

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: P894837

Luminaire Tested: 8TMB-18HL-RNDU-UNV-L830

Issue Date: 11/11/2024

**Test Information**

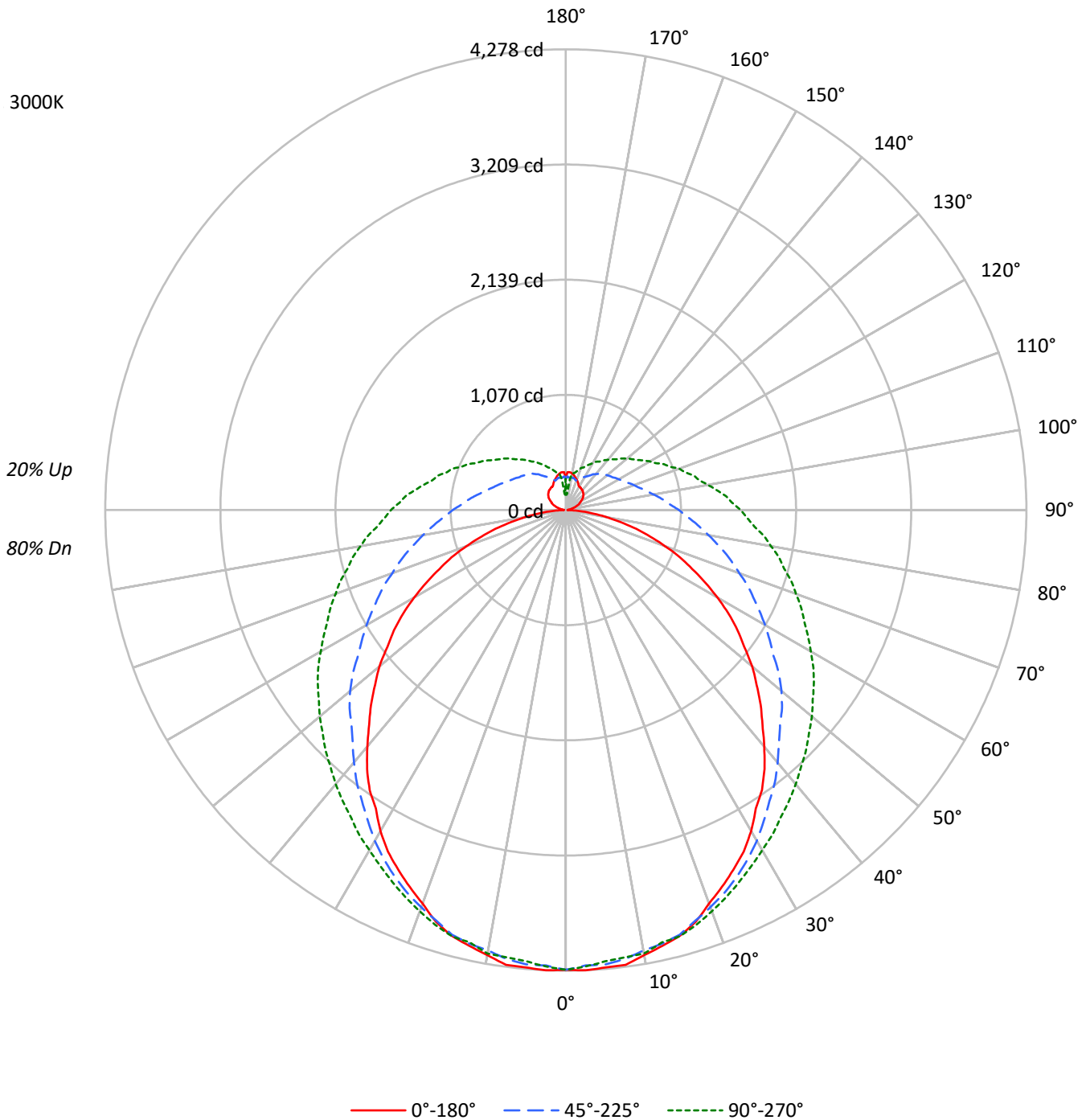
Test Method: LM-79-2019  
Report Number: P894837  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-18HL-RNDU-UNV-L830  
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 80CRI, CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17945.0 lumens  
Efficiency: N/A  
Efficacy: 133.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 7.98' x H: 0.21')  
CIE Type: Semi-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			
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	114	114	114	114	109	109	109	109	100	100	100	91	91	91	83	83	83	80		
1	102	96	91	86	97	92	87	83	84	80	77	76	73	71	69	67	65	61		
2	92	82	75	68	87	79	72	66	72	66	61	66	61	57	60	56	53	49		
3	83	72	63	56	79	69	61	54	63	56	51	57	52	47	52	48	44	41		
4	76	63	54	47	72	60	52	45	55	48	43	51	45	40	46	41	37	34		
5	69	56	47	40	66	54	45	39	49	42	37	45	39	34	41	36	32	29		
6	64	50	41	35	61	48	40	34	44	37	32	41	35	30	38	32	28	26		
7	59	46	37	30	56	44	35	30	40	33	28	37	31	26	34	29	25	23		
8	55	41	33	27	52	40	32	26	37	30	25	34	28	24	31	26	22	20		
9	51	38	30	24	49	37	29	23	34	27	22	31	25	21	29	24	20	18		
10	48	35	27	22	46	34	26	21	31	25	20	29	23	19	27	22	18	16		

