

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: P894907

Luminaire Tested: 8TMB-20HL-LVRA-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894907
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-L940
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 90CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

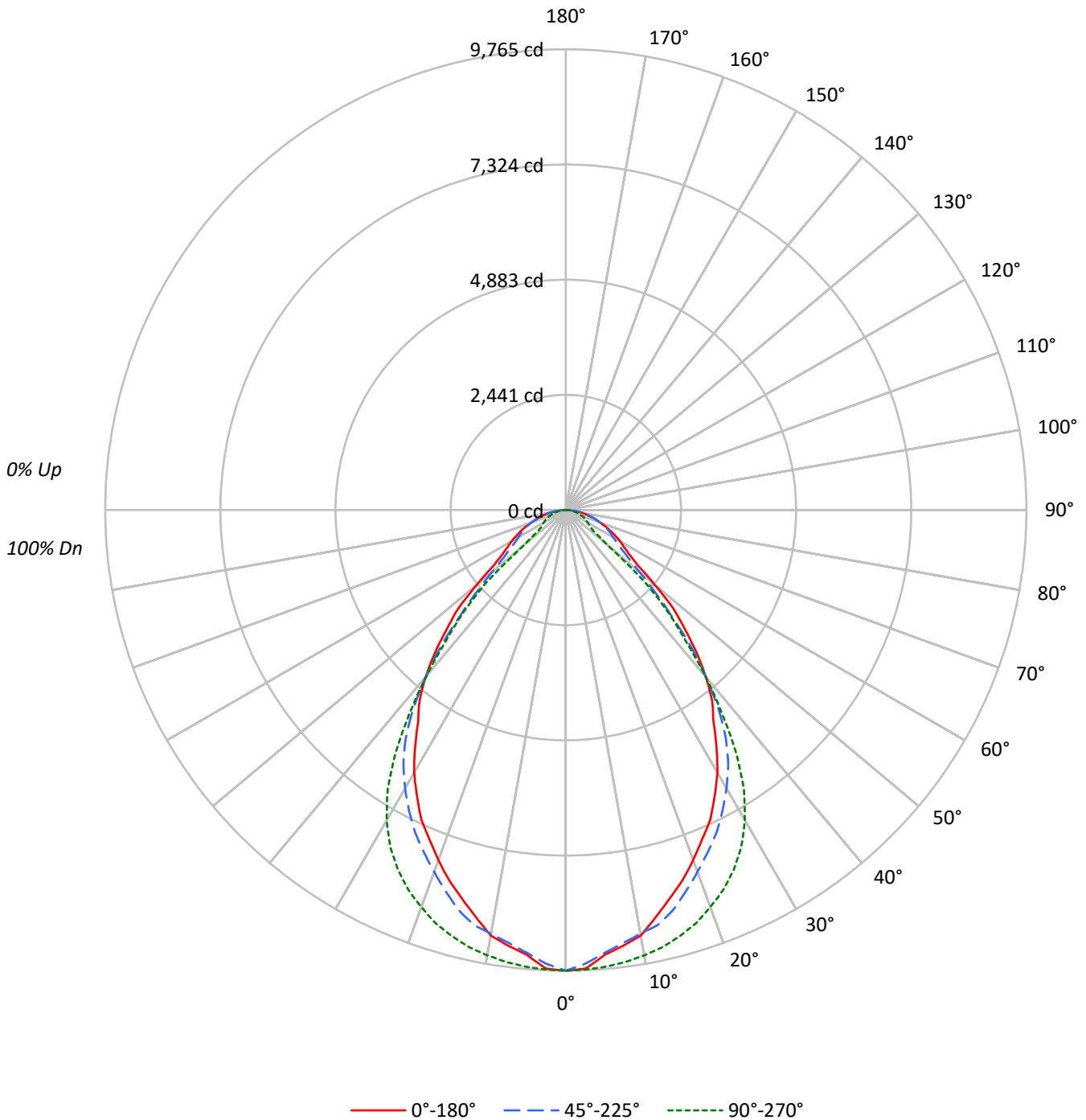
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15848.0 lumens
Efficiency: N/A
Efficacy: 109.3 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
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°	34647	34647	34647
5°	33713	33560	34609
10°	32996	32851	34529
15°	31293	32255	34335
20°	29810	30817	33811
25°	28356	29568	32948
30°	26345	27912	31108
35°	23623	25650	27285
40°	21402	21449	21332
45°	17895	15849	15457
50°	13517	11155	6321
55°	10166	8921	3986
60°	9447	8215	3840
65°	8790	8198	3845
70°	8041	8041	3785
75°	7625	7832	3658
80°	7045	7405	3754
85°	6147	6457	4100

