

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: P894824

Luminaire Tested: 8TMB-18HL-RFLW-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894824
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-18HL-RFLW-UNV-L850
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 80CRI, 5000K
Light Source: -
Ballast/Driver: -

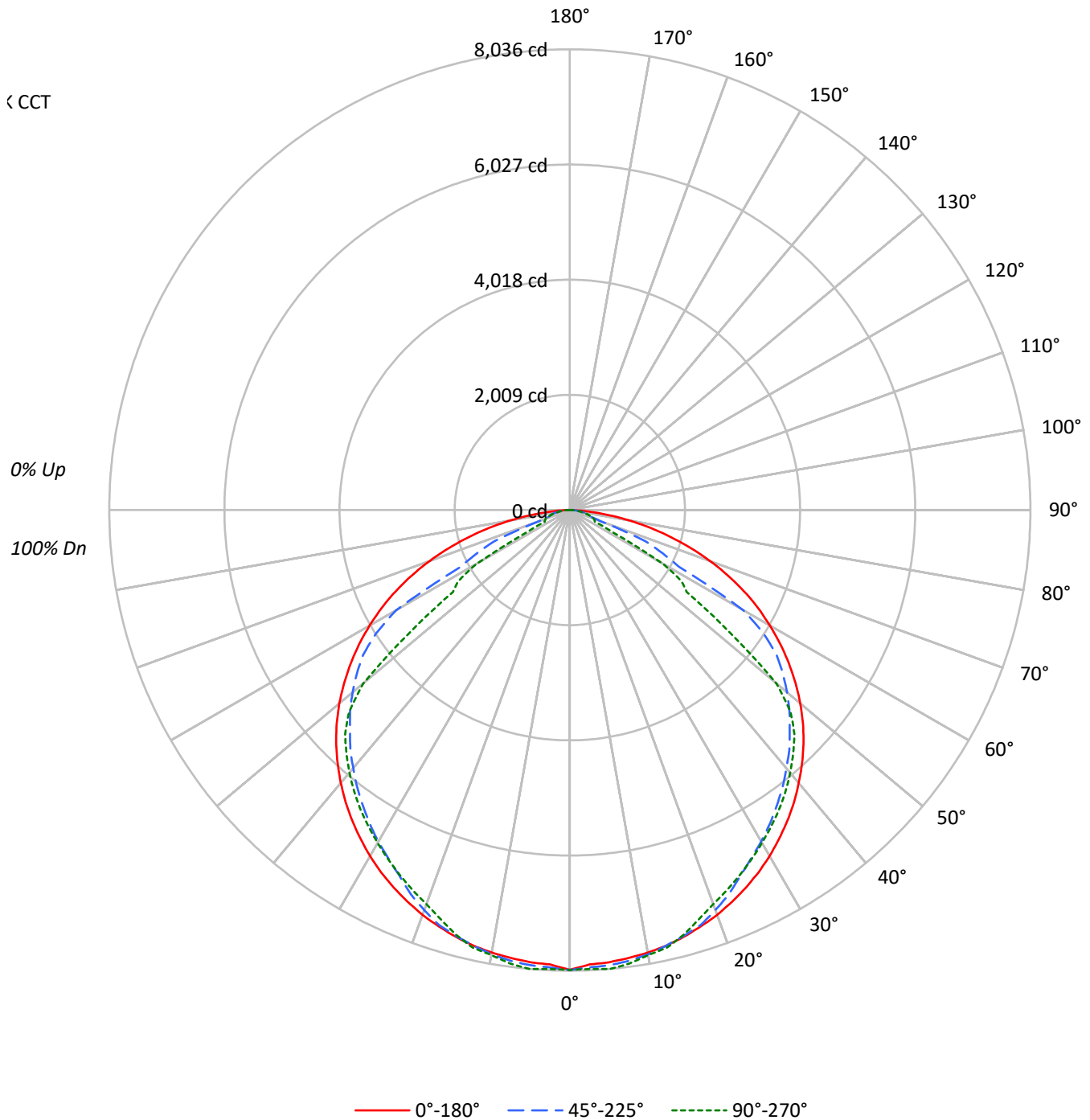
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20911.0 lumens
Efficiency: N/A
Efficacy: 155.1 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 7.98' x H: 0')
CIE Type: Direct

Input Watts (W): 134.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 8.62
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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	85	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	49	49	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	43	43	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	38	38	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	34	34	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	31	31	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	28	28	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	51941	51941	51941
5°	51464	51801	52235
10°	51539	51734	51831
15°	51652	51536	51420
20°	51782	51186	50402
25°	51923	50281	50175
30°	52121	49940	50143
35°	52309	49749	50355
40°	52529	49688	50566
45°	52810	49664	50774
50°	52891	49852	47438
55°	52659	49701	28129
60°	52213	45298	24394
65°	51357	27382	7385
70°	49326	10858	8471
75°	45703	8904	8659
80°	39543	9401	8111
85°	28099	8812	7712

