

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: P894687

Luminaire Tested: 8TMB-16HL-FLT-UNV-L840

Issue Date: 11/11/2024

**Test Information**

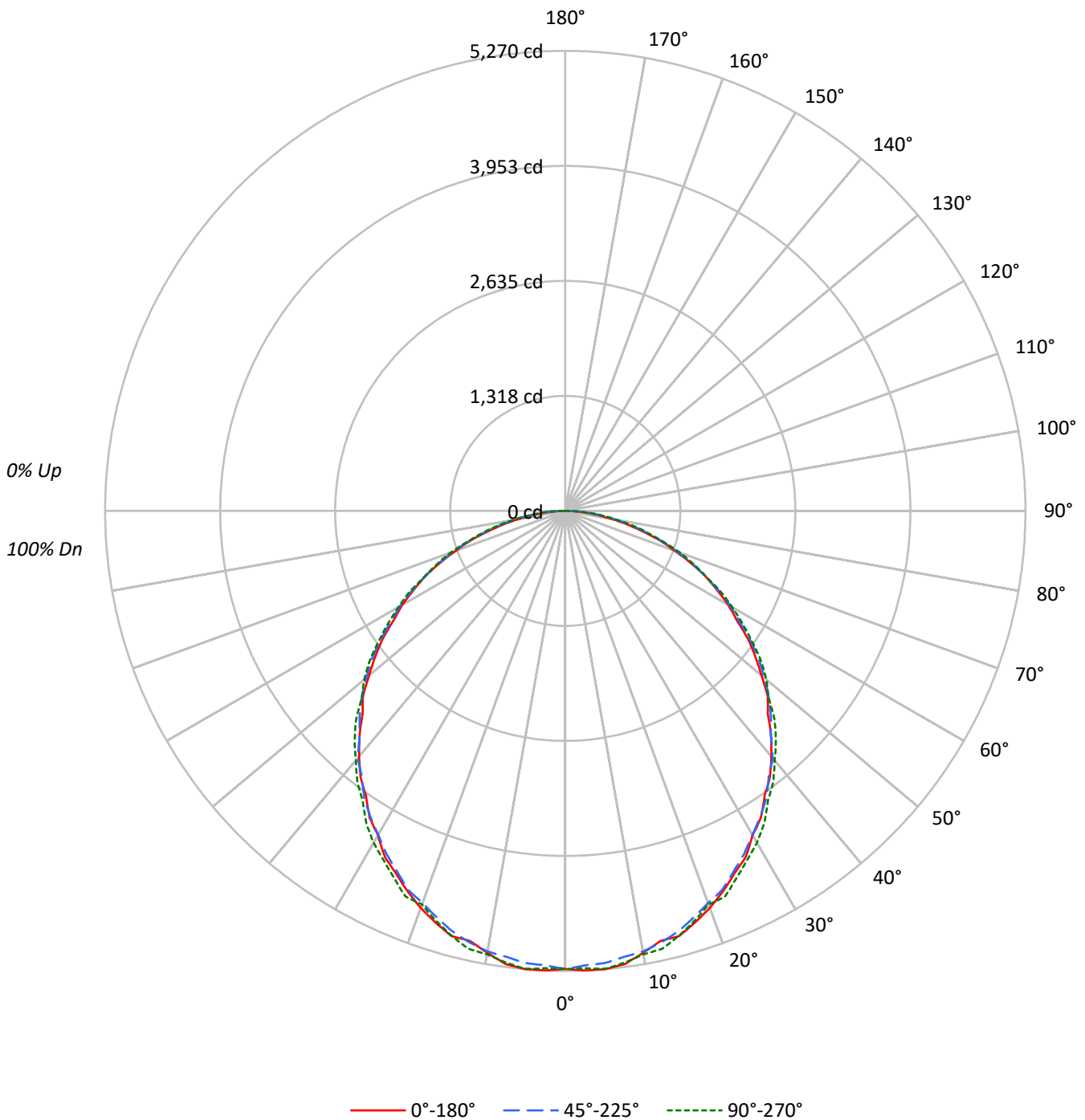
Test Method: LM-79-2019  
Report Number: P894687  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-16HL-FLT-UNV-L840  
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 80CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14539.0 lumens  
Efficiency: N/A  
Efficacy: 125.6 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.34  
Luminous Opening: Rectangular (W 0.38' x L: 7.98' x H: 0')  
CIE Type: 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

