

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: P893853

Luminaire Tested: 4MB-7HL-LVRA-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893853
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-7HL-LVRA-UNV-L930
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

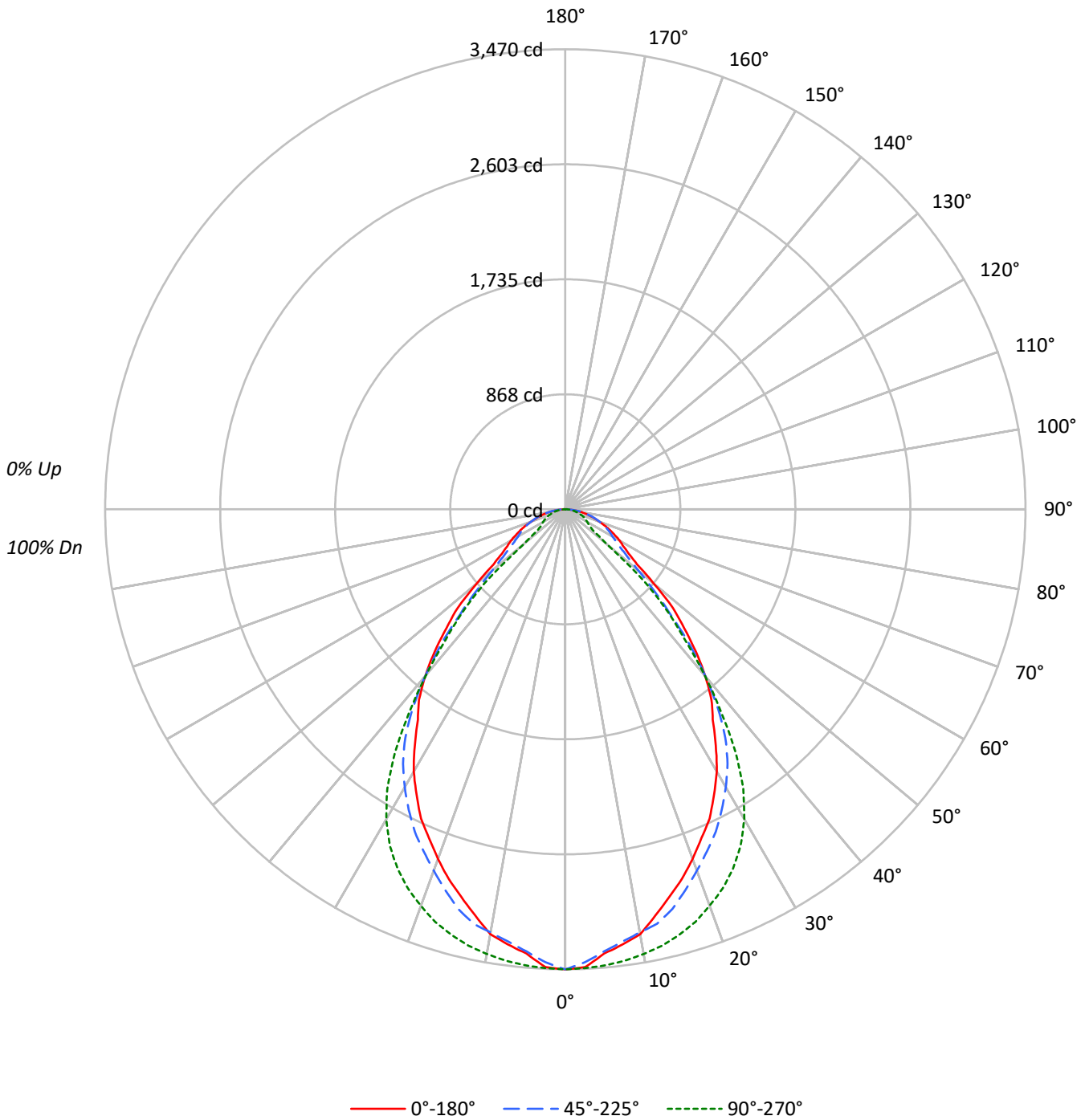
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5632.0 lumens
Efficiency: N/A
Efficacy: 108.7 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): 51.8
Input Voltage (V): 120
Input Current (A_{in}): 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: P893853
CATALOG NUMBER: 4MB-7HL-LVRA-UNV-L930

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		
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°	24690	24690	24690
5°	24025	23916	24663
10°	23514	23410	24606
15°	22301	22986	24468
20°	21244	21961	24094
25°	20207	21071	23479
30°	18774	19891	22168
35°	16834	18279	19444
40°	15252	15285	15202
45°	12752	11294	11015
50°	9632	7950	4504
55°	7244	6357	2841
60°	6732	5854	2736
65°	6264	5842	2741
70°	5731	5731	2698
75°	5435	5581	2606
80°	5019	5277	2676
85°	4384	4596	2923

