

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: P894701

Luminaire Tested: 8TMB-16HL-LVR-UNV-L830

Issue Date: 11/11/2024

**Test Information**

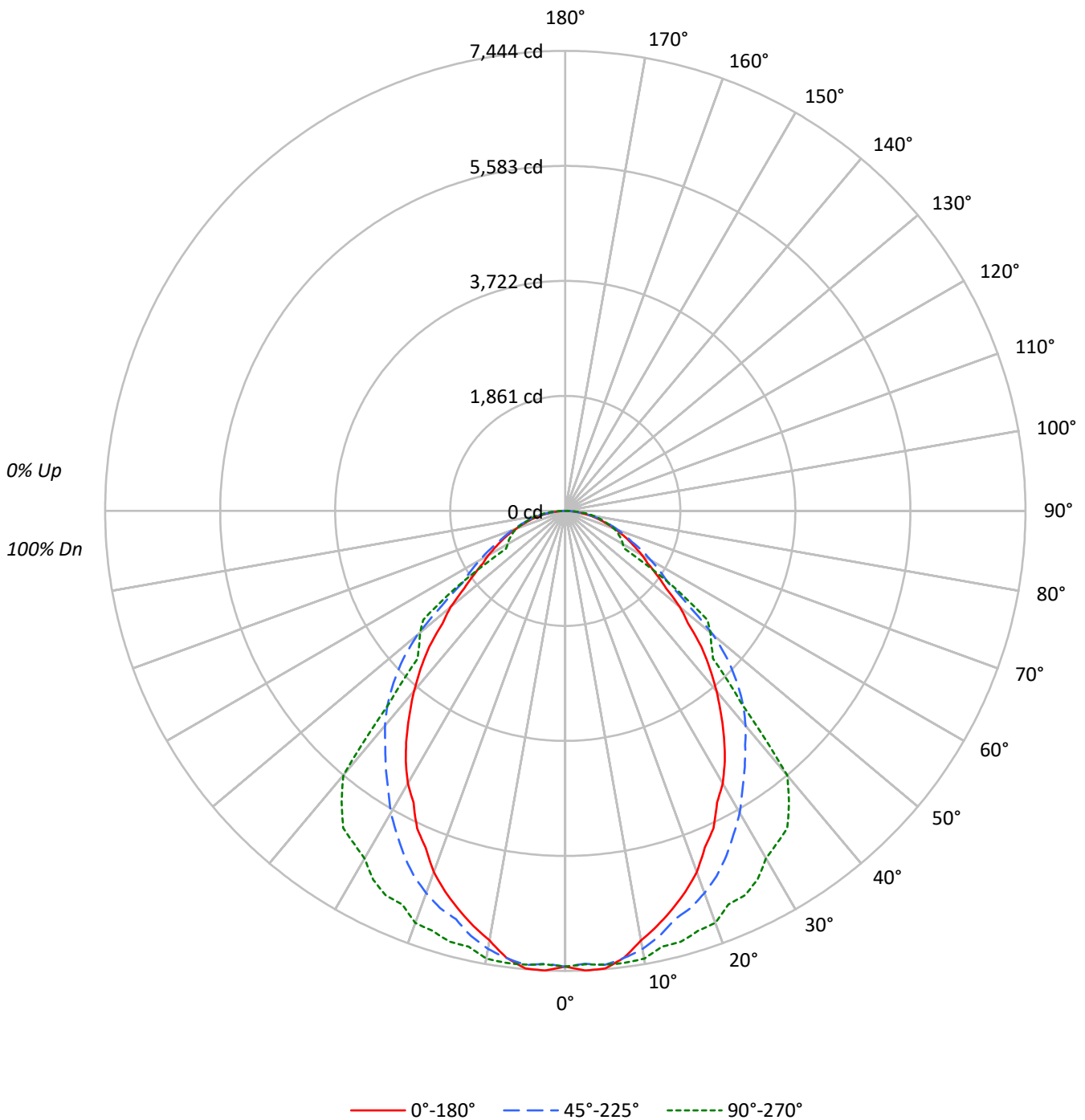
Test Method: LM-79-2019  
Report Number: P894701  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-16HL-LVR-UNV-L830  
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 3000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15433.0 lumens  
Efficiency: N/A  
Efficacy: 133.3 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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	87	
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	77	75	
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	65	
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	59	57	
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52	52	50	
6	74	62	54	48	73	61	54	48	60	53	48	58	52	47	56	51	47	47	45	
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	42	40	
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	38	36	
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	35	33	
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	32	30	

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

	0°	45°	90°
0°	26160	26160	26160
5°	26476	26267	26252
10°	25432	25932	26501
15°	24521	25126	26518
20°	23489	24846	26784
25°	22193	24117	26881
30°	20856	23110	26605
35°	19395	21919	27124
40°	17621	21011	25865
45°	15613	19720	16960
50°	13363	17235	16925
55°	11198	12577	13167
60°	10187	11355	7621
65°	9544	10053	8145
70°	8783	9524	8715
75°	8253	8935	8875
80°	7699	8451	9512
85°	6611	7051	10137

