

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: P893956

Luminaire Tested: 4MB-8HL-LVRF-UNV-L850

Issue Date: 11/11/2024

**Test Information**

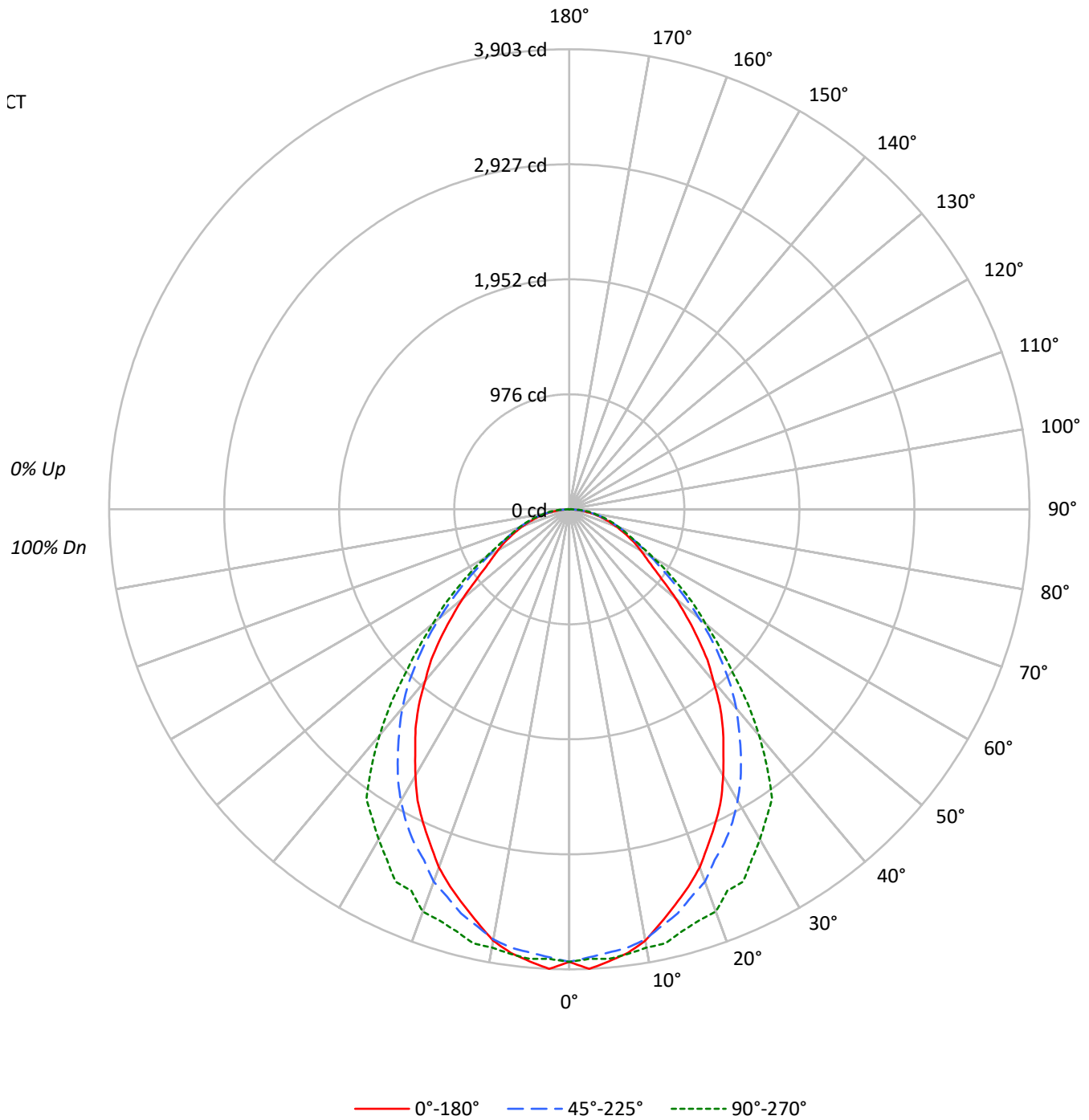
Test Method: LM-79-2019  
Report Number: P893956  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-8HL-LVRF-UNV-L850  
Description: 8000 Lumen 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 5000K C  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7785.0 lumens  
Efficiency: N/A  
Efficacy: 134.5 lumens/watt  
Spacing Criteria (0/90/45): 1.05 / 1.25 / 1.21  
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 (Ain): 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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50	50	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45	45	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	40	40	40
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	37	37	37
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	33	33	33
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	30	30	30

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	27318	27318	27318
5°	27497	26964	27349
10°	26852	26769	27284
15°	25585	26151	27284
20°	24474	25456	27507
25°	23041	24483	27367
30°	21435	23462	26565
35°	19740	22024	26051
40°	17655	20470	23263
45°	15477	18411	19727
50°	13061	15907	16695
55°	10835	13313	14238
60°	9964	11320	11744
65°	9334	9951	10029
70°	8691	9432	9361
75°	8110	8802	9119
80°	7572	8182	8748
85°	6376	6931	9649

