

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: P894920

Luminaire Tested: 8TMB-20HL-RFLW-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894920
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-L850
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 5000K
Light Source: -
Ballast/Driver: -

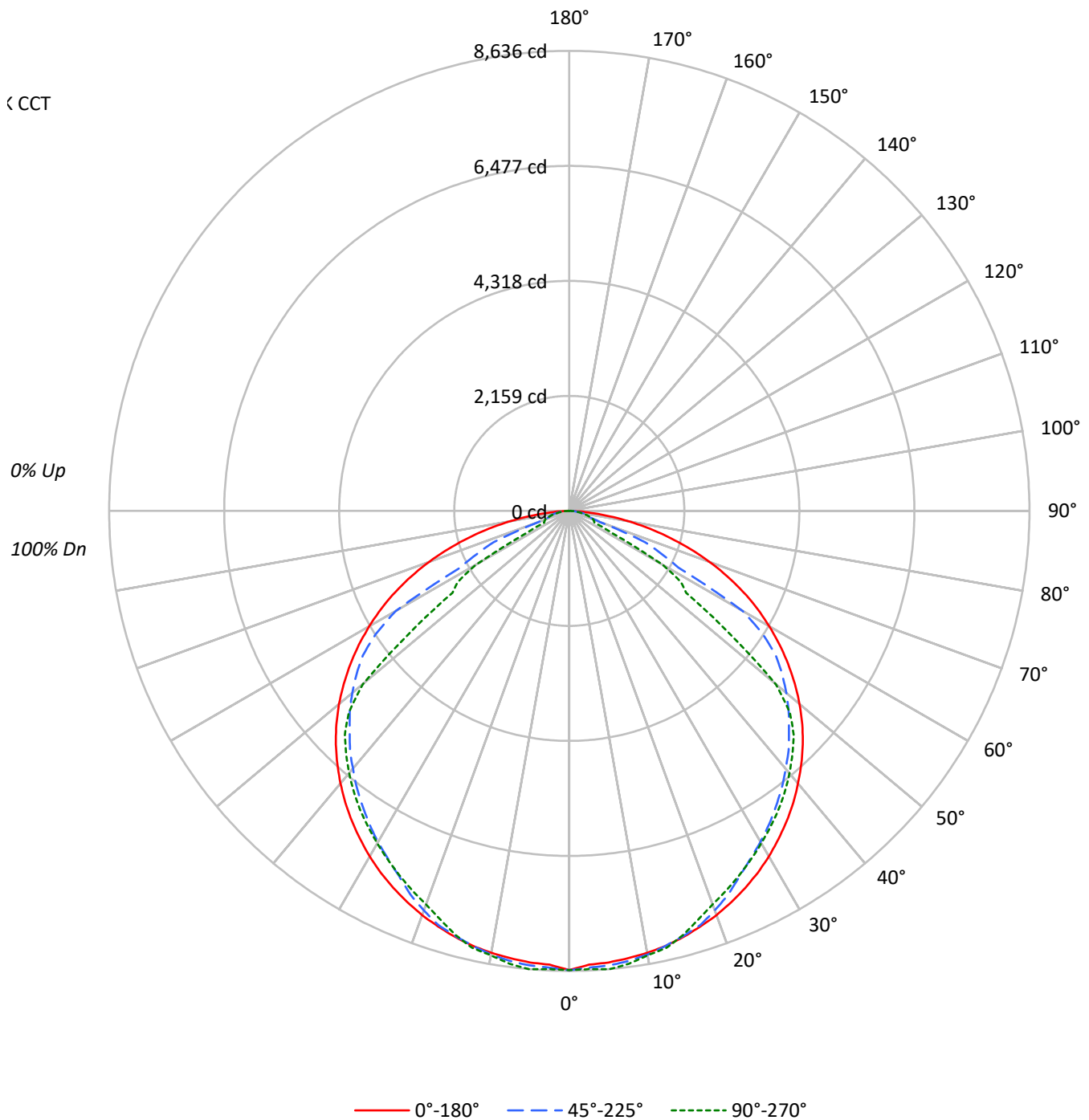
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22472.0 lumens
Efficiency: N/A
Efficacy: 155.0 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°	55818	55818	55818
5°	55306	55668	56135
10°	55387	55596	55701
15°	55507	55383	55258
20°	55648	55007	54165
25°	55799	54035	53921
30°	56012	53668	53886
35°	56214	53463	54114
40°	56451	53397	54340
45°	56753	53372	54563
50°	56839	53575	50979
55°	56590	53411	30229
60°	56110	48680	26215
65°	55191	29428	7937
70°	53008	11668	9103
75°	49115	9570	9305
80°	42496	10106	8719
85°	30194	9473	8292

