

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: P183584

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P183584
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-4L40-1D-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: 5907.4 lumens
Efficiency: N/A
Efficacy: 92.7 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

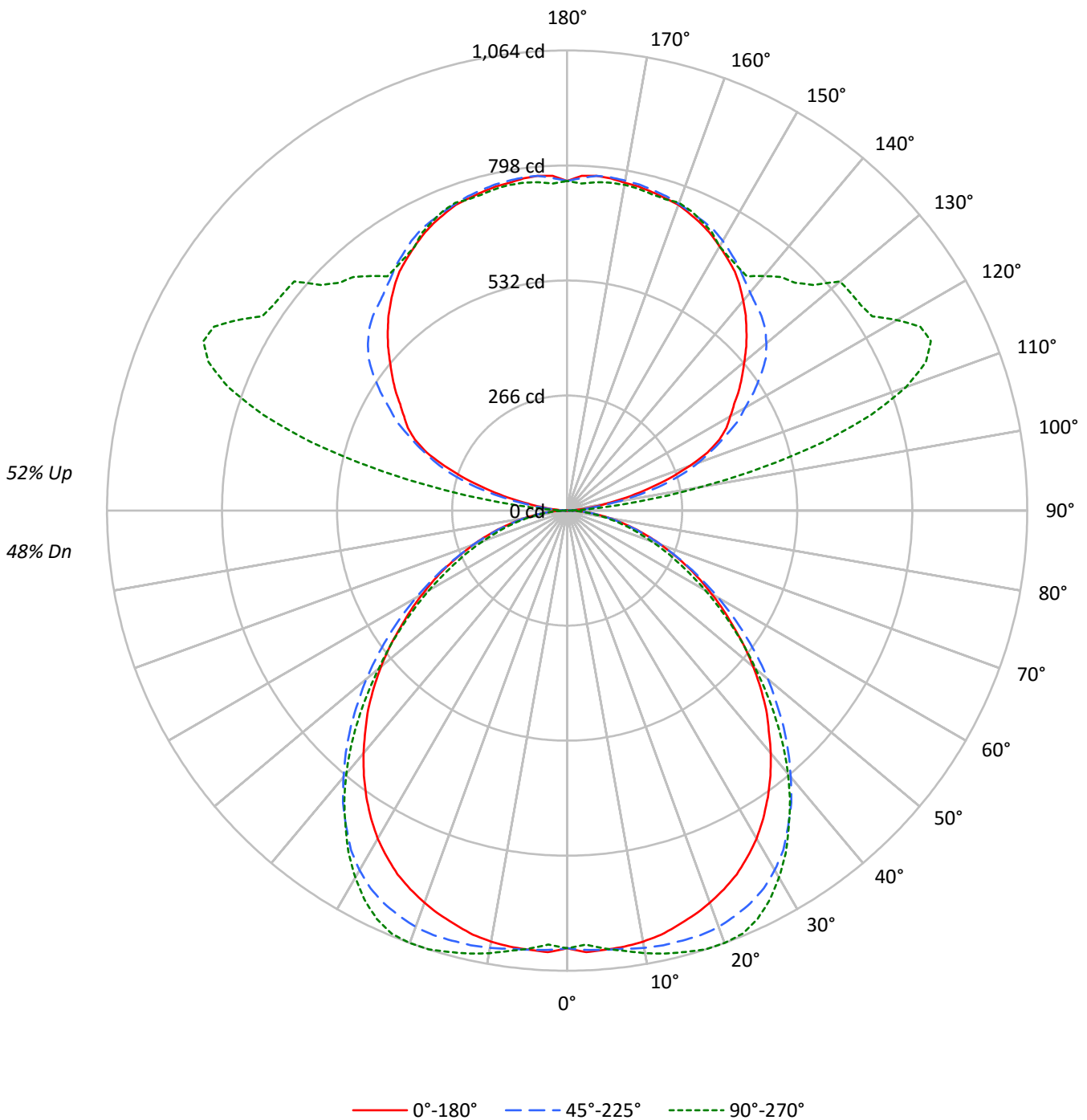
Input Watts (W): 63.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	8107	8107	8107
5°	8156	7897	7798
10°	8148	7758	7699
15°	8102	7647	7626
20°	8056	7542	7545
25°	7985	7367	7313
30°	7839	7101	6862
35°	7603	6681	6289
40°	7302	6165	5665
45°	6966	5591	4974
50°	6546	4980	4267
55°	6062	4331	3623
60°	5618	3689	3010
65°	5171	3061	2440
70°	4647	2458	1927
75°	4090	1872	1445
80°	3435	1286	963
85°	2595	686	464



