

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: P894835

Luminaire Tested: 8TMB-18HL-RND-UNV-L940

Issue Date: 11/11/2024

**Test Information**

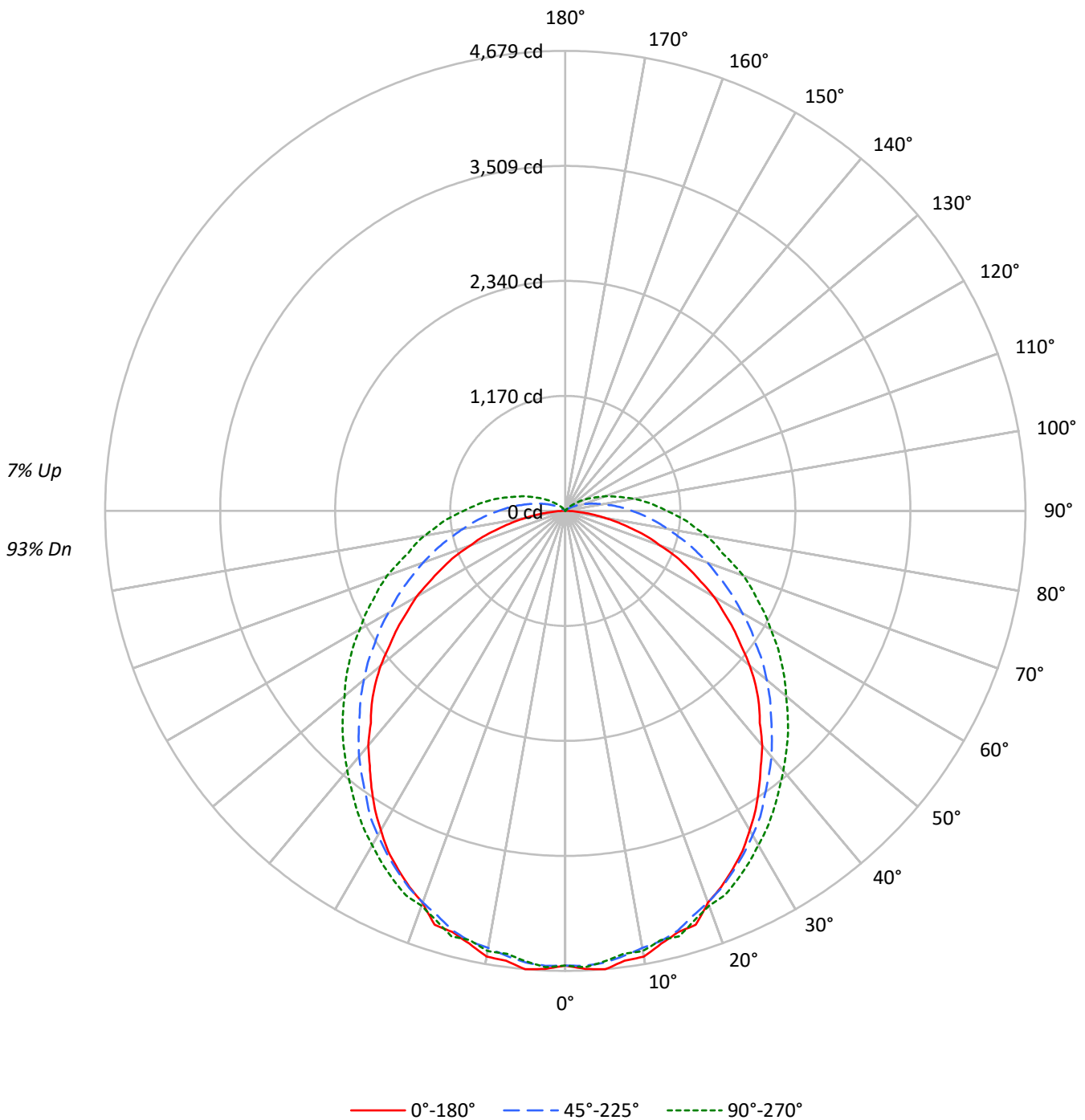
Test Method: LM-79-2019  
Report Number: P894835  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-18HL-RND-UNV-L940  
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 90CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15232.0 lumens  
Efficiency: N/A  
Efficacy: 113.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.35  
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	0
RCR																					
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	96	96	96	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	66	70	67	63	63	63	63	60
3	86	75	66	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	39	37
6	67	53	44	37	65	52	43	37	49	42	36	47	40	35	45	39	34	34	34	34	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	30	30	30	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	33	28	38	32	27	27	27	27	25
9	54	40	32	26	52	39	32	26	38	31	26	36	30	25	35	29	25	25	25	25	23
10	51	37	29	24	49	36	29	24	35	28	23	34	27	23	32	27	22	22	22	22	21

