

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: METALUX

Report Number: 113P101

Luminaire Tested: **BE-140**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: 113P101  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: BE-140  
Description: Wall Bracket with extruded acrylic lens  
Light Source: F40/CW, 3150 Lumens, 40 Watts  
Ballast/Driver: -

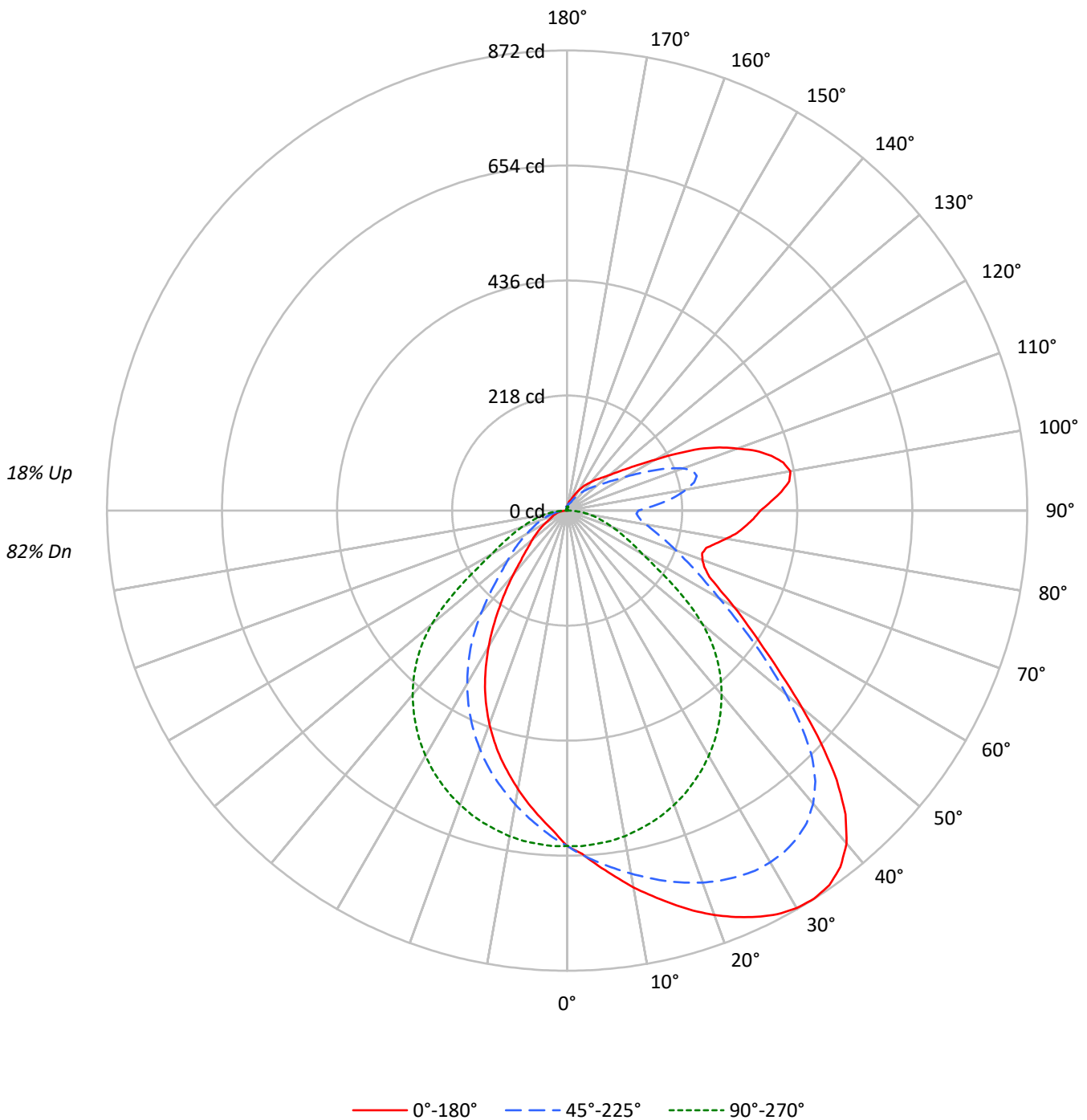
**Summary**

Lumens per Lamp: 3150 (1 lamp)  
Luminaire Lumens: 2149.3 lumens  
Efficiency: 68.2%  
Efficacy: 43.8 lumens/watt  
Spacing Criteria (0/90/45): 1.34 / 1.25 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4.06' x H: 0.22')  
CIE Type: Semi-Direct

