

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: P519115

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

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P519115  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, G2-2009-966-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-WB-050U-100D-830-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH WHITE BAFFLE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

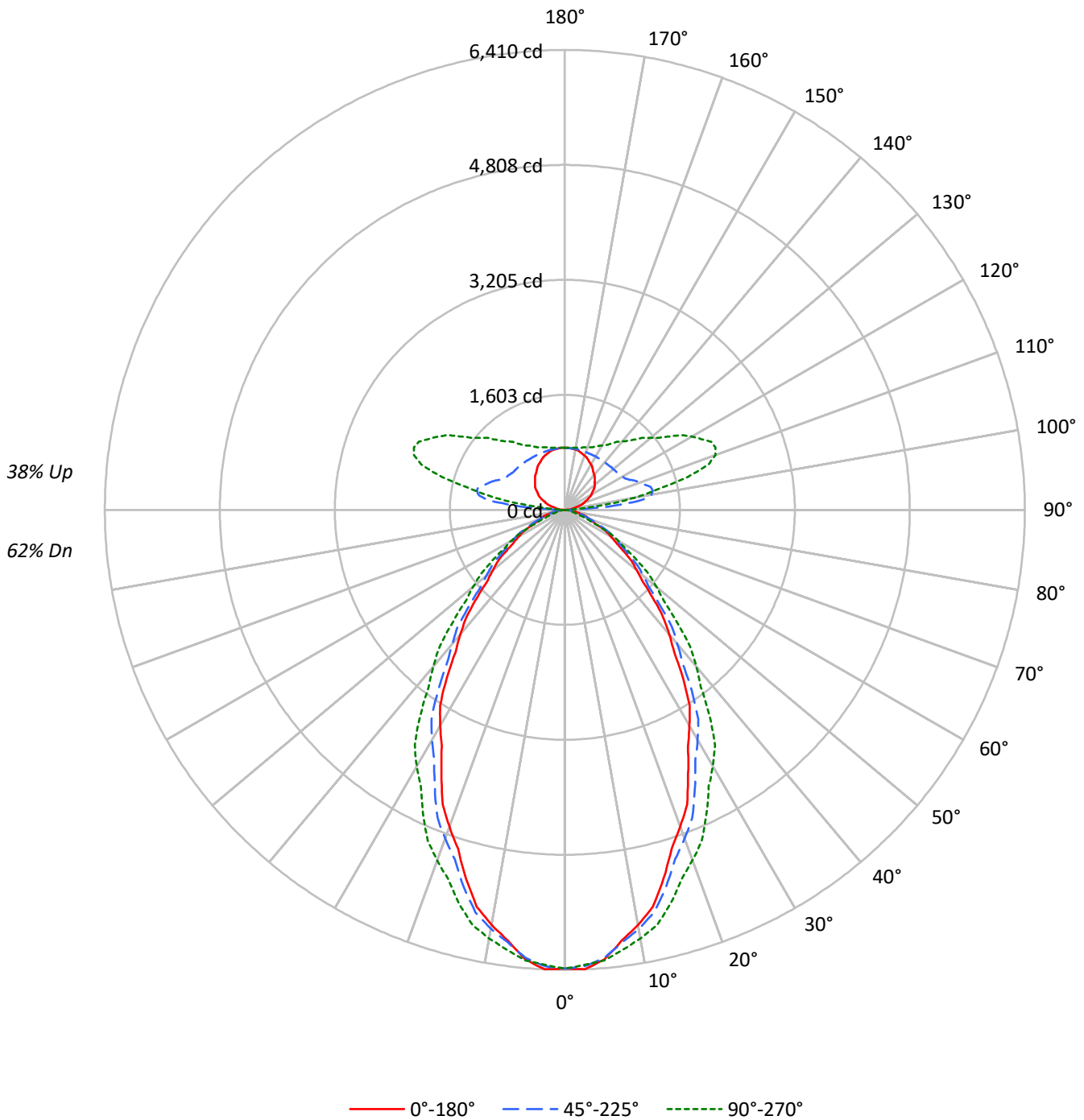
Lumens per Lamp: N/A  
Luminaire Lumens: 14961.1 lumens  
Efficiency: N/A  
Efficacy: 111.3 lumens/watt  
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 134.4  
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