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

	0°	45°	90°
0°	16408	16408	16408
5°	16666	16425	16380
10°	16585	16264	16379
15°	16287	16233	16450
20°	16015	15999	16135
25°	15752	15818	16207
30°	15366	15609	16086
35°	14880	15311	16026
40°	14433	15109	15971
45°	13980	14840	16071
50°	13522	14748	16173
55°	12903	14643	16593
60°	12399	14741	17113
65°	11580	15131	18151
70°	10644	15976	19992
75°	9657	17690	22649
80°	8300	21612	29695
85°	6717	34966	50811

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 87.5°  
 Luminance: 92235 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	438.4	2.9
10°-20°	1248.1	8.2
20°-30°	1870.3	12.3
30°-40°	2222.6	14.6
40°-50°	2301.1	15.1
50°-60°	2132.4	14.0
60°-70°	1775.3	11.7
70°-80°	1317.6	8.7
80°-90°	871.5	5.7
90°-100°	530.3	3.5
100°-110°	297.3	2.0
110°-120°	146.4	1.0
120°-130°	59.6	0.4
130°-140°	17.3	0.1
140°-150°	2.5	0.0
150°-160°	0.6	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	3556.9	23.4
0°-40°	5779.5	37.9
0°-60°	10212.9	67.0
0°-90°	14177.4	93.1
90°-120°	974.0	6.4
90°-150°	1053.3	6.9
90°-180°	1055.0	6.9
0°-180°	15232.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4624	4624	4624	4624	4624	
5°	4679	4628	4612	4635	4599	442
15°	4434	4417	4419	4426	4478	1256
25°	4024	4019	4040	4119	4140	1852
35°	3435	3461	3535	3647	3700	2150
45°	2786	2826	2957	3141	3203	2147
55°	2086	2175	2367	2604	2682	1865
65°	1379	1508	1802	2067	2162	1370
75°	704	918	1290	1568	1652	754
85°	165	463	859	1164	1248	185
90°	8	300	679	950	1034	12
95°	2	186	527	785	872	2
105°	2	61	286	484	552	2
115°	2	15	133	266	319	2
125°	2	4	49	123	156	2
135°	4	2	13	40	55	3
145°	4	2	0	4	6	3
155°	4	4	0	0	0	2
165°	6	4	0	0	0	2
175°	6	4	0	0	0	1
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4624.3	4624.3	4624.3	4624.3	4624.3
2.5°	4662.4	4639.1	4630.7	4620.1	4645.5
5°	4679.3	4628.5	4611.6	4634.9	4598.9
7.5°	4613.7	4601.0	4565.1	4577.8	4543.9
10°	4603.2	4533.3	4514.3	4556.6	4546.0
12.5°	4508.0	4448.7	4482.6	4512.2	4472.0
15°	4433.9	4417.0	4419.1	4425.5	4478.3
17.5°	4414.9	4338.7	4317.6	4370.5	4366.2
20°	4241.4	4226.6	4237.2	4307.0	4273.1
22.5°	4139.9	4093.3	4150.5	4218.1	4233.0
25°	4023.5	4019.3	4040.5	4118.7	4139.9
27.5°	3900.8	3873.3	3930.4	4021.4	4038.3
30°	3750.6	3740.1	3809.9	3888.1	3926.2
32.5°	3602.6	3608.9	3689.3	3754.9	3820.4
35°	3435.4	3460.8	3534.9	3647.0	3699.9
37.5°	3266.2	3297.9	3397.4	3526.4	3570.8
40°	3116.0	3122.4	3262.0	3393.1	3448.1
42.5°	2927.7	2991.2	3109.7	3283.1	3325.4
45°	2786.0	2826.2	2957.4	3141.4	3202.7
47.5°	2625.2	2671.8	2822.0	3001.8	3067.4
50°	2449.7	2492.0	2671.8	2877.0	2929.9
52.5°	2255.0	2341.8	2530.0	2741.6	2811.4
55°	2085.8	2174.7	2367.2	2604.1	2682.4
57.5°	1903.9	1992.7	2233.9	2453.9	2555.4
60°	1747.3	1832.0	2077.3	2350.2	2411.6
62.5°	1552.7	1673.3	1939.8	2208.5	2295.2
65°	1379.3	1508.3	1802.3	2066.8	2162.0
67.5°	1220.6	1353.9	1660.6	1944.1	2047.7
70°	1026.0	1201.6	1540.0	1819.3	1927.1
72.5°	882.1	1057.7	1411.0	1688.1	1785.4
75°	704.4	918.1	1290.4	1567.5	1652.1
77.5°	556.4	786.9	1165.6	1476.6	1561.2
80°	406.2	668.5	1057.7	1356.0	1453.3
82.5°	277.1	558.5	958.3	1243.9	1336.9
85°	165.0	463.3	858.9	1163.5	1248.1
87.5°	71.9	378.7	767.9	1047.1	1133.9
90°	8.5	300.4	679.0	949.8	1034.4
92.5°	2.1	241.2	600.8	863.1	945.6
95°	2.1	186.2	526.7	784.8	871.6
97.5°	2.1	143.8	452.7	704.4	786.9
100°	2.1	110.0	391.4	619.8	708.7
102.5°	2.1	82.5	332.1	550.0	626.2
105°	2.1	61.3	285.6	484.4	552.1
107.5°	2.1	44.4	239.0	423.1	490.8
110°	2.1	31.7	201.0	366.0	433.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.1	23.3	162.9	315.2	372.3
115°	2.1	14.8	133.3	266.5	319.4
117.5°	2.1	10.6	105.8	224.2	275.0
120°	2.1	8.5	84.6	186.2	230.6
122.5°	2.1	6.3	65.6	152.3	194.6
125°	2.1	4.2	48.7	122.7	156.5
127.5°	2.1	4.2	36.0	97.3	126.9
130°	2.1	2.1	25.4	74.0	99.4
132.5°	2.1	2.1	16.9	55.0	74.0
135°	4.2	2.1	12.7	40.2	55.0
137.5°	4.2	2.1	8.5	27.5	38.1
140°	4.2	2.1	4.2	16.9	23.3
142.5°	4.2	2.1	2.1	8.5	12.7
145°	4.2	2.1	0.0	4.2	6.3
147.5°	4.2	2.1	0.0	2.1	2.1
150°	4.2	2.1	0.0	0.0	0.0
152.5°	4.2	2.1	0.0	0.0	0.0
155°	4.2	4.2	0.0	0.0	0.0
157.5°	4.2	4.2	0.0	0.0	0.0
160°	4.2	4.2	0.0	0.0	0.0
162.5°	4.2	4.2	0.0	0.0	0.0
165°	6.3	4.2	0.0	0.0	0.0
167.5°	6.3	4.2	0.0	0.0	0.0
170°	6.3	4.2	0.0	0.0	0.0
172.5°	6.3	4.2	0.0	0.0	0.0
175°	6.3	4.2	0.0	0.0	0.0
177.5°	6.3	4.2	0.0	0.0	0.0
180°	2.1	2.1	2.1	2.1	2.1



