

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: P519931

Luminaire Tested: **SQ4-F-050U-100D-830-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P519931  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, 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-050U-100D-830-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

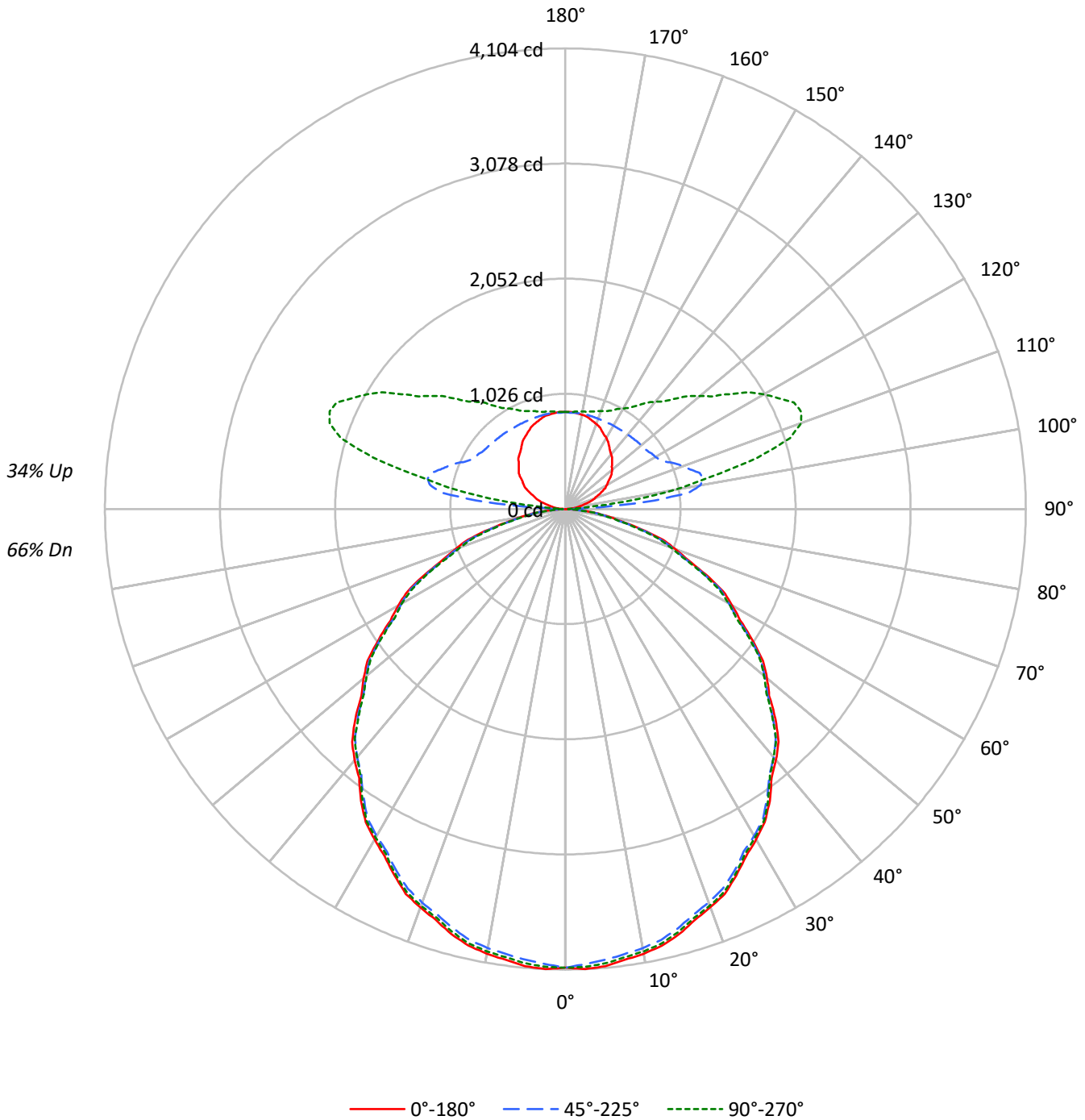
Lumens per Lamp: N/A  
Luminaire Lumens: 16793.3 lumens  
Efficiency: N/A  
Efficacy: 118.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 141.9  
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	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71	66
1	101	97	93	89	95	91	88	85	81	79	76	72	70	68	63	61	60	56
2	92	85	78	73	87	80	74	69	71	67	63	63	59	57	55	53	51	47
3	84	74	67	61	79	70	63	58	63	57	53	55	51	48	49	46	43	39
4	77	66	58	51	72	62	55	49	56	50	45	49	45	41	44	40	37	34
5	71	59	50	44	66	56	48	42	50	44	39	44	39	35	39	35	32	29
6	65	53	44	38	61	50	42	37	45	39	34	40	35	31	36	31	28	26
7	60	48	39	34	57	45	38	32	41	34	30	36	31	27	32	28	25	23
8	56	43	35	30	53	41	34	29	37	31	27	33	28	24	30	26	22	20
9	52	40	32	27	49	38	31	26	34	28	24	31	26	22	27	23	20	18
10	49	36	29	24	46	35	28	23	31	26	21	28	23	20	25	21	18	16

