

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: P894704

Luminaire Tested: 8TMB-16HL-LVR-UNV-L850

Issue Date: 11/11/2024

**Test Information**

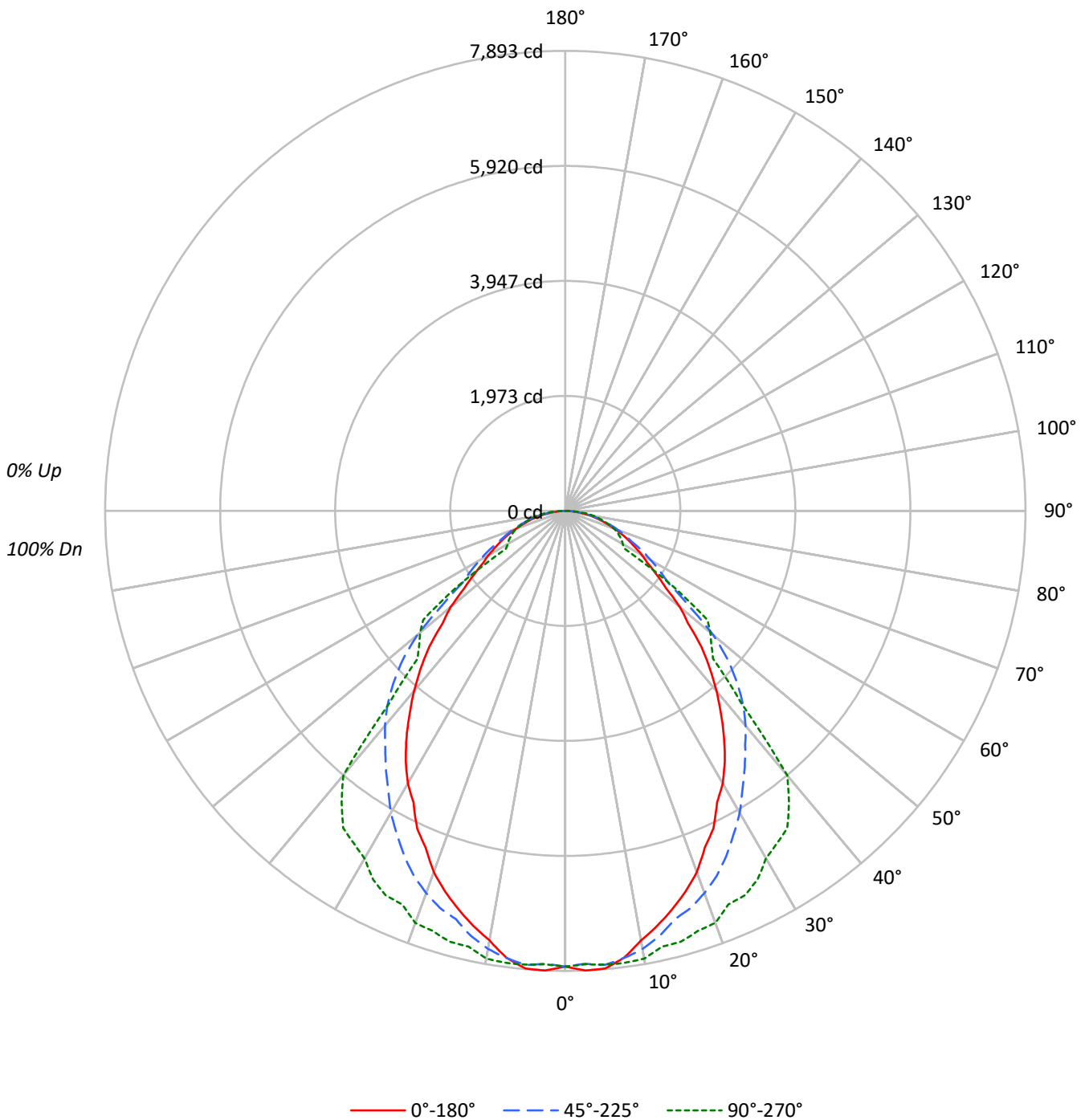
Test Method: LM-79-2019  
Report Number: P894704  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-16HL-LVR-UNV-L850  
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 5000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16364.0 lumens  
Efficiency: N/A  
Efficacy: 141.3 lumens/watt  
Spacing Criteria (0/90/45): 1.05 / 1.32 / 1.26  
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				
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	67	67	65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52	52	52	52	50
6	74	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	47	47	45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	38	38	38	36
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	35	35	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	32	32	30

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

	0°	45°	90°
0°	27738	27738	27738
5°	28073	27852	27836
10°	26966	27496	28100
15°	26001	26642	28118
20°	24906	26345	28400
25°	23531	25572	28502
30°	22115	24504	28210
35°	20566	23241	28760
40°	18684	22279	27426
45°	16555	20910	17983
50°	14169	18275	17945
55°	11873	13336	13961
60°	10802	12040	8081
65°	10120	10659	8636
70°	9313	10099	9241
75°	8750	9474	9411
80°	8163	8960	10086
85°	7010	7478	10748

