

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: P894908

Luminaire Tested: 8TMB-20HL-LVRA-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894908
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-L950
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 5000K CCT
Light Source: -
Ballast/Driver: -

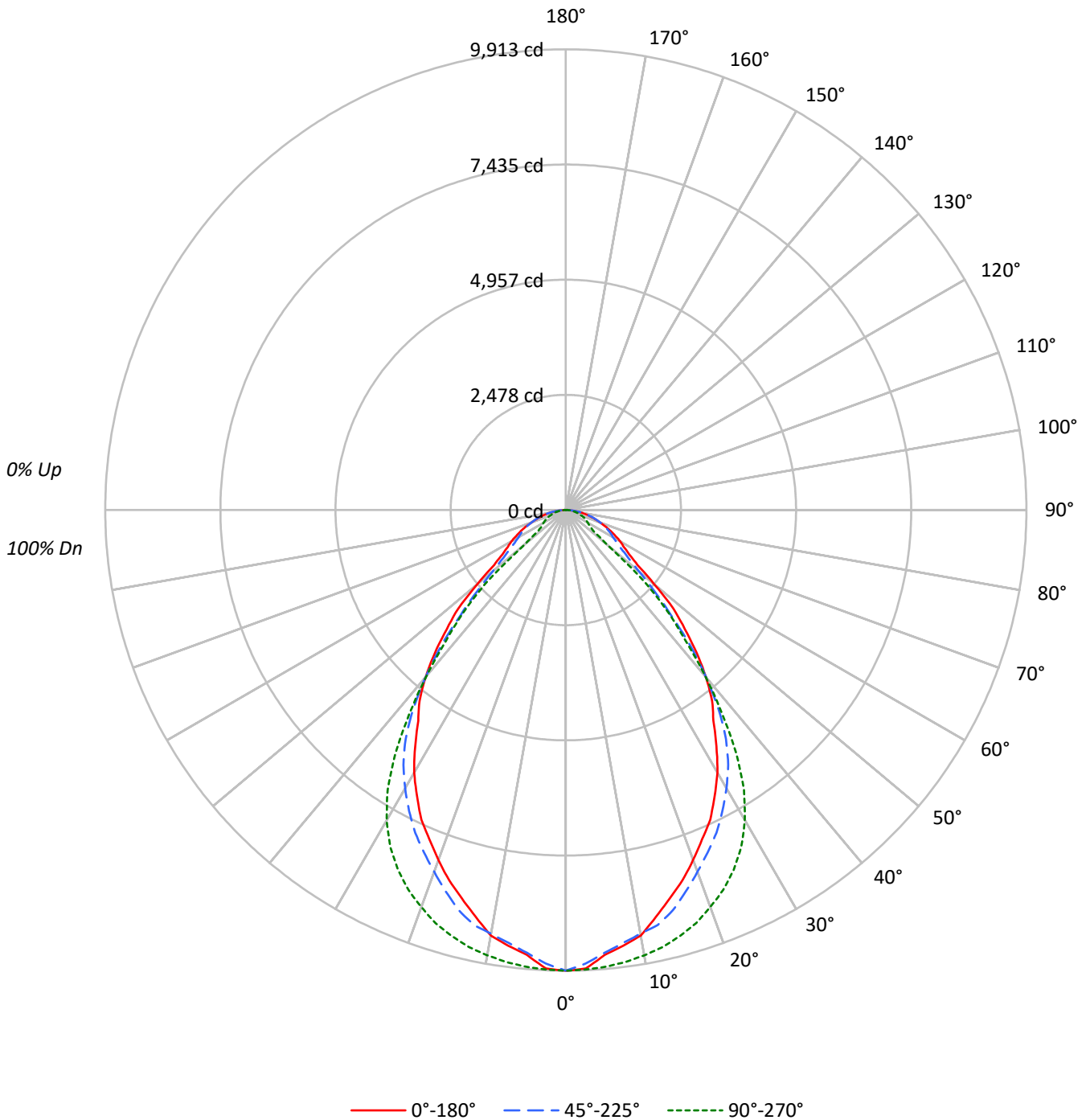
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16088.0 lumens
Efficiency: N/A
Efficacy: 111.0 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 (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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	90	90	90	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	80	80	80	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	71	71	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	63	63	63	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	57	57	57	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	52	52	52	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	47	47	47	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	43	43	43	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	40	40	40	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	37	37	37	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	35172	35172	35172
5°	34223	34069	35133
10°	33496	33349	35052
15°	31767	32743	34854
20°	30262	31284	34323
25°	28786	30016	33447
30°	26744	28335	31580
35°	23980	26039	27698
40°	21726	21773	21655
45°	18166	16089	15691
50°	13721	11324	6416
55°	10320	9056	4046
60°	9591	8340	3898
65°	8923	8323	3904
70°	8163	8163	3844
75°	7740	7950	3712
80°	7152	7517	3811
85°	6241	6554	4161

