

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: P893951

Luminaire Tested: 4MB-8HL-LVRA-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893951
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-8HL-LVRA-UNV-L940
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

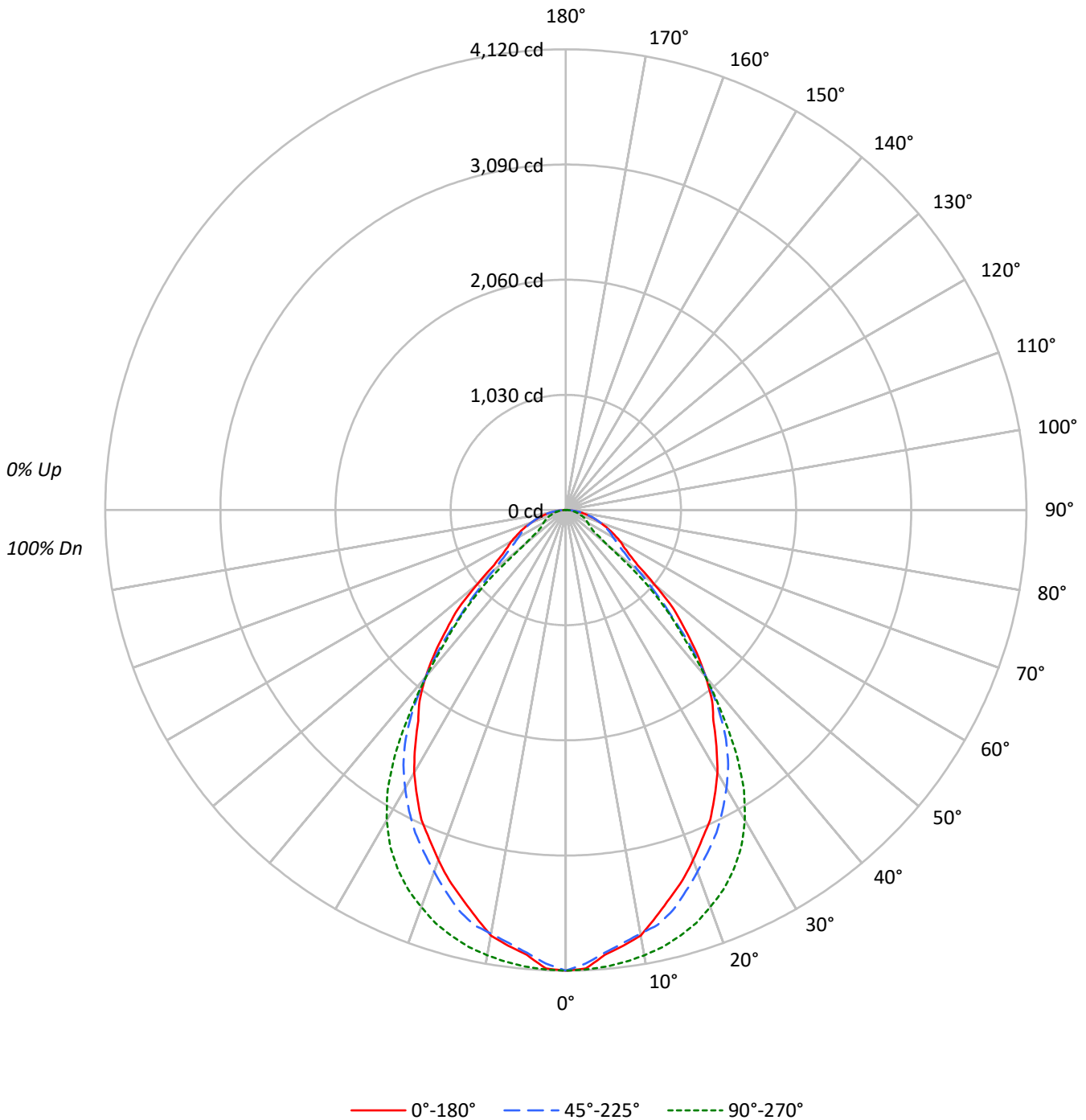
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6686.0 lumens
Efficiency: N/A
Efficacy: 115.5 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): 57.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.23
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		0
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°	29311	29311	29311
5°	28521	28392	29279
10°	27914	27792	29211
15°	26474	27287	29047
20°	25219	26071	28603
25°	23989	25014	27873
30°	22288	23614	26317
35°	19984	21700	23083
40°	18106	18145	18047
45°	15138	13408	13077
50°	11435	9437	5347
55°	8600	7547	3372
60°	7993	6950	3249
65°	7436	6936	3253
70°	6803	6803	3204
75°	6449	6625	3093
80°	5962	6265	3175
85°	5200	5461	3470

