

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: P894698

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

Issue Date: 11/11/2024

**Test Information**

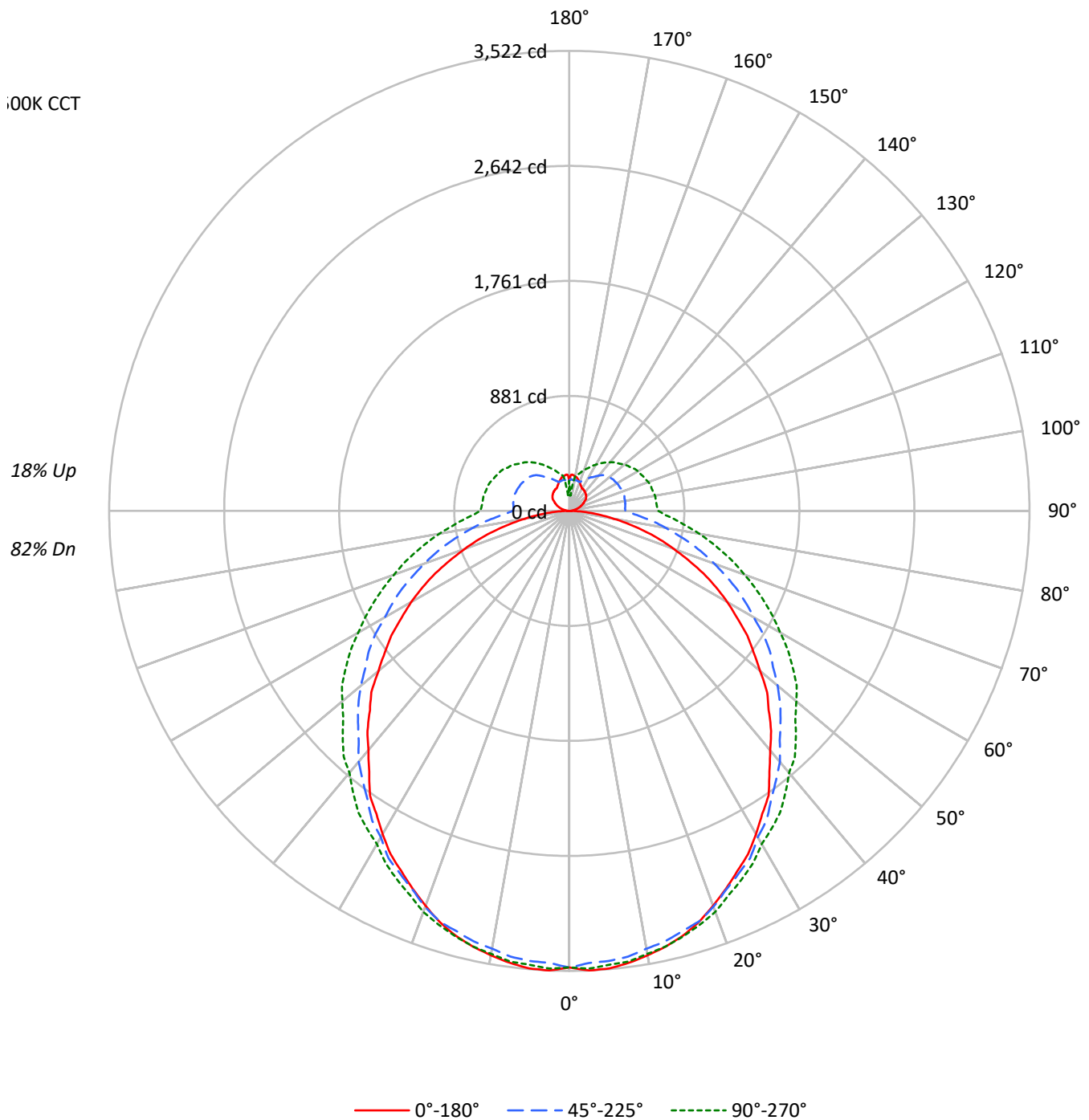
Test Method: LM-79-2019  
Report Number: P894698  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-16HL-FLTU-UNV-L935  
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 35  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13142.0 lumens  
Efficiency: N/A  
Efficacy: 113.5 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.26 / 1.36  
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 (A<sub>in</sub>): 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	0
RCR																					
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	86	86	86	82
1	103	98	93	89	99	94	90	86	87	83	80	80	77	74	73	71	69	69	69	69	66
2	93	85	77	71	89	81	75	69	75	70	65	69	65	61	63	60	57	57	57	57	54
3	85	74	66	59	81	71	63	57	66	59	54	60	55	51	56	51	48	48	48	48	45
4	78	65	56	49	74	63	55	48	58	51	46	54	48	43	50	45	41	41	41	41	38
5	71	58	49	42	68	56	48	41	52	45	39	48	42	37	44	39	35	35	35	35	33
6	66	52	43	37	63	50	42	36	47	40	34	43	37	33	40	35	31	31	31	31	28
7	61	47	38	32	58	46	37	32	42	35	30	39	33	29	37	31	27	27	27	27	25
8	56	43	34	29	54	42	34	28	39	32	27	36	30	26	34	28	24	24	24	24	22
9	53	39	31	26	50	38	30	25	36	29	24	33	27	23	31	26	22	22	22	22	20
10	49	36	28	23	47	35	28	23	33	26	22	31	25	21	29	24	20	20	20	20	18

