

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: CORELITE

Report Number: P183522

Luminaire Tested: **MB-WS-2L40-1D-UNV-4-STD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P183522  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26967)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: MB-WS-2L40-1D-UNV-4-STD  
Description: CORELITE MINIGATOR SUSPENDED DIRECT-INDIRECT LED LUMINAIRE, 4 FOOT.  
WaveStream WITH FROSTED LENS. 65% UP / 35% DOWN.  
Light Source: (336)4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

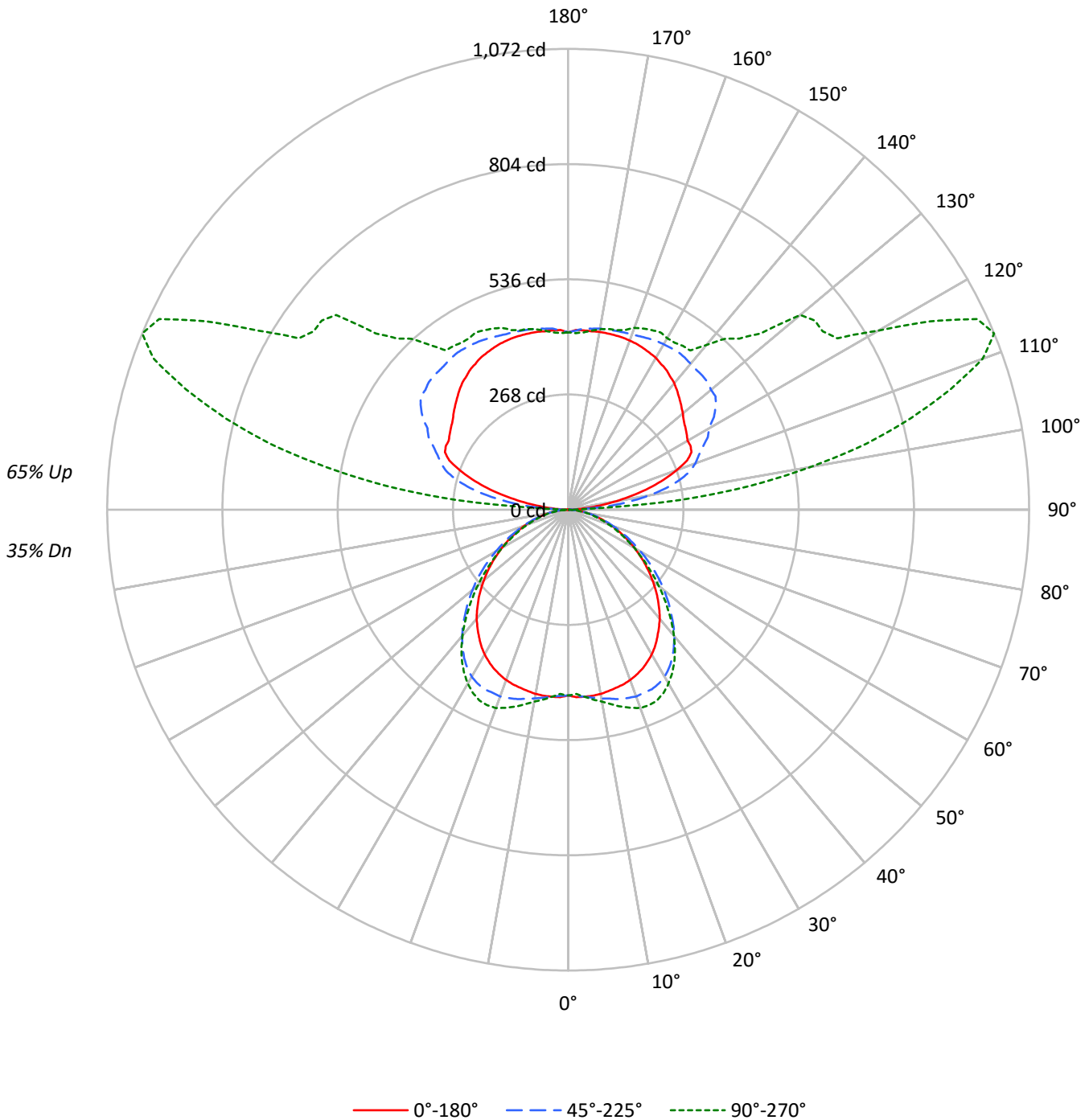
Lumens per Lamp: N/A  
Luminaire Lumens: 3843.0 lumens  
Efficiency: N/A  
Efficacy: 108.3 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.48 / 1.48  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.58' x H: 0.21')  
CIE Type: Semi-Indirect

