

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: P894816

Luminaire Tested: 8TMB-18HL-LVRF-UNV-L850

Issue Date: 11/11/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P894816  
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: 8TMB-18HL-LVRF-UNV-L850  
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 5000K (C  
Light Source: -  
Ballast/Driver: -

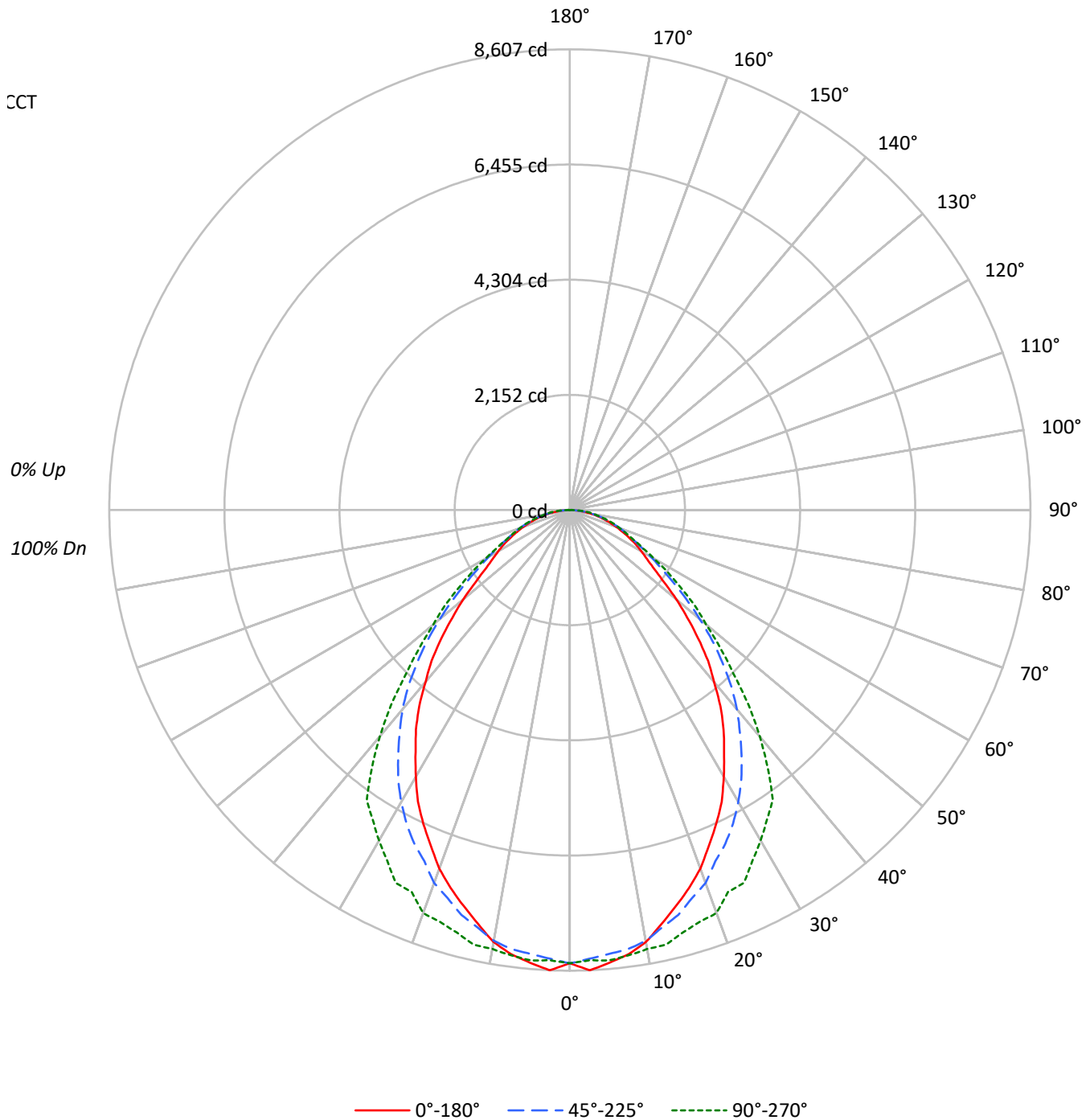
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17169.0 lumens  
Efficiency: N/A  
Efficacy: 127.4 lumens/watt  
Spacing Criteria (0/90/45): 1.05 / 1.25 / 1.21  
Luminous Opening: Rectangular (W 0.38' x L: 7.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 134.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 8.62  
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	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	47	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	42	42	40
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	38	38	37
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	35	35	33
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	32	32	30

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

	0°	45°	90°
0°	30045	30045	30045
5°	30241	29654	30078
10°	29532	29441	30007
15°	28138	28761	30007
20°	26917	27996	30252
25°	25341	26927	30098
30°	23574	25804	29216
35°	21711	24222	28651
40°	19417	22512	25584
45°	17021	20247	21696
50°	14364	17495	18361
55°	11917	14642	15659
60°	10958	12449	12916
65°	10265	10945	11030
70°	9559	10373	10294
75°	8919	9683	10029
80°	8328	9001	9620
85°	7006	7625	10613

