

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: P894909

Luminaire Tested: 8TMB-20HL-LVRF-UNV-L830

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894909
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-L830
Description: 20000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 3000K (C)
Light Source: -
Ballast/Driver: -

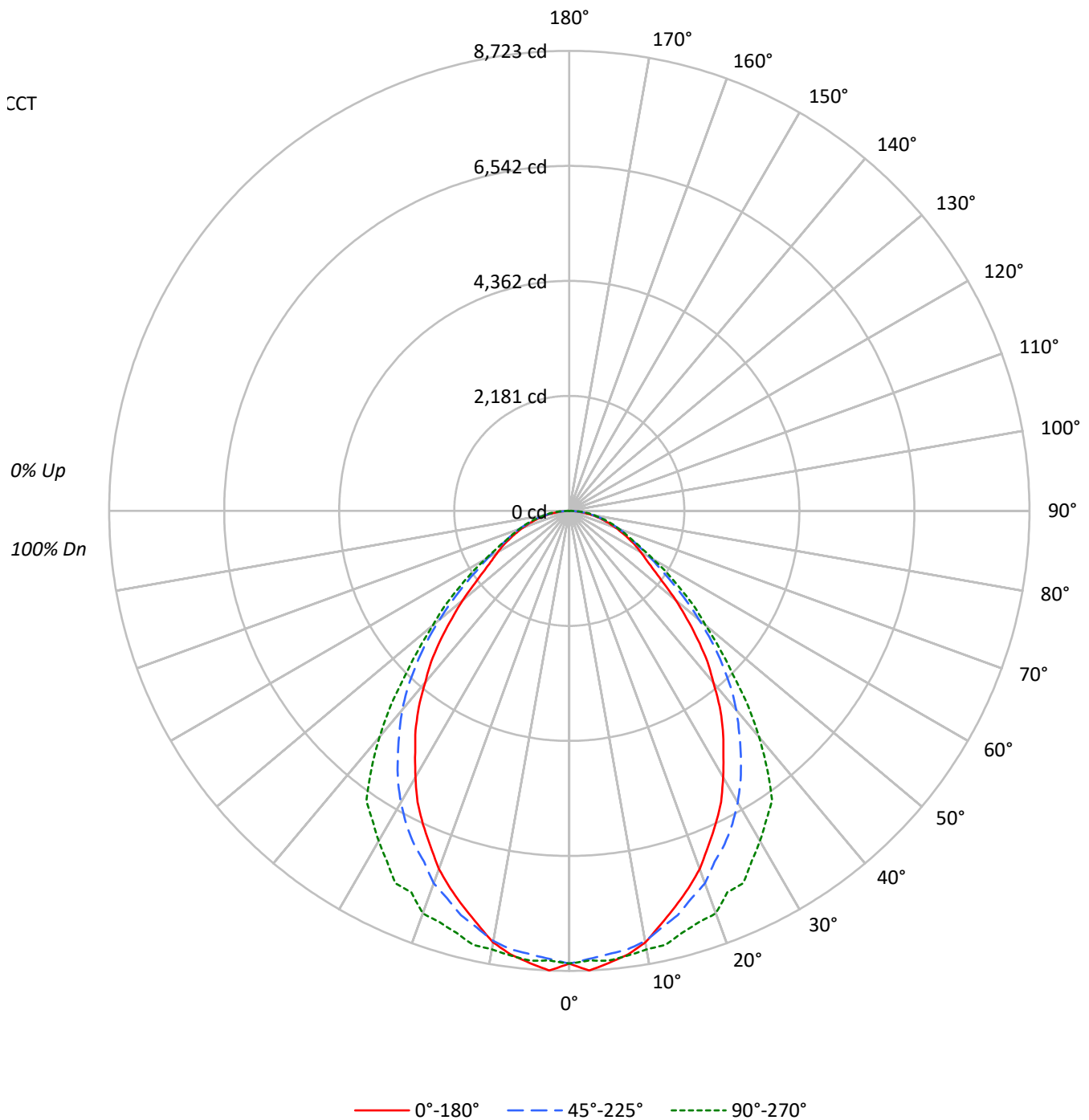
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17401.0 lumens
Efficiency: N/A
Efficacy: 120.0 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			
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	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	77	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	52	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	47	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	42	42	40
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	38	38	37
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	35	35	33
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	32	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	30450	30450	30450
5°	30649	30055	30484
10°	29931	29839	30412
15°	28518	29150	30413
20°	27280	28375	30661
25°	25684	27291	30505
30°	23893	26153	29611
35°	22004	24549	29039
40°	19679	22817	25930
45°	17251	20521	21989
50°	14559	17731	18609
55°	12078	14840	15871
60°	11106	12617	13090
65°	10404	11093	11180
70°	9688	10513	10433
75°	9040	9813	10165
80°	8441	9121	9751
85°	7104	7731	10760