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 19720 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	700.6	4.5
10°-20°	1960.3	12.7
20°-30°	2856.9	18.5
30°-40°	3268.3	21.2
40°-50°	2795.9	18.1
50°-60°	1843.8	11.9
60°-70°	1114.7	7.2
70°-80°	681.9	4.4
80°-90°	210.6	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°	5517.8	35.8
0°-40°	8786.1	56.9
0°-60°	13425.8	87.0
0°-90°	15433.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15433.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7373	7373	7373	7373	7373	
5°	7434	7427	7375	7360	7371	697
15°	6676	6754	6840	7278	7219	1877
25°	5669	5755	6160	6686	6866	2593
35°	4478	4703	5060	5855	6262	2790
45°	3112	3352	3930	3672	3380	2382
55°	1810	1912	2033	2410	2128	1647
65°	1137	1165	1197	1070	970	1124
75°	602	617	652	682	647	635
85°	162	160	173	206	249	184
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7372.8	7372.8	7372.8	7372.8	7372.8
2.5°	7444.3	7422.6	7333.9	7418.3	7342.5
5°	7433.5	7427.0	7375.0	7359.9	7370.7
7.5°	7290.6	7305.7	7297.1	7459.5	7377.2
10°	7058.9	7089.2	7197.5	7424.8	7355.5
12.5°	6877.0	6900.8	7045.9	7383.7	7221.3
15°	6675.6	6753.6	6840.2	7277.6	7219.1
17.5°	6459.1	6532.7	6738.4	7134.7	7128.2
20°	6220.9	6357.3	6580.3	6948.4	7093.5
22.5°	5898.3	6082.3	6396.3	6864.0	6892.1
25°	5668.8	5755.4	6160.3	6686.4	6866.2
27.5°	5320.1	5484.7	5898.3	6430.9	6727.6
30°	5090.6	5227.0	5640.6	6281.5	6493.7
32.5°	4802.6	4965.0	5335.3	6119.1	6374.6
35°	4477.8	4703.0	5060.3	5855.0	6262.0
37.5°	4135.7	4358.7	4781.0	5636.3	5943.7
40°	3804.4	3995.0	4536.3	5374.3	5584.3
42.5°	3464.5	3670.2	4257.0	4856.8	4200.7
45°	3111.5	3351.9	3930.0	3672.3	3380.0
47.5°	2693.6	2988.1	3568.4	2951.3	3202.5
50°	2420.8	2581.0	3122.4	2782.4	3066.1
52.5°	2059.2	2275.7	2507.4	2598.4	2897.2
55°	1810.2	1912.0	2033.2	2410.0	2128.5
57.5°	1580.7	1671.6	1812.4	1699.8	1134.6
60°	1435.6	1476.7	1600.2	1214.7	1074.0
62.5°	1271.0	1312.2	1403.1	1134.6	1030.7
65°	1136.8	1164.9	1197.4	1069.7	970.1
67.5°	993.9	1009.0	1043.7	987.4	911.6
70°	846.6	868.3	918.1	902.9	840.1
72.5°	716.7	736.2	779.5	801.2	742.7
75°	602.0	617.1	651.8	682.1	647.4
77.5°	478.5	493.7	539.2	571.6	556.5
80°	376.8	378.9	413.6	446.1	465.5
82.5°	264.2	268.5	294.5	329.1	368.1
85°	162.4	160.2	173.2	205.7	249.0
87.5°	62.8	60.6	71.5	86.6	127.8
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	19.17	20.65	19.53	20.96	21.27	18.84	20.32	19.21	20.64	20.95
	3H	20.73	22.05	21.11	22.38	22.74	20.46	21.79	20.84	22.11	22.48
	4H	21.33	22.57	21.73	22.92	23.30	21.21	22.45	21.61	22.80	23.18
	6H	21.78	22.93	22.20	23.30	23.69	21.88	23.02	22.29	23.39	23.78
	8H	21.94	23.03	22.36	23.42	23.82	22.16	23.25	22.58	23.64	24.04
	12H	22.04	23.08	22.47	23.46	23.89	22.38	23.42	22.81	23.80	24.23
4H	2H	19.76	21.00	20.16	21.35	21.73	19.51	20.75	19.91	21.10	21.48
	3H	21.55	22.58	21.96	22.98	23.38	21.39	22.42	21.80	22.82	23.22
	4H	22.28	23.20	22.71	23.62	24.06	22.29	23.21	22.72	23.63	24.07
	6H	22.86	23.66	23.32	24.11	24.57	23.09	23.90	23.55	24.34	24.80
	8H	23.06	23.81	23.52	24.25	24.72	23.42	24.17	23.89	24.62	25.09
	12H	23.19	23.87	23.68	24.35	24.82	23.69	24.37	24.18	24.85	25.32
8H	4H	22.60	23.35	23.06	23.80	24.26	22.61	23.36	23.07	23.80	24.27
	6H	23.31	23.93	23.81	24.42	24.90	23.56	24.18	24.05	24.67	25.15
	8H	23.58	24.14	24.09	24.65	25.14	23.97	24.54	24.49	25.05	25.53
	12H	23.79	24.28	24.30	24.78	25.34	24.34	24.84	24.85	25.33	25.90
12H	4H	22.64	23.31	23.12	23.79	24.26	22.63	23.31	23.12	23.78	24.26
	6H	23.38	23.94	23.89	24.45	24.94	23.61	24.17	24.12	24.68	25.17
	8H	23.71	24.20	24.22	24.70	25.26	24.09	24.59	24.60	25.08	25.64