

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: P183454

Luminaire Tested: **MB-WS-4L30-1D-UNV-4-STD-DM8**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183454
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26969)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: MB-WS-4L30-1D-UNV-4-STD-DM8
Description: CORELITE MINIGATOR SUSPENDED DIRECT-INDIRECT LED LUMINAIRE, 4 FOOT.
WaveStream WITH FROSTED LENS. 80% UP / 20% DOWN.
Light Source: (336)3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5798.6 lumens
Efficiency: N/A
Efficacy: 91.0 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.58' x H: 0.21')
CIE Type: Semi-Indirect

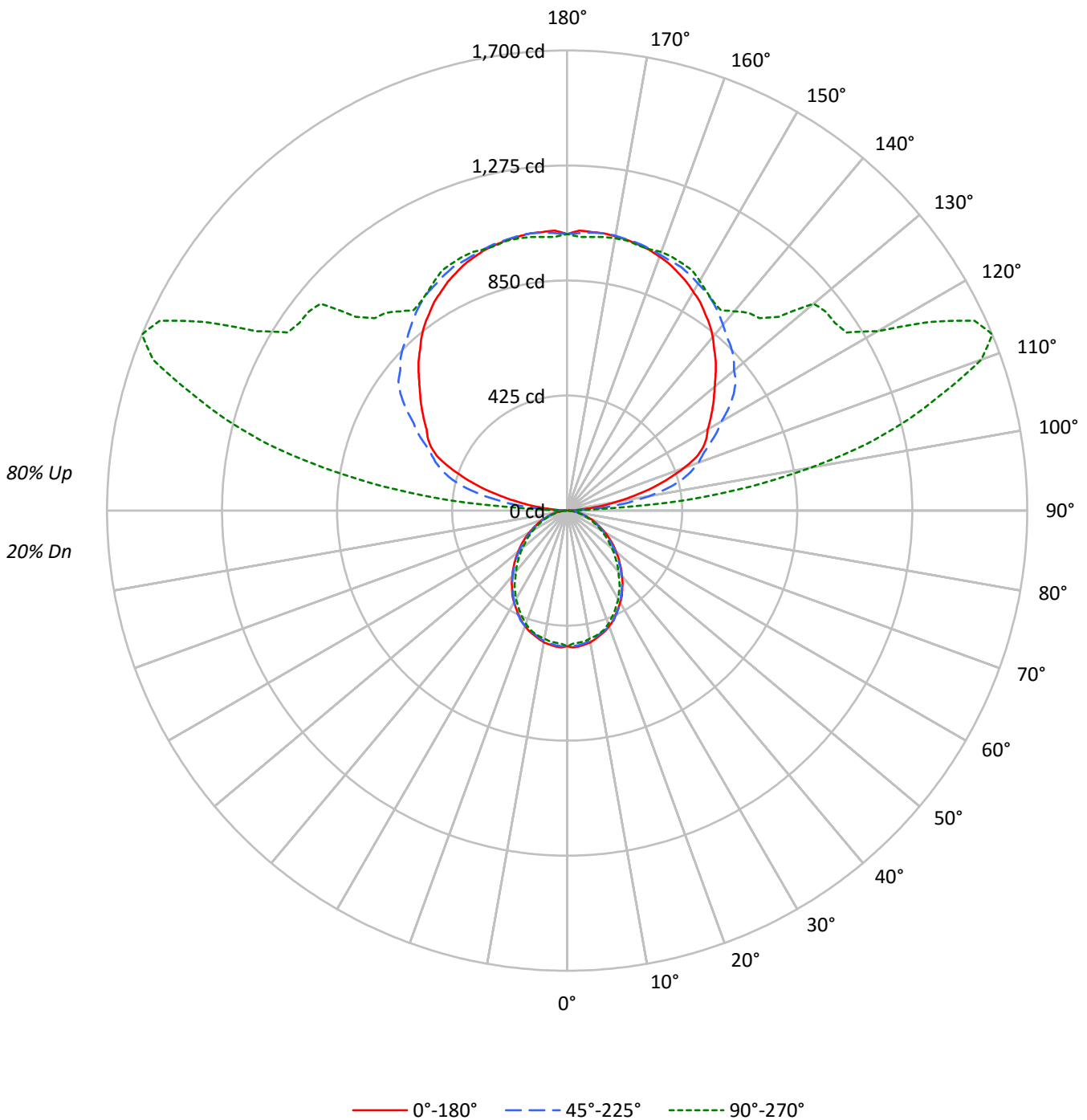
Input Watts (W): 63.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	100	100	100	88	88	88	88	67	67	67	47	47	47	29	29	29	20
1	91	87	83	80	81	77	74	71	58	57	55	41	40	39	26	25	24	17
2	83	76	70	65	73	67	63	59	51	48	45	36	34	33	23	22	21	15
3	76	67	60	55	67	59	54	49	45	41	38	32	30	28	20	19	18	12
4	69	59	52	46	61	53	46	41	40	36	32	29	26	24	18	17	15	11
5	63	52	45	39	56	47	40	35	36	31	28	26	23	21	16	15	13	9
6	58	47	39	34	51	42	35	31	32	28	24	23	20	18	15	13	12	8
7	54	42	35	29	47	38	31	27	29	24	21	21	18	16	13	12	10	7
8	50	38	31	26	44	34	28	23	26	22	19	19	16	14	12	11	9	7
9	46	35	28	23	41	31	25	21	24	20	17	18	15	12	11	10	8	6
10	43	32	25	20	38	28	22	18	22	18	15	16	13	11	10	9	8	5