**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	2.3
10°-20°	1098.7	6.5
20°-30°	1650.0	9.8
30°-40°	1969.1	11.7
40°-50°	2018.3	12.0
50°-60°	1797.3	10.7
60°-70°	1339.8	8.0
70°-80°	725.4	4.3
80°-90°	168.4	1.0
90°-100°	414.7	2.5
100°-110°	1126.5	6.7
110°-120°	1158.3	6.9
120°-130°	926.1	5.5
130°-140°	727.6	4.3
140°-150°	557.9	3.3
150°-160°	401.2	2.4
160°-170°	245.4	1.5
170°-180°	82.7	0.5
0°-30°	3134.5	18.7
0°-40°	5103.6	30.4
0°-60°	8919.2	53.1
0°-90°	11152.8	66.4
90°-120°	2699.5	16.1
90°-150°	4911.2	29.2
90°-180°	5640.0	33.6
0°-180°	16793.3	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°	3	11	19	25	25	7
95°	61	227	722	314	211	65
105°	200	311	1239	1886	1775	212
115°	356	432	992	1973	2247	351
125°	489	557	897	1512	1783	436
135°	589	654	872	1231	1389	455
145°	680	729	861	1046	1125	427
155°	769	797	856	940	967	355
165°	833	844	858	894	897	235
175°	864	867	861	872	869	82
180°	864	864	864	864	864	

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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°	20.8	35.6	35.4	32.0	32.0
90°	2.7	10.9	19.4	25.0	25.0
92.5°	25.0	113.5	197.2	84.7	71.6
95°	61.1	226.8	722.2	314.3	211.1
97.5°	101.1	250.5	1107.2	861.4	605.0
100°	127.8	266.3	1224.9	1241.7	1002.8
102.5°	154.5	282.1	1256.0	1535.7	1324.9
105°	200.0	311.4	1238.9	1886.3	1774.9
107.5°	247.2	345.5	1167.2	2067.4	2098.3
110°	280.5	370.1	1113.9	2103.0	2236.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	309.4	394.7	1060.6	2073.4	2273.8
115°	355.5	431.6	991.7	1972.9	2247.1
117.5°	398.9	471.7	947.7	1830.3	2139.4
120°	427.7	498.4	927.8	1734.7	2041.7
122.5°	452.2	522.8	914.5	1638.9	1935.0
125°	488.9	556.8	897.2	1511.7	1783.3
127.5°	521.7	589.0	887.8	1415.3	1648.3
130°	541.7	606.8	883.4	1354.8	1563.9
132.5°	561.7	626.8	878.8	1303.0	1488.3
135°	588.9	654.0	872.2	1231.3	1388.8
137.5°	618.3	677.6	868.8	1168.0	1300.5
140°	636.1	693.2	866.7	1127.7	1247.2
142.5°	653.8	706.5	864.4	1096.1	1196.1
145°	680.5	729.4	861.1	1046.2	1124.9
147.5°	710.5	752.4	858.3	1006.9	1068.9
150°	730.6	765.9	858.3	984.4	1033.3
152.5°	746.1	777.1	856.1	964.2	1004.4
155°	769.4	796.6	855.6	939.5	966.7
157.5°	792.2	813.4	855.6	922.7	943.3
160°	805.5	824.6	855.6	911.4	927.8
162.5°	818.9	833.5	857.7	902.5	914.5
165°	833.3	844.2	858.3	894.4	897.2
167.5°	848.3	853.7	861.1	885.0	887.2
170°	852.7	858.2	861.1	880.5	880.5
172.5°	857.3	860.5	861.1	876.1	876.1
175°	863.8	866.6	861.1	872.2	869.4
177.5°	866.1	866.1	859.4	868.2	863.8
180°	863.8	863.8	863.8	863.8	863.8

(END OF REPORT)