Input Watts (W): 49.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 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	78	78	78	78	75	75	75	75	69	69	69	64	64	64	58	58	58	56				
1	71	68	65	62	68	65	62	60	60	58	56	55	53	52	51	49	48	46				
2	65	59	55	51	62	57	53	49	52	49	46	48	46	43	45	43	41	39				
3	59	52	47	42	57	50	45	41	46	42	39	43	40	37	40	37	35	33				
4	54	46	41	36	52	45	39	35	42	37	34	39	35	32	36	33	30	28				
5	50	42	36	31	48	40	35	31	37	33	29	35	31	28	32	29	26	25				
6	46	38	32	27	44	36	31	27	34	29	26	32	28	25	29	26	23	22				
7	43	34	28	24	41	33	28	24	31	26	23	29	25	22	27	23	21	19				
8	40	31	25	22	38	30	25	21	28	24	20	26	22	20	25	21	19	17				
9	37	28	23	19	36	28	23	19	26	21	18	24	20	18	23	19	17	16				
10	35	26	21	18	34	25	21	17	24	20	17	23	19	16	21	18	15	14				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	4041	4041	4041
5°	4290	3870	3708
10°	4638	3703	3428
15°	5008	3536	3153
20°	5413	3369	2856
25°	5815	3201	2522
30°	6194	3023	2120
35°	6481	2832	1670
40°	6541	2624	1259
45°	6166	2377	958
50°	5394	2041	802
55°	4678	1541	675
60°	4250	1097	547
65°	4009	868	465
70°	4415	694	458
75°	5584	535	454
80°	8589	400	446
85°	15313	217	330



