

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: P183523

Luminaire Tested: **MB-WS-3L40-1D-UNV-4-STD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P183523  
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-3L40-1D-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**

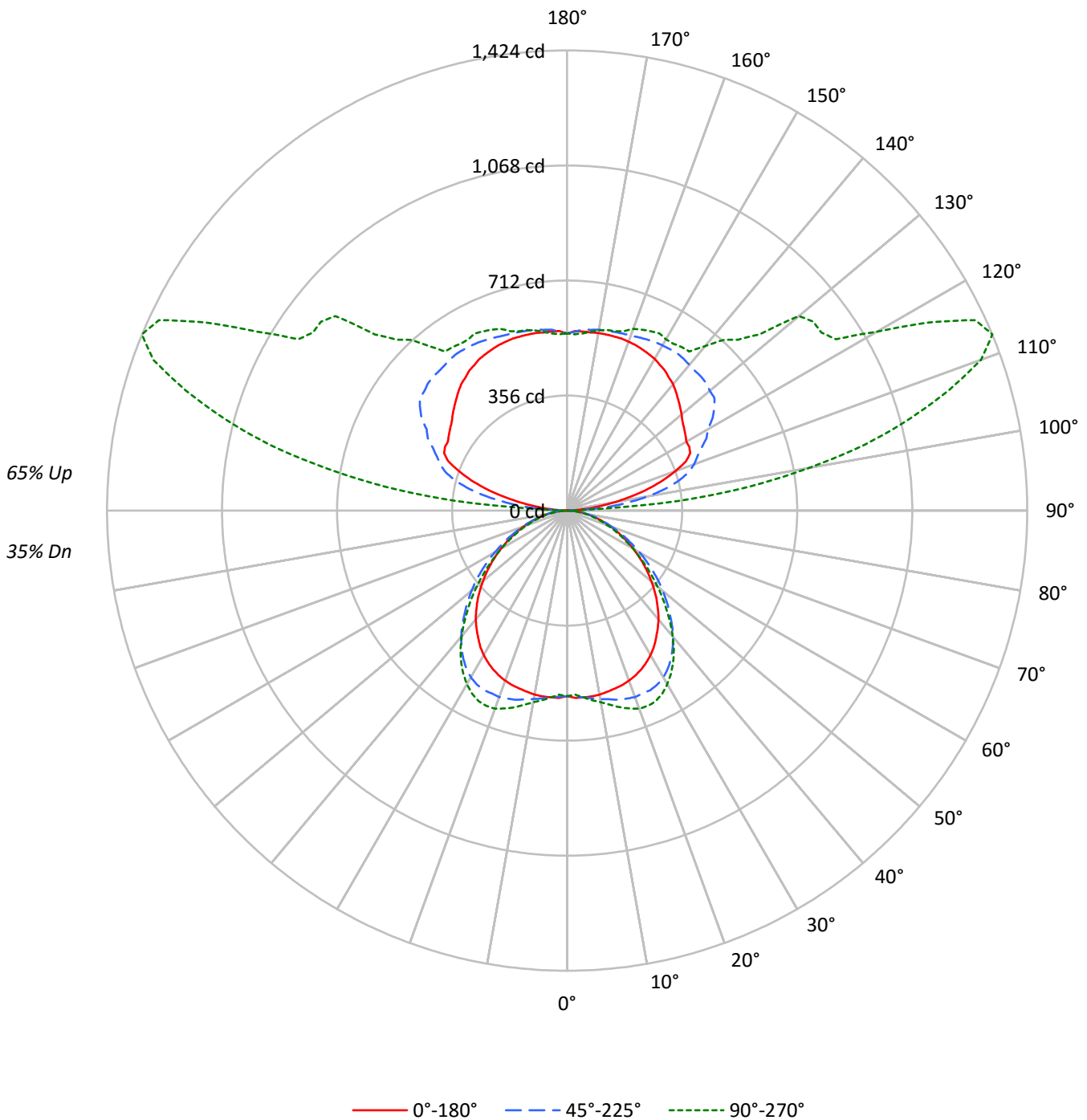
Lumens per Lamp: N/A  
Luminaire Lumens: 5105.8 lumens  
Efficiency: N/A  
Efficacy: 110.3 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.48 / 1.48  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.58' x H: 0.21')  
CIE Type: Semi-Indirect

Input Watts (W): 46.3  
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°	4599	4599	4599
5°	4641	4494	4448
10°	4655	4474	4461
15°	4655	4503	4548
20°	4676	4521	4624
25°	4665	4500	4564
30°	4619	4409	4343
35°	4511	4201	4028
40°	4388	3910	3624
45°	4198	3540	3176
50°	3964	3172	2730
55°	3715	2777	2306
60°	3435	2361	1927
65°	3168	1964	1557
70°	2868	1581	1224
75°	2543	1205	927
80°	2151	826	622
85°	1657	463	300