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

	0°	45°	90°
0°	12403	12403	12403
5°	12495	11896	11856
10°	12390	11441	11314
15°	12277	11039	10798
20°	12033	10614	10285
25°	11768	10089	9719
30°	11530	9574	9169
35°	11314	9084	8815
40°	10843	8663	8304
45°	10554	8161	7948
50°	10212	7739	7573
55°	9914	7339	7239
60°	9483	6788	6790
65°	8994	6344	6367
70°	8234	5794	5907
75°	7448	5245	5469
80°	6115	4643	5026
85°	4600	4063	4612

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10554 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	331.1	2.5
10°-20°	945.5	7.2
20°-30°	1420.3	10.8
30°-40°	1702.3	13.0
40°-50°	1784.7	13.6
50°-60°	1674.2	12.7
60°-70°	1390.6	10.6
70°-80°	994.3	7.6
80°-90°	589.7	4.5
90°-100°	432.6	3.3
100°-110°	426.2	3.2
110°-120°	397.6	3.0
120°-130°	348.9	2.7
130°-140°	280.9	2.1
140°-150°	201.6	1.5
150°-160°	128.1	1.0
160°-170°	71.0	0.5
170°-180°	22.4	0.2
0°-30°	2697.0	20.5
0°-40°	4399.3	33.5
0°-60°	7858.2	59.8
0°-90°	10832.8	82.4
90°-120°	1256.3	9.6
90°-150°	2087.7	15.9
90°-180°	2309.0	17.6
0°-180°	13142.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3496	3496	3496	3496	3496	
5°	3516	3509	3458	3475	3488	333
15°	3366	3345	3332	3356	3371	947
25°	3042	3070	3065	3100	3117	1404
35°	2660	2669	2693	2771	2816	1651
45°	2158	2220	2286	2437	2452	1670
55°	1662	1716	1874	2026	2086	1479
65°	1131	1217	1414	1603	1649	1115
75°	596	734	962	1161	1215	630
85°	147	321	563	752	823	161
90°	6	195	429	613	680	12
95°	17	204	429	606	669	17
105°	59	225	436	598	654	63
115°	108	243	427	568	624	106
125°	154	251	414	528	576	135
135°	178	242	384	477	516	138
145°	193	223	316	420	450	122
155°	212	223	258	325	368	98
165°	253	245	238	236	295	71
175°	279	268	240	199	121	26
180°	230	230	230	230	230	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3495.7	3495.7	3495.7	3495.7	3495.7
2.5°	3521.7	3493.8	3464.1	3508.7	3506.8
5°	3516.1	3508.7	3458.5	3475.2	3488.2
7.5°	3490.1	3471.5	3441.8	3482.7	3478.9
10°	3454.8	3432.5	3402.8	3426.9	3443.6
12.5°	3415.8	3397.2	3376.8	3402.8	3413.9
15°	3365.6	3345.2	3332.2	3356.4	3371.2
17.5°	3300.6	3295.1	3296.9	3298.8	3322.9
20°	3217.0	3220.8	3226.3	3259.8	3267.2
22.5°	3131.6	3152.0	3137.2	3189.2	3185.5
25°	3042.4	3070.3	3064.7	3100.0	3116.7
27.5°	2962.6	2964.4	2997.9	3048.0	3042.4
30°	2856.7	2888.3	2884.6	2945.9	2945.9
32.5°	2749.0	2795.4	2810.3	2864.1	2882.7
35°	2659.8	2669.1	2693.3	2771.3	2815.8
37.5°	2514.9	2559.5	2598.5	2700.7	2717.4
40°	2392.4	2436.9	2507.5	2626.4	2617.1
42.5°	2286.5	2332.9	2384.9	2522.4	2555.8
45°	2158.3	2219.6	2286.5	2436.9	2451.8
47.5°	2054.3	2102.6	2189.9	2327.3	2345.9
50°	1907.6	1985.6	2080.3	2240.0	2267.9
52.5°	1777.5	1844.4	1965.1	2130.5	2193.6
55°	1662.4	1716.3	1874.1	2026.4	2085.9
57.5°	1521.2	1595.5	1760.8	1929.9	1983.7
60°	1396.8	1469.2	1629.0	1822.1	1864.8
62.5°	1264.9	1350.3	1523.1	1710.7	1759.0
65°	1131.2	1216.6	1413.5	1602.9	1649.4
67.5°	986.3	1092.2	1292.8	1489.6	1537.9
70°	850.7	965.9	1181.3	1378.2	1426.5
72.5°	728.1	852.6	1071.7	1274.2	1326.2
75°	596.2	733.7	962.1	1160.9	1214.7
77.5°	468.1	616.7	848.8	1049.4	1112.6
80°	343.6	507.1	750.4	943.6	1010.4
82.5°	241.5	408.6	659.4	848.8	910.1
85°	146.7	321.3	562.8	752.3	822.8
87.5°	65.0	248.9	486.6	674.2	737.4
90°	5.6	195.0	429.1	612.9	679.8
92.5°	11.1	198.7	427.2	605.5	672.4
95°	16.7	204.3	429.1	605.5	668.7
97.5°	24.1	211.7	432.8	605.5	666.8
100°	35.3	215.5	434.6	605.5	666.8
102.5°	46.4	221.0	432.8	596.2	659.4
105°	59.4	224.7	436.5	598.1	653.8
107.5°	72.4	228.5	436.5	588.8	652.0
110°	85.4	234.0	432.8	583.2	644.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	96.6	239.6	430.9	572.1	631.5
115°	107.7	243.3	427.2	568.4	624.1
117.5°	118.9	245.2	425.3	559.1	612.9
120°	128.2	248.9	421.6	547.9	607.4
122.5°	139.3	250.8	416.1	536.8	596.2
125°	154.2	250.8	414.2	527.5	575.8
127.5°	161.6	252.6	406.8	516.4	566.5
130°	169.0	247.0	403.1	503.4	551.7
132.5°	174.6	245.2	393.8	490.4	533.1
135°	178.3	241.5	384.5	477.4	516.4
137.5°	183.9	235.9	371.5	468.1	505.2
140°	187.6	232.2	352.9	449.5	486.6
142.5°	191.3	226.6	334.3	432.8	468.1
145°	193.2	222.9	315.8	419.8	449.5
147.5°	198.7	217.3	304.6	403.1	429.1
150°	196.9	213.6	287.9	382.6	408.6
152.5°	202.5	219.2	273.0	354.8	391.9
155°	211.7	222.9	258.2	325.0	367.8
157.5°	221.0	230.3	247.0	299.0	349.2
160°	234.0	234.0	234.0	278.6	334.3
162.5°	241.5	241.5	235.9	254.5	313.9
165°	252.6	245.2	237.7	235.9	295.3
167.5°	263.8	248.9	241.5	228.5	282.3
170°	265.6	254.5	239.6	215.5	273.0
172.5°	273.0	260.0	237.7	204.3	211.7
175°	278.6	267.5	239.6	198.7	120.7
177.5°	276.8	267.5	245.2	198.7	117.0
180°	230.3	230.3	230.3	230.3	230.3