TEST NUMBER: P894687  
CATALOG NUMBER: 8TMB-16HL-FLT-UNV-L840

### Luminous Intensity Polar Plot





TEST NUMBER: P894687

CATALOG NUMBER: 8TMB-16HL-FLT-UNV-L840

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	109	104	99	96	106	102	98	94	97	94	91	93	91	88	90	88	86	86	86	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	72	72	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	69	65	61	61	61	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	52	52	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	45	45	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	40	40	40	38
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	35	35	35	33
8	60	47	38	33	59	46	38	32	45	37	32	44	37	32	42	36	32	32	32	32	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	29	29	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	26	26	26	24

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

	0°	45°	90°
0°	18618	18618	18618
5°	18769	18519	18753
10°	18513	18464	18586
15°	18517	18325	18500
20°	18272	18050	18118
25°	17943	17845	18164
30°	17579	17551	17988
35°	17240	17387	17535
40°	17007	17113	17280
45°	16457	16707	17014
50°	16190	16427	16590
55°	15788	15984	16152
60°	15296	15522	15666
65°	14843	14900	14900
70°	13803	14132	14484
75°	12708	13206	13485
80°	11207	12180	12597
85°	10060	11256	12087

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 17014 cd/sqm



TEST NUMBER: P894687  
 CATALOG NUMBER: 8TMB-16HL-FLT-UNV-L840

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	496.6	3.4
10°-20°	1415.4	9.7
20°-30°	2123.0	14.6
30°-40°	2521.5	17.3
40°-50°	2581.6	17.8
50°-60°	2313.0	15.9
60°-70°	1757.1	12.1
70°-80°	1023.4	7.0
80°-90°	307.3	2.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	4035.1	27.8
0°-40°	6556.6	45.1
0°-60°	11451.2	78.8
0°-90°	14539.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14539.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5247	5247	5247	5247	5247	
5°	5270	5250	5200	5231	5265	499
15°	5041	5075	4989	5009	5036	1415
25°	4583	4624	4558	4617	4640	2115
35°	3980	4069	4014	4030	4048	2502
45°	3280	3361	3330	3357	3391	2551
55°	2552	2591	2584	2613	2611	2274
65°	1768	1768	1775	1797	1775	1736
75°	927	943	963	993	984	987
85°	247	252	276	295	297	277
90°	0	0	0	0	0	



