

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: P183459

Luminaire Tested: **MB-WS-4L35-1D-UNV-4-STD-DM8**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183459
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-4L35-1D-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)3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

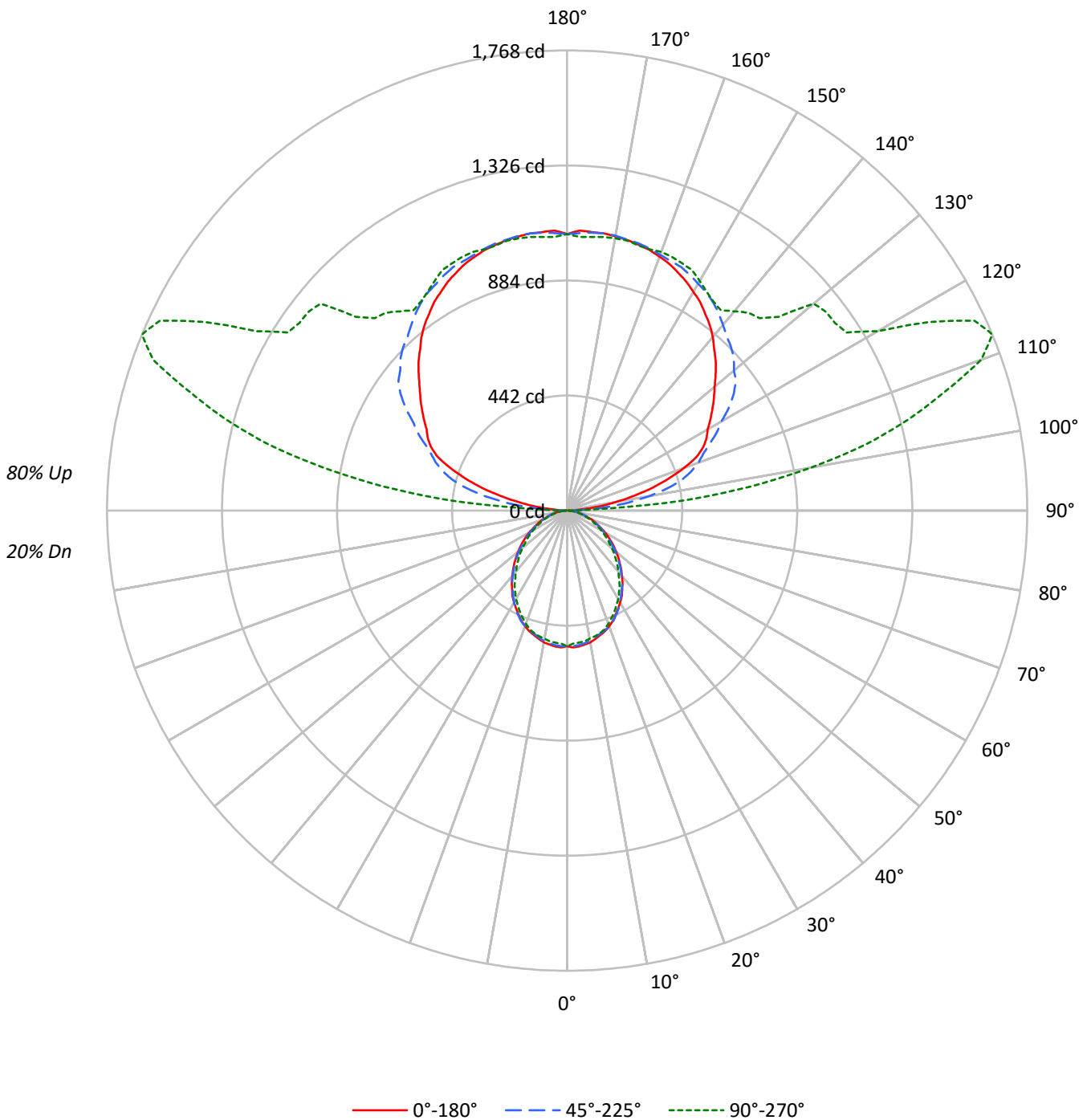
Lumens per Lamp: N/A
Luminaire Lumens: 6030.6 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.25
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.58' x H: 0.21')
CIE Type: Semi-Indirect

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	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°	4177	4177	4177
5°	4191	4021	3906
10°	4140	3848	3701
15°	4040	3640	3519
20°	3948	3481	3285
25°	3798	3262	3014
30°	3647	3014	2752
35°	3464	2747	2476
40°	3264	2491	2180
45°	3064	2222	1926
50°	2855	1972	1673
55°	2659	1715	1455
60°	2435	1464	1228
65°	2208	1238	1007
70°	2007	1011	809
75°	1727	774	610
80°	1516	549	405
85°	1204	336	213