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 15492 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	380.5	5.7
10°-20°	1048.5	15.7
20°-30°	1486.8	22.2
30°-40°	1531.8	22.9
40°-50°	1069.9	16.0
50°-60°	513.4	7.7
60°-70°	360.2	5.4
70°-80°	225.2	3.4
80°-90°	69.7	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°	2915.9	43.6
0°-40°	4447.7	66.5
0°-60°	6031.0	90.2
0°-90°	6686.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6686.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4120	4120	4120	4120	4120	
5°	3993	3988	3975	4079	4100	378
15°	3594	3621	3704	3811	3943	1012
25°	3056	3086	3186	3402	3550	1397
35°	2301	2364	2498	2550	2658	1450
45°	1504	1540	1332	1265	1300	1159
55°	693	659	608	390	272	650
65°	442	413	412	313	193	438
75°	235	232	241	208	112	247
85°	64	64	67	66	42	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4119.6	4119.6	4119.6	4119.6	4119.6
2.5°	4103.7	4091.0	4060.2	4116.4	4112.2
5°	3993.3	3988.0	3975.2	4079.3	4099.5
7.5°	3930.6	3920.0	3905.2	4019.8	4076.1
10°	3863.7	3876.5	3846.8	3951.9	4043.2
12.5°	3725.7	3759.7	3800.0	3881.8	4002.8
15°	3594.1	3620.6	3704.5	3810.7	3943.4
17.5°	3470.9	3501.7	3573.9	3733.1	3874.4
20°	3330.7	3373.2	3443.3	3647.1	3777.7
22.5°	3186.3	3225.6	3313.8	3532.5	3677.9
25°	3055.7	3086.5	3186.3	3401.9	3550.5
27.5°	2882.7	2940.0	3034.5	3242.6	3398.7
30°	2712.8	2761.6	2874.2	3049.4	3203.3
32.5°	2507.9	2579.0	2703.2	2837.0	2965.5
35°	2300.8	2363.5	2498.3	2550.3	2657.6
37.5°	2150.1	2167.1	2243.5	2237.1	2297.6
40°	1949.4	1983.4	1953.6	1874.0	1943.0
42.5°	1732.8	1773.1	1653.2	1560.8	1585.2
45°	1504.5	1539.6	1332.5	1264.6	1299.6
47.5°	1307.0	1303.8	1074.5	1028.8	980.0
50°	1033.1	1067.1	852.6	767.7	483.1
52.5°	806.9	819.7	702.9	490.5	317.5
55°	693.3	659.4	608.4	389.7	271.8
57.5°	615.8	573.4	539.4	362.1	248.5
60°	561.7	513.9	488.4	344.0	228.3
62.5°	500.1	462.9	453.4	328.1	210.2
65°	441.7	413.0	412.0	313.2	193.2
67.5°	383.3	367.4	371.6	295.2	174.1
70°	327.0	323.8	327.0	271.8	154.0
72.5°	279.2	276.1	284.6	242.1	131.7
75°	234.6	231.5	241.0	208.1	112.5
77.5°	186.9	189.0	195.4	173.1	94.5
80°	145.5	145.5	152.9	135.9	77.5
82.5°	104.1	105.1	109.4	99.8	60.5
85°	63.7	63.7	66.9	65.8	42.5
87.5°	21.2	24.4	28.7	30.8	21.2
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	17.38	18.74	17.75	19.05	19.36	13.72	15.07	14.08	15.38	15.70
	3H	19.12	20.33	19.50	20.66	21.02	15.69	16.90	16.07	17.23	17.59
	4H	19.79	20.92	20.20	21.27	21.65	16.40	17.52	16.80	17.87	18.26
	6H	20.30	21.34	20.71	21.71	22.10	16.92	17.96	17.33	18.33	18.72
	8H	20.47	21.46	20.90	21.85	22.25	17.10	18.09	17.53	18.48	18.88
	12H	20.58	21.52	21.01	21.91	22.34	17.24	18.19	17.68	18.57	19.00
4H	2H	17.91	19.04	18.32	19.39	19.77	15.34	16.47	15.74	16.82	17.20
	3H	19.89	20.82	20.30	21.22	21.63	17.52	18.45	17.93	18.85	19.25
	4H	20.69	21.53	21.13	21.95	22.39	18.40	19.23	18.83	19.65	20.09
	6H	21.34	22.06	21.80	22.51	22.97	19.04	19.76	19.50	20.21	20.67
	8H	21.56	22.23	22.02	22.68	23.15	19.25	19.92	19.71	20.37	20.84
	12H	21.71	22.31	22.20	22.79	23.27	19.41	20.01	19.89	20.49	20.96
8H	4H	20.98	21.65	21.44	22.10	22.57	19.04	19.72	19.51	20.17	20.64
	6H	21.76	22.32	22.26	22.81	23.29	19.91	20.46	20.41	20.96	21.44
	8H	22.06	22.56	22.58	23.08	23.57	20.23	20.73	20.75	21.25	21.74
	12H	22.30	22.74	22.81	23.23	23.80	20.50	20.94	21.01	21.43	22.00
12H	4H	20.99	21.59	21.48	22.08	22.55	19.12	19.72	19.60	20.20	20.67
	6H	21.81	22.31	22.33	22.83	23.32	20.04	20.54	20.56	21.06	21.55
	8H	22.18	22.62	22.69	23.11	23.68	20.46	20.90	20.97	21.39	21.96