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 13050 cd/sqm



TEST NUMBER: P893853
 CATALOG NUMBER: 4MB-7HL-LVRA-UNV-L930

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.6	5.7
10°-20°	883.2	15.7
20°-30°	1252.5	22.2
30°-40°	1290.3	22.9
40°-50°	901.2	16.0
50°-60°	432.4	7.7
60°-70°	303.4	5.4
70°-80°	189.7	3.4
80°-90°	58.7	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°	2456.2	43.6
0°-40°	3746.6	66.5
0°-60°	5080.2	90.2
0°-90°	5632.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5632.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3470	3470	3470	3470	3470	
5°	3364	3359	3349	3436	3453	318
15°	3028	3050	3120	3210	3322	853
25°	2574	2600	2684	2866	2991	1177
35°	1938	1991	2104	2148	2239	1221
45°	1267	1297	1122	1065	1095	976
55°	584	555	512	328	229	547
65°	372	348	347	264	163	369
75°	198	195	203	175	95	208
85°	54	54	56	56	36	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3470.2	3470.2	3470.2	3470.2	3470.2
2.5°	3456.8	3446.1	3420.1	3467.5	3463.9
5°	3363.8	3359.3	3348.6	3436.2	3453.2
7.5°	3311.0	3302.1	3289.5	3386.1	3433.5
10°	3254.7	3265.4	3240.3	3328.9	3405.8
12.5°	3138.4	3167.0	3201.0	3269.9	3371.8
15°	3027.5	3049.8	3120.5	3209.9	3321.7
17.5°	2923.7	2949.7	3010.5	3144.6	3263.6
20°	2805.7	2841.4	2900.5	3072.2	3182.2
22.5°	2684.0	2717.1	2791.4	2975.6	3098.1
25°	2574.0	2600.0	2684.0	2865.6	2990.8
27.5°	2428.2	2476.5	2556.1	2731.4	2862.9
30°	2285.1	2326.3	2421.1	2568.7	2698.3
32.5°	2112.5	2172.5	2277.1	2389.8	2498.0
35°	1938.1	1990.9	2104.5	2148.3	2238.6
37.5°	1811.1	1825.4	1889.8	1884.5	1935.4
40°	1642.1	1670.7	1645.7	1578.6	1636.7
42.5°	1459.6	1493.6	1392.6	1314.7	1335.3
45°	1267.3	1296.9	1122.4	1065.2	1094.7
47.5°	1101.0	1098.3	905.1	866.7	825.5
50°	870.2	898.9	718.2	646.6	406.9
52.5°	679.7	690.5	592.1	413.2	267.4
55°	584.0	555.4	512.5	328.2	229.0
57.5°	518.7	483.0	454.3	305.0	209.3
60°	473.1	432.9	411.4	289.8	192.3
62.5°	421.3	390.0	381.9	276.4	177.1
65°	372.1	347.9	347.0	263.8	162.8
67.5°	322.9	309.5	313.0	248.6	146.7
70°	275.5	272.8	275.5	229.0	129.7
72.5°	235.2	232.5	239.7	203.9	110.9
75°	197.7	195.0	203.0	175.3	94.8
77.5°	157.4	159.2	164.6	145.8	79.6
80°	122.5	122.5	128.8	114.5	65.3
82.5°	87.6	88.5	92.1	84.1	51.0
85°	53.7	53.7	56.3	55.5	35.8
87.5°	17.9	20.6	24.1	25.9	17.9
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	16.79	18.14	17.15	18.45	18.77	13.12	14.47	13.48	14.79	15.10
	3H	18.53	19.73	18.91	20.06	20.43	15.10	16.30	15.48	16.63	17.00
	4H	19.20	20.32	19.60	20.68	21.06	15.80	16.93	16.20	17.28	17.66
	6H	19.70	20.74	20.12	21.11	21.51	16.32	17.36	16.74	17.73	18.12
	8H	19.88	20.86	20.30	21.25	21.66	16.51	17.49	16.94	17.88	18.29
	12H	19.98	20.93	20.42	21.31	21.74	16.65	17.59	17.08	17.97	18.40
4H	2H	17.32	18.44	17.72	18.80	19.18	14.74	15.87	15.14	16.22	16.60
	3H	19.29	20.23	19.71	20.63	21.03	16.92	17.85	17.33	18.25	18.66
	4H	20.10	20.93	20.53	21.35	21.79	17.80	18.63	18.23	19.05	19.50
	6H	20.74	21.46	21.20	21.91	22.37	18.44	19.17	18.90	19.61	20.08
	8H	20.96	21.64	21.43	22.08	22.55	18.65	19.33	19.12	19.77	20.24
	12H	21.11	21.71	21.60	22.20	22.67	18.81	19.41	19.29	19.89	20.36
8H	4H	20.38	21.06	20.85	21.50	21.97	18.45	19.12	18.92	19.57	20.04
	6H	21.16	21.72	21.66	22.21	22.70	19.31	19.87	19.81	20.36	20.84
	8H	21.47	21.96	21.99	22.48	22.97	19.64	20.14	20.16	20.65	21.14
	12H	21.70	22.14	22.21	22.64	23.20	19.90	20.34	20.41	20.84	21.41
12H	4H	20.40	21.00	20.88	21.48	21.95	18.52	19.12	19.01	19.60	20.08
	6H	21.22	21.72	21.74	22.23	22.72	19.45	19.95	19.97	20.46	20.95
	8H	21.58	22.02	22.09	22.52	23.08	19.86	20.30	20.37	20.80	21.36