TEST NUMBER: P519115  
CATALOG NUMBER: SQ4-WB-050U-100D-830-1D-UNV-STD-W-12

### Luminous Intensity Polar Plot





TEST NUMBER: P519115

CATALOG NUMBER: SQ4-WB-050U-100D-830-1D-UNV-STD-W-12

**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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	102	98	95	92	95	92	89	87	81	79	77	71	70	68	62	61	60	55
2	94	87	82	77	88	82	78	73	73	69	66	64	62	59	56	54	53	49
3	87	78	72	66	81	74	68	63	66	61	57	58	55	52	51	49	47	43
4	80	70	63	58	75	67	60	55	60	54	50	53	49	46	47	44	41	38
5	74	64	56	51	70	60	54	49	54	49	45	48	44	41	43	40	37	34
6	69	58	50	45	65	55	48	43	50	44	40	44	40	37	40	36	34	31
7	64	53	45	40	61	50	44	39	45	40	36	41	37	33	37	33	31	28
8	60	49	41	36	57	46	40	35	42	36	33	38	33	30	34	31	28	26
9	56	45	38	33	53	43	36	32	39	33	30	35	31	28	32	28	26	24
10	53	41	35	30	50	40	33	29	36	31	27	33	29	25	30	26	24	22

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

	0°	45°	90°
0°	19664	19664	19664
5°	19419	19350	19462
10°	18347	18513	18943
15°	16937	17330	18107
20°	15380	15959	17015
25°	13795	14547	15852
30°	12335	13141	14646
35°	10786	11566	13220
40°	9078	9799	11444
45°	7492	8139	9554
50°	6255	6819	7960
55°	5310	5852	6574
60°	4539	5074	5246
65°	3614	4267	3389
70°	3204	3330	2069
75°	2967	2701	1267
80°	2733	2485	1093
85°	2474	2276	893



TEST NUMBER: P519115

CATALOG NUMBER: SQ4-WB-050U-100D-830-1D-UNV-STD-W-12

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	586.5	3.9
10°-20°	1525.5	10.2
20°-30°	1975.9	13.2
30°-40°	1934.9	12.9
40°-50°	1481.1	9.9
50°-60°	986.9	6.6
60°-70°	538.6	3.6
70°-80°	224.4	1.5
80°-90°	66.9	0.4
90°-100°	414.7	2.8
100°-110°	1126.6	7.5
110°-120°	1158.3	7.7
120°-130°	926.1	6.2
130°-140°	727.6	4.9
140°-150°	557.9	3.7
150°-160°	401.2	2.7
160°-170°	245.4	1.6
170°-180°	82.7	0.6
0°-30°	4087.9	27.3
0°-40°	6022.8	40.3
0°-60°	8490.8	56.8
0°-90°	9320.6	62.3
90°-120°	2699.5	18.0
90°-150°	4911.2	32.8
90°-180°	5640.0	37.7
0°-180°	14961.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6394	6394	6394	6394	6394	
5°	6290	6227	6268	6282	6304	585
15°	5320	5300	5443	5591	5687	1485
25°	4065	4076	4287	4474	4671	1870
35°	2873	2887	3081	3288	3521	1786
45°	1723	1756	1871	2013	2197	1343
55°	990	1032	1091	1133	1226	898
65°	497	538	586	512	466	516
75°	250	250	227	156	107	267
85°	70	70	64	42	25	76
90°	3	11	19	25	25	8
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	



