

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: P894911

Luminaire Tested: 8TMB-20HL-LVRF-UNV-L840

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894911
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-L840
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 4000K (C)
Light Source: -
Ballast/Driver: -

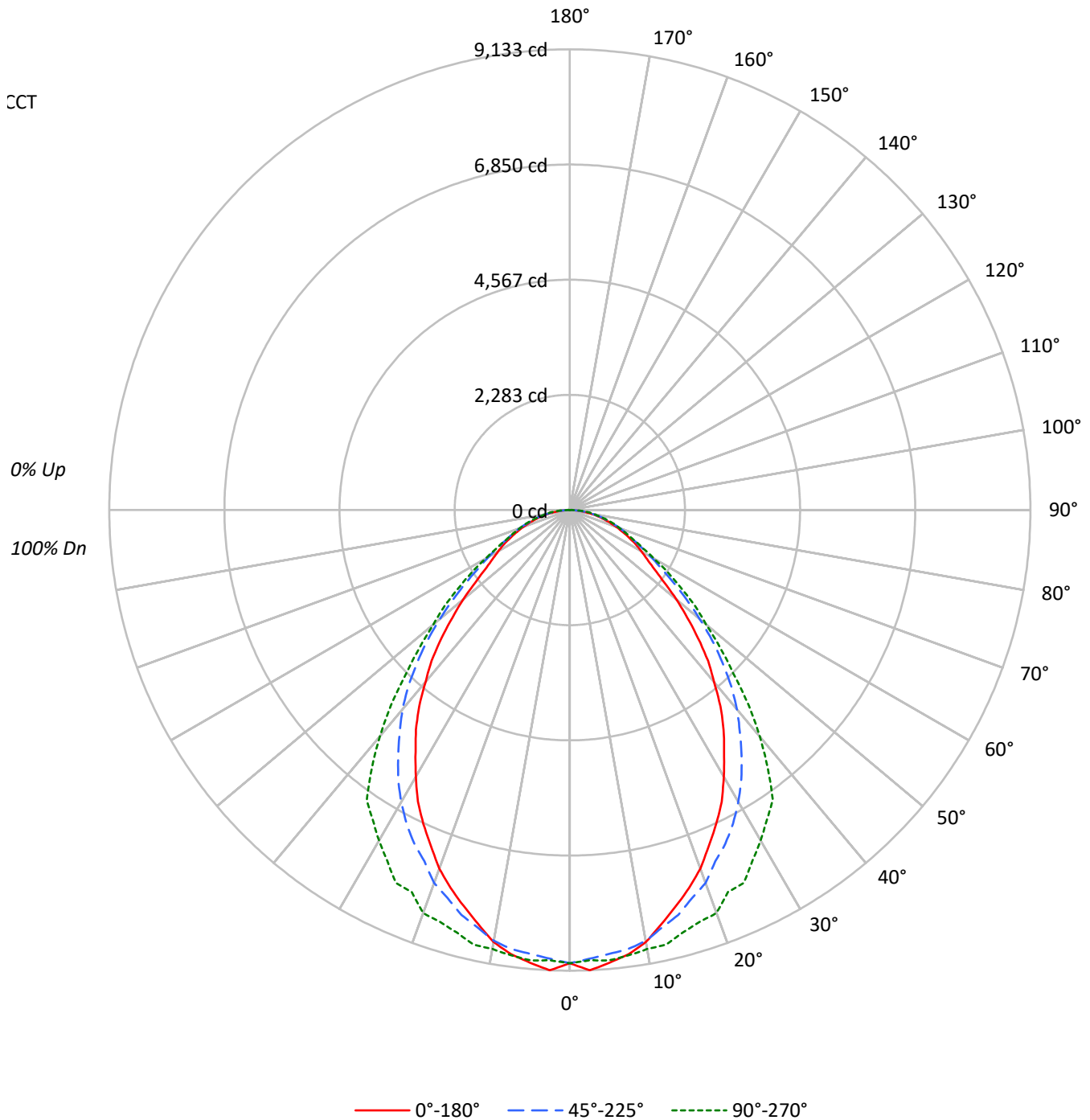
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18218.0 lumens
Efficiency: N/A
Efficacy: 125.6 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 (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									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	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	100																												
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																												
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75																												
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65																												
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																												
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	50																												
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45																												
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	40																												
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	37																												
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	33																												
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	31880	31880	31880
5°	32088	31466	31916
10°	31336	31240	31840
15°	29857	30519	31841
20°	28561	29707	32101
25°	26889	28572	31937
30°	25014	27381	31001
35°	23037	25701	30402
40°	20603	23887	27147
45°	18061	21485	23021
50°	15242	18563	19483
55°	12645	15536	16616
60°	11627	13210	13705
65°	10892	11614	11704
70°	10143	11007	10924
75°	9463	10273	10642
80°	8837	9550	10208
85°	7438	8093	11265

