

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: P894746

Luminaire Tested: 8TMB-16HL-RNDU-UNV-L935

Issue Date: 11/11/2024

**Test Information**

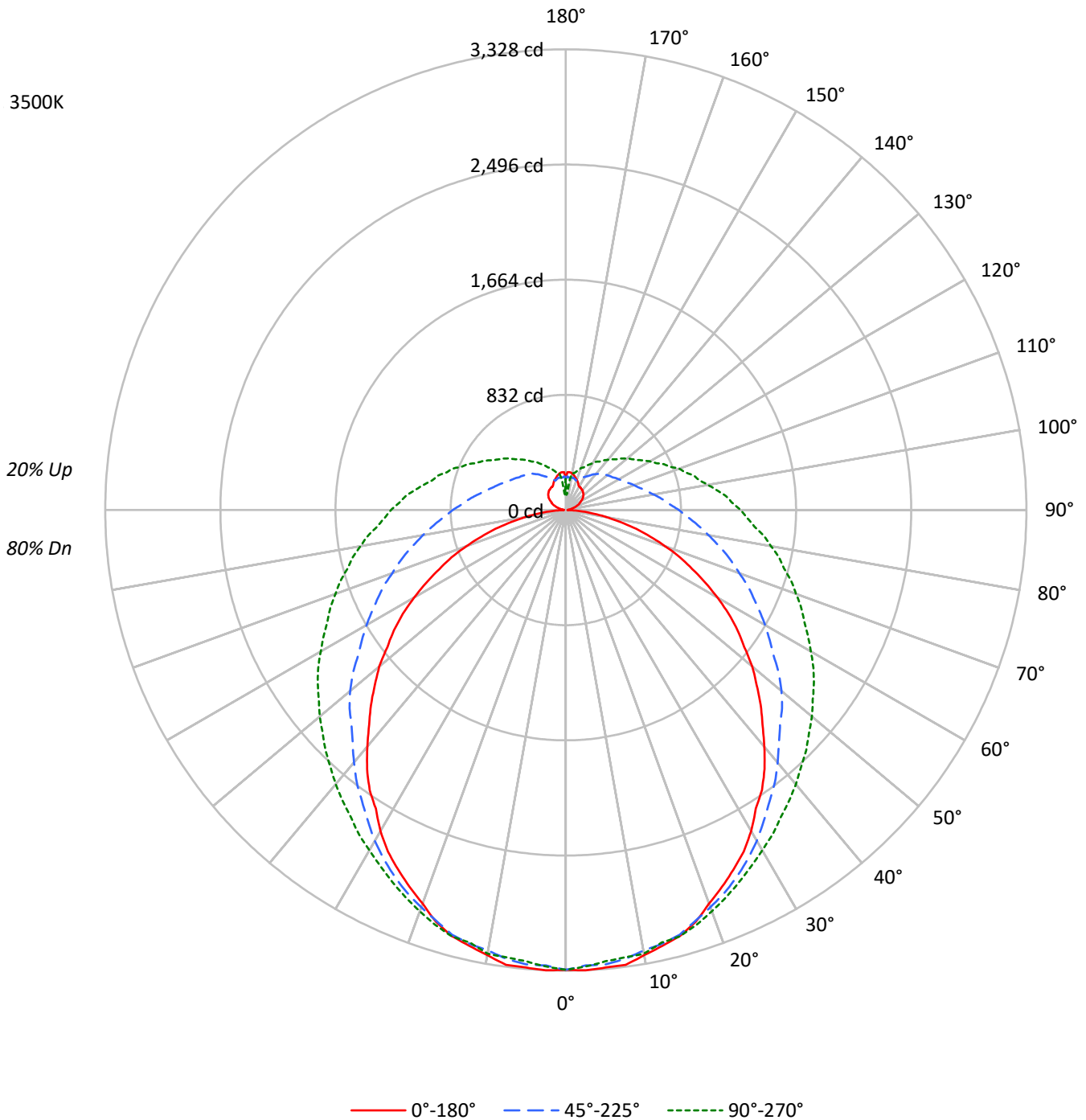
Test Method: LM-79-2019  
Report Number: P894746  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-16HL-RNDU-UNV-L935  
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with ROUND FROSTED LENS WITH UPLIGHT, 90CRI, CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13961.0 lumens  
Efficiency: N/A  
Efficacy: 120.6 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): 115.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 4.23  
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°	11783	11783	11783
5°	11788	11333	11123
10°	11711	10866	10691
15°	11620	10522	10209
20°	11317	10045	9712
25°	11085	9624	9244
30°	10810	9161	8833
35°	10508	8658	8478
40°	10111	8227	8204
45°	9737	7816	7960
50°	9416	7566	7753
55°	9038	7172	7593
60°	8588	6927	7446
65°	8019	6711	7334
70°	7389	6541	7329
75°	6566	6490	7350
80°	5355	6483	7493
85°	3844	6664	7662

