

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: P894691

Luminaire Tested: 8TMB-16HL-FLT-UNV-L940

Issue Date: 11/11/2024

**Test Information**

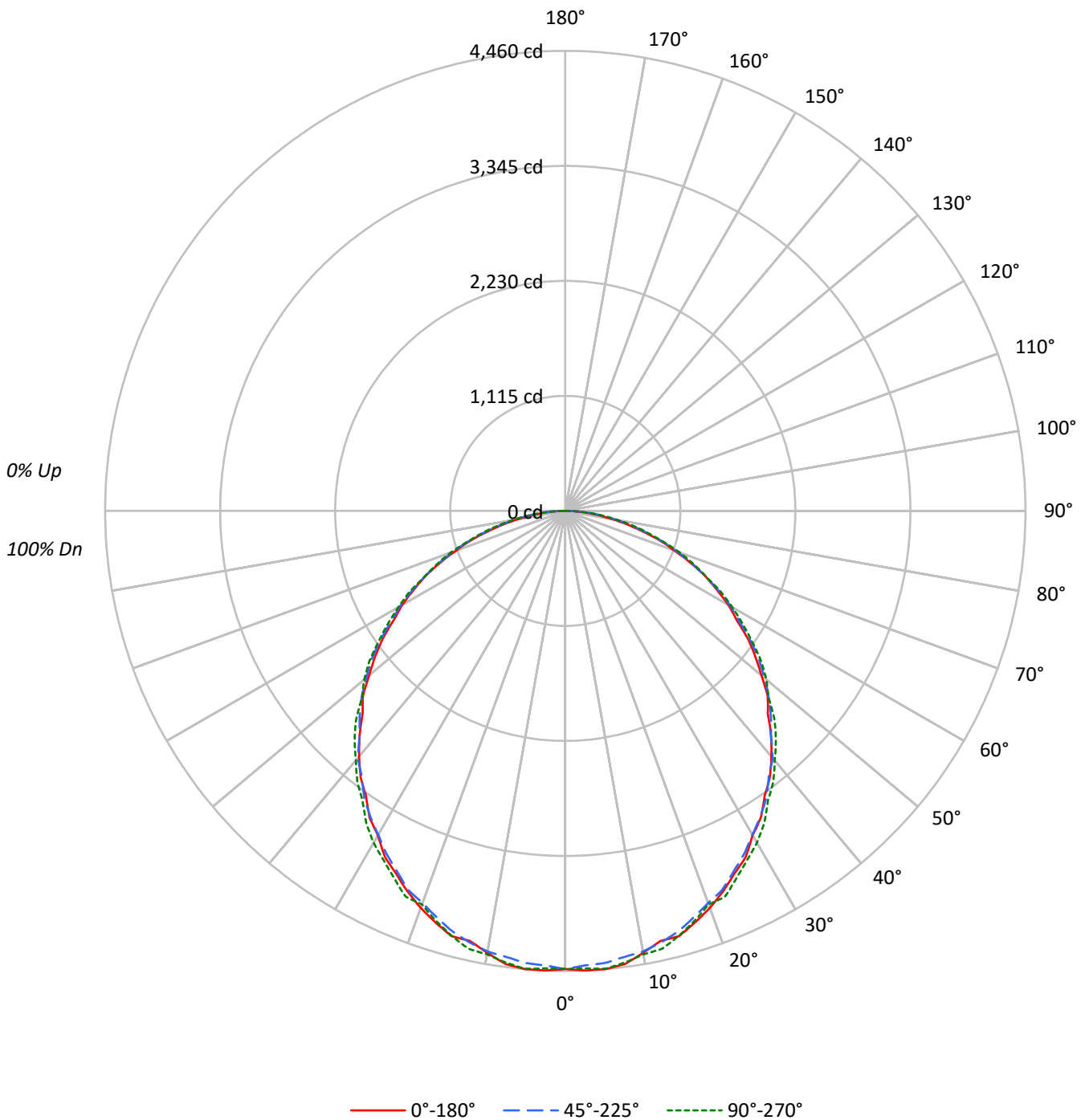
Test Method: LM-79-2019  
Report Number: P894691  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-16HL-FLT-UNV-L940  
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 90CRI, 4000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12305.0 lumens  
Efficiency: N/A  
Efficacy: 106.3 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

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### Luminous Intensity Polar Plot





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**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°	15757	15757	15757
5°	15885	15674	15872
10°	15668	15627	15730
15°	15672	15509	15657
20°	15464	15276	15334
25°	15186	15103	15373
30°	14878	14854	15224
35°	14591	14716	14840
40°	14394	14483	14625
45°	13928	14140	14400
50°	13702	13904	14041
55°	13362	13528	13670
60°	12946	13137	13259
65°	12562	12610	12610
70°	11682	11960	12259
75°	10756	11177	11414
80°	9485	10308	10662
85°	8513	9526	10230

