

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: P183585

Luminaire Tested: **MB-WS-5L40-1D-UNV-4-STD-DM5**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P183585  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26966)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: MB-WS-5L40-1D-UNV-4-STD-DM5  
Description: CORELITE MINIGATOR SUSPENDED DIRECT-INDIRECT LED LUMINAIRE, 4 FOOT.  
WaveStream WITH FROSTED LENS. 50% UP / 50% DOWN.  
Light Source: (336)4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7014.7 lumens  
Efficiency: N/A  
Efficacy: 88.6 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.37 / 1.41  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.58' x H: 0.21')  
CIE Type: General Diffuse

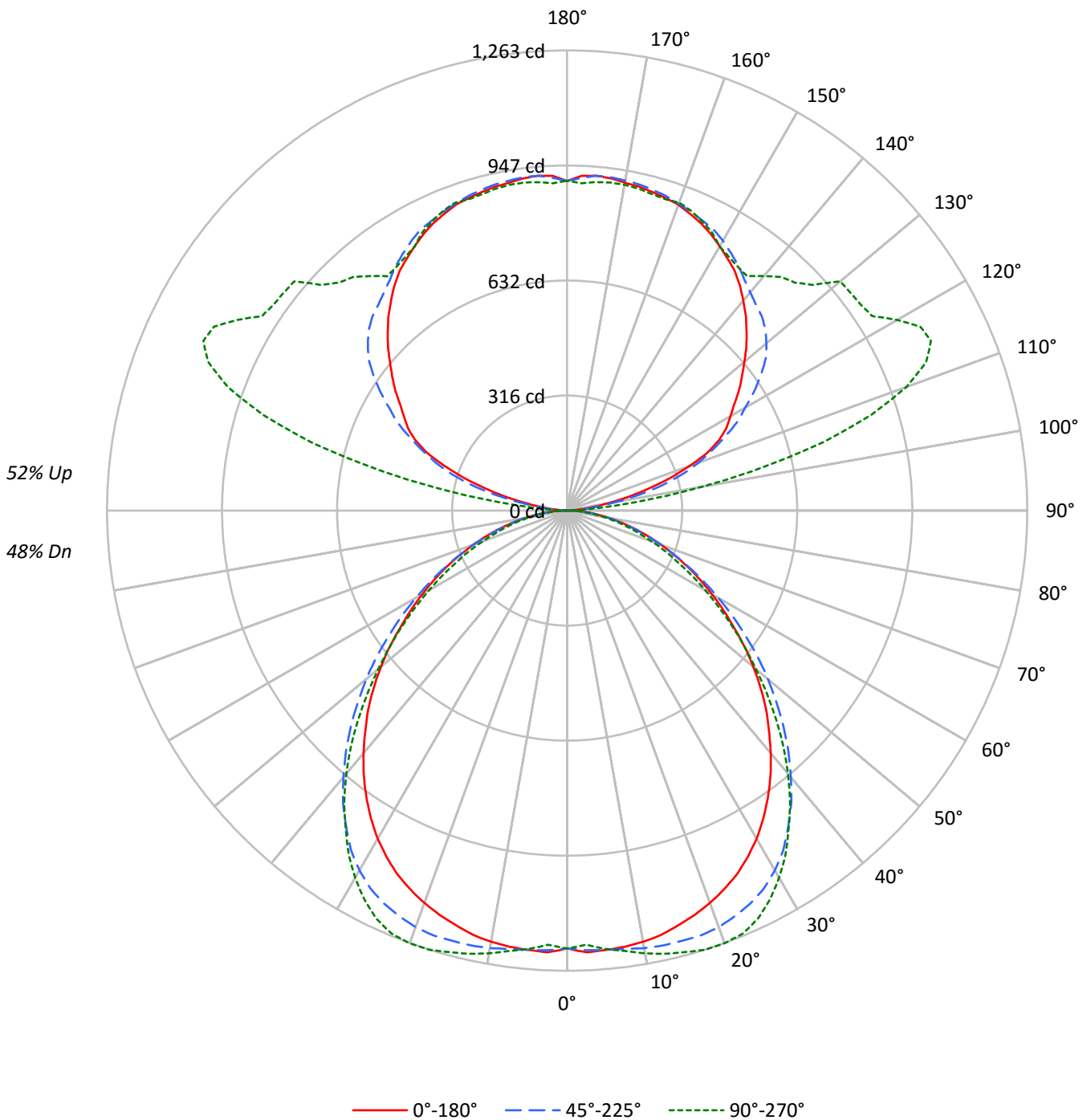
Input Watts (W): 79.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	107	107	107	107	98	98	98	98	82	82	82		68	68	68		55	55	55	48
1	98	93	89	86	90	86	83	80	72	70	68		60	58	57		49	47	46	41
2	89	82	75	70	82	75	70	66	64	60	56		53	50	48		43	41	39	35
3	81	72	64	59	74	66	60	55	56	51	48		47	43	40		38	36	33	29
4	74	64	56	50	68	59	52	47	50	45	41		42	38	35		34	31	29	25
5	68	57	49	43	63	52	45	40	45	39	35		37	33	30		31	28	25	22
6	63	51	43	37	58	47	40	35	40	35	30		34	30	26		28	25	22	19
7	58	46	38	32	53	43	36	30	36	31	27		31	26	23		25	22	20	17
8	54	42	34	29	49	39	32	27	33	28	24		28	24	21		23	20	18	15
9	50	38	30	25	46	35	29	24	30	25	21		26	22	19		21	18	16	14
10	47	35	28	23	43	32	26	22	28	23	19		24	20	17		20	17	14	12