Input Watts (W): 35.5  
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	0
RCR																		
0	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35
1	94	90	86	83	85	82	78	76	66	63	61	51	49	48	37	36	36	29
2	86	79	73	68	77	71	66	62	57	54	51	45	42	40	33	31	30	25
3	78	69	62	56	71	63	57	52	51	46	43	39	36	34	29	27	26	21
4	72	61	53	48	64	56	49	44	45	40	36	35	32	29	26	24	22	18
5	66	54	46	41	59	49	43	37	40	35	31	31	28	25	23	21	19	16
6	60	49	41	35	54	44	37	32	36	31	27	28	25	22	21	19	17	14
7	56	44	36	31	50	40	33	28	33	27	24	26	22	19	19	17	15	12
8	52	40	32	27	47	36	29	25	30	25	21	23	20	17	18	15	13	11
9	48	36	29	24	43	33	26	22	27	22	19	21	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	13	11	9

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

	0°	45°	90°
0°	3461	3461	3461
5°	3493	3382	3348
10°	3503	3368	3357
15°	3504	3389	3424
20°	3519	3403	3480
25°	3511	3387	3435
30°	3477	3319	3269
35°	3396	3162	3032
40°	3302	2943	2727
45°	3159	2665	2390
50°	2984	2387	2055
55°	2796	2090	1735
60°	2586	1776	1451
65°	2385	1479	1172
70°	2159	1190	922
75°	1915	907	698
80°	1620	623	469
85°	1248	349	226



