

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: P183513

Luminaire Tested: **MB-WS-3L30-1D-UNV-4-STD**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P183513  
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-3L30-1D-UNV-4-STD  
Description: CORELITE MINIGATOR SUSPENDED DIRECT-INDIRECT LED LUMINAIRE, 4 FOOT.  
WaveStream WITH FROSTED LENS. 65% UP / 35% DOWN.  
Light Source: (336)3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

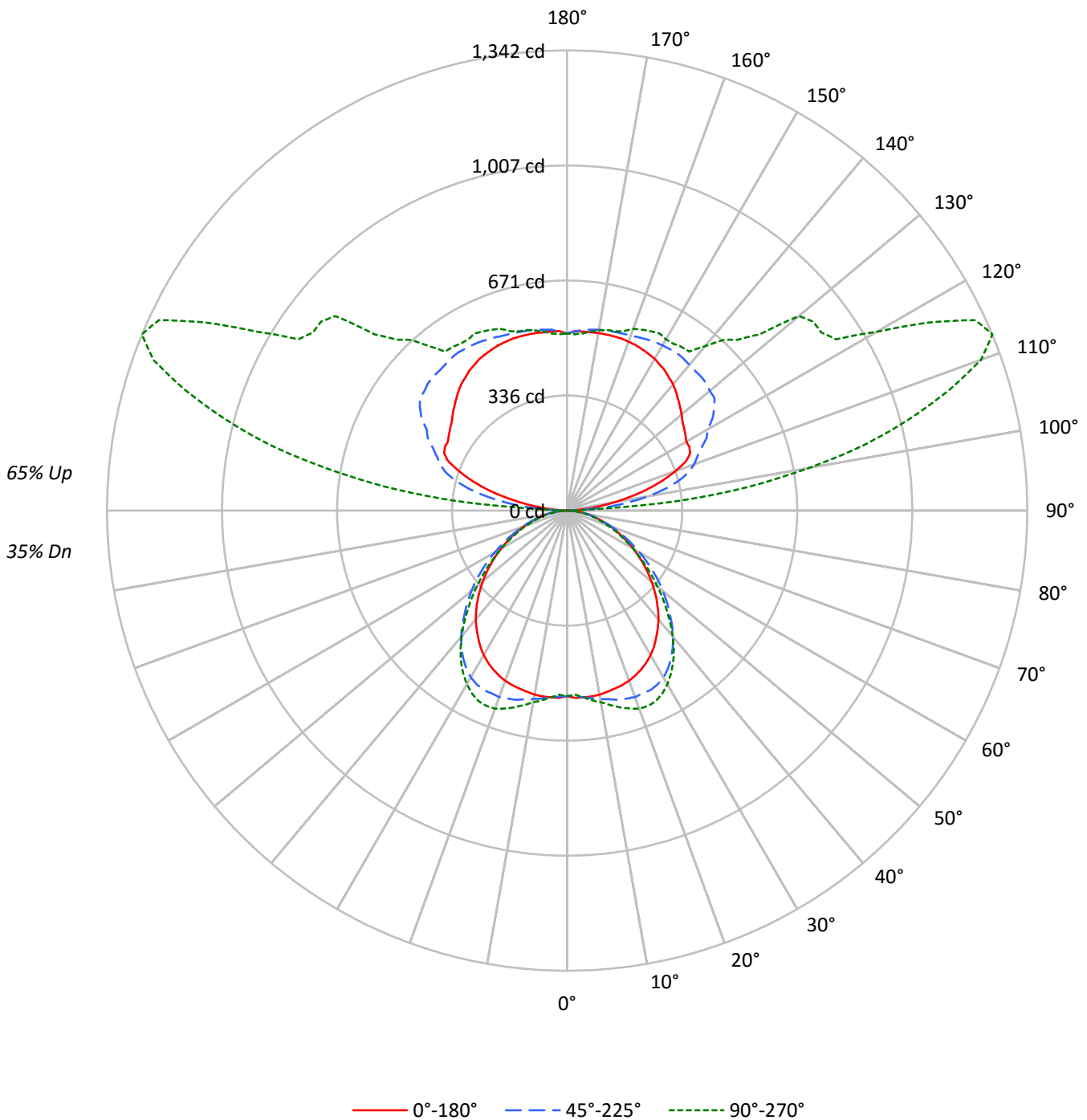
Lumens per Lamp: N/A  
Luminaire Lumens: 4812.3 lumens  
Efficiency: N/A  
Efficacy: 103.9 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.48 / 1.47  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.58' x H: 0.21')  
CIE Type: Semi-Indirect

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°	4334	4334	4334
5°	4375	4236	4193
10°	4387	4217	4204
15°	4387	4244	4287
20°	4407	4261	4358
25°	4396	4241	4302
30°	4353	4155	4094
35°	4252	3959	3796
40°	4136	3686	3416
45°	3956	3336	2993
50°	3735	2989	2573
55°	3501	2617	2173
60°	3239	2225	1817
65°	2986	1851	1468
70°	2704	1490	1153
75°	2398	1137	873
80°	2026	778	587
85°	1563	436	283



