

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: CORELITE

Report Number: P520411

Luminaire Tested: **SQ4-F-150U-100D-830-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P520411  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-25, G3-1910-536-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-F-150U-100D-830-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

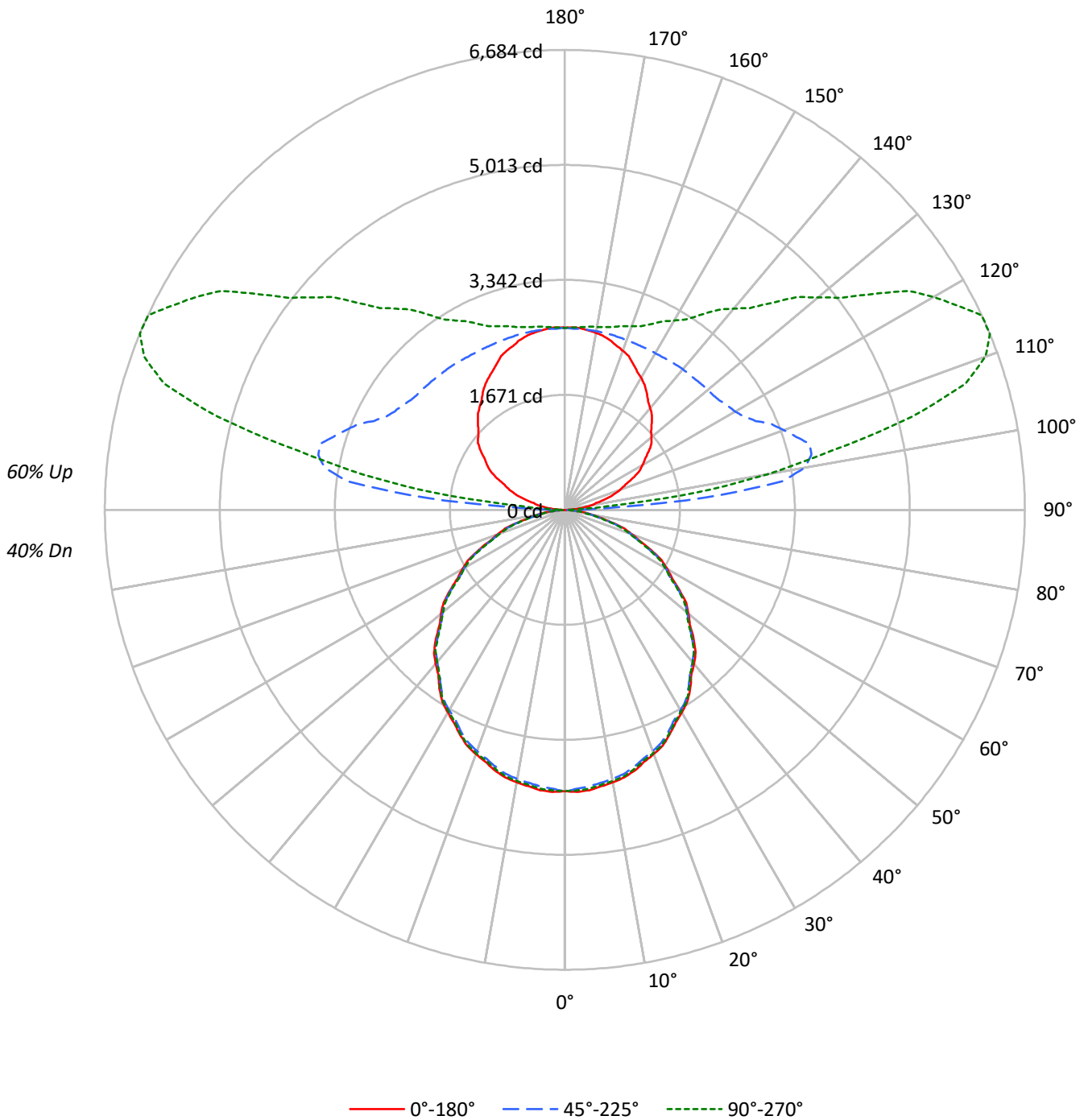
Lumens per Lamp: N/A  
Luminaire Lumens: 28212.9 lumens  
Efficiency: N/A  
Efficacy: 123.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 228.3  
Input Voltage (V): 120  
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: 24 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	105	105	105	105	95	95	95	95	78	78	78	61	61	61	47	47	47	40
1	95	91	87	84	87	83	80	77	68	66	64	54	52	51	41	40	39	33
2	87	80	73	68	79	73	67	63	59	56	52	47	45	42	36	34	33	28
3	79	70	63	57	72	64	57	52	52	48	44	42	39	36	32	30	28	23
4	72	62	54	48	65	56	50	44	46	41	37	37	33	31	28	26	24	20
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	26	23	21	17
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	23	20	18	15
7	56	44	36	31	51	41	34	29	34	28	24	27	23	20	21	18	16	13
8	52	40	32	27	47	37	30	25	31	25	22	25	21	18	19	17	14	12
9	48	36	29	24	44	34	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	15	16	14	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	12572	12572	12572
5°	12629	12455	12550
10°	12564	12407	12503
15°	12488	12319	12417
20°	12359	12212	12314
25°	12224	12082	12177
30°	12076	11946	12006
35°	11924	11776	11840
40°	11726	11591	11602
45°	11519	11361	11324
50°	11222	11088	11061
55°	10891	10771	10696
60°	10562	10371	10337
65°	10045	9820	9739
70°	9334	9107	8931
75°	8334	8068	7901
80°	6858	6608	6310
85°	4058	4453	4555