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

	0°	45°	90°
0°	15146	15146	15146
5°	15152	14567	14297
10°	15052	13967	13742
15°	14935	13525	13122
20°	14546	12912	12484
25°	14248	12370	11881
30°	13895	11775	11354
35°	13507	11128	10897
40°	12996	10575	10545
45°	12515	10046	10231
50°	12103	9725	9966
55°	11618	9218	9760
60°	11038	8903	9570
65°	10307	8626	9427
70°	9498	8407	9421
75°	8439	8342	9448
80°	6884	8332	9632
85°	4941	8565	9849

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 12515 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	404.1	2.3
10°-20°	1154.7	6.4
20°-30°	1733.9	9.7
30°-40°	2082.1	11.6
40°-50°	2202.3	12.3
50°-60°	2122.4	11.8
60°-70°	1883.0	10.5
70°-80°	1544.2	8.6
80°-90°	1195.2	6.7
90°-100°	932.4	5.2
100°-110°	742.3	4.1
110°-120°	593.3	3.3
120°-130°	467.9	2.6
130°-140°	357.1	2.0
140°-150°	251.1	1.4
150°-160°	160.5	0.9
160°-170°	89.9	0.5
170°-180°	28.5	0.2
0°-30°	3292.7	18.3
0°-40°	5374.9	30.0
0°-60°	9699.6	54.1
0°-90°	14322.0	79.8
90°-120°	2268.0	12.6
90°-150°	3344.0	18.6
90°-180°	3623.0	20.2
0°-180°	17945.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4269	4269	4269	4269	4269	
5°	4264	4276	4235	4266	4207	406
15°	4094	4097	4082	4109	4097	1150
25°	3684	3744	3758	3822	3810	1697
35°	3175	3223	3299	3436	3481	1980
45°	2559	2636	2815	3082	3156	1974
55°	1948	2046	2354	2674	2812	1738
65°	1296	1475	1922	2321	2442	1289
75°	676	972	1530	1943	2098	715
85°	158	592	1186	1614	1757	178
90°	17	470	1050	1461	1623	17
95°	22	389	929	1335	1492	21
105°	72	315	742	1091	1232	76
115°	138	308	616	890	1005	134
125°	193	313	530	730	809	170
135°	227	303	475	618	666	176
145°	246	279	392	518	549	154
155°	272	286	322	406	454	125
165°	322	315	303	296	368	90
175°	353	341	303	248	158	33
180°	289	289	289	289	289	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4268.7	4268.7	4268.7	4268.7	4268.7
2.5°	4278.2	4292.6	4232.9	4268.7	4242.4
5°	4263.9	4275.9	4235.3	4266.3	4206.6
7.5°	4259.1	4254.4	4204.2	4244.8	4189.9
10°	4197.1	4213.8	4154.1	4209.0	4182.8
12.5°	4144.6	4178.0	4125.5	4168.4	4113.5
15°	4094.4	4096.8	4082.5	4108.7	4096.8
17.5°	4010.9	4032.3	3998.9	4058.6	4037.1
20°	3889.1	3955.9	3924.9	3979.8	3965.5
22.5°	3788.8	3822.3	3848.5	3910.6	3891.5
25°	3683.8	3743.5	3757.8	3822.3	3810.3
27.5°	3576.3	3602.6	3657.5	3726.8	3729.1
30°	3442.7	3471.3	3547.7	3626.5	3648.0
32.5°	3285.1	3375.8	3421.2	3540.5	3574.0
35°	3175.3	3223.0	3299.4	3435.5	3480.9
37.5°	3032.0	3086.9	3189.6	3349.5	3404.5
40°	2867.3	2948.5	3060.7	3258.8	3323.3
42.5°	2702.6	2798.1	2929.4	3160.9	3234.9
45°	2559.3	2635.7	2814.8	3082.2	3156.2
47.5°	2404.1	2497.2	2724.0	2979.5	3063.1
50°	2260.9	2356.4	2614.2	2884.0	2984.3
52.5°	2089.0	2198.8	2494.8	2774.2	2891.2
55°	1948.1	2046.0	2354.0	2673.9	2812.4
57.5°	1792.9	1902.8	2244.2	2599.9	2726.4
60°	1625.8	1764.3	2136.7	2506.8	2628.5
62.5°	1461.1	1625.8	2026.9	2416.1	2535.4
65°	1296.4	1475.4	1921.9	2320.6	2442.3
67.5°	1148.3	1341.7	1826.4	2215.5	2365.9
70°	981.2	1212.8	1714.2	2117.6	2275.2
72.5°	823.7	1095.8	1623.4	2038.9	2196.4
75°	675.6	971.7	1530.3	1943.4	2098.5
77.5°	527.6	854.7	1432.4	1857.4	2026.9
80°	386.8	759.2	1346.5	1773.8	1936.2
82.5°	267.4	675.6	1262.9	1704.6	1857.4
85°	157.6	592.1	1186.5	1613.9	1757.1
87.5°	71.6	525.2	1107.8	1544.7	1685.5
90°	16.7	470.3	1050.5	1461.1	1623.4
92.5°	16.7	427.3	981.2	1399.0	1547.0
95°	21.5	389.1	928.7	1334.6	1492.1
97.5°	28.6	360.5	881.0	1274.9	1413.3
100°	40.6	341.4	828.4	1205.6	1341.7
102.5°	54.9	327.1	780.7	1143.6	1270.1
105°	71.6	315.1	742.5	1091.0	1231.9
107.5°	88.3	310.4	704.3	1040.9	1160.3
110°	105.0	308.0	675.6	988.4	1122.1