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 21989 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	810.1	4.7
10°-20°	2259.6	13.0
20°-30°	3254.1	18.7
30°-40°	3592.6	20.6
40°-50°	3082.7	17.7
50°-60°	2100.1	12.1
60°-70°	1321.1	7.6
70°-80°	752.2	4.3
80°-90°	228.6	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°	6323.8	36.3
0°-40°	9916.3	57.0
0°-60°	15099.1	86.8
0°-90°	17401.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17401.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8582	8582	8582	8582	8582	
5°	8605	8572	8438	8616	8559	812
15°	7764	7846	7936	8295	8279	2186
25°	6560	6691	6971	7533	7792	3013
35°	5080	5278	5668	6286	6704	3160
45°	3438	3666	4090	4336	4382	2649
55°	1952	2073	2399	2514	2566	1794
65°	1239	1260	1321	1386	1332	1231
75°	659	664	716	747	742	703
85°	174	180	190	226	264	201
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8582.1	8582.1	8582.1	8582.1	8582.1
2.5°	8723.2	8633.4	8505.1	8628.3	8533.4
5°	8605.2	8571.9	8438.4	8615.5	8559.0
7.5°	8484.6	8412.8	8389.7	8579.6	8505.1
10°	8307.6	8266.5	8281.9	8525.7	8441.0
12.5°	8027.9	8056.2	8092.1	8402.5	8428.2
15°	7763.7	7845.8	7935.6	8294.8	8279.4
17.5°	7504.5	7617.4	7702.1	8163.9	8176.7
20°	7224.9	7289.0	7514.8	7961.2	8120.3
22.5°	6878.5	7004.2	7199.2	7756.0	7827.8
25°	6560.4	6691.2	6970.9	7532.8	7791.9
27.5°	6226.8	6347.4	6693.8	7268.5	7489.1
30°	5831.7	5993.4	6383.4	6968.3	7227.5
32.5°	5436.6	5672.7	6047.3	6647.6	6947.8
35°	5080.0	5277.6	5667.5	6285.9	6704.1
37.5°	4684.9	4892.7	5287.8	5890.7	6157.6
40°	4248.7	4471.9	4926.1	5413.5	5598.3
42.5°	3874.1	4066.6	4523.3	4867.0	5013.3
45°	3438.0	3666.3	4089.7	4336.0	4382.1
47.5°	3017.2	3278.9	3658.6	3774.1	3863.9
50°	2637.5	2842.7	3212.2	3284.0	3371.3
52.5°	2250.1	2468.2	2791.4	2863.3	2991.6
55°	1952.5	2073.1	2398.9	2514.3	2565.7
57.5°	1734.4	1811.4	2042.3	2188.5	2203.9
60°	1565.1	1603.5	1778.0	1888.3	1844.7
62.5°	1408.5	1439.3	1526.6	1611.2	1554.8
65°	1239.2	1259.7	1321.3	1385.5	1331.6
67.5°	1080.1	1103.2	1159.7	1205.9	1159.7
70°	933.9	951.9	1013.4	1034.0	1005.7
72.5°	797.9	805.6	856.9	892.8	874.9
75°	659.4	664.5	715.8	746.6	741.5
77.5°	533.7	541.4	585.0	613.2	597.8
80°	413.1	418.2	446.4	487.5	477.2
82.5°	289.9	300.2	318.1	354.1	382.3
85°	174.5	179.6	189.9	225.8	264.3
87.5°	66.7	71.8	77.0	94.9	125.7
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	19.32	20.80	19.69	21.12	21.43	20.68	22.16	21.05	22.48	22.79
	3H	20.90	22.23	21.28	22.56	22.92	21.97	23.29	22.35	23.62	23.99
	4H	21.51	22.75	21.91	23.10	23.48	22.52	23.77	22.92	24.11	24.49
	6H	21.98	23.13	22.39	23.49	23.89	22.98	24.12	23.39	24.49	24.88
	8H	22.14	23.23	22.56	23.62	24.02	23.16	24.25	23.59	24.64	25.04
	12H	22.23	23.28	22.66	23.66	24.09	23.32	24.36	23.75	24.74	25.17
4H	2H	19.94	21.18	20.34	21.53	21.91	21.05	22.29	21.45	22.64	23.02
	3H	21.74	22.77	22.15	23.17	23.57	22.61	23.64	23.02	24.04	24.44
	4H	22.46	23.39	22.90	23.81	24.25	23.31	24.24	23.74	24.65	25.09
	6H	23.06	23.87	23.52	24.31	24.77	23.92	24.72	24.38	25.17	25.63
	8H	23.26	24.02	23.73	24.46	24.93	24.17	24.92	24.63	25.36	25.83
	12H	23.40	24.07	23.89	24.55	25.03	24.38	25.05	24.86	25.53	26.00
8H	4H	22.79	23.54	23.26	23.99	24.46	23.54	24.30	24.01	24.74	25.21
	6H	23.51	24.14	24.01	24.63	25.11	24.29	24.91	24.79	25.40	25.88
	8H	23.79	24.35	24.31	24.86	25.35	24.62	25.18	25.14	25.69	26.18
	12H	24.00	24.50	24.51	24.99	25.56	24.93	25.42	25.44	25.91	26.48
12H	4H	22.83	23.50	23.31	23.98	24.45	23.56	24.23	24.04	24.71	25.18
	6H	23.58	24.14	24.10	24.65	25.14	24.33	24.89	24.84	25.40	25.89
	8H	23.92	24.41	24.43	24.91	25.47	24.71	25.21	25.23	25.70	26.27