

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: P183521

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P183521  
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-1L40-1D-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**

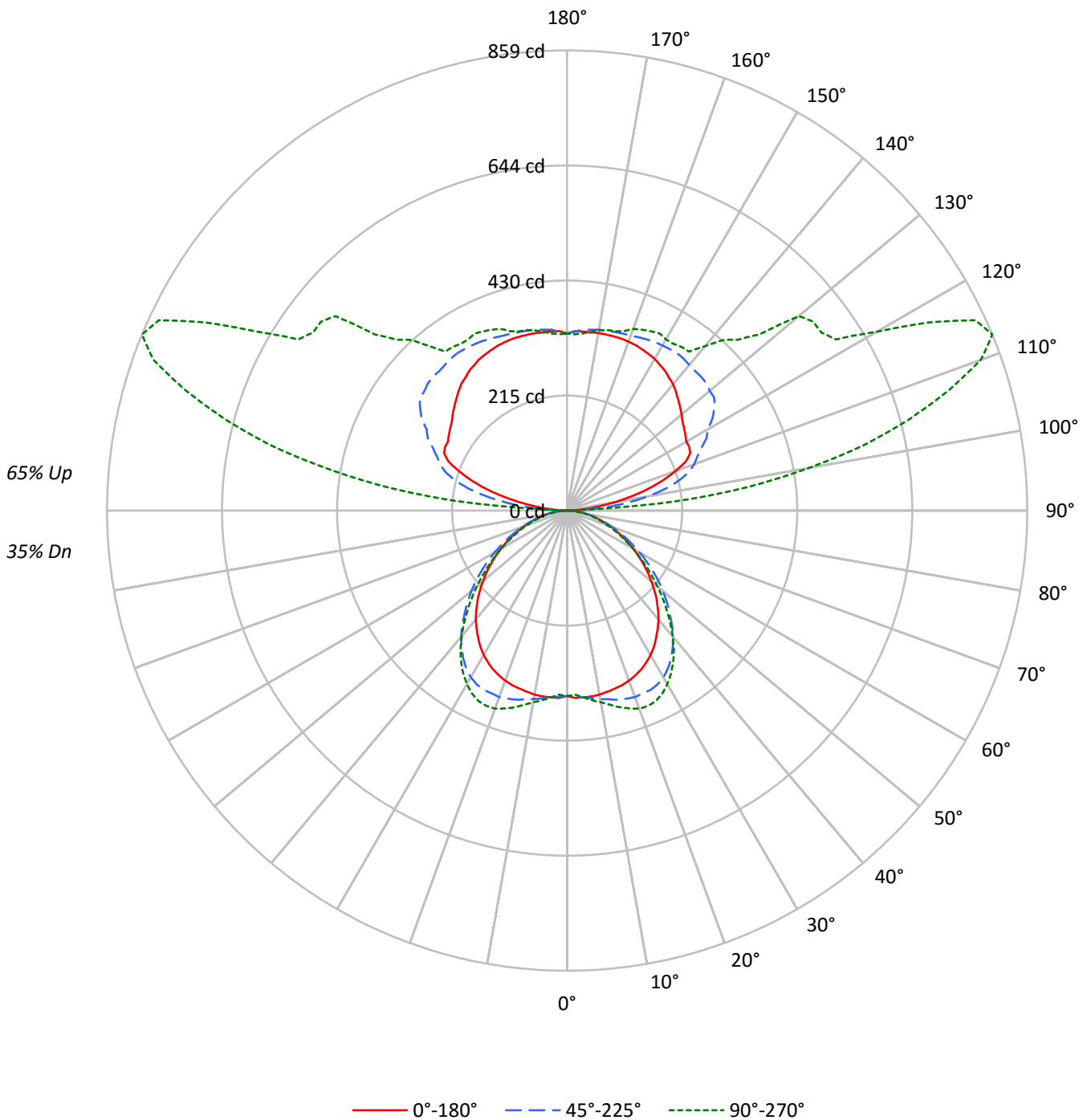
Lumens per Lamp: N/A  
Luminaire Lumens: 3079.8 lumens  
Efficiency: N/A  
Efficacy: 118.0 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.48 / 1.48  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.58' x H: 0.21')  
CIE Type: Semi-Indirect

Input Watts (W): 26.1  
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	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°	2774	2774	2774
5°	2799	2711	2683
10°	2808	2699	2691
15°	2808	2716	2744
20°	2820	2727	2790
25°	2814	2714	2753
30°	2786	2660	2619
35°	2721	2534	2430
40°	2647	2359	2186
45°	2532	2136	1915
50°	2390	1913	1647
55°	2241	1675	1391
60°	2073	1424	1163
65°	1911	1185	939
70°	1731	954	738
75°	1534	727	559
80°	1298	499	376
85°	999	279	181



