

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: P894918

Luminaire Tested: 8TMB-20HL-RFLW-UNV-L835

Issue Date: 11/11/2024

**Test Information**

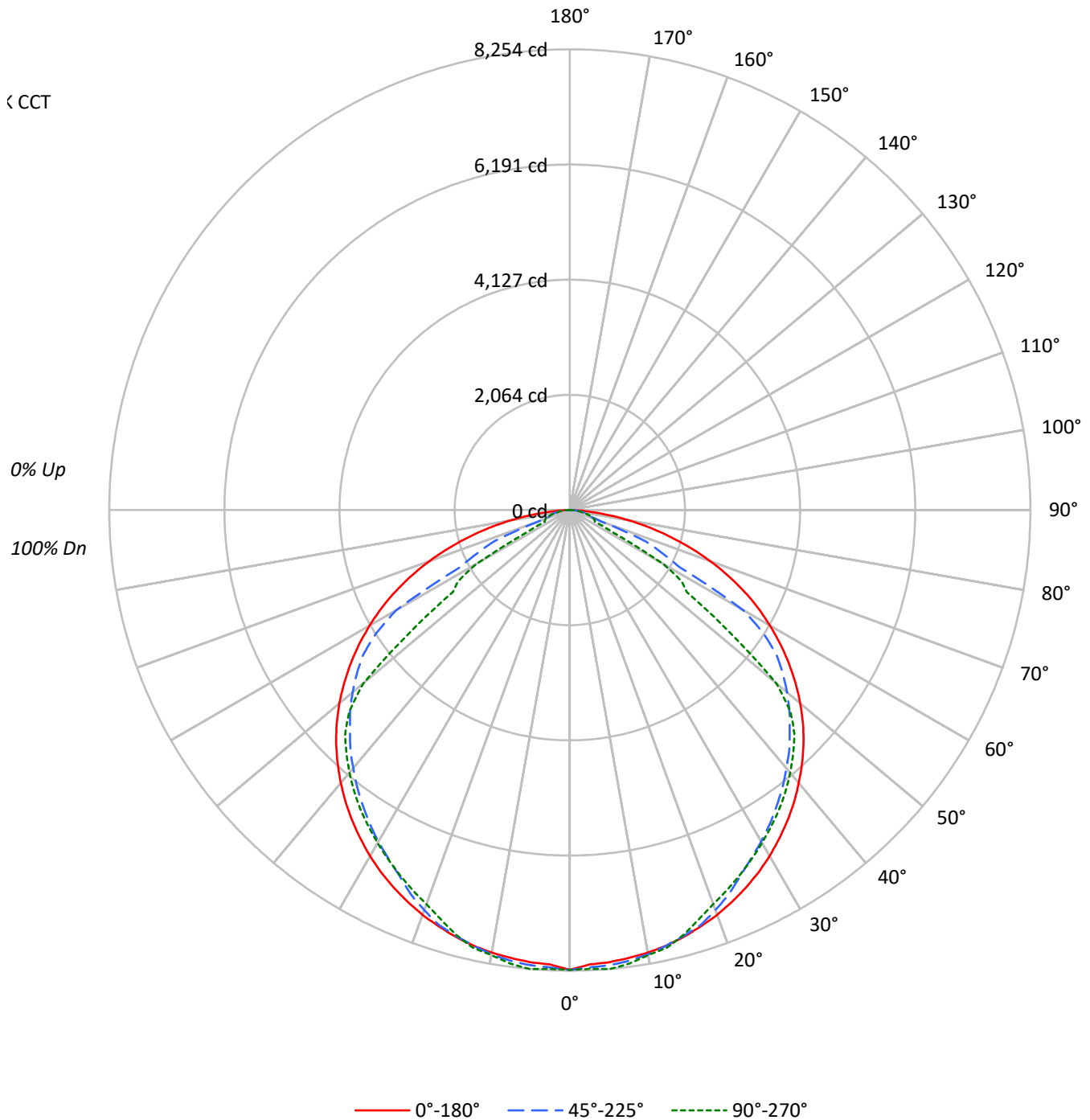
Test Method: LM-79-2019  
Report Number: P894918  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-20HL-RFLW-UNV-L835  
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 3500K  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21478.0 lumens  
Efficiency: N/A  
Efficacy: 148.1 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.25 / 1.38  
Luminous Opening: Rectangular (W 0.21' x L: 7.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 145  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.997  
Total Harmonic Distortion (THDi): 7.79  
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	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	85	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	49	49	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	43	43	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	38	38	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	34	34	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	31	31	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	28	28	28	26

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

	0°	45°	90°
0°	53349	53349	53349
5°	52860	53206	53652
10°	52937	53137	53237
15°	53052	52933	52814
20°	53186	52574	51769
25°	53331	51645	51535
30°	53534	51294	51503
35°	53728	51098	51720
40°	53954	51035	51937
45°	54243	51011	52150
50°	54325	51204	48724
55°	54087	51048	28892
60°	53628	46526	25055
65°	52750	28125	7586
70°	50665	11152	8700
75°	46941	9147	8892
80°	40617	9658	8331
85°	28857	9057	7920

