

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: P894903

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

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894903
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-L840
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER WITH AISLE OPTIC, 80CRI, 4000K CCT
Light Source: -
Ballast/Driver: -

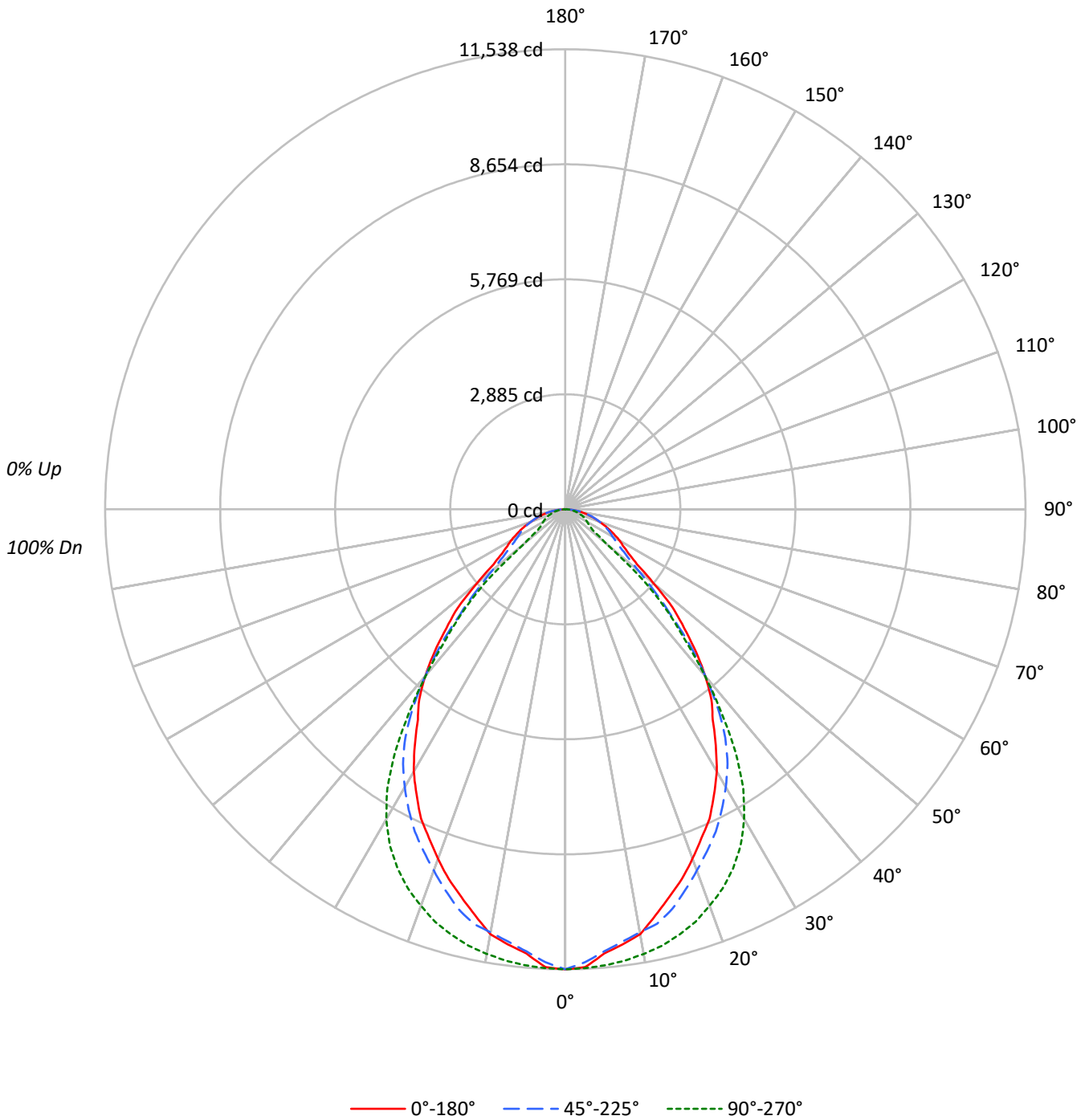
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18725.0 lumens
Efficiency: N/A
Efficacy: 129.1 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	100	100	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78	78	78
3	96	87	80	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69	69	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	62	62	62
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55	55	55
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50	50	50
7	73	61	54	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45	45	45
8	68	57	49	44	67	56	49	44	55	48	44	53	48	43	52	47	43	41	41	41
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38	38	38
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35	35	35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	40937	40937	40937
5°	39833	39653	40892
10°	38986	38815	40797
15°	36974	38110	40568
20°	35222	36412	39949
25°	33504	34936	38929
30°	31127	32979	36756
35°	27911	30307	32239
40°	25287	25342	25205
45°	21143	18726	18263
50°	15971	13180	7468
55°	12012	10540	4709
60°	11162	9707	4537
65°	10385	9687	4544
70°	9502	9502	4473
75°	9010	9254	4321
80°	8324	8749	4436
85°	7263	7625	4840

