

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: P894904

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894904
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2404-077-26)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-20HL-LVRA-UNV-L850
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

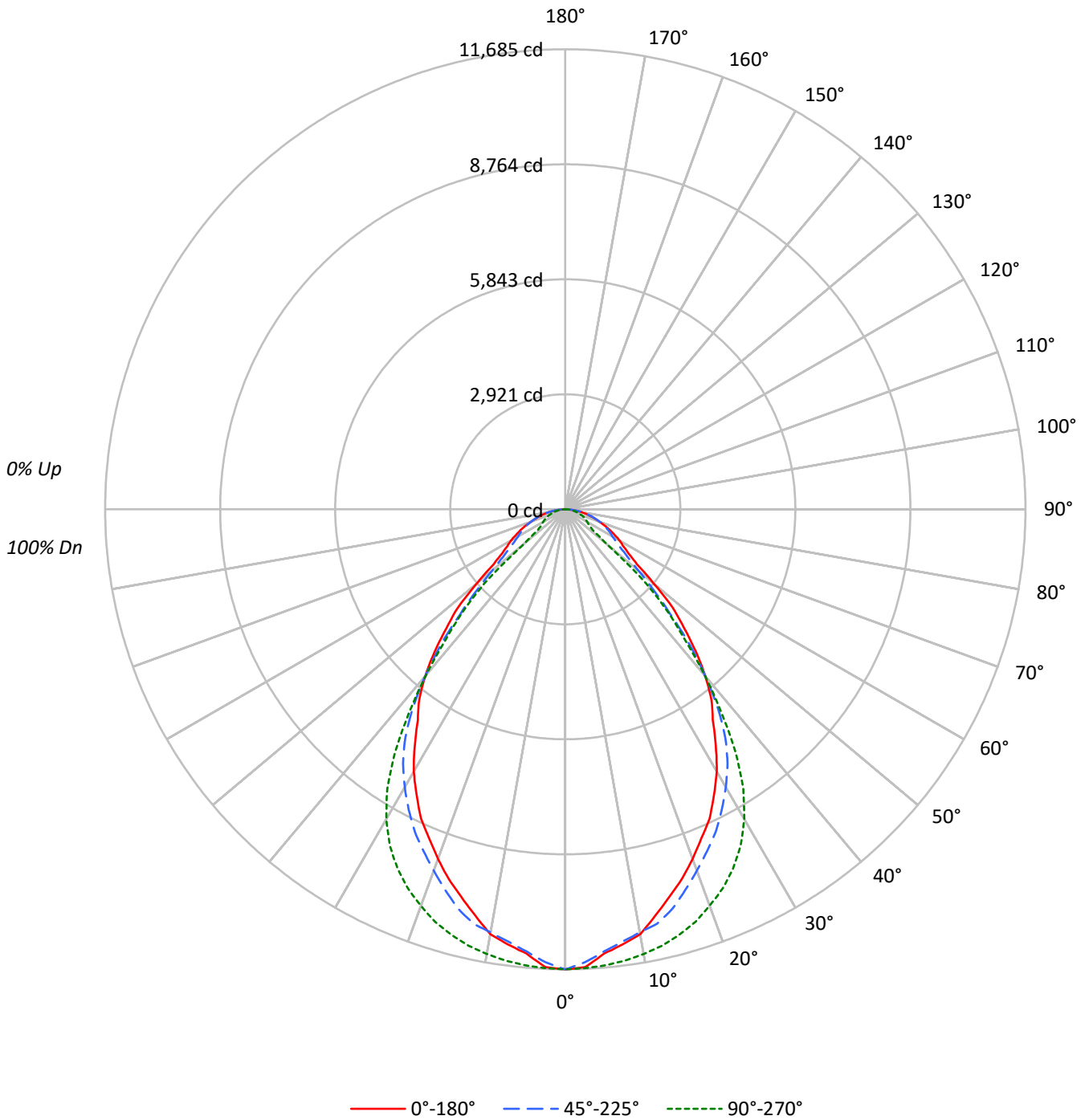
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18965.0 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.16 / 1.12
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 (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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	100	
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	88	
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	80	78	
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	71	69	
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	63	62	
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	57	55	
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	52	50	
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	47	45	
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	43	41	
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	40	38	
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	37	35	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	41461	41461	41461
5°	40343	40161	41416
10°	39486	39312	41320
15°	37448	38598	41088
20°	35673	36879	40461
25°	33933	35384	39428
30°	31526	33402	37227
35°	28269	30695	32652
40°	25611	25667	25527
45°	21414	18966	18497
50°	16176	13349	7564
55°	12165	10675	4769
60°	11306	9831	4595
65°	10519	9810	4602
70°	9623	9623	4530
75°	9125	9373	4376
80°	8431	8862	4493
85°	7356	7723	4906