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 18311 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	902.0	5.7
10°-20°	2485.4	15.7
20°-30°	3524.3	22.2
30°-40°	3630.8	22.9
40°-50°	2536.0	16.0
50°-60°	1216.9	7.7
60°-70°	853.7	5.4
70°-80°	533.8	3.4
80°-90°	165.1	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°	6911.7	43.6
0°-40°	10542.5	66.5
0°-60°	14295.4	90.2
0°-90°	15848.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15848.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9765	9765	9765	9765	9765	
5°	9465	9453	9423	9669	9717	896
15°	8519	8582	8781	9032	9347	2399
25°	7243	7316	7553	8064	8416	3312
35°	5454	5602	5922	6045	6299	3437
45°	3566	3649	3158	2997	3080	2748
55°	1643	1563	1442	924	644	1540
65°	1047	979	976	742	458	1037
75°	556	549	571	493	267	586
85°	151	151	159	156	101	169
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9764.9	9764.9	9764.9	9764.9	9764.9
2.5°	9727.1	9696.9	9623.9	9757.3	9747.2
5°	9465.4	9452.8	9422.6	9669.2	9717.0
7.5°	9316.9	9291.7	9256.5	9528.3	9661.7
10°	9158.3	9188.5	9118.1	9367.2	9583.7
12.5°	8831.2	8911.7	9007.3	9201.1	9488.0
15°	8519.1	8582.0	8780.8	9032.5	9347.1
17.5°	8227.1	8300.1	8471.3	8848.8	9183.5
20°	7894.9	7995.6	8161.7	8644.9	8954.5
22.5°	7552.7	7645.8	7854.7	8373.1	8717.9
25°	7243.1	7316.1	7552.7	8063.6	8415.9
27.5°	6832.9	6968.8	7192.8	7686.1	8056.0
30°	6430.2	6546.0	6812.8	7228.0	7592.9
32.5°	5944.5	6113.1	6407.6	6724.7	7029.2
35°	5453.7	5602.2	5921.8	6045.2	6299.3
37.5°	5096.4	5136.6	5317.8	5302.7	5446.2
40°	4620.7	4701.2	4630.8	4442.0	4605.6
42.5°	4107.3	4202.9	3918.5	3699.6	3757.5
45°	3566.2	3649.2	3158.5	2997.4	3080.5
47.5°	3098.1	3090.5	2546.9	2438.7	2322.9
50°	2448.8	2529.3	2020.9	1819.6	1145.1
52.5°	1912.7	1942.9	1666.1	1162.7	752.5
55°	1643.4	1562.9	1442.1	923.6	644.3
57.5°	1459.7	1359.0	1278.5	858.2	588.9
60°	1331.3	1218.1	1157.7	815.4	541.1
62.5°	1185.4	1097.3	1074.6	777.7	498.3
65°	1047.0	979.0	976.5	742.4	458.0
67.5°	908.5	870.8	880.9	699.6	412.7
70°	775.1	767.6	775.1	644.3	364.9
72.5°	661.9	654.3	674.5	573.8	312.1
75°	556.2	548.6	571.3	493.3	266.8
77.5°	442.9	448.0	463.1	410.2	224.0
80°	344.8	344.8	362.4	322.1	183.7
82.5°	246.6	249.2	259.2	236.6	143.5
85°	151.0	151.0	158.6	156.0	100.7
87.5°	50.3	57.9	68.0	73.0	50.3
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	17.96	19.32	18.33	19.63	19.95	14.30	15.65	14.66	15.96	16.28
	3H	19.70	20.91	20.08	21.24	21.60	16.27	17.48	16.65	17.81	18.17
	4H	20.37	21.50	20.78	21.85	22.23	16.98	18.10	17.38	18.45	18.84
	6H	20.88	21.92	21.29	22.29	22.68	17.50	18.54	17.91	18.91	19.30
	8H	21.05	22.04	21.48	22.43	22.83	17.68	18.67	18.11	19.06	19.47
	12H	21.16	22.10	21.59	22.49	22.92	17.82	18.77	18.26	19.15	19.58
4H	2H	18.49	19.62	18.90	19.97	20.35	15.92	17.05	16.32	17.40	17.78
	3H	20.47	21.40	20.88	21.80	22.21	18.10	19.03	18.51	19.43	19.83
	4H	21.27	22.11	21.71	22.53	22.97	18.98	19.81	19.41	20.23	20.67
	6H	21.92	22.64	22.38	23.09	23.55	19.62	20.34	20.08	20.79	21.25
	8H	22.14	22.81	22.60	23.26	23.73	19.83	20.50	20.30	20.95	21.42
	12H	22.29	22.89	22.78	23.37	23.85	19.99	20.59	20.47	21.07	21.54
8H	4H	21.56	22.23	22.03	22.68	23.15	19.63	20.30	20.09	20.75	21.22
	6H	22.34	22.90	22.84	23.39	23.87	20.49	21.04	20.99	21.54	22.02
	8H	22.64	23.14	23.16	23.66	24.15	20.81	21.31	21.33	21.83	22.32
	12H	22.88	23.32	23.39	23.81	24.38	21.08	21.52	21.59	22.01	22.58
12H	4H	21.57	22.17	22.06	22.66	23.13	19.70	20.30	20.18	20.78	21.25
	6H	22.39	22.89	22.91	23.41	23.90	20.62	21.12	21.14	21.64	22.13
	8H	22.76	23.20	23.27	23.69	24.26	21.04	21.48	21.55	21.97	22.54