TEST NUMBER: P519115

CATALOG NUMBER: SQ4-WB-050U-100D-830-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6394.1	6394.1	6394.1	6394.1	6394.1
2.5°	6409.8	6352.7	6367.1	6366.7	6349.2
5°	6290.3	6227.2	6267.8	6282.3	6304.3
7.5°	6056.8	6009.1	6083.2	6138.1	6182.5
10°	5875.0	5833.9	5928.3	6008.2	6065.8
12.5°	5664.0	5629.5	5746.5	5853.7	5928.9
15°	5319.5	5300.3	5442.9	5591.0	5687.0
17.5°	4950.8	4941.5	5105.2	5278.0	5400.9
20°	4699.5	4696.7	4876.2	5056.2	5198.9
22.5°	4445.8	4451.9	4640.5	4827.7	4990.1
25°	4065.4	4076.4	4287.0	4473.9	4671.4
27.5°	3713.6	3718.5	3936.3	4133.6	4344.3
30°	3473.4	3487.1	3700.6	3904.8	4124.3
32.5°	3233.2	3249.1	3458.2	3669.3	3893.1
35°	2873.0	2886.7	3080.6	3287.9	3521.1
37.5°	2501.5	2520.2	2692.3	2888.3	3117.6
40°	2261.3	2288.8	2440.9	2625.6	2850.5
42.5°	2030.2	2064.2	2205.2	2380.4	2583.4
45°	1722.7	1755.6	1871.4	2013.0	2196.8
47.5°	1457.8	1495.7	1584.6	1706.6	1863.5
50°	1307.4	1343.1	1425.3	1515.6	1663.7
52.5°	1175.0	1210.7	1283.9	1353.5	1479.7
55°	990.4	1031.5	1091.4	1132.8	1226.1
57.5°	838.9	878.4	925.9	944.5	1001.1
60°	737.9	781.8	824.9	822.7	852.9
62.5°	645.9	683.2	726.1	696.4	698.0
65°	496.6	537.7	586.4	512.4	465.7
67.5°	401.2	410.0	460.1	357.3	301.9
70°	356.3	356.3	370.3	276.7	230.1
72.5°	313.7	313.7	300.8	225.0	176.2
75°	249.7	249.7	227.3	156.0	106.6
77.5°	192.5	190.3	173.9	116.4	77.4
80°	154.3	154.3	140.3	91.9	61.7
82.5°	120.6	120.6	108.9	71.8	46.0
85°	70.1	70.1	64.5	41.7	25.3
87.5°	25.2	26.9	26.3	18.4	16.2
90°	2.8	10.9	19.4	25.0	25.0
92.5°	25.0	113.5	197.2	84.7	71.7
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	1225.0	1241.8	1002.8
102.5°	154.4	282.1	1256.1	1535.7	1325.0
105°	200.0	311.4	1238.9	1886.3	1775.0
107.5°	247.2	345.5	1167.2	2067.3	2098.3
110°	280.6	370.2	1113.9	2103.0	2236.1



TEST NUMBER: P519115

CATALOG NUMBER: SQ4-WB-050U-100D-830-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	309.4	394.7	1060.5	2073.4	2273.8
115°	355.5	431.6	991.6	1972.9	2247.2
117.5°	398.9	471.7	947.8	1830.3	2139.4
120°	427.8	498.4	927.8	1734.7	2041.6
122.5°	452.2	522.8	914.4	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	883.3	1354.7	1563.9
132.5°	561.7	626.8	878.9	1303.1	1488.3
135°	588.9	654.1	872.2	1231.3	1388.9
137.5°	618.3	677.5	868.9	1168.0	1300.5
140°	636.1	693.1	866.6	1127.7	1247.2
142.5°	653.9	706.6	864.4	1096.1	1196.1
145°	680.5	729.4	861.1	1046.2	1125.0
147.5°	710.5	752.4	858.3	1006.9	1068.9
150°	730.5	765.8	858.3	984.4	1033.3
152.5°	746.1	777.1	856.1	964.2	1004.4
155°	769.4	796.6	855.5	939.5	966.6
157.5°	792.2	813.4	855.5	922.7	943.3
160°	805.5	824.6	855.5	911.5	927.8
162.5°	818.9	833.5	857.8	902.5	914.4
165°	833.3	844.2	858.3	894.5	897.2
167.5°	848.3	853.7	861.1	885.0	887.2
170°	852.8	858.2	861.1	880.5	880.5
172.5°	857.2	860.5	861.1	876.1	876.1
175°	863.9	866.6	861.1	872.1	869.4
177.5°	866.1	866.1	859.4	868.2	863.9
180°	863.9	863.9	863.9	863.9	863.9

(END OF REPORT)