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.2	1.6
10°-20°	290.0	4.9
20°-30°	455.3	7.7
30°-40°	541.4	9.2
40°-50°	528.0	8.9
50°-60°	435.0	7.4
60°-70°	302.5	5.1
70°-80°	166.3	2.8
80°-90°	49.6	0.8
90°-100°	66.8	1.1
100°-110°	342.3	5.8
110°-120°	525.3	8.9
120°-130°	548.5	9.3
130°-140°	502.0	8.5
140°-150°	428.8	7.3
150°-160°	339.4	5.7
160°-170°	215.8	3.7
170°-180°	73.5	1.2
0°-30°	842.4	14.3
0°-40°	1383.8	23.4
0°-60°	2346.7	39.7
0°-90°	2865.1	48.5
90°-120°	934.3	15.8
90°-150°	2413.6	40.9
90°-180°	3042.0	51.5
0°-180°	5907.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1012	1012	1012	1012	1012	
5°	1019	1010	1019	1017	1017	97
15°	992	995	1029	1052	1056	280
25°	928	943	1002	1032	1042	427
35°	809	829	891	896	893	505
45°	651	676	708	693	683	500
55°	470	492	502	480	465	422
65°	307	317	312	294	282	304
75°	161	166	158	148	144	171
85°	47	50	44	40	37	49
90°	0	2	2	2	2	4
95°	25	27	32	69	77	35
105°	193	193	228	500	614	205
115°	388	384	401	703	928	377
125°	485	515	547	732	829	434
135°	586	596	636	695	745	453
145°	676	678	690	683	688	422
155°	732	730	740	740	737	338
165°	762	762	767	760	757	216
175°	777	770	777	772	762	74
180°	762	762	762	762	762	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1012.0	1012.0	1012.0	1012.0	1012.0
2.5°	1021.9	1009.5	1016.9	1014.5	1004.6
5°	1019.4	1009.5	1019.4	1016.9	1016.9
7.5°	1016.9	1007.1	1021.9	1026.8	1026.8
10°	1012.0	1004.6	1026.8	1034.3	1039.2
12.5°	1004.6	999.6	1029.3	1044.2	1049.1
15°	992.2	994.7	1029.3	1051.6	1056.5
17.5°	979.8	987.3	1029.3	1054.1	1064.0
20°	965.0	974.9	1024.4	1054.1	1064.0
22.5°	947.7	960.0	1014.5	1046.6	1059.0
25°	927.9	942.7	1002.1	1031.8	1041.7
27.5°	903.1	920.5	984.8	1009.5	1014.5
30°	875.9	893.2	960.0	977.4	979.8
32.5°	843.7	866.0	930.3	940.2	940.2
35°	809.1	828.9	890.8	895.7	893.2
37.5°	772.0	794.3	851.2	848.7	846.2
40°	732.4	754.7	804.2	799.2	794.3
42.5°	690.3	715.1	757.1	747.2	739.8
45°	650.7	675.5	707.7	692.8	682.9
47.5°	606.2	631.0	655.7	640.9	626.0
50°	561.7	583.9	606.2	581.5	569.1
52.5°	517.1	539.4	554.2	532.0	517.1
55°	470.1	492.4	502.3	480.0	465.2
57.5°	428.1	445.4	452.8	430.5	415.7
60°	386.0	400.8	403.3	383.5	368.7
62.5°	346.4	358.8	356.3	336.5	324.1
65°	306.8	316.7	311.8	294.4	282.1
67.5°	267.2	274.7	269.7	254.9	245.0
70°	230.1	237.5	230.1	215.3	207.8
72.5°	195.5	200.4	193.0	180.6	173.2
75°	160.8	165.8	158.4	148.5	143.5
77.5°	128.7	131.1	126.2	118.8	113.8
80°	99.0	101.4	96.5	91.6	86.6
82.5°	71.8	74.2	69.3	66.8	61.9
85°	47.0	49.5	44.5	39.6	37.1
87.5°	22.3	24.7	19.8	17.3	14.8
90°	0.0	2.5	2.5	2.5	2.5
92.5°	7.4	9.9	9.9	14.8	14.8
95°	24.7	27.2	32.2	69.3	76.7
97.5°	54.4	56.9	69.3	163.3	180.6
100°	91.6	96.5	116.3	277.1	314.2
102.5°	141.0	143.5	173.2	395.9	465.2
105°	193.0	193.0	227.6	499.8	613.6
107.5°	247.4	240.0	279.6	583.9	737.4
110°	301.9	292.0	321.7	640.9	833.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	351.4	339.0	361.3	675.5	898.2
115°	388.5	383.5	400.8	702.7	927.9
117.5°	415.7	423.1	442.9	722.5	920.5
120°	435.5	460.2	475.1	739.8	880.9
122.5°	457.8	492.4	512.2	734.9	836.3
125°	485.0	514.7	546.8	732.4	828.9
127.5°	509.7	529.5	579.0	734.9	826.4
130°	534.5	551.8	601.3	717.6	824.0
132.5°	561.7	574.0	621.1	692.8	772.0
135°	586.4	596.3	635.9	695.3	744.8
137.5°	611.2	616.1	645.8	697.8	732.4
140°	633.4	635.9	658.2	680.4	707.7
142.5°	655.7	658.2	673.0	675.5	682.9
145°	675.5	678.0	690.3	682.9	687.9
147.5°	690.3	692.8	705.2	695.3	695.3
150°	705.2	705.2	720.0	710.1	705.2
152.5°	720.0	717.6	732.4	725.0	725.0
155°	732.4	729.9	739.8	739.8	737.4
157.5°	742.3	739.8	747.2	752.2	749.7
160°	752.2	749.7	754.7	754.7	757.1
162.5°	757.1	757.1	762.1	754.7	754.7
165°	762.1	762.1	767.0	759.6	757.1
167.5°	767.0	767.0	772.0	764.6	762.1
170°	769.5	769.5	774.5	767.0	764.6
172.5°	774.5	772.0	776.9	769.5	764.6
175°	776.9	769.5	776.9	772.0	762.1
177.5°	774.5	767.0	769.5	762.1	757.1
180°	762.1	762.1	762.1	762.1	762.1

(END OF REPORT)