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	385.8	1.4
10°-20°	1098.7	3.9
20°-30°	1650.0	5.8
30°-40°	1969.1	7.0
40°-50°	2018.3	7.2
50°-60°	1797.3	6.4
60°-70°	1339.8	4.7
70°-80°	725.4	2.6
80°-90°	170.6	0.6
90°-100°	1229.6	4.4
100°-110°	3324.5	11.8
110°-120°	3495.2	12.4
120°-130°	2839.1	10.1
130°-140°	2227.0	7.9
140°-150°	1709.2	6.1
150°-160°	1229.3	4.4
160°-170°	750.9	2.7
170°-180°	253.2	0.9
0°-30°	3134.5	11.1
0°-40°	5103.6	18.1
0°-60°	8919.2	31.6
0°-90°	11155.0	39.5
90°-120°	8049.2	28.5
90°-150°	14824.5	52.5
90°-180°	17058.0	60.5
0°-180°	28212.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4088	4088	4088	4088	4088	
5°	4091	4082	4035	4071	4065	388
15°	3922	3909	3869	3900	3900	1105
25°	3602	3594	3560	3580	3588	1660
35°	3176	3162	3137	3143	3154	1983
45°	2649	2635	2612	2598	2604	2038
55°	2031	2034	2009	1989	1995	1818
65°	1380	1375	1350	1336	1338	1365
75°	701	693	679	665	665	747
85°	115	126	126	129	129	161
90°	6	17	37	40	37	16
95°	191	670	2045	1058	629	200
105°	618	955	3688	5440	5217	651
115°	1088	1330	3059	5921	6684	1074
125°	1490	1707	2757	4652	5465	1328
135°	1786	1997	2683	3756	4252	1380
145°	2076	2232	2646	3215	3460	1299
155°	2344	2436	2623	2884	2979	1081
165°	2552	2577	2634	2737	2751	719
175°	2649	2646	2637	2671	2666	251
180°	2646	2646	2646	2646	2646	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4087.9	4087.9	4087.9	4087.9	4087.9
2.5°	4103.6	4094.9	4058.7	4087.8	4083.4
5°	4090.7	4082.5	4034.6	4070.9	4065.4
7.5°	4052.6	4044.3	4002.0	4035.6	4030.7
10°	4023.3	4015.1	3972.9	4006.5	4003.7
12.5°	3985.2	3977.0	3934.7	3968.3	3965.6
15°	3922.4	3908.6	3869.1	3899.9	3899.9
17.5°	3839.3	3828.8	3792.2	3818.0	3818.5
20°	3776.4	3768.2	3731.5	3759.7	3762.5
22.5°	3713.6	3705.4	3664.3	3690.1	3695.1
25°	3602.5	3594.3	3560.4	3580.2	3588.5
27.5°	3488.0	3476.0	3442.6	3460.2	3466.2
30°	3400.5	3395.1	3364.0	3372.7	3380.9
32.5°	3308.5	3303.0	3276.5	3280.7	3295.6
35°	3176.1	3162.3	3136.7	3142.6	3153.6
37.5°	3019.5	3012.9	2988.0	2985.0	2995.4
40°	2920.7	2909.7	2887.1	2881.6	2889.8
42.5°	2812.9	2802.0	2774.8	2769.4	2779.9
45°	2648.6	2634.9	2612.1	2598.2	2603.7
47.5°	2464.5	2464.5	2441.0	2424.8	2433.1
