

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: P894720

Luminaire Tested: 8TMB-16HL-LVRF-UNV-L850

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894720
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-16HL-LVRF-UNV-L850
Description: 16000 Lumen 8FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 5000K (C)
Light Source: -
Ballast/Driver: -

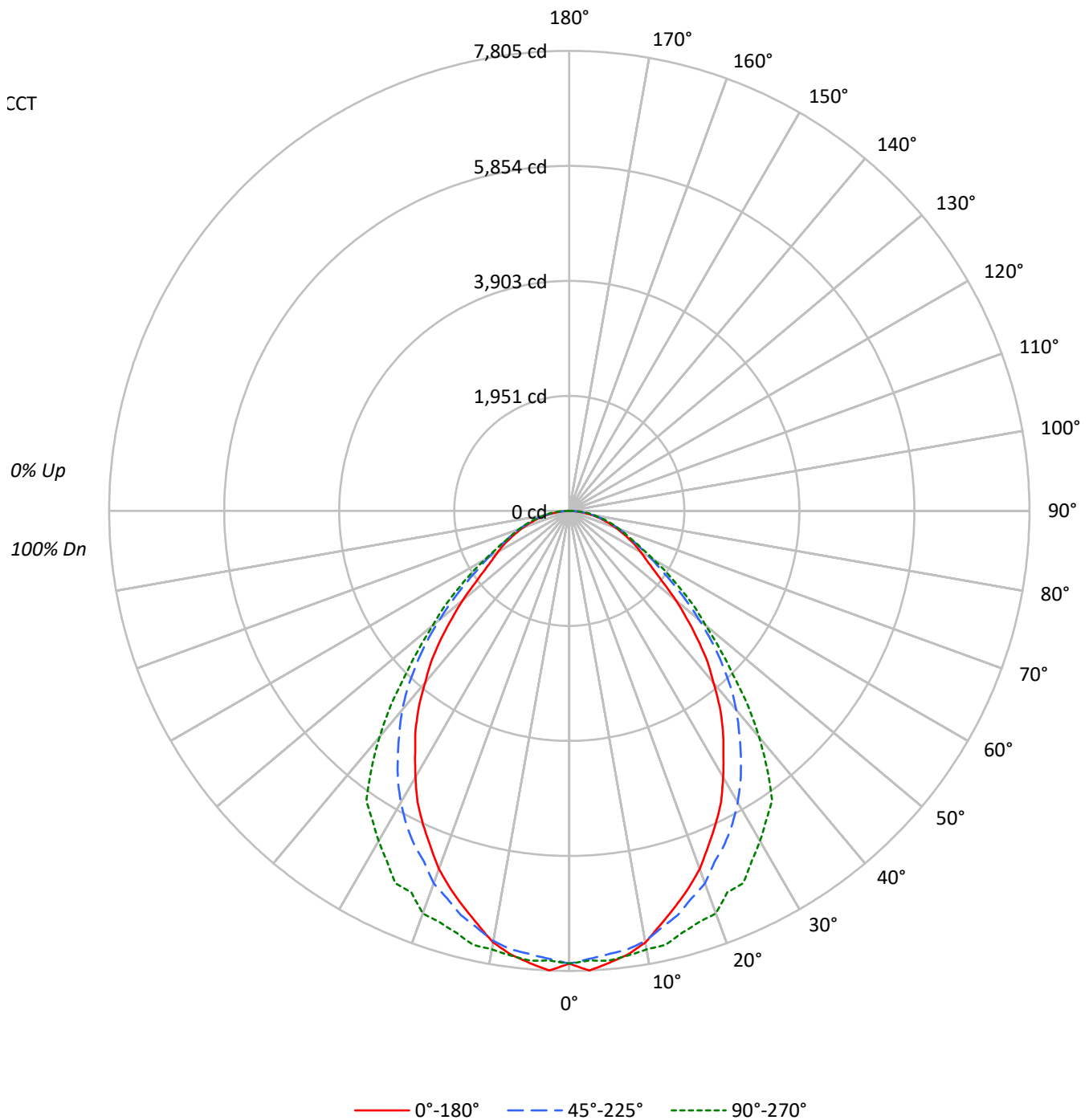
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15570.0 lumens
Efficiency: N/A
Efficacy: 134.5 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): 115.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 4.23
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	87	
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	77	75	
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	67	65	
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	59	57	
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52	52	50	
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	47	45	
7	70	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	42	40	
8	65	52	44	39	64	52	44	39	50	44	39	49	43	39	48	43	38	38	37	
9	61	48	41	36	60	48	40	35	47	40	35	46	40	35	45	39	35	35	33	
10	57	45	37	33	56	44	37	32	43	37	32	43	36	32	42	36	32	32	30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27246	27246	27246
5°	27424	26893	27277
10°	26782	26699	27212
15°	25518	26083	27213
20°	24410	25389	27435
25°	22981	24419	27295
30°	21379	23401	26496
35°	19689	21966	25983
40°	17609	20415	23201
45°	15436	18362	19675
50°	13027	15865	16651
55°	10807	13278	14201
60°	9938	11289	11713
65°	9309	9926	10003
70°	8669	9407	9336
75°	8088	8781	9096
80°	7552	8161	8725
85°	6355	6917	9628

