

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: P893849

Luminaire Tested: 4MB-7HL-LVRA-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893849
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-L830
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 3000K CCT
Light Source: -
Ballast/Driver: -

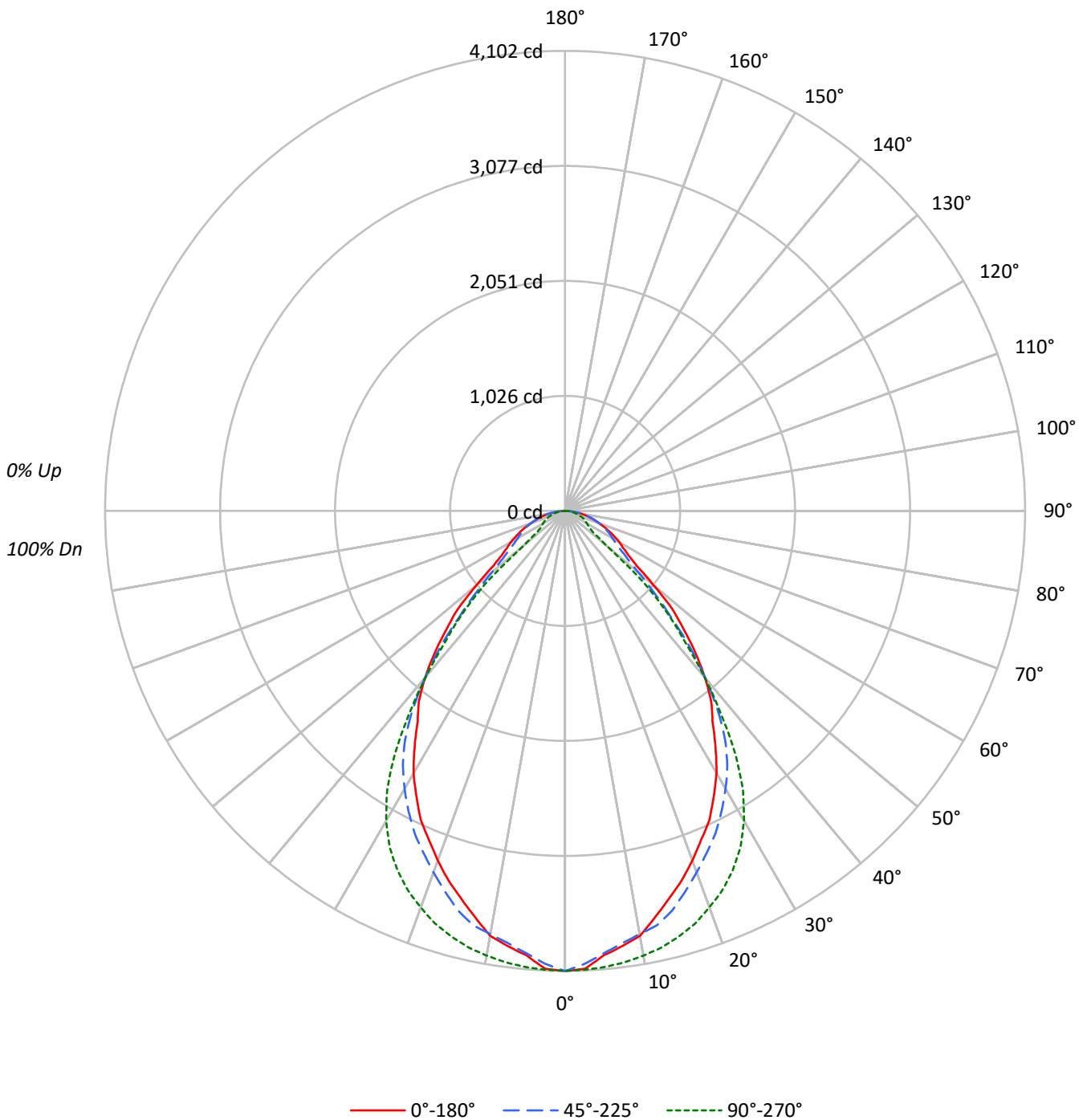
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6658.0 lumens
Efficiency: N/A
Efficacy: 128.5 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: P893849
CATALOG NUMBER: 4MB-7HL-LVRA-UNV-L830

Luminous Intensity Polar Plot





TEST NUMBER: P893849
 CATALOG NUMBER: 4MB-7HL-LVRA-UNV-L830

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	102	100	
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	88	
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	80	78	
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	71	69	
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	63	62	
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	57	55	
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	52	50	
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	47	45	
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	43	41	
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	40	38	
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	37	35	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	29189	29189	29189
5°	28402	28273	29156
10°	27798	27675	29088
15°	26363	27173	28925
20°	25114	25962	28484
25°	23888	24910	27757
30°	22194	23514	26207
35°	19901	21609	22987
40°	18030	18070	17971
45°	15075	13351	13022
50°	11388	9398	5325
55°	8564	7515	3358
60°	7959	6921	3234
65°	7404	6906	3239
70°	6775	6775	3189
75°	6424	6598	3082
80°	5937	6240	3163
85°	5176	5437	3453

