

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: P894833

Luminaire Tested: 8TMB-18HL-RND-UNV-L930

Issue Date: 11/11/2024

**Test Information**

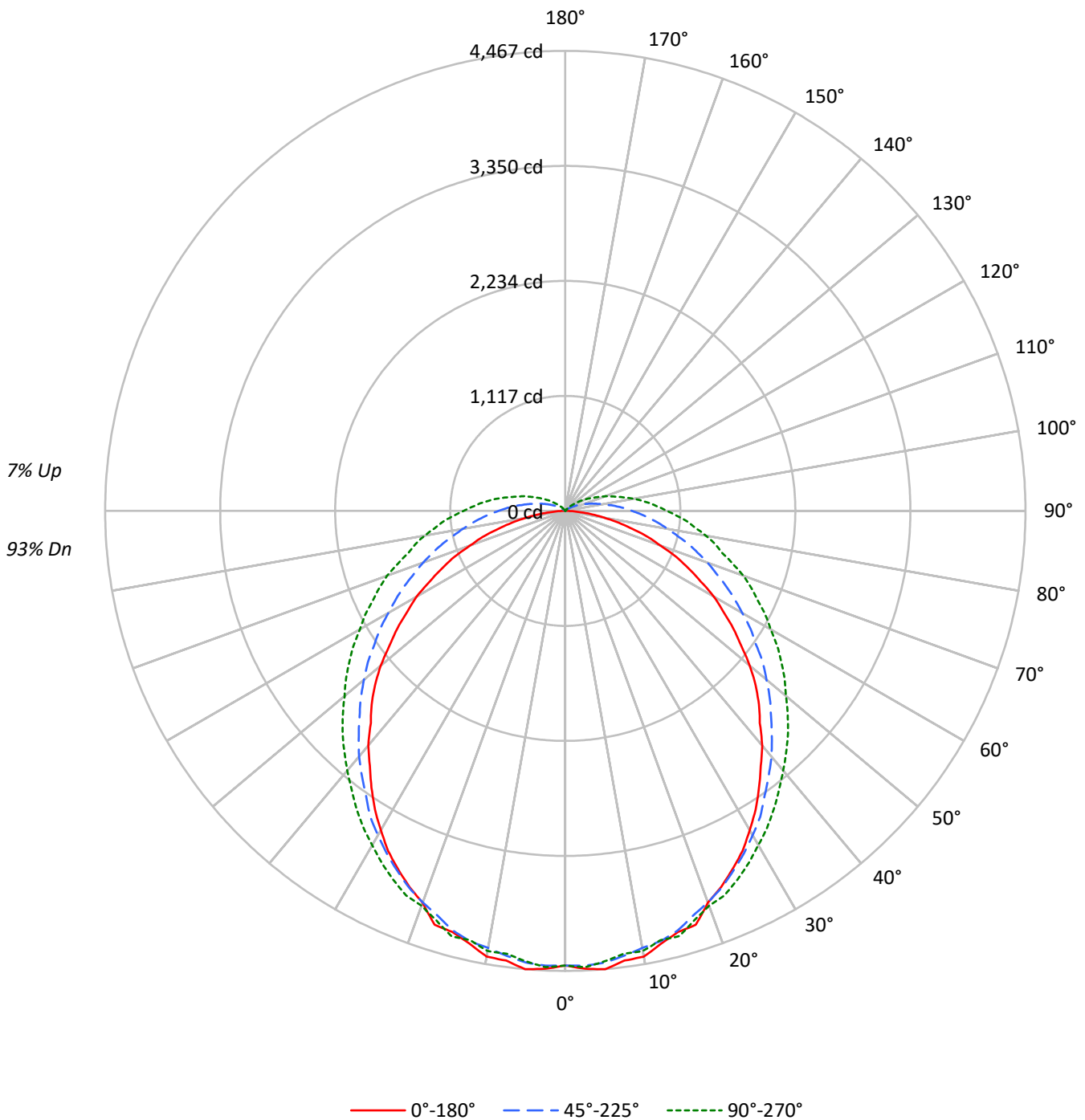
Test Method: LM-79-2019  
Report Number: P894833  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-18HL-RND-UNV-L930  
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS, 90CRI, 3000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14540.0 lumens  
Efficiency: N/A  
Efficacy: 107.9 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°	15662	15662	15662
5°	15909	15679	15636
10°	15831	15525	15635
15°	15547	15495	15703
20°	15287	15272	15402
25°	15036	15100	15471
30°	14668	14900	15355
35°	14205	14616	15298
40°	13777	14422	15245
45°	13344	14165	15340
50°	12908	14078	15438
55°	12316	13978	15839
60°	11837	14072	16336
65°	11054	14445	17326
70°	10160	15251	19084
75°	9218	16887	21620
80°	7922	20631	28347
85°	6412	33374	48502