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

	0°	45°	90°
0°	9626	9626	9626
5°	9684	9378	9260
10°	9675	9213	9142
15°	9621	9081	9056
20°	9566	8955	8959
25°	9481	8747	8684
30°	9308	8432	8149
35°	9028	7933	7468
40°	8671	7320	6727
45°	8273	6639	5906
50°	7774	5913	5067
55°	7198	5143	4302
60°	6671	4380	3575
65°	6140	3635	2897
70°	5517	2919	2288
75°	4858	2221	1716
80°	4076	1528	1143
85°	3081	816	552



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.4	1.6
10°-20°	344.3	4.9
20°-30°	540.6	7.7
30°-40°	642.8	9.2
40°-50°	626.9	8.9
50°-60°	516.5	7.4
60°-70°	359.2	5.1
70°-80°	197.5	2.8
80°-90°	58.9	0.8
90°-100°	79.3	1.1
100°-110°	406.4	5.8
110°-120°	623.8	8.9
120°-130°	651.3	9.3
130°-140°	596.0	8.5
140°-150°	509.2	7.3
150°-160°	403.1	5.7
160°-170°	256.2	3.7
170°-180°	87.3	1.2
0°-30°	1000.4	14.3
0°-40°	1643.2	23.4
0°-60°	2786.6	39.7
0°-90°	3402.1	48.5
90°-120°	1109.5	15.8
90°-150°	2866.0	40.9
90°-180°	3613.0	51.5
0°-180°	7014.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1202	1202	1202	1202	1202	
5°	1210	1199	1210	1208	1208	115
15°	1178	1181	1222	1249	1255	333
25°	1102	1119	1190	1225	1237	507
35°	961	984	1058	1064	1061	600
45°	773	802	840	823	811	594
55°	558	585	596	570	552	501
65°	364	376	370	350	335	361
75°	191	197	188	176	170	203
85°	56	59	53	47	44	58
90°	0	3	3	3	3	5
95°	29	32	38	82	91	42
105°	229	229	270	594	729	243
115°	461	455	476	834	1102	448
125°	576	611	649	870	984	515
135°	696	708	755	826	884	537
145°	802	805	820	811	817	501
155°	870	867	878	878	876	401
165°	905	905	911	902	899	256
175°	923	914	923	917	905	88
180°	905	905	905	905	905	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1201.7	1201.7	1201.7	1201.7	1201.7
2.5°	1213.5	1198.8	1207.6	1204.6	1192.9
5°	1210.5	1198.8	1210.5	1207.6	1207.6
7.5°	1207.6	1195.8	1213.5	1219.3	1219.3
10°	1201.7	1192.9	1219.3	1228.1	1234.0
12.5°	1192.9	1187.0	1222.3	1239.9	1245.8
15°	1178.2	1181.1	1222.3	1248.7	1254.6
17.5°	1163.5	1172.3	1222.3	1251.6	1263.4
20°	1145.9	1157.6	1216.4	1251.6	1263.4
22.5°	1125.3	1140.0	1204.6	1242.8	1257.5
25°	1101.8	1119.4	1189.9	1225.2	1237.0
27.5°	1072.4	1093.0	1169.4	1198.8	1204.6
30°	1040.1	1060.7	1140.0	1160.6	1163.5
