

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: P183434

Luminaire Tested: **E2-WS-4L40-1D-UNV-4-STD-DM8**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P183434  
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: E2-WS-4L40-1D-UNV-4-STD-DM8  
Description: CORELITE ELEMENT SUSPENDED DIRECT-INDIRECT LED LUMINAIRE, 4 FOOT.  
WaveStream WITH FROSTED LENS. 80% UP / 20% DOWN.  
Light Source: (336)4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6152.3 lumens  
Efficiency: N/A  
Efficacy: 96.6 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

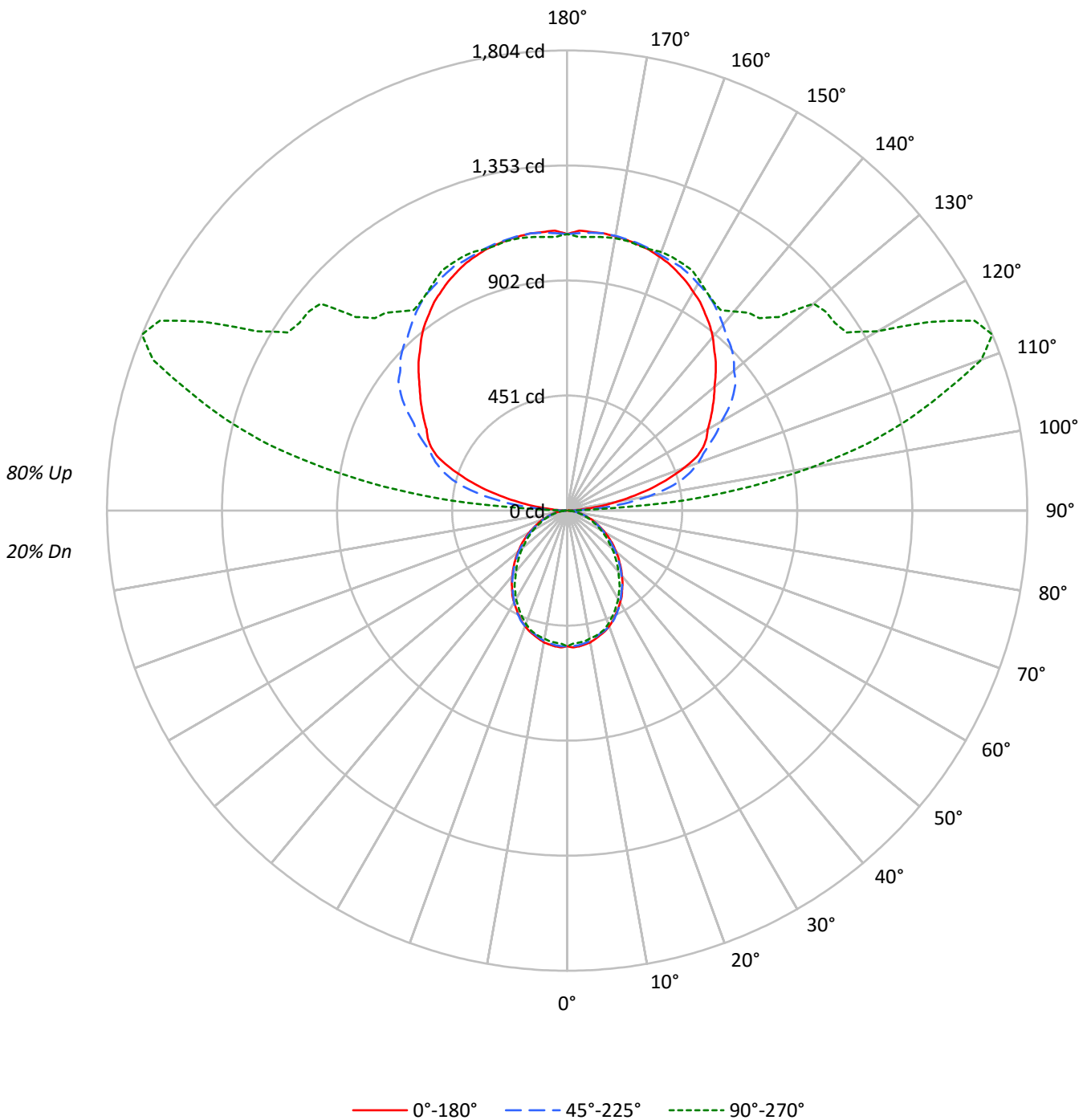
Input Watts (W): 63.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4262	4262	4262
5°	4275	4102	3984
10°	4224	3926	3776
15°	4122	3713	3590
20°	4028	3552	3351
25°	3875	3329	3075
30°	3720	3075	2807
35°	3534	2802	2526
40°	3330	2542	2224
45°	3126	2267	1964
50°	2912	2013	1707
55°	2712	1750	1484
60°	2485	1494	1253
65°	2252	1264	1028
70°	2048	1031	826
75°	1762	789	623
80°	1544	561	412
85°	1231	344	216