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 87.5°  
 Luminance: 88046 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	418.5	2.9
10°-20°	1191.4	8.2
20°-30°	1785.4	12.3
30°-40°	2121.7	14.6
40°-50°	2196.5	15.1
50°-60°	2035.5	14.0
60°-70°	1694.7	11.7
70°-80°	1257.8	8.7
80°-90°	831.9	5.7
90°-100°	506.2	3.5
100°-110°	283.8	2.0
110°-120°	139.7	1.0
120°-130°	56.9	0.4
130°-140°	16.5	0.1
140°-150°	2.4	0.0
150°-160°	0.6	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	3395.3	23.4
0°-40°	5516.9	37.9
0°-60°	9748.9	67.0
0°-90°	13533.3	93.1
90°-120°	929.8	6.4
90°-150°	1005.5	6.9
90°-180°	1007.0	6.9
0°-180°	14540.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4414	4414	4414	4414	4414	
5°	4467	4418	4402	4424	4390	422
15°	4232	4216	4218	4224	4275	1199
25°	3841	3837	3857	3932	3952	1768
35°	3279	3304	3374	3481	3532	2052
45°	2659	2698	2823	2999	3057	2049
55°	1991	2076	2260	2486	2560	1781
65°	1317	1440	1720	1973	2064	1308
75°	672	876	1232	1496	1577	719
85°	158	442	820	1111	1191	177
90°	8	287	648	907	987	12
95°	2	178	503	749	832	2
105°	2	59	273	462	527	2
115°	2	14	127	254	305	2
125°	2	4	46	117	149	2
135°	4	2	12	38	52	2
145°	4	2	0	4	6	3
155°	4	4	0	0	0	2
165°	6	4	0	0	0	1
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°	4414.2	4414.2	4414.2	4414.2	4414.2
2.5°	4450.6	4428.4	4420.3	4410.2	4434.4
5°	4466.7	4418.3	4402.1	4424.3	4390.0
7.5°	4404.1	4392.0	4357.7	4369.8	4337.5
10°	4394.0	4327.4	4309.2	4349.6	4339.5
12.5°	4303.2	4246.6	4278.9	4307.2	4268.8
15°	4232.5	4216.3	4218.3	4224.4	4274.9
17.5°	4214.3	4141.6	4121.4	4171.9	4167.9
20°	4048.7	4034.6	4044.7	4111.3	4079.0
22.5°	3951.8	3907.4	3961.9	4026.5	4040.6
25°	3840.7	3836.7	3856.9	3931.6	3951.8
27.5°	3723.6	3697.4	3751.9	3838.7	3854.9
30°	3580.2	3570.1	3636.8	3711.5	3747.8
32.5°	3438.9	3445.0	3521.7	3584.3	3646.9
35°	3279.4	3303.6	3374.3	3481.3	3531.8
37.5°	3117.8	3148.1	3243.0	3366.2	3408.6
40°	2974.5	2980.5	3113.8	3239.0	3291.5
42.5°	2794.7	2855.3	2968.4	3134.0	3174.4
45°	2659.4	2697.8	2823.0	2998.7	3057.2
47.5°	2506.0	2550.4	2693.8	2865.4	2928.0
50°	2338.4	2378.8	2550.4	2746.3	2796.8
52.5°	2152.6	2235.4	2415.1	2617.0	2683.7
55°	1991.0	2075.9	2259.6	2485.8	2560.5
57.5°	1817.4	1902.2	2132.4	2342.4	2439.3
60°	1668.0	1748.7	1983.0	2243.5	2302.0
62.5°	1482.2	1597.3	1851.7	2108.2	2191.0
65°	1316.6	1439.8	1720.5	1972.9	2063.7
67.5°	1165.1	1292.4	1585.2	1855.8	1954.7
70°	979.4	1147.0	1470.1	1736.6	1839.6
72.5°	842.1	1009.7	1346.9	1611.4	1704.3
75°	672.4	876.4	1231.8	1496.3	1577.1
77.5°	531.1	751.2	1112.6	1409.5	1490.3
80°	387.7	638.1	1009.7	1294.4	1387.3
82.5°	264.5	533.1	914.7	1187.4	1276.2
85°	157.5	442.2	819.8	1110.6	1191.4
87.5°	68.7	361.5	733.0	999.6	1082.4
90°	8.1	286.7	648.2	906.7	987.4
92.5°	2.0	230.2	573.5	823.9	902.6
95°	2.0	177.7	502.8	749.2	832.0
97.5°	2.0	137.3	432.1	672.4	751.2
100°	2.0	105.0	373.6	591.7	676.5
102.5°	2.0	78.8	317.0	525.0	597.7
105°	2.0	58.6	272.6	462.4	527.0
107.5°	2.0	42.4	228.2	403.9	468.5
110°	2.0	30.3	191.8	349.3	414.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.0	22.2	155.5	300.9	355.4
115°	2.0	14.1	127.2	254.4	304.9
117.5°	2.0	10.1	101.0	214.0	262.5
120°	2.0	8.1	80.8	177.7	220.1
122.5°	2.0	6.1	62.6	145.4	185.8
125°	2.0	4.0	46.4	117.1	149.4
127.5°	2.0	4.0	34.3	92.9	121.2
130°	2.0	2.0	24.2	70.7	94.9
132.5°	2.0	2.0	16.2	52.5	70.7
135°	4.0	2.0	12.1	38.4	52.5
137.5°	4.0	2.0	8.1	26.3	36.3
140°	4.0	2.0	4.0	16.2	22.2
142.5°	4.0	2.0	2.0	8.1	12.1
145°	4.0	2.0	0.0	4.0	6.1
147.5°	4.0	2.0	0.0	2.0	2.0
150°	4.0	2.0	0.0	0.0	0.0
152.5°	4.0	2.0	0.0	0.0	0.0
155°	4.0	4.0	0.0	0.0	0.0
157.5°	4.0	4.0	0.0	0.0	0.0
160°	4.0	4.0	0.0	0.0	0.0
162.5°	4.0	4.0	0.0	0.0	0.0
165°	6.1	4.0	0.0	0.0	0.0
167.5°	6.1	4.0	0.0	0.0	0.0
170°	6.1	4.0	0.0	0.0	0.0
172.5°	6.1	4.0	0.0	0.0	0.0
175°	6.1	4.0	0.0	0.0	0.0
177.5°	6.1	4.0	0.0	0.0	0.0
180°	2.0	2.0	2.0	2.0	2.0