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 20910 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	742.9	4.5
10°-20°	2078.5	12.7
20°-30°	3029.3	18.5
30°-40°	3465.5	21.2
40°-50°	2964.6	18.1
50°-60°	1955.0	11.9
60°-70°	1181.9	7.2
70°-80°	723.0	4.4
80°-90°	223.3	1.4
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°	5850.7	35.8
0°-40°	9316.2	56.9
0°-60°	14235.8	87.0
0°-90°	16364.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16364.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7818	7818	7818	7818	7818	
5°	7882	7875	7820	7804	7815	739
15°	7078	7161	7253	7717	7655	1990
25°	6011	6103	6532	7090	7280	2750
35°	4748	4987	5366	6208	6640	2958
45°	3299	3554	4167	3894	3584	2526
55°	1919	2027	2156	2555	2257	1746
65°	1205	1235	1270	1134	1029	1191
75°	638	654	691	723	686	674
85°	172	170	184	218	264	195
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7817.6	7817.6	7817.6	7817.6	7817.6
2.5°	7893.4	7870.4	7776.3	7865.8	7785.5
5°	7881.9	7875.0	7819.9	7803.8	7815.3
7.5°	7730.4	7746.4	7737.3	7909.4	7822.2
10°	7484.7	7516.8	7631.6	7872.7	7799.2
12.5°	7291.8	7317.1	7470.9	7829.1	7656.9
15°	7078.3	7161.0	7252.8	7716.6	7654.6
17.5°	6848.7	6926.8	7144.9	7565.1	7558.2
20°	6596.2	6740.8	6977.3	7367.6	7521.4
22.5°	6254.1	6449.2	6782.2	7278.1	7307.9
25°	6010.7	6102.6	6531.9	7089.8	7280.4
27.5°	5641.1	5815.6	6254.1	6818.9	7133.4
30°	5397.7	5542.4	5980.9	6660.5	6885.5
32.5°	5092.4	5264.5	5657.1	6488.3	6759.2
35°	4748.0	4986.7	5365.6	6208.2	6639.8
37.5°	4385.2	4621.7	5069.4	5976.3	6302.3
40°	4033.9	4236.0	4810.0	5698.5	5921.2
42.5°	3673.5	3891.6	4513.8	5149.8	4454.1
45°	3299.2	3554.1	4167.1	3893.9	3583.9
47.5°	2856.1	3168.4	3783.7	3129.3	3395.7
50°	2566.8	2736.7	3310.7	2950.3	3251.0
52.5°	2183.4	2413.0	2658.7	2755.1	3071.9
55°	1919.4	2027.3	2155.9	2555.4	2256.9
57.5°	1676.0	1772.5	1921.7	1802.3	1203.1
60°	1522.2	1565.8	1696.7	1288.0	1138.8
62.5°	1347.7	1391.3	1487.8	1203.1	1092.9
65°	1205.4	1235.2	1269.6	1134.2	1028.6
67.5°	1053.8	1069.9	1106.6	1046.9	966.6
70°	897.7	920.7	973.5	957.4	890.8
72.5°	759.9	780.6	826.5	849.5	787.5
75°	638.3	654.3	691.1	723.2	686.5
77.5°	507.4	523.5	571.7	606.1	590.1
80°	399.5	401.8	438.5	473.0	493.6
82.5°	280.1	284.7	312.2	349.0	390.3
85°	172.2	169.9	183.7	218.1	264.0
87.5°	66.6	64.3	75.8	91.8	135.5
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	19.37	20.85	19.74	21.16	21.48	19.05	20.53	19.41	20.84	21.16
	3H	20.93	22.26	21.31	22.58	22.95	20.67	21.99	21.04	22.32	22.68
	4H	21.53	22.77	21.93	23.12	23.50	21.41	22.65	21.81	23.00	23.38
	6H	21.99	23.13	22.40	23.50	23.89	22.08	23.23	22.50	23.60	23.99
	8H	22.14	23.23	22.57	23.62	24.02	22.36	23.45	22.79	23.84	24.24
	12H	22.24	23.28	22.67	23.66	24.09	22.58	23.62	23.01	24.01	24.44
4H	2H	19.96	21.20	20.36	21.55	21.93	19.71	20.95	20.11	21.30	21.68
	3H	21.75	22.78	22.16	23.18	23.58	21.59	22.62	22.00	23.02	23.42
	4H	22.48	23.40	22.91	23.82	24.26	22.49	23.41	22.92	23.83	24.27
	6H	23.06	23.87	23.52	24.31	24.77	23.30	24.10	23.75	24.54	25.01
	8H	23.26	24.01	23.72	24.46	24.93	23.62	24.38	24.09	24.82	25.29
	12H	23.40	24.07	23.88	24.55	25.02	23.90	24.57	24.38	25.05	25.52
8H	4H	22.80	23.55	23.27	24.00	24.47	22.81	23.56	23.27	24.01	24.48
	6H	23.51	24.13	24.01	24.63	25.10	23.76	24.38	24.26	24.88	25.35
	8H	23.78	24.34	24.30	24.85	25.34	24.18	24.74	24.69	25.25	25.74
	12H	23.99	24.49	24.50	24.98	25.55	24.54	25.04	25.05	25.53	26.10
12H	4H	22.84	23.51	23.32	23.99	24.46	22.84	23.51	23.32	23.99	24.46
	6H	23.58	24.14	24.10	24.65	25.14	23.81	24.37	24.33	24.88	25.37
	8H	23.91	24.41	24.42	24.90	25.47	24.29	24.79	24.80	25.28	25.85