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 19727 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	362.4	4.7
10°-20°	1010.9	13.0
20°-30°	1455.9	18.7
30°-40°	1607.3	20.6
40°-50°	1379.2	17.7
50°-60°	939.5	12.1
60°-70°	591.1	7.6
70°-80°	336.5	4.3
80°-90°	102.3	1.3
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°	2829.2	36.3
0°-40°	4436.5	57.0
0°-60°	6755.2	86.8
0°-90°	7785.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7785.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3840	3840	3840	3840	3840	
5°	3850	3835	3775	3854	3829	363
15°	3473	3510	3550	3711	3704	978
25°	2935	2994	3119	3370	3486	1348
35°	2273	2361	2536	2812	2999	1414
45°	1538	1640	1830	1940	1960	1185
55°	874	928	1073	1125	1148	803
65°	554	564	591	620	596	551
75°	295	297	320	334	332	314
85°	78	80	85	101	118	90
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3839.5	3839.5	3839.5	3839.5	3839.5
2.5°	3902.7	3862.5	3805.1	3860.2	3817.7
5°	3849.9	3834.9	3775.3	3854.5	3829.2
7.5°	3795.9	3763.8	3753.4	3838.4	3805.1
10°	3716.7	3698.4	3705.2	3814.3	3776.4
12.5°	3591.6	3604.2	3620.3	3759.2	3770.7
15°	3473.4	3510.1	3550.3	3711.0	3704.1
17.5°	3357.4	3407.9	3445.8	3652.4	3658.2
20°	3232.3	3261.0	3362.0	3561.8	3632.9
22.5°	3077.4	3133.6	3220.8	3469.9	3502.1
25°	2935.0	2993.6	3118.7	3370.1	3486.0
27.5°	2785.8	2839.8	2994.7	3251.8	3350.6
30°	2609.0	2681.4	2855.8	3117.5	3233.5
32.5°	2432.3	2537.9	2705.5	2974.1	3108.4
35°	2272.7	2361.1	2535.6	2812.2	2999.3
37.5°	2096.0	2188.9	2365.7	2635.4	2754.8
40°	1900.8	2000.7	2203.9	2422.0	2504.6
42.5°	1733.2	1819.3	2023.6	2177.5	2242.9
45°	1538.1	1640.3	1829.7	1939.9	1960.5
47.5°	1349.9	1466.9	1636.8	1688.5	1728.7
50°	1180.0	1271.8	1437.1	1469.2	1508.3
52.5°	1006.7	1104.2	1248.9	1281.0	1338.4
55°	873.5	927.5	1073.2	1124.9	1147.8
57.5°	775.9	810.4	913.7	979.1	986.0
60°	700.2	717.4	795.5	844.8	825.3
62.5°	630.2	643.9	683.0	720.8	695.6
65°	554.4	563.6	591.1	619.8	595.7
67.5°	483.2	493.6	518.8	539.5	518.8
70°	417.8	425.9	453.4	462.6	450.0
72.5°	357.0	360.4	383.4	399.4	391.4
75°	295.0	297.3	320.2	334.0	331.7
77.5°	238.8	242.2	261.7	274.3	267.4
80°	184.8	187.1	199.7	218.1	213.5
82.5°	129.7	134.3	142.3	158.4	171.0
85°	78.1	80.3	84.9	101.0	118.2
87.5°	29.8	32.1	34.4	42.5	56.2
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	18.95	20.43	19.31	20.74	21.05	20.31	21.79	20.67	22.10	22.41
	3H	20.53	21.85	20.90	22.18	22.54	21.59	22.92	21.97	23.25	23.61
	4H	21.13	22.37	21.53	22.72	23.10	22.15	23.39	22.55	23.74	24.12
	6H	21.60	22.75	22.01	23.12	23.51	22.60	23.74	23.01	24.11	24.50
	8H	21.76	22.85	22.19	23.24	23.64	22.78	23.88	23.21	24.27	24.67
	12H	21.86	22.90	22.29	23.28	23.71	22.94	23.98	23.37	24.37	24.80
4H	2H	19.56	20.80	19.96	21.15	21.53	20.67	21.92	21.07	22.26	22.64
	3H	21.36	22.39	21.78	22.79	23.20	22.23	23.26	22.64	23.66	24.06
	4H	22.09	23.01	22.52	23.43	23.87	22.93	23.86	23.37	24.28	24.72
	6H	22.68	23.49	23.14	23.93	24.39	23.54	24.35	24.00	24.79	25.25
	8H	22.89	23.64	23.35	24.08	24.55	23.79	24.54	24.25	24.99	25.45
	12H	23.03	23.70	23.51	24.18	24.65	24.00	24.68	24.49	25.15	25.63
8H	4H	22.41	23.17	22.88	23.61	24.08	23.17	23.92	23.63	24.36	24.83
	6H	23.14	23.76	23.63	24.25	24.73	23.91	24.53	24.41	25.03	25.50
	8H	23.41	23.97	23.93	24.48	24.97	24.24	24.80	24.76	25.31	25.80
	12H	23.63	24.12	24.14	24.61	25.18	24.55	25.04	25.06	25.54	26.10
12H	4H	22.45	23.12	22.93	23.60	24.07	23.18	23.85	23.66	24.33	24.80
	6H	23.21	23.77	23.72	24.28	24.77	23.95	24.51	24.46	25.02	25.51
	8H	23.54	24.04	24.05	24.53	25.10	24.34	24.83	24.85	25.33	25.89