

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: P894697

Luminaire Tested: 8TMB-16HL-FLTU-UNV-L930

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894697
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-L930
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS WITH UPLIGHT, 90CRI, 30
Light Source: -
Ballast/Driver: -

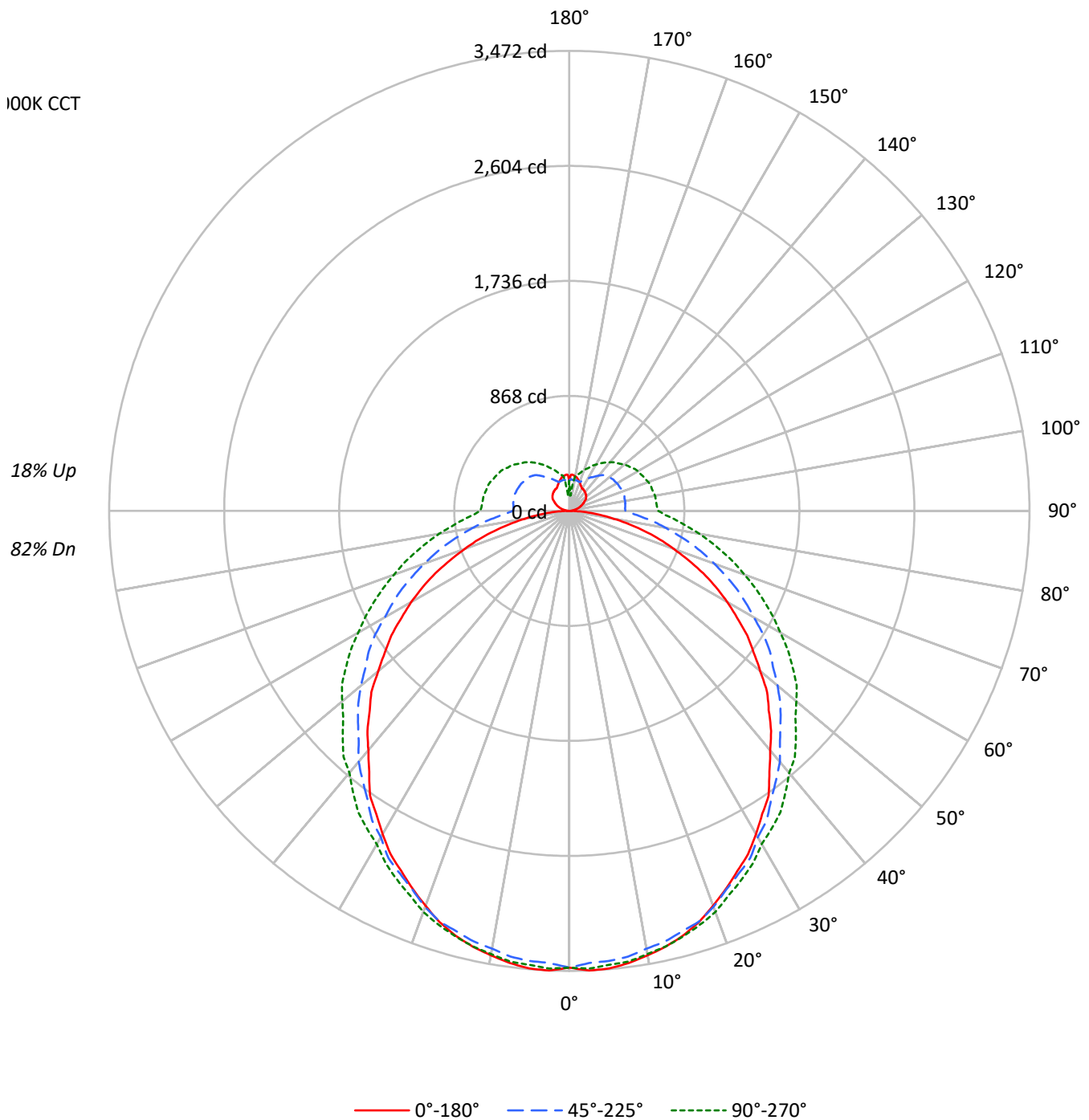
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12957.0 lumens
Efficiency: N/A
Efficacy: 111.9 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_{in}): 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

TEST NUMBER: P894697
CATALOG NUMBER: 8TMB-16HL-FLTU-UNV-L930

Luminous Intensity Polar Plot





TEST NUMBER: P894697
 CATALOG NUMBER: 8TMB-16HL-FLTU-UNV-L930

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°	12228	12228	12228
5°	12319	11728	11689
10°	12216	11280	11155
15°	12104	10884	10646
20°	11863	10465	10140
25°	11602	9947	9582
30°	11368	9440	9040
35°	11155	8956	8691
40°	10691	8541	8187
45°	10406	8046	7836
50°	10068	7630	7467
55°	9774	7236	7137
60°	9349	6692	6694
65°	8866	6255	6277
70°	8118	5712	5823
75°	7343	5171	5392
80°	6030	4578	4956
85°	4537	4006	4548