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.9	1.1
10°-20°	128.3	3.3
20°-30°	208.4	5.4
30°-40°	253.8	6.6
40°-50°	250.0	6.5
50°-60°	207.0	5.4
60°-70°	144.2	3.8
70°-80°	79.7	2.1
80°-90°	24.2	0.6
90°-100°	140.9	3.7
100°-110°	432.8	11.3
110°-120°	507.0	13.2
120°-130°	436.0	11.3
130°-140°	350.9	9.1
140°-150°	274.1	7.1
150°-160°	202.4	5.3
160°-170°	121.5	3.2
170°-180°	40.2	1.0
0°-30°	378.6	9.9
0°-40°	632.4	16.5
0°-60°	1089.4	28.3
0°-90°	1337.4	34.8
90°-120°	1080.7	28.1
90°-150°	2141.6	55.7
90°-180°	2506.0	65.2
0°-180°	3843.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	432	432	432	432	432	
5°	437	432	437	437	437	42
15°	429	434	456	470	474	121
25°	408	422	461	483	489	188
35°	361	379	422	431	431	226
45°	295	313	337	336	328	227
55°	217	232	242	230	223	194
65°	142	151	151	142	136	140
75°	75	78	77	71	69	80
85°	23	24	23	20	18	23
90°	0	3	2	2	2	4
95°	39	51	92	232	262	48
105°	196	206	270	687	827	203
115°	316	322	345	720	1049	305
125°	333	373	419	620	723	299
135°	366	387	441	509	563	283
145°	398	408	447	458	465	249
155°	414	417	440	456	461	191
165°	420	422	431	432	432	119
175°	419	419	423	420	414	40
180°	412	412	412	412	412	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	432.1	432.1	432.1	432.1	432.1
2.5°	436.6	432.1	433.6	433.6	429.1
5°	436.6	432.1	436.6	436.6	436.6
7.5°	436.6	433.6	441.2	444.2	445.7
10°	435.1	433.6	445.7	451.7	453.2
12.5°	432.1	433.6	450.2	460.7	463.7
15°	429.1	433.6	456.2	469.8	474.3
17.5°	426.1	432.1	459.2	477.3	483.3
20°	421.6	430.6	462.2	481.8	490.8
22.5°	415.6	426.1	460.7	483.3	492.3
25°	408.0	421.6	460.7	483.3	489.3
27.5°	399.0	414.1	456.2	477.3	480.3
30°	388.5	403.5	448.7	465.2	466.8
32.5°	376.4	394.5	436.6	448.7	450.2
35°	361.4	379.4	421.6	430.6	430.6
37.5°	346.3	365.9	403.5	408.0	408.0
40°	331.2	349.3	383.9	385.4	382.4
42.5°	313.2	331.2	361.4	361.4	355.3
45°	295.1	313.2	337.3	335.8	328.2
47.5°	275.5	293.6	314.7	308.7	301.1
50°	256.0	274.0	290.6	281.6	274.0
52.5°	236.4	254.5	266.5	256.0	248.4
55°	216.8	231.9	242.4	230.4	222.8
57.5°	197.2	210.8	218.3	206.3	198.7
60°	177.7	189.7	194.2	183.7	177.7
62.5°	159.6	170.1	171.6	161.1	155.1
65°	141.5	150.6	150.6	141.5	135.5
67.5°	123.5	131.0	129.5	122.0	117.4
70°	106.9	112.9	111.4	103.9	99.4
72.5°	90.3	94.9	93.4	87.3	84.3
75°	75.3	78.3	76.8	70.8	69.3
77.5°	60.2	63.2	61.7	57.2	54.2
80°	46.7	49.7	46.7	43.7	42.2
82.5°	33.1	36.1	34.6	31.6	30.1
85°	22.6	24.1	22.6	19.6	18.1
87.5°	10.5	12.0	10.5	7.5	7.5
90°	0.0	3.0	1.5	1.5	1.5
92.5°	15.1	21.1	28.6	48.2	33.1
95°	39.1	51.2	91.8	231.9	262.0
97.5°	73.8	85.8	143.0	368.9	427.6
100°	111.4	126.5	191.2	486.3	572.1
102.5°	152.1	167.1	233.4	593.2	710.7
105°	195.7	206.3	269.5	686.6	826.6
107.5°	233.4	242.4	296.6	755.8	932.0
110°	268.0	274.0	314.7	784.4	1025.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	299.6	299.6	328.2	766.4	1072.0
115°	316.2	322.2	344.8	719.7	1049.4
117.5°	320.7	338.8	365.9	683.6	948.6
120°	320.7	359.8	377.9	661.0	832.6
122.5°	326.7	373.4	402.0	635.4	742.3
125°	332.7	373.4	418.6	620.3	722.7
127.5°	338.8	368.9	432.1	614.3	722.7
130°	347.8	373.4	433.6	576.7	704.6
132.5°	356.8	380.9	439.6	516.4	606.8
135°	365.9	387.0	441.2	508.9	563.1
137.5°	374.9	391.5	441.2	499.9	539.0
140°	383.9	397.5	442.7	472.8	499.9
142.5°	390.0	403.5	445.7	459.2	466.8
145°	397.5	408.0	447.2	457.7	465.2
147.5°	402.0	411.0	445.7	457.7	460.7
150°	408.0	414.1	444.2	462.2	460.7
152.5°	411.0	415.6	442.7	459.2	465.2
155°	414.1	417.1	439.6	456.2	460.7
157.5°	417.1	418.6	436.6	451.7	456.2
160°	418.6	420.1	433.6	445.7	450.2
162.5°	420.1	420.1	432.1	435.1	438.1
165°	420.1	421.6	430.6	432.1	432.1
167.5°	420.1	423.1	429.1	430.6	430.6
170°	420.1	423.1	427.6	426.1	426.1
172.5°	418.6	420.1	424.6	421.6	420.1
175°	418.6	418.6	423.1	420.1	414.1
177.5°	418.6	415.6	417.1	414.1	411.0
180°	412.5	412.5	412.5	412.5	412.5

(END OF REPORT)