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 CATALOG NUMBER: 8TMB-18HL-RNDU-UNV-L830

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	121.8	305.6	644.6	940.6	1048.1
115°	138.5	308.0	616.0	890.5	1005.1
117.5°	148.0	308.0	589.7	847.5	943.0
120°	162.3	310.4	570.6	802.2	902.4
122.5°	176.7	310.4	551.5	768.7	857.1
125°	193.4	312.8	530.0	730.5	809.3
127.5°	202.9	312.8	518.1	704.3	775.9
130°	212.5	310.4	501.4	670.9	744.9
132.5°	222.0	305.6	491.8	639.8	709.1
135°	226.8	303.2	475.1	618.3	666.1
137.5°	234.0	296.0	458.4	587.3	639.8
140°	241.1	293.7	434.5	563.4	608.8
142.5°	241.1	286.5	417.8	541.9	582.5
145°	245.9	279.3	391.5	518.1	549.1
147.5°	250.7	276.9	372.4	494.2	532.4
150°	250.7	274.6	355.7	467.9	503.7
152.5°	255.5	276.9	339.0	444.1	477.5
155°	272.2	286.5	322.3	405.9	453.6
157.5°	286.5	296.0	305.6	377.2	427.3
160°	298.4	303.2	291.3	348.6	415.4
162.5°	308.0	310.4	293.7	322.3	389.1
165°	322.3	315.1	303.2	296.0	367.7
167.5°	334.2	319.9	308.0	288.9	350.9
170°	343.8	329.5	303.2	272.2	343.8
172.5°	350.9	331.9	305.6	255.5	288.9
175°	353.3	341.4	303.2	248.3	157.6
177.5°	350.9	343.8	312.8	245.9	140.9
180°	288.9	288.9	288.9	288.9	288.9



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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	16.51	17.82	17.15	18.49	19.25	20.00	21.31	20.64	21.97	22.74
	3H	17.96	19.16	18.61	19.83	20.63	22.87	24.07	23.52	24.74	25.54
	4H	18.43	19.57	19.10	20.26	21.07	24.35	25.49	25.02	26.18	26.99
	6H	18.71	19.77	19.39	20.47	21.29	25.96	27.03	26.65	27.72	28.55
	8H	18.77	19.79	19.46	20.50	21.33	26.82	27.84	27.52	28.56	29.39
	12H	18.79	19.76	19.49	20.47	21.33	27.77	28.75	28.47	29.46	30.32
4H	2H	17.66	18.80	18.34	19.49	20.30	20.33	21.47	21.00	22.16	22.97
	3H	19.37	20.34	20.05	21.06	21.90	23.43	24.41	24.12	25.13	25.97
	4H	19.96	20.87	20.66	21.59	22.45	25.10	26.00	25.80	26.73	27.58
	6H	20.37	21.17	21.09	21.92	22.78	26.91	27.71	27.63	28.45	29.32
	8H	20.48	21.24	21.21	21.98	22.86	27.88	28.63	28.60	29.38	30.26
	12H	20.54	21.23	21.28	21.99	22.88	28.95	29.64	29.70	30.41	31.29
8H	4H	21.01	21.77	21.74	22.51	23.39	25.28	26.03	26.00	26.77	27.65
	6H	21.66	22.30	22.41	23.09	23.97	27.26	27.90	28.01	28.69	29.57
	8H	21.88	22.46	22.65	23.25	24.15	28.38	28.96	29.14	29.75	30.64
	12H	22.03	22.55	22.80	23.33	24.28	29.64	30.16	30.41	30.94	31.89
12H	4H	21.35	22.04	22.10	22.81	23.69	25.27	25.96	26.02	26.73	27.61
	6H	22.16	22.74	22.92	23.53	24.42	27.29	27.87	28.06	28.66	29.55
	8H	22.51	23.03	23.28	23.80	24.76	28.47	28.99	29.24	29.77	30.72