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.0	0.8
10°-20°	138.2	2.3
20°-30°	201.3	3.3
30°-40°	226.9	3.8
40°-50°	215.5	3.6
50°-60°	177.4	2.9
60°-70°	124.8	2.1
70°-80°	70.4	1.2
80°-90°	23.3	0.4
90°-100°	236.5	3.9
100°-110°	721.6	12.0
110°-120°	865.3	14.3
120°-130°	799.8	13.3
130°-140°	703.8	11.7
140°-150°	602.2	10.0
150°-160°	473.6	7.9
160°-170°	299.1	5.0
170°-180°	101.9	1.7
0°-30°	388.5	6.4
0°-40°	615.4	10.2
0°-60°	1008.4	16.7
0°-90°	1226.8	20.3
90°-120°	1823.4	30.2
90°-150°	3929.2	65.2
90°-180°	4804.0	79.7
0°-180°	6030.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	521	521	521	521	521	
5°	524	517	519	517	509	50
15°	495	490	490	490	488	140
25°	441	437	444	432	429	203
35°	369	371	366	356	352	231
45°	286	289	281	269	264	221
55°	206	209	199	189	187	184
65°	131	133	126	119	116	130
75°	68	70	66	63	61	73
85°	22	24	22	19	17	22
90°	2	7	5	2	0	5
95°	66	85	155	386	454	80
105°	340	347	456	1133	1361	355
115°	577	577	602	1181	1727	562
125°	682	725	781	1096	1256	610
135°	808	830	890	977	1045	623
145°	924	931	977	975	980	579
155°	1009	1002	1033	1040	1048	466
165°	1057	1053	1062	1055	1055	299
175°	1074	1070	1072	1065	1055	102
180°	1062	1062	1062	1062	1062	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	521.4	521.4	521.4	521.4	521.4
2.5°	526.3	519.0	521.4	519.0	511.7
5°	523.9	516.6	519.0	516.6	509.3
7.5°	519.0	511.7	514.2	511.7	506.9
10°	514.2	506.9	509.3	504.5	499.6
12.5°	504.5	499.6	499.6	494.8	494.8
15°	494.8	489.9	489.9	489.9	487.5
17.5°	485.1	477.8	482.6	482.6	477.8
20°	472.9	465.7	472.9	468.1	463.2
22.5°	458.4	453.5	460.8	451.1	446.3
25°	441.4	436.6	443.8	431.7	429.3
27.5°	424.4	422.0	426.9	414.7	409.9
30°	407.5	405.0	407.5	397.8	392.9
32.5°	390.5	388.1	385.6	375.9	371.1
35°	368.7	371.1	366.2	356.5	351.7
37.5°	349.2	351.7	346.8	334.7	327.4
40°	327.4	332.3	325.0	312.9	305.6
42.5°	308.0	310.4	303.2	291.0	286.2
45°	286.2	288.6	281.3	269.2	264.4
47.5°	266.8	269.2	261.9	249.8	245.0
50°	245.0	247.4	240.1	228.0	223.1
52.5°	225.6	228.0	218.3	208.6	203.7
55°	206.2	208.6	198.9	189.2	186.8
57.5°	186.8	189.2	179.5	172.2	167.3
60°	167.3	169.8	160.1	152.8	150.4
62.5°	147.9	150.4	143.1	135.8	133.4
65°	131.0	133.4	126.1	118.8	116.4
67.5°	114.0	116.4	109.1	104.3	101.9
70°	99.4	99.4	94.6	89.7	87.3
72.5°	82.5	84.9	80.0	75.2	72.8
75°	67.9	70.3	65.5	63.1	60.6
77.5°	55.8	58.2	53.4	50.9	48.5
80°	43.7	46.1	41.2	38.8	36.4
82.5°	31.5	34.0	31.5	29.1	26.7
85°	21.8	24.3	21.8	19.4	17.0
87.5°	9.7	14.6	9.7	9.7	7.3
90°	2.4	7.3	4.9	2.4	0.0
92.5°	24.3	34.0	50.9	87.3	94.6
95°	65.5	84.9	155.2	385.6	453.5
97.5°	123.7	145.5	237.7	603.9	713.0
100°	189.2	211.0	320.1	795.5	950.7
102.5°	264.4	281.3	395.3	972.6	1176.3
105°	339.5	346.8	456.0	1132.6	1360.6
107.5°	409.9	414.7	499.6	1253.9	1523.1
110°	477.8	470.5	536.0	1302.4	1692.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	538.4	526.3	565.1	1266.0	1768.1
115°	577.2	577.2	601.5	1181.1	1726.8
117.5°	603.9	620.9	647.6	1137.5	1569.2
120°	623.3	667.0	683.9	1120.5	1377.6
122.5°	652.4	705.8	737.3	1106.0	1273.3
125°	681.5	725.2	781.0	1096.3	1256.3
127.5°	710.6	739.7	817.3	1093.8	1253.9
130°	739.7	764.0	836.7	1050.2	1236.9
132.5°	773.7	797.9	868.3	975.0	1101.1
135°	807.6	829.5	890.1	977.4	1045.3
137.5°	836.7	853.7	907.1	977.4	1030.8
140°	870.7	882.8	931.3	958.0	999.2
142.5°	899.8	909.5	955.6	958.0	970.1
145°	924.1	931.3	977.4	975.0	979.8
147.5°	950.7	953.2	994.4	996.8	996.8
150°	970.1	970.1	1006.5	1018.6	1018.6
152.5°	992.0	987.1	1021.1	1033.2	1040.5
155°	1008.9	1001.7	1033.2	1040.5	1047.7
157.5°	1025.9	1018.6	1038.0	1050.2	1055.0
160°	1038.0	1030.8	1045.3	1052.6	1057.4
162.5°	1050.2	1040.5	1055.0	1050.2	1052.6
165°	1057.4	1052.6	1062.3	1055.0	1055.0
167.5°	1064.7	1062.3	1067.1	1062.3	1062.3
170°	1069.6	1067.1	1072.0	1064.7	1062.3
172.5°	1074.4	1069.6	1074.4	1064.7	1059.9
175°	1074.4	1069.6	1072.0	1064.7	1055.0
177.5°	1076.8	1067.1	1067.1	1057.4	1052.6
180°	1062.3	1062.3	1062.3	1062.3	1062.3

(END OF REPORT)