50°	2345.6	2345.6	2317.5	2303.7	2311.9
52.5°	2222.1	2224.3	2194.1	2186.6	2184.0
55°	2031.3	2034.1	2008.9	1989.4	1994.8
57.5°	1847.3	1841.2	1811.9	1799.0	1801.8
60°	1717.1	1708.9	1686.2	1666.9	1680.6
62.5°	1584.6	1580.9	1558.3	1536.4	1534.7
65°	1380.4	1374.9	1349.5	1335.5	1338.3
67.5°	1177.3	1170.7	1147.6	1127.5	1134.6
70°	1038.1	1038.1	1012.8	1001.4	993.2
72.5°	910.2	899.2	880.4	864.6	858.5
75°	701.4	693.2	679.0	664.9	664.9
77.5°	510.7	503.5	494.3	484.8	482.0
80°	387.2	384.4	373.1	370.1	356.3
82.5°	272.7	272.2	265.4	258.1	257.5
85°	115.0	126.0	126.2	129.1	129.1
87.5°	21.3	36.7	38.7	34.8	34.2
90°	5.7	16.8	37.0	39.8	37.0
92.5°	80.9	294.8	581.6	252.4	182.8
95°	190.8	669.8	2044.8	1058.2	629.3
97.5°	306.4	768.2	3187.4	2637.8	1937.1
100°	393.0	807.9	3542.8	3694.8	2987.5
102.5°	472.7	863.1	3668.1	4496.3	3967.1
105°	618.0	955.0	3688.0	5440.2	5217.3
107.5°	752.4	1059.8	3526.9	6029.0	6103.1
110°	857.2	1135.7	3383.3	6187.1	6501.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	950.7	1211.3	3251.1	6155.5	6684.1
115°	1087.9	1330.2	3058.7	5921.0	6684.1
117.5°	1222.4	1449.5	2931.6	5562.8	6427.7
120°	1304.4	1527.1	2856.5	5305.8	6188.5
122.5°	1381.8	1600.1	2810.9	5030.2	5919.6
125°	1489.5	1706.7	2756.8	4652.1	5465.1
127.5°	1588.6	1801.8	2724.9	4343.3	5058.5
130°	1643.3	1863.2	2711.2	4152.7	4798.8
132.5°	1700.2	1917.9	2697.6	3980.7	4575.4
135°	1785.6	1997.3	2682.8	3756.3	4251.9
137.5°	1871.6	2071.6	2670.2	3574.2	3978.0
140°	1930.9	2117.5	2665.7	3457.0	3816.2
142.5°	1987.8	2163.3	2656.5	3351.1	3665.8
145°	2076.2	2232.1	2645.7	3215.1	3460.2
147.5°	2156.4	2294.6	2633.2	3092.0	3280.2
150°	2215.7	2338.2	2628.6	3025.1	3175.4
152.5°	2270.3	2377.2	2626.3	2962.9	3086.6
155°	2343.8	2435.7	2622.9	2884.3	2978.9
157.5°	2420.2	2484.2	2623.5	2829.4	2891.8
160°	2463.5	2516.4	2625.8	2794.8	2839.4
162.5°	2497.7	2541.6	2628.0	2767.3	2800.7
165°	2551.7	2576.8	2634.3	2737.2	2751.1
167.5°	2588.7	2606.0	2634.9	2711.3	2718.1
170°	2611.5	2619.9	2637.2	2699.9	2699.9
172.5°	2629.7	2631.5	2637.2	2686.1	2683.9
175°	2648.6	2645.7	2637.2	2671.2	2665.7
177.5°	2654.8	2648.2	2636.6	2659.2	2652.6
180°	2645.7	2645.7	2645.7	2645.7	2645.7

(END OF REPORT)