TEST NUMBER: P894687

CATALOG NUMBER: 8TMB-16HL-FLT-UNV-L840

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5247.2	5247.2	5247.2	5247.2	5247.2
2.5°	5269.8	5244.9	5210.9	5222.3	5244.9
5°	5269.8	5249.5	5199.6	5231.3	5265.3
7.5°	5235.9	5263.0	5154.3	5154.3	5217.7
10°	5138.4	5190.5	5124.8	5118.0	5158.8
12.5°	5045.5	5140.7	5063.6	5086.3	5136.1
15°	5040.9	5074.9	4988.8	5009.2	5036.4
17.5°	4943.5	4977.5	4884.5	4923.1	4923.1
20°	4839.2	4846.0	4780.3	4864.1	4798.4
22.5°	4719.1	4789.3	4698.7	4725.9	4782.5
25°	4583.1	4623.9	4558.1	4617.1	4639.7
27.5°	4472.0	4521.9	4431.2	4501.5	4508.3
30°	4290.7	4345.1	4283.9	4329.2	4390.4
32.5°	4168.3	4186.4	4154.7	4222.7	4240.8
35°	3980.2	4068.6	4014.2	4030.0	4048.2
37.5°	3848.7	3875.9	3828.3	3882.7	3912.2
40°	3671.9	3712.7	3694.6	3703.6	3730.8
42.5°	3488.3	3531.4	3483.8	3549.5	3569.9
45°	3279.8	3361.4	3329.6	3356.8	3390.8
47.5°	3143.8	3171.0	3161.9	3177.8	3155.1
50°	2933.0	2960.2	2976.0	2996.4	3005.5
52.5°	2744.9	2765.3	2794.7	2806.1	2826.5
55°	2552.2	2590.7	2583.9	2613.4	2611.1
57.5°	2327.8	2384.5	2366.3	2409.4	2409.4
60°	2155.5	2164.6	2187.3	2207.7	2207.7
62.5°	1956.1	1967.4	1978.7	1996.9	2010.5
65°	1767.9	1767.9	1774.7	1797.4	1774.7
67.5°	1550.4	1541.3	1564.0	1591.2	1588.9
70°	1330.5	1341.8	1362.2	1396.2	1396.2
72.5°	1142.4	1142.4	1165.0	1183.2	1180.9
75°	927.0	942.9	963.3	992.8	983.7
77.5°	734.4	745.7	779.7	806.9	809.2
80°	548.5	559.9	596.1	623.3	616.5
82.5°	383.1	398.9	432.9	453.3	451.1
85°	247.1	251.6	276.5	294.7	296.9
87.5°	113.3	122.4	140.5	147.3	147.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P894687  
 CATALOG NUMBER: 8TMB-16HL-FLT-UNV-L840

**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	21.69	23.33	22.05	23.64	23.96	21.79	23.43	22.16	23.75	24.06
	3H	23.47	24.95	23.85	25.28	25.64	23.63	25.11	24.01	25.44	25.80
	4H	24.13	25.53	24.53	25.88	26.25	24.33	25.73	24.73	26.07	26.45
	6H	24.61	25.90	25.02	26.27	26.66	24.88	26.17	25.29	26.54	26.93
	8H	24.76	25.99	25.18	26.38	26.78	25.07	26.31	25.49	26.70	27.09
	12H	24.86	26.05	25.29	26.43	26.86	25.21	26.40	25.64	26.78	27.21
4H	2H	22.33	23.73	22.73	24.08	24.45	22.42	23.81	22.81	24.16	24.54
	3H	24.34	25.51	24.74	25.91	26.31	24.48	25.65	24.89	26.05	26.45
	4H	25.13	26.19	25.56	26.60	27.04	25.32	26.38	25.75	26.79	27.23
	6H	25.73	26.66	26.18	27.10	27.55	26.01	26.94	26.46	27.38	27.83
	8H	25.92	26.79	26.38	27.24	27.70	26.25	27.12	26.71	27.56	28.03
	12H	26.08	26.86	26.56	27.33	27.80	26.45	27.23	26.93	27.71	28.18
8H	4H	25.46	26.33	25.92	26.78	27.24	25.63	26.50	26.09	26.94	27.41
	6H	26.19	26.91	26.68	27.40	27.87	26.45	27.18	26.95	27.67	28.14
	8H	26.46	27.11	26.97	27.62	28.10	26.79	27.44	27.29	27.94	28.43
	12H	26.69	27.26	27.19	27.75	28.31	27.08	27.65	27.58	28.14	28.70
12H	4H	25.51	26.29	25.99	26.76	27.23	25.66	26.45	26.14	26.92	27.39
	6H	26.26	26.91	26.77	27.42	27.90	26.51	27.17	27.02	27.67	28.16
	8H	26.59	27.17	27.10	27.66	28.22	26.91	27.48	27.41	27.97	28.53