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9737 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	314.4	2.3
10°-20°	898.4	6.4
20°-30°	1348.9	9.7
30°-40°	1619.9	11.6
40°-50°	1713.4	12.3
50°-60°	1651.2	11.8
60°-70°	1464.9	10.5
70°-80°	1201.4	8.6
80°-90°	929.8	6.7
90°-100°	725.4	5.2
100°-110°	577.5	4.1
110°-120°	461.5	3.3
120°-130°	364.0	2.6
130°-140°	277.8	2.0
140°-150°	195.3	1.4
150°-160°	124.9	0.9
160°-170°	70.0	0.5
170°-180°	22.2	0.2
0°-30°	2561.7	18.3
0°-40°	4181.6	30.0
0°-60°	7546.2	54.1
0°-90°	11142.3	79.8
90°-120°	1764.5	12.6
90°-150°	2601.6	18.6
90°-180°	2819.0	20.2
0°-180°	13961.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3321	3321	3321	3321	3321	
5°	3317	3327	3295	3319	3273	316
15°	3185	3187	3176	3197	3187	895
25°	2866	2912	2924	2974	2964	1320
35°	2470	2508	2567	2673	2708	1540
45°	1991	2050	2190	2398	2456	1536
55°	1516	1592	1831	2080	2188	1352
65°	1009	1148	1495	1805	1900	1003
75°	526	756	1191	1512	1633	556
85°	123	461	923	1256	1367	138
90°	13	366	817	1137	1263	13
95°	17	303	722	1038	1161	17
105°	56	245	578	849	958	59
115°	108	240	479	693	782	104
125°	150	243	412	568	630	132
135°	176	236	370	481	518	137
145°	191	217	305	403	427	120
155°	212	223	251	316	353	97
165°	251	245	236	230	286	70
175°	275	266	236	193	123	26
180°	225	225	225	225	225	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3321.0	3321.0	3321.0	3321.0	3321.0
2.5°	3328.4	3339.6	3293.1	3321.0	3300.6
5°	3317.3	3326.6	3295.0	3319.1	3272.7
7.5°	3313.6	3309.9	3270.8	3302.4	3259.7
10°	3265.3	3278.3	3231.8	3274.6	3254.1
12.5°	3224.4	3250.4	3209.6	3243.0	3200.3
15°	3185.4	3187.3	3176.1	3196.6	3187.3
17.5°	3120.4	3137.1	3111.1	3157.5	3140.8
20°	3025.7	3077.7	3053.5	3096.3	3085.1
22.5°	2947.7	2973.7	2994.1	3042.4	3027.5
25°	2865.9	2912.4	2923.5	2973.7	2964.4
27.5°	2782.4	2802.8	2845.5	2899.4	2901.2
30°	2678.3	2700.6	2760.1	2821.4	2838.1
32.5°	2555.8	2626.3	2661.6	2754.5	2780.5
35°	2470.3	2507.5	2566.9	2672.8	2708.1
37.5°	2358.9	2401.6	2481.5	2605.9	2648.6
40°	2230.7	2293.9	2381.2	2535.3	2585.5
42.5°	2102.6	2176.9	2279.0	2459.2	2516.8
45°	1991.1	2050.5	2189.9	2397.9	2455.5
47.5°	1870.4	1942.8	2119.3	2318.0	2383.0
50°	1758.9	1833.2	2033.8	2243.7	2321.7
52.5°	1625.2	1710.6	1941.0	2158.3	2249.3
55°	1515.6	1591.8	1831.4	2080.3	2188.0
57.5°	1394.9	1480.3	1745.9	2022.7	2121.1
60°	1264.9	1372.6	1662.4	1950.2	2045.0
62.5°	1136.7	1264.9	1576.9	1879.7	1972.5
65°	1008.6	1147.9	1495.2	1805.4	1900.1
67.5°	893.4	1043.8	1420.9	1723.6	1840.7
70°	763.4	943.5	1333.6	1647.5	1770.1
72.5°	640.8	852.5	1263.0	1586.2	1708.8
75°	525.6	756.0	1190.6	1511.9	1632.6
77.5°	410.5	664.9	1114.4	1445.0	1576.9
80°	300.9	590.6	1047.6	1380.0	1506.3
82.5°	208.0	525.6	982.6	1326.2	1445.0
85°	122.6	460.6	923.1	1255.6	1367.0
87.5°	55.7	408.6	861.8	1201.7	1311.3
90°	13.0	365.9	817.2	1136.7	1263.0
92.5°	13.0	332.5	763.4	1088.4	1203.6
95°	16.7	302.8	722.5	1038.3	1160.9
97.5°	22.3	280.5	685.4	991.8	1099.6
100°	31.6	265.6	644.5	938.0	1043.8
102.5°	42.7	254.5	607.4	889.7	988.1
105°	55.7	245.2	577.6	848.8	958.4
107.5°	68.7	241.5	547.9	809.8	902.7
110°	81.7	239.6	525.6	769.0	873.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	94.7	237.7	501.5	731.8	815.4
115°	107.7	239.6	479.2	692.8	782.0
117.5°	115.2	239.6	458.8	659.4	733.7
120°	126.3	241.5	443.9	624.1	702.1
122.5°	137.4	241.5	429.1	598.1	666.8
125°	150.4	243.3	412.3	568.4	629.7
127.5°	157.9	243.3	403.1	547.9	603.6
130°	165.3	241.5	390.0	521.9	579.5
132.5°	172.7	237.7	382.6	497.8	551.6
135°	176.5	235.9	369.6	481.1	518.2
137.5°	182.0	230.3	356.6	456.9	497.8
140°	187.6	228.5	338.0	438.3	473.6
142.5°	187.6	222.9	325.0	421.6	453.2
145°	191.3	217.3	304.6	403.1	427.2
147.5°	195.0	215.5	289.8	384.5	414.2
150°	195.0	213.6	276.7	364.0	391.9
152.5°	198.7	215.5	263.7	345.5	371.5
155°	211.7	222.9	250.7	315.8	352.9
157.5°	222.9	230.3	237.7	293.5	332.5
160°	232.2	235.9	226.6	271.2	323.2
162.5°	239.6	241.5	228.5	250.7	302.8
165°	250.7	245.2	235.9	230.3	286.0
167.5°	260.0	248.9	239.6	224.7	273.0
170°	267.5	256.3	235.9	211.7	267.5
172.5°	273.0	258.2	237.7	198.7	224.7
175°	274.9	265.6	235.9	193.2	122.6
177.5°	273.0	267.5	243.3	191.3	109.6
180°	224.7	224.7	224.7	224.7	224.7