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 21635 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1065.8	5.7
10°-20°	2936.6	15.7
20°-30°	4164.1	22.2
30°-40°	4289.9	22.9
40°-50°	2996.4	16.0
50°-60°	1437.8	7.7
60°-70°	1008.7	5.4
70°-80°	630.7	3.4
80°-90°	195.1	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°	8166.4	43.6
0°-40°	12456.4	66.5
0°-60°	16890.6	90.2
0°-90°	18725.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	18725.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11538	11538	11538	11538	11538	
5°	11184	11169	11133	11425	11481	1058
15°	10066	10140	10375	10672	11044	2834
25°	8558	8644	8924	9527	9944	3913
35°	6444	6619	6997	7143	7443	4060
45°	4214	4312	3732	3542	3640	3246
55°	1942	1847	1704	1091	761	1820
65°	1237	1157	1154	877	541	1226
75°	657	648	675	583	315	692
85°	178	178	187	184	119	199
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	11537.5	11537.5	11537.5	11537.5	11537.5
2.5°	11492.9	11457.3	11371.0	11528.6	11516.7
5°	11183.7	11168.8	11133.1	11424.6	11481.1
7.5°	11008.2	10978.5	10936.9	11258.0	11415.6
10°	10820.9	10856.6	10773.3	11067.7	11323.5
12.5°	10434.3	10529.5	10642.5	10871.5	11210.5
15°	10065.6	10140.0	10374.9	10672.2	11043.9
17.5°	9720.7	9806.9	10009.1	10455.2	10850.6
20°	9328.2	9447.1	9643.4	10214.3	10580.1
22.5°	8923.8	9033.8	9280.6	9893.2	10300.5
25°	8558.0	8644.2	8923.8	9527.4	9943.7
27.5°	8073.3	8233.9	8498.5	9081.4	9518.5
30°	7597.5	7734.3	8049.5	8540.2	8971.3
32.5°	7023.6	7222.9	7570.8	7945.4	8305.3
35°	6443.8	6619.2	6996.9	7142.6	7442.9
37.5°	6021.5	6069.1	6283.2	6265.4	6434.9
40°	5459.5	5554.7	5471.4	5248.4	5441.7
42.5°	4852.9	4965.9	4629.9	4371.2	4439.6
45°	4213.6	4311.7	3731.9	3541.6	3639.7
47.5°	3660.5	3651.6	3009.3	2881.4	2744.6
50°	2893.3	2988.5	2387.8	2149.9	1353.0
52.5°	2259.9	2295.6	1968.5	1373.8	889.1
55°	1941.8	1846.6	1703.9	1091.3	761.2
57.5°	1724.7	1605.7	1510.6	1014.0	695.8
60°	1573.0	1439.2	1367.9	963.4	639.3
62.5°	1400.6	1296.5	1269.7	918.8	588.8
65°	1237.0	1156.7	1153.8	877.2	541.2
67.5°	1073.5	1028.9	1040.8	826.7	487.7
70°	915.9	906.9	915.9	761.2	431.2
72.5°	782.1	773.1	796.9	678.0	368.7
75°	657.2	648.2	675.0	582.8	315.2
77.5°	523.4	529.3	547.1	484.7	264.6
80°	407.4	407.4	428.2	380.6	217.1
82.5°	291.4	294.4	306.3	279.5	169.5
85°	178.4	178.4	187.3	184.4	118.9
87.5°	59.5	68.4	80.3	86.2	59.5
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	18.54	19.90	18.91	20.21	20.52	14.88	16.23	15.24	16.54	16.86
	3H	20.28	21.49	20.66	21.82	22.18	16.85	18.06	17.23	18.39	18.75
	4H	20.95	22.08	21.36	22.43	22.81	17.56	18.68	17.96	19.03	19.42
	6H	21.46	22.50	21.87	22.87	23.26	18.08	19.12	18.49	19.49	19.88
	8H	21.63	22.62	22.06	23.01	23.41	18.26	19.25	18.69	19.64	20.04
	12H	21.74	22.68	22.17	23.07	23.50	18.40	19.35	18.84	19.73	20.16
4H	2H	19.07	20.20	19.48	20.55	20.93	16.50	17.63	16.90	17.98	18.36
	3H	21.05	21.98	21.46	22.38	22.79	18.68	19.61	19.09	20.01	20.41
	4H	21.85	22.69	22.29	23.11	23.55	19.56	20.39	19.99	20.81	21.25
	6H	22.50	23.22	22.96	23.67	24.13	20.20	20.92	20.66	21.37	21.83
	8H	22.72	23.39	23.18	23.84	24.31	20.41	21.08	20.88	21.53	22.00
	12H	22.87	23.47	23.36	23.95	24.43	20.57	21.17	21.05	21.65	22.12
8H	4H	22.14	22.81	22.61	23.26	23.73	20.20	20.88	20.67	21.33	21.80
	6H	22.92	23.48	23.42	23.97	24.45	21.07	21.62	21.57	22.12	22.60
	8H	23.22	23.72	23.74	24.24	24.73	21.39	21.89	21.91	22.41	22.90
	12H	23.46	23.90	23.97	24.39	24.96	21.66	22.10	22.17	22.59	23.16
12H	4H	22.15	22.75	22.64	23.24	23.71	20.28	20.88	20.76	21.36	21.83
	6H	22.97	23.47	23.49	23.99	24.48	21.20	21.70	21.72	22.22	22.71
	8H	23.34	23.78	23.85	24.27	24.84	21.62	22.06	22.13	22.55	23.12