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4016	4016	4016
5°	4030	3867	3755
10°	3981	3700	3559
15°	3884	3500	3383
20°	3796	3347	3158
25°	3652	3138	2898
30°	3506	2898	2646
35°	3331	2641	2380
40°	3139	2396	2096
45°	2946	2137	1851
50°	2745	1897	1608
55°	2556	1649	1399
60°	2342	1408	1181
65°	2122	1191	968
70°	1931	971	779
75°	1661	744	587
80°	1457	528	389
85°	1160	324	204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.1	0.8
10°-20°	132.9	2.3
20°-30°	193.5	3.3
30°-40°	218.2	3.8
40°-50°	207.2	3.6
50°-60°	170.6	2.9
60°-70°	120.0	2.1
70°-80°	67.7	1.2
80°-90°	22.4	0.4
90°-100°	227.4	3.9
100°-110°	693.8	12.0
110°-120°	832.0	14.3
120°-130°	769.1	13.3
130°-140°	676.8	11.7
140°-150°	579.0	10.0
150°-160°	455.4	7.9
160°-170°	287.6	5.0
170°-180°	98.0	1.7
0°-30°	373.6	6.4
0°-40°	591.7	10.2
0°-60°	969.6	16.7
0°-90°	1179.7	20.3
90°-120°	1753.2	30.2
90°-150°	3778.1	65.2
90°-180°	4619.0	79.7
0°-180°	5798.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	501	501	501	501	501	
5°	504	497	499	497	490	48
15°	476	471	471	471	469	134
25°	424	420	427	415	413	195
35°	354	357	352	343	338	222
45°	275	278	270	259	254	213
55°	198	201	191	182	180	177
65°	126	128	121	114	112	125
75°	65	68	63	61	58	70
85°	21	23	21	19	16	21
90°	2	7	5	2	0	5
95°	63	82	149	371	436	77
105°	326	334	438	1089	1308	342
115°	555	555	578	1136	1660	541
125°	655	697	751	1054	1208	587
135°	777	798	856	940	1005	599
145°	888	896	940	938	942	557
155°	970	963	994	1000	1007	448
165°	1017	1012	1021	1014	1014	288
175°	1033	1028	1031	1024	1014	99
180°	1021	1021	1021	1021	1021	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	501.4	501.4	501.4	501.4	501.4
2.5°	506.1	499.1	501.4	499.1	492.1
5°	503.7	496.7	499.1	496.7	489.7
7.5°	499.1	492.1	494.4	492.1	487.4
10°	494.4	487.4	489.7	485.1	480.4
12.5°	485.1	480.4	480.4	475.7	475.7
15°	475.7	471.1	471.1	471.1	468.7
17.5°	466.4	459.4	464.1	464.1	459.4
20°	454.7	447.8	454.7	450.1	445.4
22.5°	440.8	436.1	443.1	433.8	429.1
25°	424.4	419.8	426.8	415.1	412.8
27.5°	408.1	405.8	410.4	398.8	394.1
30°	391.8	389.5	391.8	382.5	377.8
32.5°	375.5	373.1	370.8	361.5	356.8
35°	354.5	356.8	352.1	342.8	338.1
