

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: P894912

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894912
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-5)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-20HL-LVRF-UNV-L850
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 5000K (C)
Light Source: -
Ballast/Driver: -

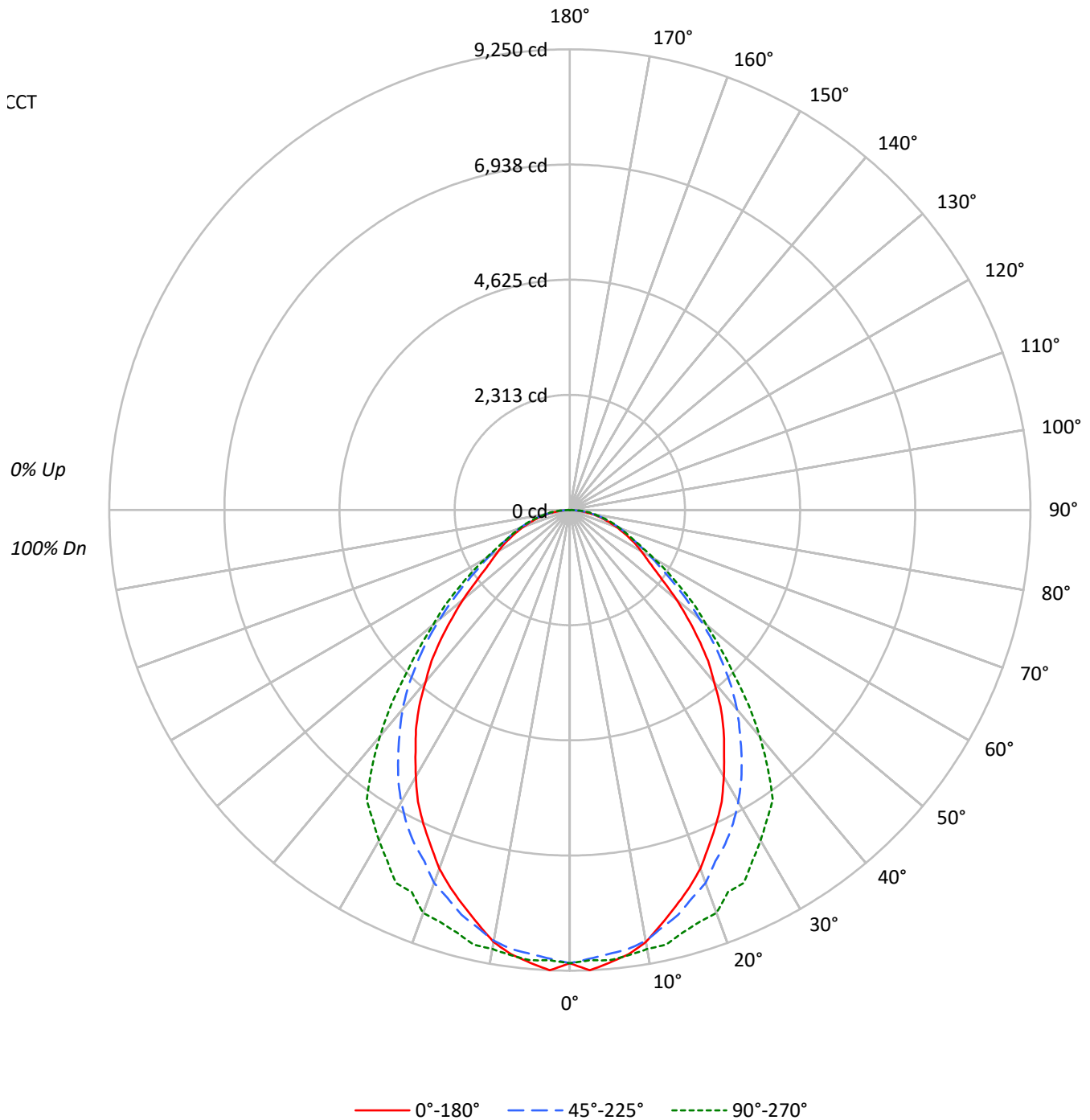
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18451.0 lumens
Efficiency: N/A
Efficacy: 127.2 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.25 / 1.21
Luminous Opening: Rectangular (W 0.38' x L: 7.98' x H: 0')
CIE Type: Direct

Input Watts (W): 145
Input Voltage (V): 120
Input Current (A_{in}): 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	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	89	87
2	102	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	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	47	47	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	42	42	42	40
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	38	38	38	37
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	35	35	35	33
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32288	32288	32288
5°	32499	31869	32324
10°	31737	31639	32247
15°	30239	30909	32248
20°	28926	30087	32511
25°	27233	28937	32346
30°	25334	27731	31398
35°	23331	26030	30791
40°	20867	24193	27495
45°	18292	21759	23316
50°	15437	18801	19732
55°	12807	15735	16829
60°	11776	13379	13880
65°	11032	11762	11854
70°	10273	11148	11063
75°	9585	10405	10778
80°	8950	9673	10339
85°	7531	8195	11407