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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	15.64	16.95	16.28	17.62	18.38	19.13	20.44	19.77	21.10	21.87
	3H	17.09	18.29	17.74	18.96	19.76	22.00	23.20	22.65	23.87	24.67
	4H	17.56	18.70	18.23	19.38	20.20	23.48	24.62	24.15	25.30	26.11
	6H	17.84	18.90	18.52	19.59	20.42	25.09	26.15	25.77	26.85	27.68
	8H	17.89	18.91	18.59	19.63	20.46	25.95	26.97	26.64	27.69	28.52
	12H	17.91	18.89	18.62	19.60	20.46	26.90	27.87	27.60	28.58	29.44
4H	2H	16.79	17.93	17.46	18.62	19.43	19.46	20.60	20.13	21.29	22.10
	3H	18.49	19.47	19.18	20.19	21.02	22.56	23.54	23.25	24.26	25.09
	4H	19.09	19.99	19.79	20.72	21.57	24.23	25.13	24.93	25.85	26.71
	6H	19.50	20.30	20.22	21.05	21.91	26.04	26.83	26.75	27.58	28.45
	8H	19.61	20.36	20.33	21.11	21.99	27.01	27.76	27.73	28.51	29.39
	12H	19.67	20.35	20.41	21.12	22.01	28.08	28.77	28.83	29.53	30.42
8H	4H	20.14	20.89	20.86	21.64	22.52	24.40	25.16	25.13	25.90	26.78
	6H	20.79	21.43	21.54	22.21	23.09	26.39	27.03	27.14	27.82	28.70
	8H	21.01	21.59	21.78	22.38	23.27	27.51	28.09	28.27	28.87	29.77
	12H	21.16	21.68	21.93	22.46	23.41	28.77	29.29	29.54	30.06	31.02
12H	4H	20.48	21.17	21.23	21.94	22.82	24.40	25.09	25.14	25.85	26.74
	6H	21.29	21.87	22.05	22.65	23.55	26.42	27.00	27.18	27.79	28.68
	8H	21.64	22.15	22.40	22.93	23.88	27.60	28.12	28.37	28.90	29.85