

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: P893963

Luminaire Tested: 4MB-8HL-RFLW-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893963
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-8HL-RFLW-UNV-L840
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 4000K
Light Source: -
Ballast/Driver: -

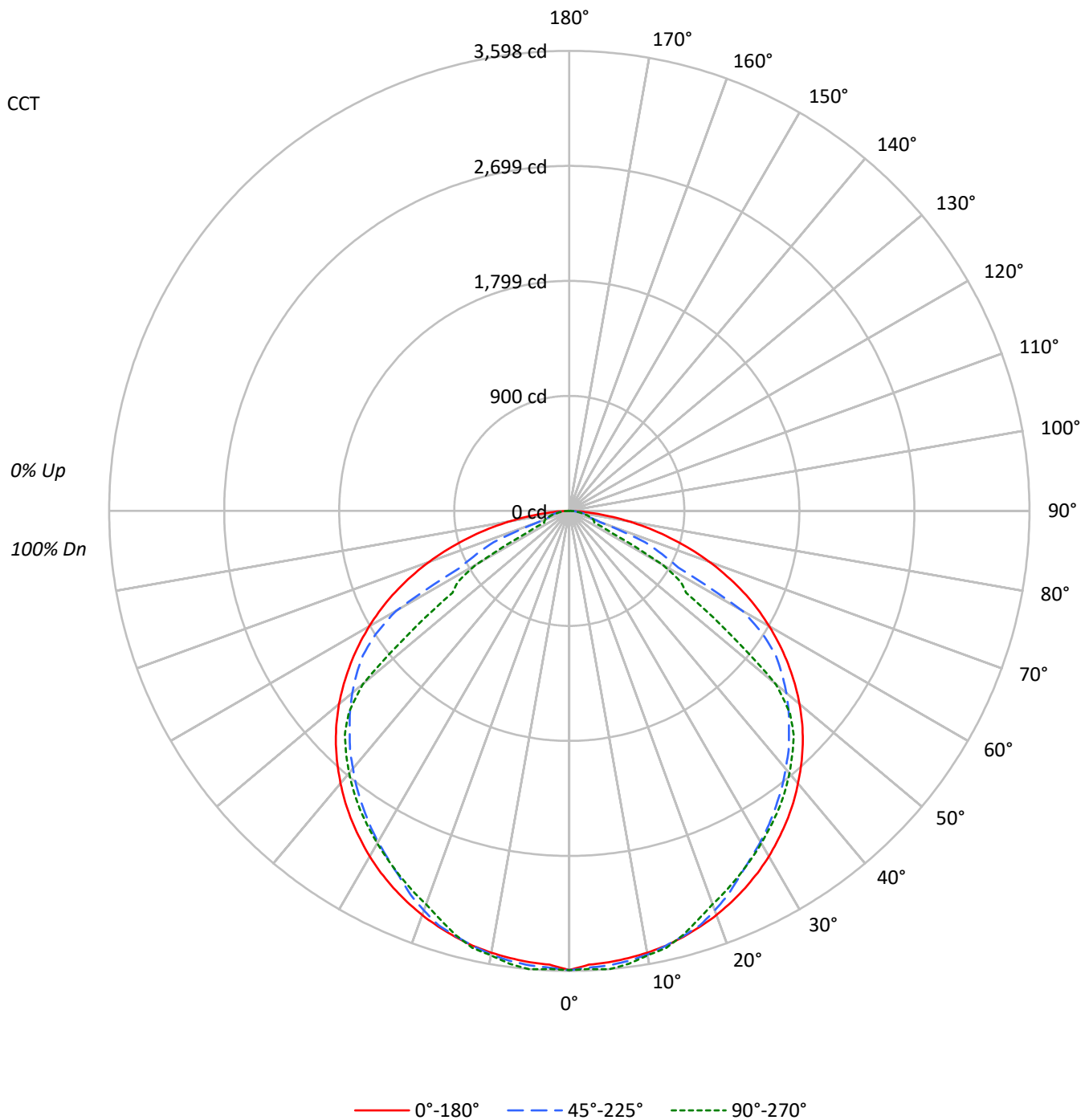
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9362.0 lumens
Efficiency: N/A
Efficacy: 161.7 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.21' 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	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	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	85	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	49	49	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	43	43	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	38	38	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	34	34	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	31	31	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	28	28	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	46631	46631	46631
5°	46203	46506	46896
10°	46270	46446	46534
15°	46372	46267	46164
20°	46489	45953	45250
25°	46616	45141	45045
30°	46793	44835	45018
35°	46961	44664	45208
40°	47161	44608	45396
45°	47411	44587	45582
50°	47485	44756	42588
55°	47277	44621	25254
60°	46876	40667	21901
65°	46106	24583	6631
70°	44283	9746	7605
75°	41029	7997	7771
80°	35505	8442	7283
85°	25224	7911	6928