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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	19.95	21.49	20.42	21.94	22.42	21.52	23.06	21.99	23.52	24.00
	3H	21.71	23.12	22.19	23.58	24.11	24.11	25.51	24.59	25.98	26.50
	4H	22.37	23.70	22.87	24.18	24.72	25.37	26.70	25.87	27.18	27.72
	6H	22.85	24.09	23.36	24.58	25.14	26.75	27.99	27.26	28.48	29.04
	8H	23.00	24.19	23.52	24.71	25.26	27.48	28.67	28.01	29.19	29.75
	12H	23.10	24.24	23.63	24.75	25.34	28.32	29.46	28.85	29.97	30.56
4H	2H	20.90	22.24	21.41	22.72	23.26	22.09	23.43	22.60	23.91	24.45
	3H	22.95	24.08	23.46	24.61	25.17	24.96	26.10	25.48	26.62	27.18
	4H	23.76	24.80	24.29	25.33	25.93	26.44	27.48	26.98	28.02	28.61
	6H	24.41	25.33	24.96	25.89	26.50	28.06	28.98	28.61	29.54	30.15
	8H	24.64	25.50	25.20	26.06	26.68	28.92	29.78	29.48	30.34	30.96
	12H	24.80	25.59	25.39	26.18	26.81	29.91	30.70	30.49	31.29	31.91
8H	4H	24.61	25.47	25.17	26.03	26.65	26.81	27.68	27.37	28.24	28.86
	6H	25.53	26.27	26.12	26.87	27.50	28.69	29.43	29.28	30.03	30.65
	8H	25.91	26.58	26.52	27.19	27.83	29.75	30.42	30.35	31.03	31.67
	12H	26.23	26.83	26.84	27.43	28.13	31.01	31.60	31.61	32.20	32.91
12H	4H	24.87	25.66	25.45	26.25	26.87	26.86	27.64	27.44	28.23	28.86
	6H	25.95	26.62	26.56	27.23	27.87	28.80	29.47	29.40	30.08	30.72
	8H	26.49	27.09	27.10	27.69	28.39	29.98	30.57	30.58	31.17	31.88