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 19675 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	724.8	4.7
10°-20°	2021.8	13.0
20°-30°	2911.7	18.7
30°-40°	3214.6	20.6
40°-50°	2758.3	17.7
50°-60°	1879.1	12.1
60°-70°	1182.1	7.6
70°-80°	673.0	4.3
80°-90°	204.6	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°	5658.4	36.3
0°-40°	8872.9	57.0
0°-60°	13510.3	86.8
0°-90°	15570.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15570.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7679	7679	7679	7679	7679	
5°	7700	7670	7550	7709	7658	727
15°	6947	7020	7101	7422	7408	1956
25°	5870	5987	6237	6740	6972	2696
35°	4546	4722	5071	5624	5999	2827
45°	3076	3280	3659	3880	3921	2370
55°	1747	1855	2146	2250	2296	1605
65°	1109	1127	1182	1240	1192	1102
75°	590	595	640	668	664	629
85°	156	161	170	202	236	180
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7679.1	7679.1	7679.1	7679.1	7679.1
2.5°	7805.3	7725.0	7610.2	7720.4	7635.5
5°	7699.7	7669.9	7550.5	7708.9	7658.4
7.5°	7591.8	7527.6	7506.9	7676.8	7610.2
10°	7433.4	7396.7	7410.5	7628.6	7552.8
12.5°	7183.2	7208.5	7240.6	7518.4	7541.3
15°	6946.8	7020.2	7100.6	7422.0	7408.2
17.5°	6714.9	6815.9	6891.7	7304.9	7316.4
20°	6464.7	6522.0	6724.1	7123.5	7265.9
22.5°	6154.7	6267.2	6441.7	6939.9	7004.1
25°	5870.1	5987.2	6237.4	6740.1	6972.0
27.5°	5571.6	5679.5	5989.4	6503.7	6701.1
30°	5218.1	5362.7	5711.7	6235.1	6467.0
32.5°	4864.6	5075.8	5410.9	5948.1	6216.7
35°	4545.5	4722.2	5071.2	5624.4	5998.6
37.5°	4191.9	4377.9	4731.4	5270.9	5509.7
40°	3801.7	4001.4	4407.7	4843.9	5009.2
42.5°	3466.5	3638.7	4047.3	4354.9	4485.8
45°	3076.2	3280.5	3659.3	3879.7	3921.0
47.5°	2699.7	2933.9	3273.7	3377.0	3457.3
50°	2360.0	2543.6	2874.2	2938.5	3016.5
52.5°	2013.3	2208.5	2497.7	2562.0	2676.8
55°	1747.0	1854.9	2146.5	2249.8	2295.7
57.5°	1551.9	1620.8	1827.4	1958.2	1972.0
60°	1400.4	1434.8	1590.9	1689.6	1650.6
62.5°	1260.3	1287.9	1365.9	1441.7	1391.2
65°	1108.8	1127.2	1182.3	1239.7	1191.5
67.5°	966.5	987.1	1037.7	1079.0	1037.7
70°	835.6	851.7	906.8	925.2	899.9
72.5°	714.0	720.8	766.8	798.9	782.8
75°	590.0	594.6	640.5	668.0	663.5
77.5°	477.5	484.4	523.4	548.7	534.9
80°	369.6	374.2	399.4	436.2	427.0
82.5°	259.4	268.6	284.7	316.8	342.1
85°	156.1	160.7	169.9	202.0	236.5
87.5°	59.7	64.3	68.9	84.9	112.5
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	18.94	20.42	19.30	20.73	21.04	20.30	21.78	20.66	22.09	22.41
	3H	20.52	21.84	20.89	22.17	22.53	21.58	22.91	21.96	23.24	23.60
	4H	21.12	22.36	21.52	22.71	23.09	22.14	23.38	22.54	23.73	24.11
	6H	21.59	22.74	22.01	23.11	23.50	22.59	23.74	23.00	24.10	24.49
	8H	21.75	22.84	22.18	23.23	23.63	22.78	23.87	23.20	24.26	24.66
	12H	21.85	22.89	22.28	23.27	23.70	22.93	23.98	23.36	24.36	24.79
4H	2H	19.55	20.79	19.95	21.14	21.52	20.66	21.91	21.07	22.26	22.63
	3H	21.35	22.38	21.77	22.78	23.19	22.22	23.25	22.63	23.65	24.05
	4H	22.08	23.00	22.51	23.42	23.86	22.93	23.85	23.36	24.27	24.71
	6H	22.68	23.48	23.13	23.92	24.38	23.53	24.34	23.99	24.78	25.24
	8H	22.88	23.63	23.34	24.07	24.54	23.78	24.53	24.24	24.98	25.45
	12H	23.02	23.69	23.50	24.17	24.64	23.99	24.67	24.48	25.15	25.62
8H	4H	22.40	23.16	22.87	23.60	24.07	23.16	23.91	23.62	24.35	24.82
	6H	23.13	23.75	23.63	24.24	24.72	23.90	24.52	24.40	25.02	25.49
	8H	23.40	23.96	23.92	24.48	24.96	24.23	24.79	24.75	25.30	25.79
	12H	23.62	24.11	24.13	24.61	25.17	24.54	25.04	25.05	25.53	26.09
12H	4H	22.44	23.11	22.93	23.59	24.07	23.17	23.84	23.65	24.32	24.79
	6H	23.20	23.76	23.71	24.27	24.76	23.94	24.50	24.45	25.01	25.50
	8H	23.53	24.03	24.04	24.52	25.09	24.33	24.82	24.84	25.32	25.88