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 23316 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	858.9	4.7
10°-20°	2395.9	13.0
20°-30°	3450.5	18.7
30°-40°	3809.4	20.6
40°-50°	3268.7	17.7
50°-60°	2226.8	12.1
60°-70°	1400.9	7.6
70°-80°	797.5	4.3
80°-90°	242.4	1.3
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°	6705.3	36.3
0°-40°	10514.7	57.0
0°-60°	16010.2	86.8
0°-90°	18451.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18451.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9100	9100	9100	9100	9100	
5°	9124	9089	8948	9135	9076	861
15°	8232	8319	8414	8795	8779	2318
25°	6956	7095	7392	7987	8262	3194
35°	5386	5596	6010	6665	7109	3351
45°	3645	3888	4336	4598	4647	2809
55°	2070	2198	2544	2666	2720	1902
65°	1314	1336	1401	1469	1412	1305
75°	699	705	759	792	786	745
85°	185	190	201	239	280	213
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9100.0	9100.0	9100.0	9100.0	9100.0
2.5°	9249.6	9154.4	9018.4	9148.9	9048.3
5°	9124.5	9089.1	8947.6	9135.3	9075.5
7.5°	8996.6	8920.4	8895.9	9097.3	9018.4
10°	8808.9	8765.4	8781.7	9040.1	8950.4
12.5°	8512.4	8542.3	8580.4	8909.5	8936.7
15°	8232.1	8319.2	8414.4	8795.3	8779.0
17.5°	7957.4	8077.1	8166.9	8656.5	8670.1
20°	7660.8	7728.9	7968.3	8441.6	8610.3
22.5°	7293.6	7426.9	7633.6	8224.0	8300.2
25°	6956.2	7095.0	7391.5	7987.3	8262.1
27.5°	6602.6	6730.4	7097.7	7707.1	7941.1
30°	6183.6	6355.0	6768.5	7388.8	7663.6
32.5°	5764.7	6015.0	6412.2	7048.7	7367.0
35°	5386.5	5596.0	6009.5	6665.2	7108.6
37.5°	4967.6	5187.9	5606.9	6246.2	6529.1
40°	4505.1	4741.8	5223.3	5740.2	5936.1
42.5°	4107.9	4311.9	4796.2	5160.7	5315.8
45°	3645.4	3887.6	4336.4	4597.6	4646.6
47.5°	3199.3	3476.8	3879.4	4001.8	4097.0
50°	2796.6	3014.3	3406.0	3482.2	3574.7
52.5°	2385.9	2617.1	2959.9	3036.0	3172.1
55°	2070.3	2198.1	2543.6	2666.1	2720.5
57.5°	1839.0	1920.7	2165.5	2320.6	2336.9
60°	1659.5	1700.3	1885.3	2002.3	1956.0
62.5°	1493.5	1526.2	1618.7	1708.5	1648.6
65°	1314.0	1335.8	1401.0	1469.1	1411.9
67.5°	1145.3	1169.8	1229.7	1278.6	1229.7
70°	990.3	1009.3	1074.6	1096.3	1066.4
72.5°	846.1	854.2	908.6	946.7	927.7
75°	699.2	704.6	759.0	791.7	786.2
77.5°	565.9	574.0	620.3	650.2	633.9
80°	438.0	443.4	473.4	516.9	506.0
82.5°	307.4	318.3	337.3	375.4	405.4
85°	185.0	190.4	201.3	239.4	280.2
87.5°	70.7	76.2	81.6	100.7	133.3
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	19.53	21.01	19.89	21.32	21.63	20.89	22.37	21.25	22.68	23.00
	3H	21.11	22.43	21.48	22.76	23.12	22.17	23.50	22.55	23.83	24.19
	4H	21.71	22.95	22.11	23.30	23.68	22.73	23.97	23.13	24.32	24.70
	6H	22.18	23.33	22.60	23.70	24.09	23.18	24.33	23.59	24.69	25.08
	8H	22.34	23.43	22.77	23.82	24.22	23.37	24.46	23.79	24.85	25.25
	12H	22.44	23.48	22.87	23.86	24.29	23.52	24.56	23.95	24.95	25.38
4H	2H	20.14	21.38	20.54	21.73	22.11	21.25	22.50	21.66	22.85	23.22
	3H	21.94	22.97	22.36	23.37	23.78	22.81	23.84	23.22	24.24	24.64
	4H	22.67	23.59	23.10	24.01	24.45	23.51	24.44	23.95	24.86	25.30
	6H	23.27	24.07	23.72	24.51	24.97	24.12	24.93	24.58	25.37	25.83
	8H	23.47	24.22	23.93	24.66	25.13	24.37	25.12	24.83	25.57	26.04
	12H	23.61	24.28	24.09	24.76	25.23	24.58	25.26	25.07	25.74	26.21
8H	4H	22.99	23.75	23.46	24.19	24.66	23.75	24.50	24.21	24.94	25.41
	6H	23.72	24.34	24.22	24.83	25.31	24.49	25.11	24.99	25.61	26.08
	8H	23.99	24.55	24.51	25.07	25.55	24.82	25.38	25.34	25.89	26.38
	12H	24.21	24.70	24.72	25.20	25.76	25.13	25.63	25.64	26.12	26.68
12H	4H	23.03	23.70	23.52	24.18	24.66	23.76	24.43	24.24	24.91	25.38
	6H	23.79	24.35	24.30	24.86	25.35	24.53	25.09	25.04	25.60	26.09
	8H	24.12	24.62	24.63	25.11	25.68	24.92	25.41	25.43	25.91	26.47