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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	19.79	21.33	20.26	21.78	22.26	21.36	22.90	21.83	23.35	23.84
	3H	21.55	22.96	22.03	23.42	23.94	23.95	25.35	24.43	25.82	26.34
	4H	22.21	23.54	22.71	24.02	24.56	25.21	26.54	25.71	27.02	27.56
	6H	22.69	23.93	23.20	24.42	24.98	26.59	27.83	27.10	28.32	28.88
	8H	22.84	24.02	23.36	24.54	25.10	27.32	28.51	27.84	29.03	29.58
	12H	22.93	24.07	23.47	24.59	25.18	28.16	29.30	28.69	29.81	30.40
4H	2H	20.74	22.07	21.25	22.56	23.09	21.93	23.26	22.44	23.75	24.28
	3H	22.78	23.92	23.30	24.45	25.01	24.80	25.94	25.32	26.46	27.02
	4H	23.60	24.64	24.13	25.17	25.77	26.28	27.32	26.81	27.86	28.45
	6H	24.25	25.17	24.80	25.73	26.34	27.90	28.82	28.45	29.38	29.99
	8H	24.47	25.34	25.03	25.90	26.52	28.76	29.62	29.32	30.18	30.80
	12H	24.64	25.43	25.22	26.02	26.64	29.75	30.53	30.33	31.12	31.75
8H	4H	24.44	25.31	25.00	25.87	26.49	26.65	27.52	27.21	28.08	28.70
	6H	25.37	26.11	25.96	26.71	27.33	28.53	29.26	29.12	29.87	30.49
	8H	25.75	26.42	26.36	27.03	27.67	29.59	30.25	30.19	30.87	31.51
	12H	26.07	26.67	26.68	27.27	27.97	30.85	31.44	31.45	32.04	32.75
12H	4H	24.71	25.50	25.29	26.09	26.71	26.69	27.48	27.28	28.07	28.69
	6H	25.79	26.46	26.40	27.07	27.71	28.64	29.31	29.24	29.92	30.56
	8H	26.33	26.93	26.94	27.53	28.23	29.81	30.41	30.42	31.01	31.71