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 47485 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	340.2	3.6
10°-20°	974.1	10.4
20°-30°	1472.1	15.7
30°-40°	1796.1	19.2
40°-50°	1899.9	20.3
50°-60°	1573.7	16.8
60°-70°	874.8	9.3
70°-80°	354.6	3.8
80°-90°	76.4	0.8
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°	2786.4	29.8
0°-40°	4582.5	48.9
0°-60°	8056.1	86.1
0°-90°	9362.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9362.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3591	3591	3591	3591	3591	
5°	3545	3608	3568	3573	3598	337
15°	3450	3503	3442	3440	3434	974
25°	3254	3277	3151	3131	3144	1501
35°	2962	2926	2818	2829	2852	1855
45°	2582	2449	2428	2458	2482	1990
55°	2088	1947	1971	1352	1116	1866
65°	1501	1376	800	269	216	1480
75°	818	456	159	157	155	864
85°	169	56	53	49	46	213
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3591.1	3591.1	3591.1	3591.1	3591.1
2.5°	3552.4	3614.4	3575.6	3583.4	3586.7
5°	3544.6	3607.7	3567.9	3573.4	3597.8
7.5°	3528.0	3592.2	3550.2	3553.5	3572.3
10°	3509.2	3567.9	3522.5	3517.0	3529.2
12.5°	3483.8	3536.9	3483.8	3486.0	3501.5
15°	3449.5	3502.6	3441.7	3439.5	3434.0
17.5°	3408.5	3458.3	3398.6	3363.2	3351.0
20°	3364.3	3403.0	3325.5	3271.3	3274.6
22.5°	3311.1	3344.3	3247.0	3197.2	3211.5
25°	3253.6	3276.8	3150.7	3130.8	3144.0
27.5°	3190.5	3208.2	3067.7	3063.2	3074.3
30°	3120.8	3127.4	2990.2	2988.0	3002.4
32.5°	3043.3	3032.3	2907.2	2909.4	2928.2
35°	2962.5	2926.0	2817.6	2828.6	2851.9
37.5°	2877.3	2812.0	2729.0	2743.4	2768.9
40°	2782.2	2693.6	2631.6	2653.8	2678.1
42.5°	2684.8	2569.7	2537.6	2558.6	2581.8
45°	2581.8	2449.0	2428.0	2457.9	2482.2
47.5°	2470.1	2330.6	2327.3	2350.6	2339.5
50°	2350.6	2207.8	2215.5	2184.6	2108.2
52.5°	2222.2	2080.5	2096.0	1962.1	1585.9
55°	2088.3	1946.6	1971.0	1352.3	1115.5
57.5°	1951.1	1809.4	1793.9	1034.7	1033.6
60°	1805.0	1670.0	1565.9	914.1	843.3
62.5°	1657.8	1525.0	961.7	688.3	387.3
65°	1500.6	1375.6	800.1	268.9	215.8
67.5°	1335.7	1224.0	640.8	202.5	210.3
70°	1166.4	1066.8	256.7	195.9	200.3
72.5°	993.8	823.4	170.4	181.5	181.5
75°	817.8	455.9	159.4	157.1	154.9
77.5°	643.0	305.4	139.4	129.5	126.2
80°	474.8	109.6	112.9	100.7	97.4
82.5°	314.3	85.2	80.8	73.0	70.8
85°	169.3	56.4	53.1	48.7	46.5
87.5°	60.9	28.8	28.8	23.2	21.0
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	26.03	27.60	26.39	27.91	28.23	22.02	23.59	22.38	23.90	24.22
	3H	28.03	29.44	28.41	29.77	30.13	22.15	23.56	22.53	23.88	24.24
	4H	28.65	29.96	29.04	30.31	30.69	22.27	23.59	22.67	23.93	24.31
	6H	29.05	30.26	29.46	30.63	31.02	22.38	23.59	22.79	23.96	24.35
	8H	29.16	30.32	29.59	30.71	31.11	22.41	23.57	22.84	23.96	24.36
	12H	29.24	30.34	29.67	30.73	31.16	22.43	23.54	22.86	23.92	24.35
4H	2H	26.16	27.48	26.56	27.82	28.20	22.74	24.06	23.14	24.41	24.79
	3H	28.32	29.41	28.73	29.80	30.21	22.94	24.03	23.35	24.43	24.83
	4H	28.97	29.95	29.40	30.36	30.80	23.09	24.07	23.53	24.49	24.92
	6H	29.42	30.27	29.87	30.71	31.17	23.26	24.11	23.72	24.55	25.01
	8H	29.56	30.35	30.02	30.79	31.26	23.31	24.11	23.78	24.55	25.02
	12H	29.66	30.37	30.14	30.85	31.32	23.36	24.07	23.84	24.55	25.02
8H	4H	28.91	29.70	29.37	30.14	30.61	23.37	24.16	23.83	24.60	25.07
	6H	29.35	30.01	29.85	30.50	30.97	23.57	24.23	24.07	24.72	25.20
	8H	29.50	30.09	30.01	30.60	31.08	23.66	24.25	24.17	24.76	25.24
	12H	29.63	30.15	30.14	30.64	31.21	23.74	24.27	24.25	24.76	25.32
12H	4H	28.88	29.59	29.36	30.07	30.54	23.38	24.09	23.86	24.57	25.04
	6H	29.31	29.90	29.82	30.41	30.90	23.59	24.18	24.10	24.69	25.18
	8H	29.48	30.00	29.99	30.49	31.06	23.71	24.24	24.22	24.73	25.29