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.0	0.8
10°-20°	141.0	2.3
20°-30°	205.3	3.3
30°-40°	231.5	3.8
40°-50°	219.9	3.6
50°-60°	181.0	2.9
60°-70°	127.4	2.1
70°-80°	71.8	1.2
80°-90°	23.7	0.4
90°-100°	241.3	3.9
100°-110°	736.1	12.0
110°-120°	882.7	14.3
120°-130°	816.0	13.3
130°-140°	718.0	11.7
140°-150°	614.3	10.0
150°-160°	483.1	7.9
160°-170°	305.1	5.0
170°-180°	104.0	1.7
0°-30°	396.3	6.4
0°-40°	627.8	10.2
0°-60°	1028.7	16.7
0°-90°	1251.6	20.3
90°-120°	1860.2	30.2
90°-150°	4008.5	65.2
90°-180°	4901.0	79.7
0°-180°	6152.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	532	532	532	532	532	
5°	534	527	530	527	520	51
15°	505	500	500	500	497	142
25°	450	445	453	440	438	207
35°	376	379	374	364	359	235
45°	292	294	287	275	270	226
55°	210	213	203	193	190	188
65°	134	136	129	121	119	133
75°	69	72	67	64	62	75
85°	22	25	22	20	17	22
90°	2	7	5	2	0	5
95°	67	87	158	393	463	82
105°	346	354	465	1156	1388	362
115°	589	589	614	1205	1762	574
125°	695	740	797	1118	1282	623
135°	824	846	908	997	1066	635
145°	943	950	997	995	1000	591
155°	1029	1022	1054	1062	1069	475
165°	1079	1074	1084	1076	1076	305
175°	1096	1091	1094	1086	1076	105
180°	1084	1084	1084	1084	1084	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	532.0	532.0	532.0	532.0	532.0
2.5°	536.9	529.5	532.0	529.5	522.1
5°	534.4	527.0	529.5	527.0	519.6
7.5°	529.5	522.1	524.6	522.1	517.1
10°	524.6	517.1	519.6	514.7	509.7
12.5°	514.7	509.7	509.7	504.8	504.8
15°	504.8	499.8	499.8	499.8	497.3
17.5°	494.9	487.4	492.4	492.4	487.4
20°	482.5	475.1	482.5	477.5	472.6
22.5°	467.6	462.7	470.1	460.2	455.3
25°	450.3	445.4	452.8	440.4	438.0
27.5°	433.0	430.5	435.5	423.1	418.2
30°	415.7	413.2	415.7	405.8	400.8
32.5°	398.4	395.9	393.4	383.5	378.6
35°	376.1	378.6	373.6	363.7	358.8
37.5°	356.3	358.8	353.8	341.5	334.0
40°	334.0	339.0	331.6	319.2	311.8
42.5°	314.2	316.7	309.3	296.9	292.0
45°	292.0	294.4	287.0	274.6	269.7
47.5°	272.2	274.6	267.2	254.9	249.9
50°	249.9	252.4	245.0	232.6	227.6
52.5°	230.1	232.6	222.7	212.8	207.8
55°	210.3	212.8	202.9	193.0	190.5
57.5°	190.5	193.0	183.1	175.7	170.7
60°	170.7	173.2	163.3	155.9	153.4
62.5°	150.9	153.4	146.0	138.6	136.1
65°	133.6	136.1	128.7	121.2	118.8
67.5°	116.3	118.8	111.3	106.4	103.9
70°	101.4	101.4	96.5	91.5	89.1
72.5°	84.1	86.6	81.7	76.7	74.2
75°	69.3	71.8	66.8	64.3	61.9
77.5°	56.9	59.4	54.4	52.0	49.5
80°	44.5	47.0	42.1	39.6	37.1
82.5°	32.2	34.6	32.2	29.7	27.2
85°	22.3	24.7	22.3	19.8	17.3
87.5°	9.9	14.8	9.9	9.9	7.4
90°	2.5	7.4	4.9	2.5	0.0
92.5°	24.7	34.6	52.0	89.1	96.5
95°	66.8	86.6	158.4	393.4	462.7
97.5°	126.2	148.5	242.5	616.1	727.4
100°	193.0	215.3	326.6	811.6	969.9
102.5°	269.7	287.0	403.3	992.2	1200.0
105°	346.4	353.8	465.2	1155.5	1388.1
107.5°	418.2	423.1	509.7	1279.2	1553.9
110°	487.4	480.0	546.8	1328.7	1727.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	549.3	536.9	576.5	1291.6	1803.8
115°	588.9	588.9	613.6	1205.0	1761.7
117.5°	616.1	633.4	660.6	1160.4	1600.9
120°	635.9	680.4	697.8	1143.1	1405.4
122.5°	665.6	720.0	752.2	1128.3	1299.0
125°	695.3	739.8	796.7	1118.4	1281.7
127.5°	725.0	754.7	833.8	1115.9	1279.2
130°	754.7	779.4	853.6	1071.4	1261.9
132.5°	789.3	814.0	885.8	994.7	1123.3
135°	823.9	846.2	908.1	997.1	1066.4
137.5°	853.6	871.0	925.4	997.1	1051.6
140°	888.3	900.6	950.1	977.4	1019.4
142.5°	918.0	927.9	974.9	977.4	989.7
145°	942.7	950.1	997.1	994.7	999.6
147.5°	969.9	972.4	1014.5	1016.9	1016.9
150°	989.7	989.7	1026.8	1039.2	1039.2
152.5°	1012.0	1007.0	1041.7	1054.1	1061.5
155°	1029.3	1021.9	1054.1	1061.5	1068.9
157.5°	1046.6	1039.2	1059.0	1071.4	1076.3
160°	1059.0	1051.6	1066.4	1073.8	1078.8
162.5°	1071.4	1061.5	1076.3	1071.4	1073.8
165°	1078.8	1073.8	1083.7	1076.3	1076.3
167.5°	1086.2	1083.7	1088.7	1083.7	1083.7
170°	1091.2	1088.7	1093.6	1086.2	1083.7
172.5°	1096.1	1091.2	1096.1	1086.2	1081.3
175°	1096.1	1091.2	1093.6	1086.2	1076.3
177.5°	1098.6	1088.7	1088.7	1078.8	1073.8
180°	1083.7	1083.7	1083.7	1083.7	1083.7

(END OF REPORT)