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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	16.50	17.82	17.11	18.45	19.16	19.09	20.41	19.70	21.04	21.75
	3H	17.93	19.13	18.55	19.77	20.52	21.49	22.69	22.11	23.33	24.08
	4H	18.39	19.53	19.04	20.18	20.95	22.63	23.77	23.27	24.42	25.18
	6H	18.66	19.72	19.31	20.38	21.16	23.78	24.85	24.44	25.51	26.28
	8H	18.71	19.73	19.38	20.41	21.19	24.37	25.38	25.03	26.06	26.85
	12H	18.73	19.70	19.40	20.37	21.18	25.00	25.97	25.68	26.65	27.46
4H	2H	17.38	18.52	18.03	19.17	19.94	19.43	20.57	20.07	21.22	21.98
	3H	19.03	20.00	19.69	20.69	21.47	22.04	23.01	22.70	23.70	24.48
	4H	19.62	20.50	20.29	21.20	22.01	23.34	24.23	24.02	24.92	25.73
	6H	19.99	20.77	20.68	21.49	22.31	24.67	25.45	25.36	26.17	26.99
	8H	20.08	20.82	20.78	21.53	22.36	25.34	26.08	26.04	26.79	27.63
	12H	20.12	20.79	20.84	21.53	22.37	26.09	26.75	26.81	27.49	28.33
8H	4H	20.25	20.99	20.95	21.70	22.54	23.49	24.22	24.19	24.94	25.77
	6H	20.79	21.41	21.52	22.16	23.00	24.96	25.58	25.69	26.34	27.17
	8H	20.96	21.51	21.70	22.27	23.12	25.76	26.32	26.50	27.07	27.93
	12H	21.06	21.56	21.81	22.31	23.22	26.66	27.15	27.40	27.90	28.81
12H	4H	20.42	21.08	21.14	21.82	22.66	23.48	24.15	24.20	24.89	25.73
	6H	21.04	21.60	21.78	22.36	23.21	24.98	25.54	25.72	26.30	27.15
	8H	21.29	21.79	22.03	22.53	23.44	25.83	26.33	26.57	27.07	27.98