

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: P894784

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

Issue Date: 11/11/2024

**Test Information**

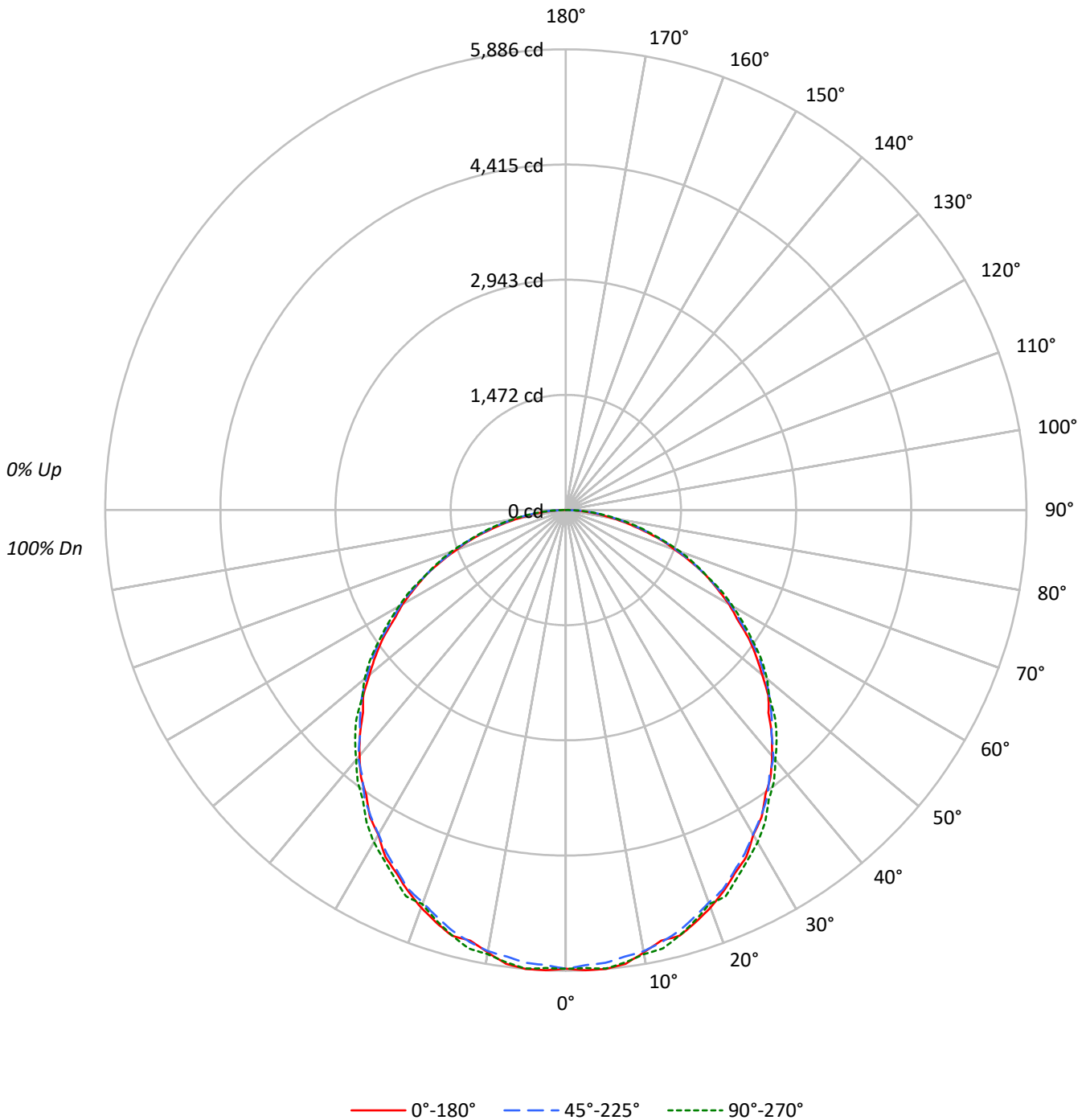
Test Method: LM-79-2019  
Report Number: P894784  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-18HL-FLT-UNV-L850  
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 80CRI, 5000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16238.0 lumens  
Efficiency: N/A  
Efficacy: 120.5 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.34  
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 (A<sub>in</sub>): 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				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	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	86	86	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	69	65	61	61	61	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	52	52	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	45	45	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	40	40	40	38
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	35	35	35	33
8	60	47	38	33	59	46	38	32	45	37	32	44	37	32	42	36	32	32	32	32	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	26	26	26	24

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

	0°	45°	90°
0°	20793	20793	20793
5°	20963	20683	20945
10°	20676	20622	20758
15°	20681	20467	20662
20°	20407	20159	20235
25°	20039	19930	20287
30°	19633	19602	20090
35°	19255	19419	19583
40°	18995	19112	19300
45°	18380	18660	19003
50°	18082	18347	18529
55°	17633	17852	18040
60°	17084	17335	17497
65°	16577	16641	16641
70°	15416	15783	16177
75°	14194	14749	15062
80°	12517	13604	14070
85°	11232	12571	13500