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 21913 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1079.4	5.7
10°-20°	2974.2	15.7
20°-30°	4217.5	22.2
30°-40°	4344.9	22.9
40°-50°	3034.8	16.0
50°-60°	1456.2	7.7
60°-70°	1021.6	5.4
70°-80°	638.8	3.4
80°-90°	197.6	1.0
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°	8271.1	43.6
0°-40°	12616.0	66.5
0°-60°	17107.0	90.2
0°-90°	18965.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18965.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11685	11685	11685	11685	11685	
5°	11327	11312	11276	11571	11628	1072
15°	10195	10270	10508	10809	11186	2871
25°	8668	8755	9038	9650	10071	3963
35°	6526	6704	7086	7234	7538	4113
45°	4268	4367	3780	3587	3686	3288
55°	1967	1870	1726	1105	771	1843
65°	1253	1172	1168	888	548	1241
75°	666	657	684	590	319	701
85°	181	181	190	187	120	202
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	11685.4	11685.4	11685.4	11685.4	11685.4
2.5°	11640.3	11604.1	11516.8	11676.4	11664.3
5°	11327.0	11312.0	11275.8	11571.0	11628.2
7.5°	11149.3	11119.2	11077.1	11402.3	11561.9
10°	10959.6	10995.7	10911.4	11209.6	11468.6
12.5°	10568.1	10664.5	10778.9	11010.8	11354.1
15°	10194.6	10269.9	10507.8	10809.0	11185.5
17.5°	9845.3	9932.6	10137.4	10589.2	10989.7
20°	9447.7	9568.2	9767.0	10345.2	10715.7
22.5°	9038.1	9149.6	9399.5	10020.0	10432.6
25°	8667.7	8755.0	9038.1	9649.5	10071.2
27.5°	8176.8	8339.4	8607.5	9197.8	9640.5
30°	7694.9	7833.5	8152.7	8649.6	9086.3
32.5°	7113.7	7315.4	7667.8	8047.3	8411.7
35°	6526.4	6704.1	7086.5	7234.1	7538.3
37.5°	6098.7	6146.9	6363.7	6345.7	6517.3
40°	5529.5	5625.9	5541.5	5315.7	5511.4
42.5°	4915.1	5029.6	4689.2	4427.2	4496.5
45°	4267.6	4367.0	3779.7	3586.9	3686.3
47.5°	3707.4	3698.4	3047.8	2918.3	2779.8
50°	2930.4	3026.8	2418.4	2177.5	1370.3
52.5°	2288.9	2325.0	1993.8	1391.4	900.5
55°	1966.6	1870.3	1725.7	1105.3	771.0
57.5°	1746.8	1626.3	1529.9	1027.0	704.7
60°	1593.2	1457.7	1385.4	975.8	647.5
62.5°	1418.5	1313.1	1286.0	930.6	596.3
65°	1252.9	1171.6	1168.5	888.5	548.1
67.5°	1087.2	1042.1	1054.1	837.3	493.9
70°	927.6	918.6	927.6	771.0	436.7
72.5°	792.1	783.0	807.1	686.7	373.5
75°	665.6	656.6	683.7	590.3	319.2
77.5°	530.1	536.1	554.2	490.9	268.0
80°	412.6	412.6	433.7	385.5	219.9
82.5°	295.1	298.2	310.2	283.1	171.7
85°	180.7	180.7	189.7	186.7	120.5
87.5°	60.2	69.3	81.3	87.3	60.2
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	18.59	19.94	18.95	20.25	20.57	14.92	16.27	15.29	16.59	16.90
	3H	20.33	21.53	20.71	21.86	22.23	16.90	18.10	17.28	18.43	18.80
	4H	21.00	22.13	21.40	22.48	22.86	17.60	18.73	18.00	19.08	19.46
	6H	21.50	22.54	21.92	22.91	23.31	18.12	19.16	18.54	19.53	19.93
	8H	21.68	22.66	22.11	23.05	23.46	18.31	19.29	18.74	19.68	20.09
	12H	21.79	22.73	22.22	23.11	23.54	18.45	19.39	18.88	19.77	20.20
4H	2H	19.12	20.25	19.52	20.60	20.98	16.54	17.67	16.94	18.02	18.40
	3H	21.10	22.03	21.51	22.43	22.83	18.72	19.65	19.13	20.05	20.46
	4H	21.90	22.73	22.33	23.15	23.59	19.60	20.44	20.03	20.85	21.30
	6H	22.54	23.27	23.00	23.71	24.18	20.24	20.97	20.70	21.41	21.88
	8H	22.76	23.44	23.23	23.88	24.35	20.45	21.13	20.92	21.57	22.04
	12H	22.91	23.51	23.40	24.00	24.47	20.61	21.21	21.10	21.69	22.17
8H	4H	22.18	22.86	22.65	23.30	23.77	20.25	20.93	20.72	21.37	21.84
	6H	22.97	23.52	23.47	24.02	24.50	21.11	21.67	21.61	22.16	22.64
	8H	23.27	23.77	23.79	24.28	24.77	21.44	21.94	21.96	22.45	22.94
	12H	23.50	23.94	24.02	24.44	25.01	21.70	22.14	22.22	22.64	23.21
12H	4H	22.20	22.80	22.68	23.28	23.75	20.32	20.92	20.81	21.40	21.88
	6H	23.02	23.52	23.54	24.03	24.52	21.25	21.75	21.77	22.26	22.75
	8H	23.38	23.82	23.90	24.32	24.89	21.66	22.10	22.17	22.60	23.17