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10406 cd/sqm



TEST NUMBER: P894697
 CATALOG NUMBER: 8TMB-16HL-FLTU-UNV-L930

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.5	2.5
10°-20°	932.2	7.2
20°-30°	1400.3	10.8
30°-40°	1678.3	13.0
40°-50°	1759.6	13.6
50°-60°	1650.7	12.7
60°-70°	1371.0	10.6
70°-80°	980.3	7.6
80°-90°	581.4	4.5
90°-100°	426.5	3.3
100°-110°	420.2	3.2
110°-120°	392.0	3.0
120°-130°	343.9	2.7
130°-140°	277.0	2.1
140°-150°	198.8	1.5
150°-160°	126.3	1.0
160°-170°	70.0	0.5
170°-180°	22.0	0.2
0°-30°	2659.0	20.5
0°-40°	4337.4	33.5
0°-60°	7747.6	59.8
0°-90°	10680.3	82.4
90°-120°	1238.6	9.6
90°-150°	2058.3	15.9
90°-180°	2277.0	17.6
0°-180°	12957.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3446	3446	3446	3446	3446	
5°	3467	3459	3410	3426	3439	329
15°	3318	3298	3285	3309	3324	934
25°	3000	3027	3022	3056	3073	1384
35°	2622	2632	2655	2732	2776	1628
45°	2128	2188	2254	2403	2417	1646
55°	1639	1692	1848	1998	2056	1458
65°	1115	1200	1394	1580	1626	1099
75°	588	723	949	1144	1198	621
85°	145	317	555	742	811	159
90°	6	192	423	604	670	12
95°	16	201	423	597	659	17
105°	59	222	430	590	645	62
115°	106	240	421	560	615	105
125°	152	247	408	520	568	133
135°	176	238	379	471	509	136
145°	190	220	311	414	443	120
155°	209	220	254	320	363	97
165°	249	242	234	233	291	70
175°	275	264	236	196	119	26
180°	227	227	227	227	227	



TEST NUMBER: P894697

CATALOG NUMBER: 8TMB-16HL-FLTU-UNV-L930

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3446.4	3446.4	3446.4	3446.4	3446.4
2.5°	3472.1	3444.6	3415.3	3459.3	3457.4
5°	3466.6	3459.3	3409.8	3426.3	3439.1
7.5°	3441.0	3422.6	3393.3	3433.6	3430.0
10°	3406.2	3384.2	3354.9	3378.7	3395.2
12.5°	3367.7	3349.4	3329.2	3354.9	3365.9
15°	3318.3	3298.1	3285.3	3309.1	3323.8
17.5°	3254.2	3248.7	3250.5	3252.3	3276.1
20°	3171.8	3175.4	3180.9	3213.9	3221.2
22.5°	3087.5	3107.7	3093.0	3144.3	3140.6
25°	2999.6	3027.1	3021.6	3056.4	3072.9
27.5°	2920.9	2922.7	2955.7	3005.1	2999.6
30°	2816.5	2847.6	2844.0	2904.4	2904.4
32.5°	2710.3	2756.1	2770.7	2823.8	2842.1
35°	2622.4	2631.5	2655.3	2732.3	2776.2
37.5°	2479.5	2523.5	2561.9	2662.7	2679.1
40°	2358.7	2402.6	2472.2	2589.4	2580.3
42.5°	2254.3	2300.1	2351.3	2486.9	2519.8
45°	2127.9	2188.4	2254.3	2402.6	2417.3
47.5°	2025.4	2073.0	2159.1	2294.6	2312.9
50°	1880.7	1957.6	2051.0	2208.5	2236.0
52.5°	1752.5	1818.4	1937.5	2100.5	2162.7
55°	1639.0	1692.1	1847.8	1997.9	2056.5
57.5°	1499.8	1573.1	1736.0	1902.7	1955.8
60°	1377.1	1448.5	1606.0	1796.5	1838.6
62.5°	1247.1	1331.3	1501.6	1686.6	1734.2
65°	1115.2	1199.5	1393.6	1580.4	1626.2
67.5°	972.4	1076.8	1274.6	1468.7	1516.3
70°	838.7	952.3	1164.7	1358.8	1406.4
72.5°	717.9	840.6	1056.6	1256.3	1307.5
75°	587.8	723.4	948.6	1144.5	1197.6
77.5°	461.5	608.0	836.9	1034.7	1096.9
80°	338.8	499.9	739.8	930.3	996.2
82.5°	238.1	402.9	650.1	836.9	897.3
85°	144.7	316.8	554.9	741.7	811.3
87.5°	64.1	245.4	479.8	664.8	727.0
90°	5.5	192.3	423.0	604.3	670.2
92.5°	11.0	195.9	421.2	597.0	662.9
95°	16.5	201.4	423.0	597.0	659.3
97.5°	23.8	208.8	426.7	597.0	657.4
100°	34.8	212.4	428.5	597.0	657.4
102.5°	45.8	217.9	426.7	587.8	650.1
105°	58.6	221.6	430.3	589.7	644.6
107.5°	71.4	225.2	430.3	580.5	642.8
110°	84.2	230.7	426.7	575.0	635.5