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 56839 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	816.5	3.6
10°-20°	2338.3	10.4
20°-30°	3533.5	15.7
30°-40°	4311.3	19.2
40°-50°	4560.5	20.3
50°-60°	3777.3	16.8
60°-70°	2099.8	9.3
70°-80°	851.2	3.8
80°-90°	183.5	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°	6688.3	29.8
0°-40°	10999.6	48.9
0°-60°	19337.5	86.1
0°-90°	22472.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	22472.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8620	8620	8620	8620	8620	
5°	8508	8660	8564	8577	8636	810
15°	8280	8407	8261	8256	8243	2339
25°	7810	7866	7563	7515	7547	3602
35°	7111	7024	6763	6790	6846	4451
45°	6197	5879	5828	5900	5958	4777
55°	5013	4673	4731	3246	2678	4478
65°	3602	3302	1921	646	518	3552
75°	1963	1094	382	377	372	2073
85°	406	136	128	117	112	510
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8619.9	8619.9	8619.9	8619.9	8619.9
2.5°	8527.0	8675.7	8582.7	8601.3	8609.3
5°	8508.4	8659.8	8564.1	8577.4	8635.9
7.5°	8468.5	8622.6	8521.6	8529.6	8574.8
10°	8423.4	8564.1	8455.2	8442.0	8471.2
12.5°	8362.3	8489.8	8362.3	8367.6	8404.8
15°	8279.9	8407.4	8261.3	8256.0	8242.7
17.5°	8181.6	8301.2	8157.7	8072.7	8043.5
20°	8075.4	8168.3	7982.4	7852.2	7860.2
22.5°	7947.9	8027.6	7793.8	7674.3	7708.8
25°	7809.7	7865.5	7562.7	7514.9	7546.8
27.5°	7658.3	7700.8	7363.5	7352.8	7379.4
30°	7491.0	7506.9	7177.5	7172.2	7206.7
32.5°	7305.0	7278.5	6978.3	6983.6	7028.8
35°	7111.1	7023.5	6763.1	6789.7	6845.5
37.5°	6906.6	6749.8	6550.6	6585.2	6646.2
40°	6678.1	6465.6	6316.9	6370.0	6428.4
42.5°	6444.4	6168.1	6091.1	6141.5	6197.3
45°	6197.3	5878.6	5828.1	5899.8	5958.2
47.5°	5929.0	5594.3	5586.4	5642.1	5615.6
50°	5642.1	5299.5	5318.1	5243.7	5060.4
52.5°	5334.0	4994.0	5031.2	4709.8	3806.6
55°	5012.6	4672.6	4731.0	3246.1	2677.6
57.5°	4683.2	4343.2	4306.0	2483.7	2481.1
60°	4332.5	4008.5	3758.8	2194.2	2024.2
62.5°	3979.2	3660.5	2308.4	1652.3	929.7
65°	3602.0	3301.9	1920.6	645.5	518.0
67.5°	3206.2	2937.9	1538.0	486.1	504.7
70°	2799.8	2560.7	616.3	470.2	480.8
72.5°	2385.4	1976.3	409.1	435.6	435.6
75°	1963.1	1094.4	382.5	377.2	371.9
77.5°	1543.4	733.2	334.7	310.8	302.8
80°	1139.6	263.0	271.0	241.7	233.8
82.5°	754.4	204.5	193.9	175.3	170.0
85°	406.4	135.5	127.5	116.9	111.6
87.5°	146.1	69.1	69.1	55.8	50.5
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	26.65	28.22	27.02	28.54	28.85	22.64	24.21	23.01	24.53	24.84
	3H	28.66	30.07	29.04	30.39	30.75	22.77	24.18	23.15	24.51	24.87
	4H	29.27	30.59	29.67	30.94	31.32	22.89	24.21	23.29	24.56	24.94
	6H	29.67	30.89	30.08	31.25	31.65	23.00	24.22	23.41	24.58	24.98
	8H	29.79	30.95	30.22	31.34	31.74	23.03	24.19	23.46	24.58	24.98
	12H	29.86	30.97	30.29	31.35	31.78	23.06	24.17	23.49	24.55	24.98
4H	2H	26.78	28.10	27.18	28.45	28.83	23.37	24.69	23.77	25.03	25.41
	3H	28.94	30.03	29.35	30.43	30.83	23.56	24.65	23.97	25.05	25.45
	4H	29.60	30.57	30.03	30.99	31.43	23.72	24.70	24.15	25.11	25.55
	6H	30.04	30.89	30.50	31.33	31.79	23.89	24.73	24.34	25.18	25.64
	8H	30.18	30.98	30.65	31.42	31.89	23.94	24.73	24.40	25.17	25.64
	12H	30.29	31.00	30.77	31.47	31.94	23.98	24.69	24.47	25.17	25.64
8H	4H	29.53	30.32	29.99	30.77	31.24	23.99	24.78	24.45	25.23	25.70
	6H	29.97	30.63	30.47	31.12	31.60	24.20	24.85	24.70	25.35	25.82
	8H	30.12	30.71	30.64	31.22	31.71	24.28	24.87	24.80	25.38	25.87
	12H	30.25	30.78	30.76	31.27	31.83	24.37	24.89	24.88	25.38	25.95
12H	4H	29.51	30.21	29.99	30.69	31.16	24.01	24.71	24.49	25.19	25.66
	6H	29.93	30.52	30.45	31.03	31.52	24.22	24.81	24.73	25.31	25.80
	8H	30.10	30.63	30.61	31.12	31.68	24.34	24.86	24.85	25.35	25.92