37.5°	335.8	338.1	333.5	321.8	314.8
40°	314.8	319.5	312.5	300.8	293.8
42.5°	296.2	298.5	291.5	279.8	275.2
45°	275.2	277.5	270.5	258.9	254.2
47.5°	256.5	258.9	251.9	240.2	235.5
50°	235.5	237.9	230.9	219.2	214.5
52.5°	216.9	219.2	209.9	200.6	195.9
55°	198.2	200.6	191.2	181.9	179.6
57.5°	179.6	181.9	172.6	165.6	160.9
60°	160.9	163.2	153.9	146.9	144.6
62.5°	142.3	144.6	137.6	130.6	128.3
65°	125.9	128.3	121.3	114.3	111.9
67.5°	109.6	111.9	104.9	100.3	97.9
70°	95.6	95.6	90.9	86.3	84.0
72.5°	79.3	81.6	77.0	72.3	70.0
75°	65.3	67.6	63.0	60.6	58.3
77.5°	53.6	56.0	51.3	49.0	46.6
80°	42.0	44.3	39.6	37.3	35.0
82.5°	30.3	32.6	30.3	28.0	25.7
85°	21.0	23.3	21.0	18.7	16.3
87.5°	9.3	14.0	9.3	9.3	7.0
90°	2.3	7.0	4.7	2.3	0.0
92.5°	23.3	32.6	49.0	84.0	90.9
95°	63.0	81.6	149.3	370.8	436.1
97.5°	118.9	139.9	228.5	580.7	685.6
100°	181.9	202.9	307.8	764.9	914.2
102.5°	254.2	270.5	380.1	935.2	1131.0
105°	326.5	333.5	438.4	1089.1	1308.3
107.5°	394.1	398.8	480.4	1205.7	1464.5
110°	459.4	452.4	515.4	1252.3	1627.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	517.7	506.1	543.4	1217.3	1700.1
115°	555.0	555.0	578.3	1135.7	1660.4
117.5°	580.7	597.0	622.7	1093.7	1508.8
120°	599.3	641.3	657.6	1077.4	1324.6
122.5°	627.3	678.6	708.9	1063.4	1224.3
125°	655.3	697.3	750.9	1054.1	1208.0
127.5°	683.3	711.3	785.9	1051.8	1205.7
130°	711.3	734.6	804.6	1009.8	1189.3
132.5°	743.9	767.2	834.9	937.5	1058.8
135°	776.6	797.6	855.9	939.8	1005.1
137.5°	804.6	820.9	872.2	939.8	991.1
140°	837.2	848.9	895.5	921.2	960.8
142.5°	865.2	874.5	918.8	921.2	932.8
145°	888.5	895.5	939.8	937.5	942.1
147.5°	914.2	916.5	956.1	958.5	958.5
150°	932.8	932.8	967.8	979.5	979.5
152.5°	953.8	949.1	981.8	993.5	1000.4
155°	970.1	963.1	993.5	1000.4	1007.4
157.5°	986.5	979.5	998.1	1009.8	1014.4
160°	998.1	991.1	1005.1	1012.1	1016.8
162.5°	1009.8	1000.4	1014.4	1009.8	1012.1
165°	1016.8	1012.1	1021.4	1014.4	1014.4
167.5°	1023.8	1021.4	1026.1	1021.4	1021.4
170°	1028.4	1026.1	1030.8	1023.8	1021.4
172.5°	1033.1	1028.4	1033.1	1023.8	1019.1
175°	1033.1	1028.4	1030.8	1023.8	1014.4
177.5°	1035.4	1026.1	1026.1	1016.8	1012.1
180°	1021.4	1021.4	1021.4	1021.4	1021.4

(END OF REPORT)