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.6	1.1
10°-20°	170.5	3.3
20°-30°	276.9	5.4
30°-40°	337.2	6.6
40°-50°	332.1	6.5
50°-60°	275.0	5.4
60°-70°	191.6	3.8
70°-80°	105.8	2.1
80°-90°	32.1	0.6
90°-100°	187.2	3.7
100°-110°	575.1	11.3
110°-120°	673.6	13.2
120°-130°	579.3	11.3
130°-140°	466.1	9.1
140°-150°	364.2	7.1
150°-160°	268.9	5.3
160°-170°	161.4	3.2
170°-180°	53.3	1.0
0°-30°	503.0	9.9
0°-40°	840.2	16.5
0°-60°	1447.3	28.3
0°-90°	1776.8	34.8
90°-120°	1435.8	28.1
90°-150°	2845.4	55.7
90°-180°	3329.0	65.2
0°-180°	5105.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	574	574	574	574	574	
5°	580	574	580	580	580	55
15°	570	576	606	624	630	161
25°	542	560	612	642	650	250
35°	480	504	560	572	572	300
45°	392	416	448	446	436	302
55°	288	308	322	306	296	258
65°	188	200	200	188	180	186
75°	100	104	102	94	92	106
85°	30	32	30	26	24	30
90°	0	4	2	2	2	5
95°	52	68	122	308	348	64
105°	260	274	358	912	1098	270
115°	420	428	458	956	1394	405
125°	442	496	556	824	960	397
135°	486	514	586	676	748	376
145°	528	542	594	608	618	330
155°	550	554	584	606	612	254
165°	558	560	572	574	574	158
175°	556	556	562	558	550	53
180°	548	548	548	548	548	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	574.1	574.1	574.1	574.1	574.1
2.5°	580.1	574.1	576.1	576.1	570.1
5°	580.1	574.1	580.1	580.1	580.1
7.5°	580.1	576.1	586.1	590.1	592.1
10°	578.1	576.1	592.1	600.1	602.1
12.5°	574.1	576.1	598.1	612.1	616.1
15°	570.1	576.1	606.1	624.1	630.1
17.5°	566.1	574.1	610.1	634.1	642.1
20°	560.1	572.1	614.1	640.1	652.1
22.5°	552.1	566.1	612.1	642.1	654.1
25°	542.1	560.1	612.1	642.1	650.1
27.5°	530.1	550.1	606.1	634.1	638.1
30°	516.1	536.1	596.1	618.1	620.1
32.5°	500.1	524.1	580.1	596.1	598.1
35°	480.1	504.1	560.1	572.1	572.1
37.5°	460.1	486.1	536.1	542.1	542.1
40°	440.1	464.1	510.1	512.1	508.1
42.5°	416.1	440.1	480.1	480.1	472.1
45°	392.1	416.1	448.1	446.1	436.1
47.5°	366.1	390.1	418.1	410.1	400.1
50°	340.1	364.1	386.1	374.1	364.1
52.5°	314.1	338.1	354.1	340.1	330.1
55°	288.1	308.1	322.1	306.1	296.1
57.5°	262.1	280.1	290.1	274.1	264.1
60°	236.0	252.1	258.1	244.0	236.0
62.5°	212.0	226.0	228.0	214.0	206.0
65°	188.0	200.0	200.0	188.0	180.0
67.5°	164.0	174.0	172.0	162.0	156.0
70°	142.0	150.0	148.0	138.0	132.0
72.5°	120.0	126.0	124.0	116.0	112.0
75°	100.0	104.0	102.0	94.0	92.0
77.5°	80.0	84.0	82.0	76.0	72.0
80°	62.0	66.0	62.0	58.0	56.0
82.5°	44.0	48.0	46.0	42.0	40.0
85°	30.0	32.0	30.0	26.0	24.0
87.5°	14.0	16.0	14.0	10.0	10.0
90°	0.0	4.0	2.0	2.0	2.0
92.5°	20.0	28.0	38.0	64.0	44.0
95°	52.0	68.0	122.0	308.1	348.1
97.5°	98.0	114.0	190.0	490.1	568.1
100°	148.0	168.0	254.1	646.1	760.2
102.5°	202.0	222.0	310.1	788.2	944.2
105°	260.1	274.1	358.1	912.2	1098.2
107.5°	310.1	322.1	394.1	1004.2	1238.3
110°	356.1	364.1	418.1	1042.2	1362.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	398.1	398.1	436.1	1018.2	1424.3
115°	420.1	428.1	458.1	956.2	1394.3
117.5°	426.1	450.1	486.1	908.2	1260.3
120°	426.1	478.1	502.1	878.2	1106.2
122.5°	434.1	496.1	534.1	844.2	986.2
125°	442.1	496.1	556.1	824.2	960.2
127.5°	450.1	490.1	574.1	816.2	960.2
130°	462.1	496.1	576.1	766.2	936.2
132.5°	474.1	506.1	584.1	686.1	806.2
135°	486.1	514.1	586.1	676.1	748.2
137.5°	498.1	520.1	586.1	664.1	716.1
140°	510.1	528.1	588.1	628.1	664.1
142.5°	518.1	536.1	592.1	610.1	620.1
145°	528.1	542.1	594.1	608.1	618.1
147.5°	534.1	546.1	592.1	608.1	612.1
150°	542.1	550.1	590.1	614.1	612.1
152.5°	546.1	552.1	588.1	610.1	618.1
155°	550.1	554.1	584.1	606.1	612.1
157.5°	554.1	556.1	580.1	600.1	606.1
160°	556.1	558.1	576.1	592.1	598.1
162.5°	558.1	558.1	574.1	578.1	582.1
165°	558.1	560.1	572.1	574.1	574.1
167.5°	558.1	562.1	570.1	572.1	572.1
170°	558.1	562.1	568.1	566.1	566.1
172.5°	556.1	558.1	564.1	560.1	558.1
175°	556.1	556.1	562.1	558.1	550.1
177.5°	556.1	552.1	554.1	550.1	546.1
180°	548.1	548.1	548.1	548.1	548.1

(END OF REPORT)