32.5°	1001.9	1028.3	1104.7	1116.5	1116.5
35°	960.8	984.3	1057.7	1063.6	1060.7
37.5°	916.7	943.1	1010.7	1007.8	1004.8
40°	869.7	896.1	954.9	949.0	943.1
42.5°	819.7	849.1	899.1	887.3	878.5
45°	772.7	802.1	840.3	822.7	810.9
47.5°	719.8	749.2	778.6	761.0	743.3
50°	667.0	693.4	719.8	690.5	675.8
52.5°	614.1	640.5	658.1	631.7	614.1
55°	558.2	584.7	596.4	570.0	552.4
57.5°	508.3	528.9	537.7	511.2	493.6
60°	458.3	476.0	478.9	455.4	437.8
62.5°	411.3	426.0	423.1	399.6	384.9
65°	364.3	376.1	370.2	349.6	334.9
67.5°	317.3	326.1	320.3	302.6	290.9
70°	273.2	282.1	273.2	255.6	246.8
72.5°	232.1	238.0	229.2	214.5	205.7
75°	191.0	196.9	188.0	176.3	170.4
77.5°	152.8	155.7	149.8	141.0	135.2
80°	117.5	120.5	114.6	108.7	102.8
82.5°	85.2	88.1	82.3	79.3	73.5
85°	55.8	58.8	52.9	47.0	44.1
87.5°	26.4	29.4	23.5	20.6	17.6
90°	0.0	2.9	2.9	2.9	2.9
92.5°	8.8	11.8	11.8	17.6	17.6
95°	29.4	32.3	38.2	82.3	91.1
97.5°	64.6	67.6	82.3	193.9	214.5
100°	108.7	114.6	138.1	329.1	373.1
102.5°	167.5	170.4	205.7	470.1	552.4
105°	229.2	229.2	270.3	593.5	728.7
107.5°	293.8	285.0	332.0	693.4	875.6
110°	358.5	346.7	382.0	761.0	990.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	417.2	402.5	429.0	802.1	1066.5
115°	461.3	455.4	476.0	834.4	1101.8
117.5°	493.6	502.4	525.9	857.9	1093.0
120°	517.1	546.5	564.1	878.5	1046.0
122.5°	543.6	584.7	608.2	872.6	993.1
125°	575.9	611.1	649.3	869.7	984.3
127.5°	605.3	628.8	687.5	872.6	981.3
130°	634.6	655.2	714.0	852.1	978.4
132.5°	667.0	681.6	737.5	822.7	916.7
135°	696.3	708.1	755.1	825.6	884.4
137.5°	725.7	731.6	766.9	828.6	869.7
140°	752.2	755.1	781.5	808.0	840.3
142.5°	778.6	781.5	799.2	802.1	810.9
145°	802.1	805.0	819.7	810.9	816.8
147.5°	819.7	822.7	837.4	825.6	825.6
150°	837.4	837.4	855.0	843.2	837.4
152.5°	855.0	852.1	869.7	860.9	860.9
155°	869.7	866.8	878.5	878.5	875.6
157.5°	881.4	878.5	887.3	893.2	890.3
160°	893.2	890.3	896.1	896.1	899.1
162.5°	899.1	899.1	904.9	896.1	896.1
165°	904.9	904.9	910.8	902.0	899.1
167.5°	910.8	910.8	916.7	907.9	904.9
170°	913.8	913.8	919.6	910.8	907.9
172.5°	919.6	916.7	922.6	913.8	907.9
175°	922.6	913.8	922.6	916.7	904.9
177.5°	919.6	910.8	913.8	904.9	899.1
180°	904.9	904.9	904.9	904.9	904.9

(END OF REPORT)