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 50°  
 Luminance: 54325 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	780.4	3.6
10°-20°	2234.8	10.4
20°-30°	3377.3	15.7
30°-40°	4120.6	19.2
40°-50°	4358.8	20.3
50°-60°	3610.2	16.8
60°-70°	2007.0	9.3
70°-80°	813.5	3.8
80°-90°	175.4	0.8
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°	6392.5	29.8
0°-40°	10513.1	48.9
0°-60°	18482.1	86.1
0°-90°	21478.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	21478.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8239	8239	8239	8239	8239	
5°	8132	8277	8185	8198	8254	774
15°	7914	8036	7896	7891	7878	2235
25°	7464	7518	7228	7182	7213	3443
35°	6797	6713	6464	6489	6543	4255
45°	5923	5618	5570	5639	5695	4566
55°	4791	4466	4522	3102	2559	4280
65°	3443	3156	1836	617	495	3395
75°	1876	1046	366	360	355	1981
85°	388	130	122	112	107	488
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	8238.6	8238.6	8238.6	8238.6	8238.6
2.5°	8149.8	8292.0	8203.1	8220.9	8228.5
5°	8132.0	8276.7	8185.3	8198.0	8253.9
7.5°	8093.9	8241.2	8144.7	8152.3	8195.5
10°	8050.8	8185.3	8081.2	8068.5	8096.5
12.5°	7992.4	8114.2	7992.4	7997.5	8033.0
15°	7913.7	8035.5	7895.9	7890.8	7878.1
17.5°	7819.7	7934.0	7796.9	7715.6	7687.7
20°	7718.2	7807.0	7629.3	7504.9	7512.5
22.5°	7596.3	7672.5	7449.1	7334.8	7367.8
25°	7464.3	7517.6	7228.2	7182.5	7212.9
27.5°	7319.6	7360.2	7037.8	7027.6	7053.0
30°	7159.6	7174.9	6860.0	6855.0	6888.0
32.5°	6981.9	6956.5	6669.6	6674.7	6717.9
35°	6796.6	6712.8	6464.0	6489.4	6542.7
37.5°	6601.1	6451.3	6260.9	6293.9	6352.3
40°	6382.7	6179.6	6037.4	6088.2	6144.1
42.5°	6159.3	5895.3	5821.6	5869.9	5923.2
45°	5923.2	5618.5	5570.3	5638.8	5694.7
47.5°	5666.8	5346.9	5339.3	5392.6	5367.2
50°	5392.6	5065.1	5082.8	5011.7	4836.6
52.5°	5098.1	4773.1	4808.6	4501.4	3638.2
55°	4790.9	4465.9	4521.7	3102.5	2559.2
57.5°	4476.0	4151.1	4115.5	2373.8	2371.3
60°	4140.9	3831.2	3592.5	2097.1	1934.6
62.5°	3803.2	3498.6	2206.3	1579.2	888.6
65°	3442.7	3155.8	1835.6	616.9	495.1
67.5°	3064.4	2808.0	1470.0	464.6	482.4
70°	2676.0	2447.5	589.0	449.4	459.5
72.5°	2279.9	1888.9	391.0	416.4	416.4
75°	1876.2	1046.0	365.6	360.5	355.4
77.5°	1475.1	700.7	319.9	297.0	289.4
80°	1089.2	251.3	259.0	231.0	223.4
82.5°	721.0	195.5	185.3	167.6	162.5
85°	388.4	129.5	121.9	111.7	106.6
87.5°	139.6	66.0	66.0	53.3	48.2
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	26.49	28.07	26.86	28.38	28.70	22.48	24.06	22.85	24.37	24.69
	3H	28.50	29.91	28.88	30.24	30.60	22.62	24.02	22.99	24.35	24.71
	4H	29.11	30.43	29.51	30.78	31.16	22.73	24.05	23.13	24.40	24.78
	6H	29.51	30.73	29.93	31.10	31.49	22.84	24.06	23.25	24.43	24.82
	8H	29.63	30.79	30.06	31.18	31.58	22.88	24.04	23.30	24.43	24.83
	12H	29.70	30.81	30.13	31.19	31.62	22.90	24.01	23.33	24.39	24.82
4H	2H	26.62	27.94	27.02	28.29	28.67	23.21	24.53	23.61	24.88	25.25
	3H	28.78	29.87	29.19	30.27	30.67	23.41	24.50	23.82	24.90	25.30
	4H	29.44	30.42	29.87	30.83	31.27	23.56	24.54	23.99	24.95	25.39
	6H	29.88	30.73	30.34	31.18	31.63	23.73	24.58	24.18	25.02	25.48
	8H	30.03	30.82	30.49	31.26	31.73	23.78	24.57	24.24	25.02	25.48
	12H	30.13	30.84	30.61	31.32	31.79	23.83	24.54	24.31	25.01	25.48
8H	4H	29.37	30.17	29.84	30.61	31.08	23.83	24.63	24.30	25.07	25.54
	6H	29.82	30.47	30.31	30.96	31.44	24.04	24.70	24.54	25.19	25.66
	8H	29.97	30.55	30.48	31.06	31.55	24.12	24.71	24.64	25.22	25.71
	12H	30.10	30.62	30.61	31.11	31.68	24.21	24.73	24.72	25.22	25.79
12H	4H	29.35	30.06	29.83	30.54	31.01	23.85	24.56	24.33	25.04	25.51
	6H	29.78	30.37	30.29	30.87	31.36	24.06	24.65	24.57	25.16	25.65
	8H	29.95	30.47	30.46	30.96	31.53	24.18	24.70	24.69	25.20	25.76