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 23021 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	848.1	4.7
10°-20°	2365.7	13.0
20°-30°	3406.9	18.7
30°-40°	3761.3	20.6
40°-50°	3227.4	17.7
50°-60°	2198.6	12.1
60°-70°	1383.2	7.6
70°-80°	787.5	4.3
80°-90°	239.4	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°	6620.7	36.3
0°-40°	10381.9	57.0
0°-60°	15808.0	86.8
0°-90°	18218.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18218.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8985	8985	8985	8985	8985	
5°	9009	8974	8835	9020	8961	850
15°	8128	8214	8308	8684	8668	2289
25°	6868	7005	7298	7886	8158	3154
35°	5318	5525	5934	6581	7019	3308
45°	3599	3838	4282	4540	4588	2773
55°	2044	2170	2512	2632	2686	1878
65°	1297	1319	1383	1450	1394	1289
75°	690	696	749	782	776	736
85°	183	188	199	236	277	210
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8985.1	8985.1	8985.1	8985.1	8985.1
2.5°	9132.8	9038.8	8904.5	9033.4	8934.0
5°	9009.2	8974.3	8834.6	9020.0	8960.9
7.5°	8883.0	8807.8	8783.6	8982.4	8904.5
10°	8697.6	8654.7	8670.8	8926.0	8837.3
12.5°	8404.9	8434.4	8472.0	8797.0	8823.9
15°	8128.2	8214.1	8308.2	8684.2	8668.1
17.5°	7856.9	7975.1	8063.7	8547.2	8560.7
20°	7564.1	7631.3	7867.6	8335.0	8501.6
22.5°	7201.5	7333.1	7537.2	8120.1	8195.3
25°	6868.4	7005.4	7298.2	7886.4	8157.7
27.5°	6519.2	6645.5	7008.1	7609.8	7840.8
30°	6105.5	6274.8	6683.1	7295.5	7566.8
32.5°	5691.9	5939.0	6331.2	6959.7	7274.0
35°	5318.5	5525.3	5933.6	6581.0	7018.8
37.5°	4904.8	5122.4	5536.1	6167.3	6446.7
40°	4448.2	4681.9	5157.3	5667.7	5861.1
42.5°	4056.0	4257.5	4735.6	5095.6	5248.7
45°	3599.4	3838.5	4281.7	4539.5	4587.9
47.5°	3158.9	3432.9	3830.4	3951.3	4045.3
50°	2761.3	2976.2	3363.0	3438.2	3529.6
52.5°	2355.7	2584.0	2922.5	2997.7	3132.0
55°	2044.1	2170.4	2511.5	2632.4	2686.1
57.5°	1815.8	1896.4	2138.1	2291.3	2307.4
60°	1638.5	1678.8	1861.5	1977.0	1931.3
62.5°	1474.7	1506.9	1598.2	1686.9	1627.8
65°	1297.4	1318.9	1383.4	1450.5	1394.1
67.5°	1130.9	1155.0	1214.1	1262.5	1214.1
70°	977.7	996.5	1061.0	1082.5	1053.0
72.5°	835.4	843.4	897.2	934.8	916.0
75°	690.3	695.7	749.4	781.7	776.3
77.5°	558.7	566.8	612.4	642.0	625.9
80°	432.5	437.8	467.4	510.4	499.6
82.5°	303.5	314.3	333.1	370.7	400.2
85°	182.7	188.0	198.8	236.4	276.7
87.5°	69.8	75.2	80.6	99.4	131.6
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	19.48	20.96	19.85	21.28	21.59	20.84	22.32	21.21	22.64	22.95
	3H	21.06	22.39	21.44	22.71	23.08	22.13	23.45	22.51	23.78	24.14
	4H	21.67	22.91	22.07	23.26	23.64	22.68	23.92	23.08	24.27	24.65
	6H	22.14	23.28	22.55	23.65	24.04	23.13	24.28	23.55	24.65	25.04
	8H	22.29	23.39	22.72	23.77	24.18	23.32	24.41	23.75	24.80	25.20
	12H	22.39	23.44	22.82	23.82	24.25	23.48	24.52	23.91	24.90	25.33
4H	2H	20.10	21.34	20.50	21.69	22.07	21.21	22.45	21.61	22.80	23.18
	3H	21.90	22.93	22.31	23.33	23.73	22.77	23.80	23.18	24.20	24.60
	4H	22.62	23.55	23.06	23.97	24.41	23.47	24.40	23.90	24.81	25.25
	6H	23.22	24.03	23.68	24.47	24.93	24.08	24.88	24.54	25.33	25.79
	8H	23.42	24.18	23.89	24.62	25.09	24.33	25.08	24.79	25.52	25.99
	12H	23.56	24.23	24.04	24.71	25.18	24.54	25.21	25.02	25.69	26.16
8H	4H	22.95	23.70	23.41	24.15	24.62	23.70	24.46	24.17	24.90	25.37
	6H	23.67	24.30	24.17	24.79	25.27	24.45	25.07	24.95	25.56	26.04
	8H	23.95	24.51	24.47	25.02	25.51	24.78	25.34	25.29	25.85	26.34
	12H	24.16	24.66	24.67	25.15	25.72	25.09	25.58	25.60	26.07	26.64
12H	4H	22.99	23.66	23.47	24.14	24.61	23.72	24.39	24.20	24.87	25.34
	6H	23.74	24.30	24.26	24.81	25.30	24.49	25.05	25.00	25.56	26.04
	8H	24.08	24.57	24.59	25.07	25.63	24.87	25.37	25.38	25.86	26.43