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.6	1.1
10°-20°	102.8	3.3
20°-30°	167.0	5.4
30°-40°	203.4	6.6
40°-50°	200.3	6.5
50°-60°	165.9	5.4
60°-70°	115.6	3.8
70°-80°	63.8	2.1
80°-90°	19.4	0.6
90°-100°	112.9	3.7
100°-110°	346.9	11.3
110°-120°	406.3	13.2
120°-130°	349.4	11.3
130°-140°	281.2	9.1
140°-150°	219.7	7.1
150°-160°	162.2	5.3
160°-170°	97.4	3.2
170°-180°	32.2	1.0
0°-30°	303.4	9.9
0°-40°	506.8	16.5
0°-60°	873.0	28.3
0°-90°	1071.8	34.8
90°-120°	866.0	28.1
90°-150°	1716.2	55.7
90°-180°	2008.0	65.2
0°-180°	3079.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	346	346	346	346	346	
5°	350	346	350	350	350	33
15°	344	348	366	376	380	97
25°	327	338	369	387	392	151
35°	290	304	338	345	345	181
45°	236	251	270	269	263	182
55°	174	186	194	185	179	155
65°	113	121	121	113	109	112
75°	60	63	62	57	56	64
85°	18	19	18	16	14	18
90°	0	2	1	1	1	3
95°	31	41	74	186	210	38
105°	157	165	216	550	662	163
115°	253	258	276	577	841	245
125°	267	299	335	497	579	239
135°	293	310	354	408	451	227
145°	318	327	358	367	373	199
155°	332	334	352	366	369	153
165°	337	338	345	346	346	95
175°	335	335	339	337	332	32
180°	331	331	331	331	331	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	346.3	346.3	346.3	346.3	346.3
2.5°	349.9	346.3	347.5	347.5	343.9
5°	349.9	346.3	349.9	349.9	349.9
7.5°	349.9	347.5	353.5	355.9	357.2
10°	348.7	347.5	357.2	362.0	363.2
12.5°	346.3	347.5	360.8	369.2	371.6
15°	343.9	347.5	365.6	376.5	380.1
17.5°	341.5	346.3	368.0	382.5	387.3
20°	337.8	345.1	370.4	386.1	393.4
22.5°	333.0	341.5	369.2	387.3	394.6
25°	327.0	337.8	369.2	387.3	392.1
27.5°	319.7	331.8	365.6	382.5	384.9
30°	311.3	323.4	359.6	372.8	374.0
32.5°	301.6	316.1	349.9	359.6	360.8
35°	289.6	304.1	337.8	345.1	345.1
37.5°	277.5	293.2	323.4	327.0	327.0
40°	265.5	279.9	307.7	308.9	306.5
42.5°	251.0	265.5	289.6	289.6	284.8
45°	236.5	251.0	270.3	269.1	263.0
47.5°	220.8	235.3	252.2	247.4	241.3
50°	205.1	219.6	232.9	225.6	219.6
52.5°	189.4	203.9	213.6	205.1	199.1
55°	173.8	185.8	194.3	184.6	178.6
57.5°	158.1	168.9	175.0	165.3	159.3
60°	142.4	152.0	155.7	147.2	142.4
62.5°	127.9	136.3	137.6	129.1	124.3
65°	113.4	120.7	120.7	113.4	108.6
67.5°	98.9	105.0	103.8	97.7	94.1
70°	85.7	90.5	89.3	83.3	79.6
72.5°	72.4	76.0	74.8	70.0	67.6
75°	60.3	62.7	61.5	56.7	55.5
77.5°	48.3	50.7	49.5	45.9	43.4
80°	37.4	39.8	37.4	35.0	33.8
82.5°	26.5	29.0	27.8	25.3	24.1
85°	18.1	19.3	18.1	15.7	14.5
87.5°	8.4	9.7	8.4	6.0	6.0
90°	0.0	2.4	1.2	1.2	1.2
92.5°	12.1	16.9	22.9	38.6	26.5
95°	31.4	41.0	73.6	185.8	209.9
97.5°	59.1	68.8	114.6	295.6	342.7
100°	89.3	101.4	153.2	389.7	458.5
102.5°	121.9	133.9	187.0	475.4	569.5
105°	156.9	165.3	216.0	550.2	662.4
107.5°	187.0	194.3	237.7	605.7	746.9
110°	214.8	219.6	252.2	628.6	821.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	240.1	240.1	263.0	614.2	859.1
115°	253.4	258.2	276.3	576.8	841.0
117.5°	257.0	271.5	293.2	547.8	760.2
120°	257.0	288.4	302.9	529.7	667.2
122.5°	261.8	299.2	322.2	509.2	594.9
125°	266.7	299.2	335.4	497.1	579.2
127.5°	271.5	295.6	346.3	492.3	579.2
130°	278.7	299.2	347.5	462.1	564.7
132.5°	286.0	305.3	352.3	413.9	486.3
135°	293.2	310.1	353.5	407.8	451.3
137.5°	300.4	313.7	353.5	400.6	432.0
140°	307.7	318.5	354.7	378.9	400.6
142.5°	312.5	323.4	357.2	368.0	374.0
145°	318.5	327.0	358.4	366.8	372.8
147.5°	322.2	329.4	357.2	366.8	369.2
150°	327.0	331.8	355.9	370.4	369.2
152.5°	329.4	333.0	354.7	368.0	372.8
155°	331.8	334.2	352.3	365.6	369.2
157.5°	334.2	335.4	349.9	362.0	365.6
160°	335.4	336.6	347.5	357.2	360.8
162.5°	336.6	336.6	346.3	348.7	351.1
165°	336.6	337.8	345.1	346.3	346.3
167.5°	336.6	339.1	343.9	345.1	345.1
170°	336.6	339.1	342.7	341.5	341.5
172.5°	335.4	336.6	340.3	337.8	336.6
175°	335.4	335.4	339.1	336.6	331.8
177.5°	335.4	333.0	334.2	331.8	329.4
180°	330.6	330.6	330.6	330.6	330.6

(END OF REPORT)