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 52891 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	759.8	3.6
10°-20°	2175.8	10.4
20°-30°	3288.1	15.7
30°-40°	4011.8	19.2
40°-50°	4243.7	20.3
50°-60°	3514.9	16.8
60°-70°	1954.0	9.3
70°-80°	792.1	3.8
80°-90°	170.8	0.8
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°	6223.7	29.8
0°-40°	10235.5	48.9
0°-60°	17994.2	86.1
0°-90°	20911.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	20911.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8021	8021	8021	8021	8021	
5°	7917	8058	7969	7982	8036	753
15°	7705	7823	7688	7682	7670	2176
25°	7267	7319	7037	6993	7022	3352
35°	6617	6536	6293	6318	6370	4142
45°	5767	5470	5423	5490	5544	4445
55°	4664	4348	4402	3021	2492	4167
65°	3352	3072	1787	601	482	3305
75°	1827	1018	356	351	346	1929
85°	378	126	119	109	104	475
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8021.2	8021.2	8021.2	8021.2	8021.2
2.5°	7934.6	8073.1	7986.6	8003.9	8011.3
5°	7917.3	8058.2	7969.2	7981.6	8036.0
7.5°	7880.3	8023.6	7929.7	7937.1	7979.1
10°	7838.2	7969.2	7867.9	7855.5	7882.7
12.5°	7781.4	7900.0	7781.4	7786.3	7820.9
15°	7704.8	7823.4	7687.5	7682.5	7670.2
17.5°	7613.3	7724.5	7591.1	7512.0	7484.8
20°	7514.4	7600.9	7427.9	7306.8	7314.2
22.5°	7395.8	7469.9	7252.4	7141.2	7173.3
25°	7267.2	7319.2	7037.4	6992.9	7022.5
27.5°	7126.3	7165.9	6852.0	6842.1	6866.8
30°	6970.6	6985.5	6678.9	6674.0	6706.1
32.5°	6797.6	6772.9	6493.6	6498.5	6540.5
35°	6617.1	6535.6	6293.3	6318.1	6370.0
37.5°	6426.8	6281.0	6095.6	6127.7	6184.6
40°	6214.2	6016.5	5878.1	5927.5	5981.9
42.5°	5996.7	5739.6	5668.0	5714.9	5766.8
45°	5766.8	5470.2	5423.2	5490.0	5544.4
47.5°	5517.2	5205.7	5198.3	5250.2	5225.5
50°	5250.2	4931.3	4948.6	4879.4	4708.9
52.5°	4963.5	4647.1	4681.7	4382.6	3542.2
55°	4664.4	4348.0	4402.4	3020.6	2491.6
57.5°	4357.9	4041.5	4006.9	2311.2	2308.7
60°	4031.6	3730.0	3497.7	2041.7	1883.6
62.5°	3702.8	3406.2	2148.0	1537.5	865.1
65°	3351.8	3072.5	1787.1	600.7	482.0
67.5°	2983.5	2733.9	1431.2	452.3	469.7
70°	2605.3	2382.9	573.5	437.5	447.4
72.5°	2219.7	1839.1	380.7	405.4	405.4
75°	1826.7	1018.4	355.9	351.0	346.1
77.5°	1436.1	682.2	311.5	289.2	281.8
80°	1060.4	244.7	252.1	224.9	217.5
82.5°	702.0	190.3	180.4	163.1	158.2
85°	378.2	126.1	118.6	108.8	103.8
87.5°	136.0	64.3	64.3	51.9	47.0
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	26.40	27.97	26.77	28.29	28.60	22.39	23.96	22.76	24.28	24.59
	3H	28.41	29.82	28.79	30.14	30.50	22.52	23.93	22.90	24.26	24.62
	4H	29.02	30.34	29.42	30.69	31.07	22.64	23.96	23.04	24.31	24.69
	6H	29.42	30.64	29.83	31.00	31.40	22.75	23.97	23.16	24.33	24.73
	8H	29.54	30.70	29.97	31.09	31.49	22.78	23.94	23.21	24.33	24.73
	12H	29.61	30.72	30.04	31.10	31.53	22.81	23.92	23.24	24.30	24.73
4H	2H	26.53	27.85	26.93	28.20	28.58	23.12	24.44	23.52	24.78	25.16
	3H	28.69	29.78	29.10	30.18	30.58	23.31	24.40	23.72	24.80	25.20
	4H	29.35	30.32	29.78	30.74	31.18	23.47	24.45	23.90	24.86	25.30
	6H	29.79	30.64	30.25	31.08	31.54	23.64	24.48	24.09	24.93	25.38
	8H	29.93	30.73	30.39	31.17	31.64	23.69	24.48	24.15	24.92	25.39
	12H	30.04	30.75	30.52	31.22	31.69	23.73	24.44	24.22	24.92	25.39
8H	4H	29.28	30.07	29.74	30.52	30.99	23.74	24.53	24.20	24.98	25.45
	6H	29.72	30.38	30.22	30.87	31.35	23.95	24.60	24.44	25.09	25.57
	8H	29.87	30.46	30.39	30.97	31.46	24.03	24.62	24.54	25.13	25.62
	12H	30.00	30.53	30.51	31.02	31.58	24.12	24.64	24.63	25.13	25.70
12H	4H	29.26	29.96	29.74	30.44	30.91	23.76	24.46	24.24	24.94	25.41
	6H	29.68	30.27	30.20	30.78	31.27	23.97	24.56	24.48	25.06	25.55
	8H	29.85	30.38	30.36	30.87	31.43	24.09	24.61	24.60	25.10	25.67