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	60.4	2.8	1.9	0°	636	636	636	636	636	
10°-20°	176.4	8.2	5.6	5°	675	669	634	602	584	66
20°-30°	273.9	12.7	8.7	15°	772	727	613	526	486	220
30°-40°	330.9	15.4	10.5	25°	850	765	568	433	368	393
40°-50°	318.7	14.8	10.1	35°	866	759	499	319	223	539
50°-60°	238.2	11.1	7.6	45°	723	655	403	191	112	551
60°-70°	157.6	7.3	5.0	55°	454	427	243	116	66	412
70°-80°	114.4	5.3	3.6	65°	297	268	123	68	34	303
80°-90°	96.7	4.5	3.1	75°	273	180	64	36	22	296
90°-100°	107.3	5.0	3.4	85°	339	136	21	10	7	271
100°-110°	115.8	5.4	3.7	90°	366	135	2	0	0	202
110°-120°	79.7	3.7	2.5	95°	407	184	1	0	0	338
120°-130°	38.7	1.8	1.2	105°	401	254	2	0	0	419
130°-140°	20.7	1.0	0.7	115°	276	180	1	0	0	272
140°-150°	11.0	0.5	0.3	125°	138	94	2	0	0	128
150°-160°	5.0	0.2	0.2	135°	86	60	2	0	0	67
160°-170°	2.9	0.1	0.1	145°	58	37	2	1	0	36
170°-180°	0.8	0.0	0.0	155°	32	19	4	2	1	15
0°-30°	510.8	23.8	16.2	165°	19	14	8	7	6	5
0°-40°	841.7	39.2	26.7	175°	11	8	6	7	7	1
0°-60°	1398.6	65.1	44.4	180°	5	5	5	5	5	
0°-90°	1767.3	82.2	56.1							
90°-120°	302.9	14.1	9.6							
90°-150°	373.3	17.4	11.9							
90°-180°	382.0	17.8	12.1							
0°-180°	2149.3	100.0	68.2							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5	635.5
2.5°	651.3	655.0	653.2	646.2	636.4	628.0	620.1	613.0	607.2
5°	675.3	676.5	668.7	652.8	634.1	617.5	601.9	591.9	583.7
7.5°	699.6	698.2	683.7	659.2	631.3	606.1	584.0	569.8	560.3
10°	725.2	720.2	698.6	664.6	626.7	593.6	565.6	547.8	536.0
12.5°	748.2	742.4	713.0	668.1	619.9	578.9	545.6	524.1	510.9
15°	771.8	763.2	726.9	671.0	612.8	563.9	525.9	500.5	485.9
17.5°	794.9	783.6	739.3	673.1	603.9	547.8	504.9	475.4	458.9
20°	815.6	801.9	750.2	672.9	593.1	530.6	482.1	448.1	430.4
22.5°	833.8	817.9	759.1	671.8	581.5	511.8	458.3	420.9	400.7
25°	849.6	830.4	765.2	668.9	567.9	492.2	433.1	391.2	368.5
27.5°	862.5	839.2	769.8	663.5	553.2	471.3	406.5	359.3	333.7
30°	869.9	844.2	769.5	655.7	536.6	448.1	378.8	326.1	297.7
32.5°	871.6	844.0	766.6	645.5	519.0	424.3	349.2	290.1	260.2
35°	866.4	836.8	758.8	633.7	499.0	398.6	319.4	254.3	223.2
37.5°	850.9	820.2	746.0	619.5	478.0	372.2	287.0	219.8	189.8
40°	823.6	792.9	725.0	601.8	455.5	343.9	253.1	186.7	158.5
42.5°	780.5	750.9	696.3	580.7	430.4	313.4	220.6	156.2	131.4
45°	722.6	692.8	655.3	554.5	403.2	283.4	191.2	130.5	112.3
47.5°	652.6	622.4	600.7	520.1	372.4	252.6	166.2	110.8	96.8
50°	580.3	556.1	541.9	475.3	335.5	223.7	147.2	97.0	86.3
52.5°	512.2	499.2	483.1	424.6	291.8	195.8	130.9	86.4	75.7
55°	454.4	450.5	426.9	376.4	243.3	169.8	116.4	75.5	65.6
57.5°	406.5	404.9	375.5	329.9	197.9	144.1	101.6	65.4	56.2
60°	365.4	363.7	333.0	286.2	164.7	119.1	89.1	54.9	47.0
62.5°	326.9	326.2	297.4	243.9	142.3	97.3	77.7	46.6	39.4
65°	297.2	298.3	268.1	207.0	122.7	79.5	67.7	39.9	34.5
67.5°	281.6	277.9	241.3	175.1	106.2	66.1	59.7	34.9	30.4
70°	272.6	261.3	218.8	150.2	91.2	56.5	51.5	31.4	28.3
72.5°	268.3	248.1	198.9	130.2	76.6	48.2	43.5	28.2	24.8
75°	273.0	243.2	180.4	114.3	64.4	40.9	36.3	25.5	22.2
77.5°	288.3	244.0	164.8	100.4	53.9	34.5	29.6	22.6	19.1
80°	306.2	250.7	151.5	88.3	43.4	29.0	22.8	19.3	15.9
82.5°	324.8	261.7	141.2	76.8	31.7	21.8	16.1	14.8	11.1
85°	339.1	274.9	135.5	66.2	20.8	15.3	9.5	9.9	7.3
87.5°	353.4	289.2	131.4	54.9	10.0	7.1	5.0	3.7	1.9
90°	366.5	309.6	134.9	44.6	1.9	1.1	0.3	0.0	0.0
92.5°	386.3	334.3	157.0	45.5	1.5	1.1	0.2	0.0	0.3
95°	407.2	354.3	183.6	46.7	1.2	1.4	0.3	0.0	0.1
97.5°	424.6	373.4	208.7	48.2	1.7	1.2	0.3	0.1	0.0
100°	429.5	383.3	229.2	52.0	1.8	0.9	0.4	0.0	0.3
102.5°	419.5	380.6	246.2	59.3	1.6	1.4	0.2	0.1	0.0
105°	401.0	366.0	254.5	68.8	1.8	1.5	0.0	0.0	0.0
107.5°	376.0	343.7	249.4	79.7	1.8	0.8	0.4	0.1	0.3
110°	343.4	314.7	233.9	85.7	2.0	0.8	0.0	0.2	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	312.7	284.9	208.5	84.6	1.7	1.1	0.3	0.1	0.0
115°	276.4	246.3	180.2	76.8	1.3	1.2	0.2	0.0	0.0
117.5°	232.9	207.3	151.7	67.2	1.4	1.4	0.2	0.0	0.0
120°	193.1	173.1	127.5	57.6	1.7	1.5	0.1	0.0	0.0
122.5°	162.1	145.4	108.6	49.6	2.2	1.7	0.3	0.3	0.0
125°	138.1	124.6	93.9	42.6	1.8	1.2	0.3	0.0	0.2
127.5°	119.0	108.0	82.5	37.8	2.2	1.7	0.6	0.2	0.1
130°	104.6	96.0	73.7	33.4	2.4	1.0	0.7	0.2	0.1
132.5°	93.7	86.6	66.5	29.5	2.6	1.4	0.2	0.2	0.0
135°	85.5	78.8	59.8	26.2	2.4	1.6	0.4	0.2	0.0
137.5°	78.4	71.0	53.0	22.6	2.4	1.1	0.5	0.5	0.0
140°	70.6	64.2	47.3	19.7	3.0	1.8	0.9	0.1	0.3
142.5°	63.8	57.9	41.2	17.1	2.6	1.7	0.8	0.3	0.4
145°	58.2	51.0	36.7	15.1	2.3	2.0	1.1	0.4	0.3
147.5°	50.6	45.4	31.1	13.2	2.5	2.1	1.0	0.6	0.2
150°	44.5	39.0	26.9	12.2	3.6	2.1	1.2	0.6	0.3
152.5°	38.4	33.4	22.8	10.0	3.3	2.7	1.6	1.0	0.7
155°	31.9	28.1	18.8	9.0	3.5	3.3	1.8	1.2	0.8
157.5°	26.8	23.3	16.5	9.0	4.4	3.7	2.7	1.8	1.9
160°	22.1	19.9	14.9	9.6	5.7	5.2	3.7	3.5	3.3
162.5°	20.6	18.1	14.5	10.4	6.8	6.6	5.8	5.4	5.0
165°	19.1	17.6	13.8	10.1	7.5	7.3	7.1	6.8	6.3
167.5°	17.5	15.9	12.7	10.4	7.9	8.6	7.9	7.5	7.0
170°	15.0	14.1	12.2	10.1	8.2	8.2	7.9	7.4	7.9
172.5°	12.6	12.6	10.6	9.2	7.2	7.8	7.4	6.8	7.2
175°	10.6	9.4	8.5	7.4	6.3	6.4	6.6	6.4	7.2
177.5°	6.9	5.9	6.1	6.3	6.1	6.3	5.1	4.8	5.5
180°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9

(END OF REPORT)