	24.47	25.04	23.87	24.36	24.38	24.86	25.42