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 15426 cd/sqm



TEST NUMBER: P893849
 CATALOG NUMBER: 4MB-7HL-LVRA-UNV-L830

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	378.9	5.7
10°-20°	1044.1	15.7
20°-30°	1480.6	22.2
30°-40°	1525.4	22.9
40°-50°	1065.4	16.0
50°-60°	511.2	7.7
60°-70°	358.7	5.4
70°-80°	224.3	3.4
80°-90°	69.4	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°	2903.7	43.6
0°-40°	4429.1	66.5
0°-60°	6005.7	90.2
0°-90°	6658.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6658.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4102	4102	4102	4102	4102	
5°	3977	3971	3959	4062	4082	376
15°	3579	3605	3689	3795	3927	1008
25°	3043	3074	3173	3388	3536	1391
35°	2291	2354	2488	2540	2646	1444
45°	1498	1533	1327	1259	1294	1154
55°	690	657	606	388	271	647
65°	440	411	410	312	192	436
75°	234	230	240	207	112	246
85°	63	63	67	66	42	71
90°	0	0	0	0	0	



TEST NUMBER: P893849

CATALOG NUMBER: 4MB-7HL-LVRA-UNV-L830

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4102.4	4102.4	4102.4	4102.4	4102.4
2.5°	4086.5	4073.8	4043.2	4099.2	4095.0
5°	3976.6	3971.3	3958.6	4062.2	4082.3
7.5°	3914.2	3903.6	3888.8	4003.0	4059.0
10°	3847.6	3860.3	3830.6	3935.3	4026.2
12.5°	3710.1	3743.9	3784.1	3865.5	3986.1
15°	3579.0	3605.4	3689.0	3794.7	3926.9
17.5°	3456.4	3487.0	3558.9	3717.5	3858.1
20°	3316.8	3359.1	3428.9	3631.9	3761.9
22.5°	3173.0	3212.1	3299.9	3517.7	3662.5
25°	3042.9	3073.6	3173.0	3387.6	3535.7
27.5°	2870.6	2927.7	3021.8	3229.0	3384.5
30°	2701.4	2750.1	2862.1	3036.6	3189.9
32.5°	2497.4	2568.2	2691.9	2825.1	2953.1
35°	2291.2	2353.6	2487.9	2539.7	2646.5
37.5°	2141.1	2158.0	2234.1	2227.8	2288.0
40°	1941.2	1975.1	1945.5	1866.2	1934.9
42.5°	1725.5	1765.7	1646.2	1554.3	1578.6
45°	1498.2	1533.1	1326.9	1259.3	1294.2
47.5°	1301.6	1298.4	1070.0	1024.5	975.9
50°	1028.8	1062.6	849.0	764.4	481.1
52.5°	803.6	816.2	699.9	488.5	316.1
55°	690.4	656.6	605.8	388.0	270.7
57.5°	613.2	570.9	537.1	360.5	247.4
60°	559.3	511.7	486.4	342.6	227.3
62.5°	498.0	461.0	451.5	326.7	209.3
65°	439.8	411.3	410.2	311.9	192.4
67.5°	381.7	365.8	370.1	293.9	173.4
70°	325.7	322.5	325.7	270.7	153.3
72.5°	278.1	274.9	283.4	241.1	131.1
75°	233.7	230.5	240.0	207.2	112.1
77.5°	186.1	188.2	194.5	172.3	94.1
80°	144.9	144.9	152.3	135.3	77.2
82.5°	103.6	104.7	108.9	99.4	60.3
85°	63.4	63.4	66.6	65.6	42.3
87.5°	21.1	24.3	28.5	30.7	21.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P893849
 CATALOG NUMBER: 4MB-7HL-LVRA-UNV-L830

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	17.37	18.72	17.73	19.03	19.35	13.70	15.05	14.07	15.37	15.68
	3H	19.11	20.31	19.49	20.64	21.01	15.68	16.88	16.06	17.21	17.58
	4H	19.78	20.91	20.18	21.26	21.64	16.38	17.51	16.78	17.86	18.24
	6H	20.29	21.32	20.70	21.69	22.09	16.90	17.94	17.32	18.31	18.71
	8H	20.46	21.44	20.89	21.83	22.24	17.09	18.07	17.52	18.47	18.87
	12H	20.57	21.51	21.00	21.89	22.32	17.23	18.17	17.66	18.55	18.98
4H	2H	17.90	19.03	18.30	19.38	19.76	15.32	16.45	15.72	16.80	17.18
	3H	19.88	20.81	20.29	21.21	21.61	17.50	18.43	17.91	18.83	19.24
	4H	20.68	21.51	21.11	21.93	22.37	18.38	19.22	18.81	19.63	20.08
	6H	21.32	22.05	21.78	22.49	22.96	19.02	19.75	19.48	20.19	20.66
	8H	21.54	22.22	22.01	22.66	23.13	19.23	19.91	19.70	20.36	20.83
	12H	21.70	22.30	22.18	22.78	23.25	19.39	19.99	19.88	20.47	20.95
8H	4H	20.96	21.64	21.43	22.09	22.56	19.03	19.71	19.50	20.15	20.62
	6H	21.75	22.30	22.25	22.80	23.28	19.89	20.45	20.39	20.94	21.42
	8H	22.05	22.55	22.57	23.06	23.55	20.22	20.72	20.74	21.23	21.72
	12H	22.28	22.72	22.80	23.22	23.79	20.48	20.92	21.00	21.42	21.99
12H	4H	20.98	21.58	21.46	22.06	22.53	19.10	19.70	19.59	20.18	20.66
	6H	21.80	22.30	22.32	22.81	23.30	20.03	20.53	20.55	21.04	21.53
	8H	22.16	22.60	22.68	23.10	23.67	20.44	20.88	20.95	21.38	21.95