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.4	1.1
10°-20°	160.7	3.3
20°-30°	261.0	5.4
30°-40°	317.8	6.6
40°-50°	313.0	6.5
50°-60°	259.2	5.4
60°-70°	180.6	3.8
70°-80°	99.7	2.1
80°-90°	30.3	0.6
90°-100°	176.4	3.7
100°-110°	542.0	11.3
110°-120°	634.8	13.2
120°-130°	546.0	11.3
130°-140°	439.3	9.1
140°-150°	343.2	7.1
150°-160°	253.4	5.3
160°-170°	152.1	3.2
170°-180°	50.3	1.0
0°-30°	474.1	9.9
0°-40°	791.9	16.5
0°-60°	1364.1	28.3
0°-90°	1674.7	34.8
90°-120°	1353.3	28.1
90°-150°	2681.8	55.7
90°-180°	3138.0	65.2
0°-180°	4812.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	541	541	541	541	541	
5°	547	541	547	547	547	52
15°	537	543	571	588	594	152
25°	511	528	577	605	613	235
35°	452	475	528	539	539	283
45°	370	392	422	420	411	284
55°	272	290	304	288	279	243
65°	177	188	188	177	170	176
75°	94	98	96	89	87	100
85°	28	30	28	24	23	29
90°	0	4	2	2	2	4
95°	49	64	115	290	328	60
105°	245	258	338	860	1035	255
115°	396	404	432	901	1314	382
125°	417	468	524	777	905	374
135°	458	484	552	637	705	354
145°	498	511	560	573	583	311
155°	518	522	550	571	577	240
165°	526	528	539	541	541	149
175°	524	524	530	526	518	50
180°	517	517	517	517	517	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	541.1	541.1	541.1	541.1	541.1
2.5°	546.8	541.1	543.0	543.0	537.3
5°	546.8	541.1	546.8	546.8	546.8
7.5°	546.8	543.0	552.4	556.2	558.1
10°	544.9	543.0	558.1	565.6	567.5
12.5°	541.1	543.0	563.7	576.9	580.7
15°	537.3	543.0	571.3	588.2	593.9
17.5°	533.6	541.1	575.0	597.7	605.2
20°	527.9	539.2	578.8	603.3	614.6
22.5°	520.4	533.6	576.9	605.2	616.5
25°	510.9	527.9	576.9	605.2	612.8
27.5°	499.6	518.5	571.3	597.7	601.4
30°	486.4	505.3	561.8	582.6	584.5
32.5°	471.3	494.0	546.8	561.8	563.7
35°	452.5	475.1	527.9	539.2	539.2
37.5°	433.6	458.2	505.3	510.9	510.9
40°	414.8	437.4	480.8	482.7	478.9
42.5°	392.2	414.8	452.5	452.5	445.0
45°	369.5	392.2	422.3	420.4	411.0
47.5°	345.0	367.7	394.0	386.5	377.1
50°	320.5	343.1	363.9	352.6	343.1
52.5°	296.0	318.6	333.7	320.5	311.1
55°	271.5	290.4	303.5	288.5	279.0
57.5°	247.0	264.0	273.4	258.3	248.9
60°	222.5	237.6	243.2	230.0	222.5
62.5°	199.9	213.0	214.9	201.7	194.2
65°	177.2	188.5	188.5	177.2	169.7
67.5°	154.6	164.0	162.1	152.7	147.1
70°	133.9	141.4	139.5	130.1	124.4
72.5°	113.1	118.8	116.9	109.4	105.6
75°	94.3	98.0	96.2	88.6	86.7
77.5°	75.4	79.2	77.3	71.6	67.9
80°	58.4	62.2	58.4	54.7	52.8
82.5°	41.5	45.2	43.4	39.6	37.7
85°	28.3	30.2	28.3	24.5	22.6
87.5°	13.2	15.1	13.2	9.4	9.4
90°	0.0	3.8	1.9	1.9	1.9
92.5°	18.9	26.4	35.8	60.3	41.5
95°	49.0	64.1	115.0	290.4	328.1
97.5°	92.4	107.5	179.1	461.9	535.5
100°	139.5	158.4	239.4	609.0	716.5
102.5°	190.4	209.3	292.2	742.8	889.9
105°	245.1	258.3	337.5	859.7	1035.1
107.5°	292.2	303.5	371.4	946.5	1167.1
110°	335.6	343.1	394.0	982.3	1284.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	375.2	375.2	411.0	959.7	1342.4
115°	395.9	403.5	431.8	901.2	1314.1
117.5°	401.6	424.2	458.2	856.0	1187.8
120°	401.6	450.6	473.2	827.7	1042.6
122.5°	409.1	467.6	503.4	795.6	929.5
125°	416.7	467.6	524.1	776.8	905.0
127.5°	424.2	461.9	541.1	769.2	905.0
130°	435.5	467.6	543.0	722.1	882.4
132.5°	446.8	477.0	550.5	646.7	759.8
135°	458.2	484.5	552.4	637.3	705.1
137.5°	469.5	490.2	552.4	626.0	675.0
140°	480.8	497.7	554.3	592.0	626.0
142.5°	488.3	505.3	558.1	575.0	584.5
145°	497.7	510.9	560.0	573.2	582.6
147.5°	503.4	514.7	558.1	573.2	576.9
150°	510.9	518.5	556.2	578.8	576.9
152.5°	514.7	520.4	554.3	575.0	582.6
155°	518.5	522.3	550.5	571.3	576.9
157.5°	522.3	524.1	546.8	565.6	571.3
160°	524.1	526.0	543.0	558.1	563.7
162.5°	526.0	526.0	541.1	544.9	548.7
165°	526.0	527.9	539.2	541.1	541.1
167.5°	526.0	529.8	537.3	539.2	539.2
170°	526.0	529.8	535.5	533.6	533.6
172.5°	524.1	526.0	531.7	527.9	526.0
175°	524.1	524.1	529.8	526.0	518.5
177.5°	524.1	520.4	522.3	518.5	514.7
180°	516.6	516.6	516.6	516.6	516.6

(END OF REPORT)