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 14400 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	420.3	3.4
10°-20°	1197.9	9.7
20°-30°	1796.8	14.6
30°-40°	2134.0	17.3
40°-50°	2184.9	17.8
50°-60°	1957.6	15.9
60°-70°	1487.1	12.1
70°-80°	866.1	7.0
80°-90°	260.1	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°	3415.1	27.8
0°-40°	5549.1	45.1
0°-60°	9691.6	78.8
0°-90°	12305.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12305.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4441	4441	4441	4441	4441	
5°	4460	4443	4401	4428	4456	422
15°	4266	4295	4222	4240	4262	1197
25°	3879	3913	3858	3908	3927	1790
35°	3369	3443	3397	3411	3426	2117
45°	2776	2845	2818	2841	2870	2159
55°	2160	2193	2187	2212	2210	1925
65°	1496	1496	1502	1521	1502	1469
75°	785	798	815	840	833	835
85°	209	213	234	249	251	234
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4440.9	4440.9	4440.9	4440.9	4440.9
2.5°	4460.1	4439.0	4410.2	4419.8	4439.0
5°	4460.1	4442.8	4400.6	4427.5	4456.3
7.5°	4431.3	4454.4	4362.3	4362.3	4416.0
10°	4348.8	4393.0	4337.3	4331.6	4366.1
12.5°	4270.2	4350.8	4285.5	4304.7	4346.9
15°	4266.4	4295.1	4222.2	4239.5	4262.5
17.5°	4183.9	4212.6	4134.0	4166.6	4166.6
20°	4095.6	4101.4	4045.7	4116.7	4061.1
22.5°	3994.0	4053.4	3976.7	3999.7	4047.7
25°	3878.9	3913.4	3857.8	3907.6	3926.8
27.5°	3784.9	3827.1	3750.3	3809.8	3815.5
30°	3631.4	3677.4	3625.6	3664.0	3715.8
32.5°	3527.8	3543.1	3516.3	3573.8	3589.2
35°	3368.6	3443.4	3397.4	3410.8	3426.1
37.5°	3257.3	3280.3	3240.1	3286.1	3311.0
40°	3107.7	3142.2	3126.9	3134.5	3157.6
42.5°	2952.3	2988.8	2948.5	3004.1	3021.4
45°	2775.8	2844.9	2818.0	2841.0	2869.8
47.5°	2660.7	2683.7	2676.1	2689.5	2670.3
50°	2482.3	2505.3	2518.8	2536.0	2543.7
52.5°	2323.1	2340.4	2365.3	2374.9	2392.2
55°	2160.0	2192.6	2186.9	2211.8	2209.9
57.5°	1970.1	2018.1	2002.7	2039.2	2039.2
60°	1824.3	1832.0	1851.2	1868.4	1868.4
62.5°	1655.5	1665.1	1674.7	1690.0	1701.6
65°	1496.3	1496.3	1502.0	1521.2	1502.0
67.5°	1312.1	1304.5	1323.6	1346.7	1344.7
70°	1126.1	1135.6	1152.9	1181.7	1181.7
72.5°	966.8	966.8	986.0	1001.4	999.4
75°	784.6	798.0	815.3	840.2	832.6
77.5°	621.5	631.1	659.9	682.9	684.8
80°	464.2	473.8	504.5	527.5	521.8
82.5°	324.2	337.6	366.4	383.7	381.7
85°	209.1	212.9	234.0	249.4	251.3
87.5°	95.9	103.6	118.9	124.7	124.7
90°	0.0	0.0	0.0	0.0	0.0



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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	21.11	22.75	21.47	23.06	23.38	21.21	22.85	21.58	23.17	23.48
	3H	22.89	24.37	23.27	24.70	25.06	23.05	24.53	23.43	24.86	25.22
	4H	23.55	24.95	23.95	25.30	25.67	23.75	25.15	24.15	25.49	25.87
	6H	24.03	25.32	24.44	25.69	26.08	24.30	25.59	24.71	25.96	26.35
	8H	24.18	25.41	24.60	25.80	26.20	24.49	25.73	24.91	26.12	26.51
	12H	24.28	25.47	24.71	25.85	26.28	24.63	25.82	25.06	26.20	26.63
4H	2H	21.75	23.15	22.15	23.50	23.87	21.84	23.23	22.23	23.58	23.96
	3H	23.76	24.93	24.17	25.33	25.73	23.90	25.07	24.31	25.47	25.87
	4H	24.55	25.61	24.98	26.02	26.46	24.74	25.80	25.17	26.21	26.65
	6H	25.15	26.08	25.60	26.52	26.97	25.43	26.36	25.88	26.80	27.25
	8H	25.34	26.21	25.80	26.66	27.12	25.67	26.54	26.13	26.98	27.45
	12H	25.50	26.28	25.98	26.75	27.22	25.87	26.65	26.35	27.13	27.60
8H	4H	24.88	25.75	25.34	26.20	26.66	25.05	25.92	25.51	26.36	26.83
	6H	25.61	26.33	26.10	26.82	27.29	25.87	26.60	26.37	27.09	27.56
	8H	25.88	26.53	26.39	27.04	27.52	26.21	26.86	26.72	27.36	27.85
	12H	26.11	26.68	26.61	27.17	27.73	26.50	27.07	27.00	27.56	28.12
12H	4H	24.93	25.71	25.41	26.19	26.65	25.08	25.87	25.56	26.34	26.81
	6H	25.68	26.33	26.19	26.84	27.32	25.93	26.59	26.44	27.09	27.58
	8H	26.01	26.59	26.52	27.08	27.64	26.33	26.91	26.83	27.40	27.96