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 18589 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	915.7	5.7
10°-20°	2523.0	15.7
20°-30°	3577.7	22.2
30°-40°	3685.8	22.9
40°-50°	2574.4	16.0
50°-60°	1235.3	7.7
60°-70°	866.7	5.4
70°-80°	541.9	3.4
80°-90°	167.6	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°	7016.4	43.6
0°-40°	10702.2	66.5
0°-60°	14511.9	90.2
0°-90°	16088.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16088.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9913	9913	9913	9913	9913	
5°	9609	9596	9565	9816	9864	909
15°	8648	8712	8914	9169	9489	2435
25°	7353	7427	7667	8186	8543	3362
35°	5536	5687	6012	6137	6395	3489
45°	3620	3704	3206	3043	3127	2789
55°	1668	1586	1464	938	654	1563
65°	1063	994	991	754	465	1053
75°	565	557	580	501	271	595
85°	153	153	161	158	102	171
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9912.7	9912.7	9912.7	9912.7	9912.7
2.5°	9874.4	9843.8	9769.7	9905.1	9894.9
5°	9608.7	9595.9	9565.3	9815.7	9864.2
7.5°	9458.0	9432.4	9396.7	9672.6	9808.0
10°	9297.0	9327.7	9256.2	9509.1	9728.8
12.5°	8964.9	9046.7	9143.7	9340.5	9631.7
15°	8648.1	8712.0	8913.8	9169.3	9488.6
17.5°	8351.7	8425.8	8599.6	8982.8	9322.6
20°	8014.5	8116.7	8285.3	8775.8	9090.1
22.5°	7667.0	7761.6	7973.6	8499.9	8849.9
25°	7352.8	7426.9	7667.0	8185.7	8543.4
27.5°	6936.4	7074.3	7301.7	7802.5	8178.0
30°	6527.6	6645.1	6915.9	7337.5	7707.9
32.5°	6034.5	6205.7	6504.6	6826.5	7135.6
35°	5536.3	5687.1	6011.5	6136.7	6394.7
37.5°	5173.5	5214.4	5398.4	5383.0	5528.7
40°	4690.7	4772.4	4700.9	4509.3	4675.3
42.5°	4169.5	4266.6	3977.9	3755.6	3814.4
45°	3620.2	3704.5	3206.3	3042.8	3127.1
47.5°	3145.0	3137.3	2585.5	2475.6	2358.1
50°	2485.8	2567.6	2051.5	1847.1	1162.4
52.5°	1941.7	1972.3	1691.3	1180.3	763.9
55°	1668.3	1586.5	1463.9	937.6	654.0
57.5°	1481.8	1379.6	1297.9	871.2	597.8
60°	1351.5	1236.5	1175.2	827.8	549.3
62.5°	1203.3	1113.9	1090.9	789.4	505.9
65°	1062.8	993.8	991.3	753.7	465.0
67.5°	922.3	884.0	894.2	710.2	419.0
70°	786.9	779.2	786.9	654.0	370.5
72.5°	671.9	664.3	684.7	582.5	316.8
75°	564.6	557.0	579.9	500.7	270.8
77.5°	449.7	454.8	470.1	416.4	227.4
80°	350.0	350.0	367.9	327.0	186.5
82.5°	250.4	252.9	263.1	240.2	145.6
85°	153.3	153.3	161.0	158.4	102.2
87.5°	51.1	58.8	69.0	74.1	51.1
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	18.02	19.37	18.38	19.68	20.00	14.35	15.70	14.71	16.01	16.33
	3H	19.76	20.96	20.13	21.29	21.66	16.32	17.53	16.70	17.86	18.23
	4H	20.43	21.55	20.83	21.90	22.29	17.03	18.16	17.43	18.51	18.89
	6H	20.93	21.97	21.35	22.34	22.73	17.55	18.59	17.97	18.96	19.35
	8H	21.10	22.09	21.53	22.48	22.88	17.74	18.72	18.17	19.11	19.52
	12H	21.21	22.16	21.65	22.54	22.97	17.88	18.82	18.31	19.20	19.63
4H	2H	18.55	19.67	18.95	20.02	20.41	15.97	17.10	16.37	17.45	17.83
	3H	20.52	21.45	20.94	21.86	22.26	18.15	19.08	18.56	19.48	19.88
	4H	21.33	22.16	21.76	22.58	23.02	19.03	19.86	19.46	20.28	20.72
	6H	21.97	22.69	22.43	23.14	23.60	19.67	20.40	20.13	20.84	21.31
	8H	22.19	22.87	22.66	23.31	23.78	19.88	20.56	20.35	21.00	21.47
	12H	22.34	22.94	22.83	23.43	23.90	20.04	20.64	20.52	21.12	21.59
8H	4H	21.61	22.29	22.08	22.73	23.20	19.68	20.35	20.14	20.80	21.27
	6H	22.39	22.95	22.89	23.44	23.92	20.54	21.09	21.04	21.59	22.07
	8H	22.70	23.19	23.22	23.71	24.20	20.87	21.37	21.39	21.88	22.37
	12H	22.93	23.37	23.44	23.86	24.43	21.13	21.57	21.64	22.06	22.63
12H	4H	21.63	22.23	22.11	22.71	23.18	19.75	20.35	20.23	20.83	21.31
	6H	22.45	22.95	22.97	23.46	23.95	20.68	21.18	21.20	21.69	22.18
	8H	22.81	23.25	23.32	23.74	24.31	21.09	21.53	21.60	22.02	22.59