TEST NUMBER: P894697
 CATALOG NUMBER: 8TMB-16HL-FLTU-UNV-L930

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	95.2	236.2	424.9	564.0	622.6
115°	106.2	239.9	421.2	560.4	615.3
117.5°	117.2	241.7	419.4	551.2	604.3
120°	126.4	245.4	415.7	540.2	598.8
122.5°	137.3	247.2	410.2	529.2	587.8
125°	152.0	247.2	408.4	520.1	567.7
127.5°	159.3	249.1	401.0	509.1	558.5
130°	166.6	243.6	397.4	496.3	543.9
132.5°	172.1	241.7	388.2	483.5	525.6
135°	175.8	238.1	379.1	470.6	509.1
137.5°	181.3	232.6	366.3	461.5	498.1
140°	185.0	228.9	347.9	443.2	479.8
142.5°	188.6	223.4	329.6	426.7	461.5
145°	190.5	219.8	311.3	413.9	443.2
147.5°	195.9	214.3	300.3	397.4	423.0
150°	194.1	210.6	283.8	377.2	402.9
152.5°	199.6	216.1	269.2	349.8	386.4
155°	208.8	219.8	254.5	320.5	362.6
157.5°	217.9	227.1	243.6	294.8	344.3
160°	230.7	230.7	230.7	274.7	329.6
162.5°	238.1	238.1	232.6	250.9	309.5
165°	249.1	241.7	234.4	232.6	291.2
167.5°	260.0	245.4	238.1	225.2	278.4
170°	261.9	250.9	236.2	212.4	269.2
172.5°	269.2	256.4	234.4	201.4	208.8
175°	274.7	263.7	236.2	195.9	119.0
177.5°	272.9	263.7	241.7	195.9	115.4
180°	227.1	227.1	227.1	227.1	227.1



TEST NUMBER: P894697
 CATALOG NUMBER: 8TMB-16HL-FLTU-UNV-L930

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	16.45	17.77	17.06	18.40	19.12	19.04	20.36	19.65	20.99	21.71
	3H	17.88	19.08	18.50	19.72	20.47	21.44	22.64	22.06	23.28	24.03
	4H	18.34	19.48	18.99	20.13	20.90	22.58	23.72	23.22	24.37	25.13
	6H	18.61	19.67	19.27	20.33	21.11	23.73	24.80	24.39	25.46	26.23
	8H	18.66	19.68	19.33	20.36	21.14	24.32	25.33	24.99	26.02	26.80
	12H	18.68	19.65	19.35	20.32	21.14	24.95	25.92	25.63	26.60	27.41
4H	2H	17.33	18.47	17.98	19.13	19.89	19.38	20.52	20.02	21.17	21.93
	3H	18.99	19.96	19.64	20.64	21.43	21.99	22.96	22.65	23.65	24.43
	4H	19.57	20.46	20.24	21.15	21.96	23.29	24.18	23.97	24.87	25.68
	6H	19.94	20.72	20.64	21.44	22.26	24.62	25.40	25.31	26.12	26.94
	8H	20.03	20.77	20.73	21.48	22.31	25.29	26.03	25.99	26.74	27.58
	12H	20.07	20.74	20.79	21.48	22.32	26.04	26.70	26.76	27.44	28.28
8H	4H	20.21	20.94	20.90	21.65	22.49	23.44	24.17	24.14	24.89	25.72
	6H	20.74	21.36	21.47	22.11	22.95	24.91	25.53	25.64	26.29	27.12
	8H	20.91	21.47	21.65	22.22	23.07	25.71	26.27	26.45	27.03	27.88
	12H	21.01	21.51	21.76	22.26	23.17	26.61	27.11	27.35	27.85	28.76
12H	4H	20.37	21.04	21.09	21.77	22.61	23.43	24.10	24.15	24.84	25.68
	6H	20.99	21.55	21.73	22.31	23.16	24.93	25.49	25.67	26.25	27.10
	8H	21.24	21.74	21.98	22.48	23.39	25.78	26.28	26.52	27.02	27.93