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 21696 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	799.3	4.7
10°-20°	2229.4	13.0
20°-30°	3210.7	18.7
30°-40°	3544.7	20.6
40°-50°	3041.6	17.7
50°-60°	2072.0	12.1
60°-70°	1303.5	7.6
70°-80°	742.1	4.3
80°-90°	225.6	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°	6239.4	36.3
0°-40°	9784.1	57.0
0°-60°	14897.8	86.8
0°-90°	17169.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17169.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8468	8468	8468	8468	8468	
5°	8490	8458	8326	8501	8445	801
15°	7660	7741	7830	8184	8169	2157
25°	6473	6602	6878	7432	7688	2973
35°	5012	5207	5592	6202	6615	3118
45°	3392	3617	4035	4278	4324	2614
55°	1926	2045	2367	2481	2531	1770
65°	1223	1243	1304	1367	1314	1215
75°	651	656	706	737	732	693
85°	172	177	187	223	261	198
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	8467.7	8467.7	8467.7	8467.7	8467.7
2.5°	8606.9	8518.3	8391.8	8513.3	8419.6
5°	8490.5	8457.6	8325.9	8500.6	8444.9
7.5°	8371.5	8300.6	8277.8	8465.2	8391.8
10°	8196.8	8156.3	8171.5	8412.0	8328.5
12.5°	7920.9	7948.8	7984.2	8290.5	8315.8
15°	7660.2	7741.2	7829.8	8184.2	8169.0
17.5°	7404.5	7515.9	7599.4	8055.1	8067.7
20°	7128.6	7191.8	7414.6	7855.1	8012.0
22.5°	6786.8	6910.9	7103.2	7652.6	7723.5
25°	6472.9	6602.0	6877.9	7432.3	7688.0
27.5°	6143.8	6262.8	6604.6	7171.6	7389.3
30°	5754.0	5913.5	6298.2	6875.4	7131.1
32.5°	5364.1	5597.0	5966.6	6559.0	6855.2
35°	5012.3	5207.2	5592.0	6202.1	6614.7
37.5°	4622.4	4827.5	5217.3	5812.2	6075.5
40°	4192.1	4412.3	4860.4	5341.4	5523.6
42.5°	3822.5	4012.3	4462.9	4802.2	4946.5
45°	3392.1	3617.4	4035.1	4278.1	4323.7
47.5°	2977.0	3235.2	3609.8	3723.8	3812.4
50°	2602.3	2804.8	3169.4	3240.3	3326.3
52.5°	2220.1	2435.3	2754.2	2825.1	2951.7
55°	1926.4	2045.4	2366.9	2480.8	2531.4
57.5°	1711.3	1787.2	2015.0	2159.3	2174.5
60°	1544.2	1582.2	1754.3	1863.1	1820.1
62.5°	1389.8	1420.1	1506.2	1589.8	1534.1
65°	1222.7	1242.9	1303.7	1367.0	1313.8
67.5°	1065.7	1088.5	1144.2	1189.8	1144.2
70°	921.4	939.2	999.9	1020.2	992.3
72.5°	787.3	794.9	845.5	880.9	863.2
75°	650.6	655.6	706.3	736.7	731.6
77.5°	526.5	534.1	577.2	605.0	589.8
80°	407.6	412.6	440.5	481.0	470.8
82.5°	286.1	296.2	313.9	349.3	377.2
85°	172.1	177.2	187.3	222.8	260.7
87.5°	65.8	70.9	75.9	93.7	124.0
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	19.28	20.76	19.64	21.07	21.38	20.64	22.12	21.00	22.43	22.74
	3H	20.86	22.18	21.23	22.51	22.87	21.92	23.25	22.30	23.58	23.94
	4H	21.46	22.70	21.86	23.05	23.43	22.48	23.72	22.88	24.07	24.45
	6H	21.93	23.08	22.35	23.45	23.84	22.93	24.07	23.34	24.44	24.83
	8H	22.09	23.18	22.52	23.57	23.97	23.12	24.21	23.54	24.60	25.00
	12H	22.19	23.23	22.62	23.61	24.04	23.27	24.31	23.70	24.70	25.13
4H	2H	19.89	21.13	20.29	21.48	21.86	21.00	22.25	21.40	22.60	22.97
	3H	21.69	22.72	22.11	23.12	23.53	22.56	23.59	22.97	23.99	24.39
	4H	22.42	23.34	22.85	23.76	24.20	23.26	24.19	23.70	24.61	25.05
	6H	23.01	23.82	23.47	24.26	24.72	23.87	24.68	24.33	25.12	25.58
	8H	23.22	23.97	23.68	24.41	24.88	24.12	24.87	24.58	25.32	25.78
	12H	23.36	24.03	23.84	24.51	24.98	24.33	25.01	24.82	25.49	25.96
8H	4H	22.74	23.50	23.21	23.94	24.41	23.50	24.25	23.96	24.69	25.16
	6H	23.47	24.09	23.97	24.58	25.06	24.24	24.86	24.74	25.36	25.83
	8H	23.74	24.30	24.26	24.81	25.30	24.57	25.13	25.09	25.64	26.13
	12H	23.96	24.45	24.47	24.94	25.51	24.88	25.37	25.39	25.87	26.43
12H	4H	22.78	23.45	23.27	23.93	24.41	23.51	24.18	23.99	24.66	25.13
	6H	23.54	24.10	24.05	24.61	25.10	24.28	24.84	24.79	25.35	25.84
	8H	23.87	24.37	24.38	24.86	25.43	24.67	25.16	25.18	25.66	26.22