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 19003 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	554.7	3.4
10°-20°	1580.9	9.7
20°-30°	2371.1	14.6
30°-40°	2816.1	17.3
40°-50°	2883.3	17.8
50°-60°	2583.3	15.9
60°-70°	1962.4	12.1
70°-80°	1143.0	7.0
80°-90°	343.3	2.1
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°	4506.6	27.8
0°-40°	7322.8	45.1
0°-60°	12789.3	78.8
0°-90°	16238.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16238.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5860	5860	5860	5860	5860	
5°	5886	5863	5807	5843	5881	557
15°	5630	5668	5572	5595	5625	1580
25°	5119	5164	5091	5157	5182	2362
35°	4445	4544	4483	4501	4521	2794
45°	3663	3754	3719	3749	3787	2849
55°	2850	2894	2886	2919	2916	2540
65°	1974	1974	1982	2008	1982	1939
75°	1035	1053	1076	1109	1099	1102
85°	276	281	309	329	332	309
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5860.4	5860.4	5860.4	5860.4	5860.4
2.5°	5885.7	5857.8	5819.9	5832.5	5857.8
5°	5885.7	5862.9	5807.2	5842.6	5880.6
7.5°	5847.7	5878.1	5756.6	5756.6	5827.5
10°	5738.8	5797.1	5723.7	5716.1	5761.6
12.5°	5635.1	5741.4	5655.3	5680.6	5736.3
15°	5630.0	5668.0	5571.8	5594.6	5624.9
17.5°	5521.1	5559.1	5455.3	5498.4	5498.4
20°	5404.7	5412.3	5338.9	5432.5	5359.1
22.5°	5270.5	5349.0	5247.7	5278.1	5341.4
25°	5118.6	5164.2	5090.8	5156.6	5181.9
27.5°	4994.6	5050.3	4949.0	5027.5	5035.1
30°	4792.1	4852.8	4784.5	4835.1	4903.5
32.5°	4655.4	4675.6	4640.2	4716.1	4736.4
35°	4445.3	4544.0	4483.2	4501.0	4521.2
37.5°	4298.4	4328.8	4275.7	4336.4	4369.3
40°	4101.0	4146.6	4126.3	4136.4	4166.8
42.5°	3895.9	3944.0	3890.9	3964.3	3987.1
45°	3663.0	3754.2	3718.7	3749.1	3787.1
47.5°	3511.2	3541.5	3531.4	3549.1	3523.8
50°	3275.7	3306.1	3323.8	3346.6	3356.7
52.5°	3065.6	3088.4	3121.3	3134.0	3156.7
55°	2850.4	2893.5	2885.9	2918.8	2916.3
57.5°	2599.8	2663.1	2642.9	2691.0	2691.0
60°	2407.4	2417.6	2442.9	2465.7	2465.7
62.5°	2184.7	2197.3	2210.0	2230.2	2245.4
65°	1974.5	1974.5	1982.1	2007.5	1982.1
67.5°	1731.5	1721.4	1746.7	1777.1	1774.6
70°	1486.0	1498.6	1521.4	1559.4	1559.4
72.5°	1275.9	1275.9	1301.2	1321.4	1318.9
75°	1035.4	1053.1	1075.9	1108.8	1098.7
77.5°	820.2	832.9	870.8	901.2	903.7
80°	612.6	625.3	665.8	696.2	688.6
82.5°	427.8	445.5	483.5	506.3	503.8
85°	275.9	281.0	308.8	329.1	331.6
87.5°	126.6	136.7	157.0	164.5	164.5
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	22.07	23.71	22.44	24.03	24.34	22.18	23.82	22.54	24.13	24.44
	3H	23.85	25.34	24.23	25.66	26.02	24.02	25.50	24.39	25.82	26.18
	4H	24.52	25.91	24.91	26.26	26.64	24.71	26.11	25.11	26.46	26.83
	6H	24.99	26.29	25.40	26.65	27.04	25.26	26.56	25.67	26.92	27.31
	8H	25.14	26.38	25.56	26.77	27.17	25.45	26.69	25.88	27.08	27.48
	12H	25.25	26.43	25.68	26.82	27.24	25.60	26.78	26.02	27.16	27.59
4H	2H	22.72	24.11	23.12	24.46	24.84	22.80	24.20	23.20	24.54	24.92
	3H	24.72	25.89	25.13	26.29	26.69	24.86	26.04	25.27	26.43	26.83
	4H	25.51	26.57	25.94	26.99	27.42	25.70	26.76	26.13	27.18	27.61
	6H	26.11	27.04	26.56	27.48	27.94	26.39	27.32	26.84	27.76	28.22
	8H	26.31	27.18	26.77	27.62	28.09	26.64	27.51	27.10	27.95	28.41
	12H	26.46	27.24	26.94	27.72	28.19	26.83	27.62	27.31	28.09	28.56
8H	4H	25.85	26.72	26.31	27.16	27.62	26.02	26.89	26.47	27.33	27.79
	6H	26.57	27.30	27.06	27.78	28.26	26.84	27.56	27.33	28.05	28.53
	8H	26.84	27.49	27.35	28.00	28.48	27.17	27.82	27.68	28.33	28.81
	12H	27.07	27.65	27.58	28.14	28.70	27.46	28.04	27.97	28.53	29.09
12H	4H	25.89	26.67	26.37	27.15	27.62	26.05	26.83	26.53	27.31	27.78
	6H	26.64	27.30	27.15	27.80	28.29	26.90	27.55	27.40	28.05	28.54
	8H	26.98	27.55	27.48	28.04	28.60	27.29	27.87	27.80	28.36	28.92