

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: P519933

Luminaire Tested: **SQ4-F-050U-100D-830-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P519933
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-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

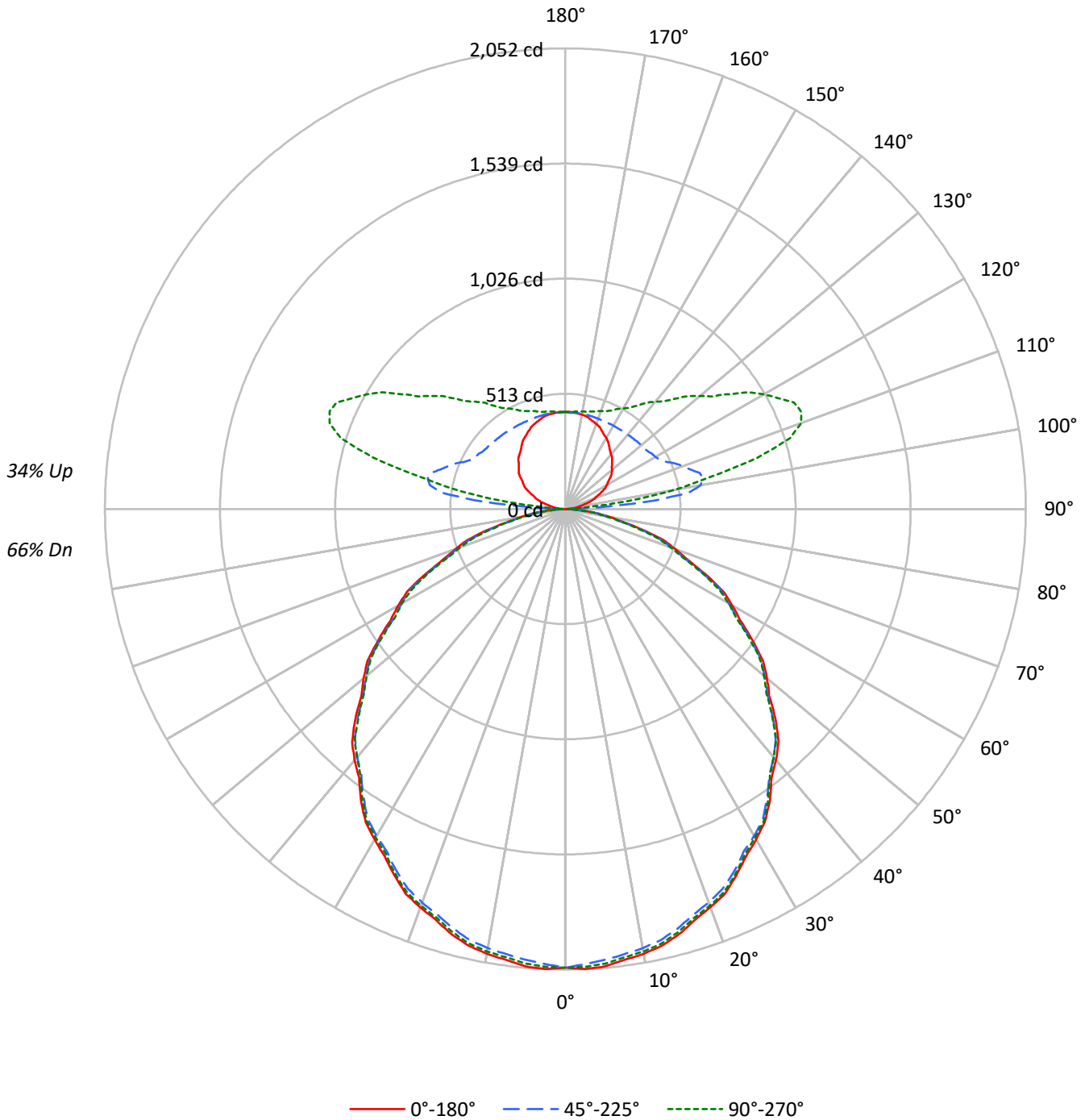
Lumens per Lamp: N/A
Luminaire Lumens: 8396.6 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 70
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: P519933
CATALOG NUMBER: SQ4-F-050U-100D-830-1D-UNV-STD-W-6

Luminous Intensity Polar Plot





TEST NUMBER: P519933

CATALOG NUMBER: SQ4-F-050U-100D-830-1D-UNV-STD-W-6

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	12551
10°	12564	12406	12503
15°	12488	12318	12417
20°	12359	12213	12313
25°	12224	12082	12177
30°	12076	11946	12006
35°	11924	11777	11840
40°	11726	11590	11602
45°	11519	11360	11324
50°	11222	11088	11062
55°	10892	10771	10697
60°	10561	10371	10337
65°	10045	9821	9740
70°	9335	9107	8931
75°	8337	8068	7902
80°	6858	6610	6308
85°	4058	4453	4552



TEST NUMBER: P519933

CATALOG NUMBER: SQ4-F-050U-100D-830-1D-UNV-STD-W-6

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.9	2.3
10°-20°	549.3	6.5
20°-30°	825.0	9.8
30°-40°	984.5	11.7
40°-50°	1009.2	12.0
50°-60°	898.7	10.7
60°-70°	669.9	8.0
70°-80°	362.7	4.3
80°-90°	84.2	1.0
90°-100°	207.4	2.5
100°-110°	563.3	6.7
110°-120°	579.1	6.9
120°-130°	463.0	5.5
130°-140°	363.8	4.3
140°-150°	279.0	3.3
150°-160°	200.6	2.4
160°-170°	122.7	1.5
170°-180°	41.3	0.5
0°-30°	1567.2	18.7
0°-40°	2551.8	30.4
0°-60°	4459.6	53.1
0°-90°	5576.4	66.4
90°-120°	1349.7	16.1
90°-150°	2455.6	29.2
90°-180°	2820.0	33.6
0°-180°	8396.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2044	2044	2044	2044	2044	
5°	2045	2041	2017	2035	2033	194
15°	1961	1954	1934	1950	1950	552
25°	1801	1797	1780	1790	1794	830
35°	1588	1581	1568	1571	1577	991
45°	1324	1317	1306	1299	1302	1019
55°	1016	1017	1004	995	998	909
65°	690	687	675	668	669	683
75°	351	347	340	332	332	374
85°	58	63	63	64	64	80
90°	1	6	10	12	12	4
95°	30	113	361	157	106	32
105°	100	156	619	943	888	106
115°	178	216	496	986	1124	175
125°	244	278	449	756	892	218
135°	294	327	436	616	694	228
145°	340	365	431	523	562	214
155°	385	398	428	470	483	177
165°	417	422	429	447	449	118
175°	432	433	431	436	435	41
180°	432	432	432	432	432	

TEST NUMBER: P519933

CATALOG NUMBER: SQ4-F-050U-100D-830-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2044.0	2044.0	2044.0	2044.0	2044.0
2.5°	2051.8	2047.4	2029.4	2043.9	2041.7
5°	2045.4	2041.2	2017.3	2035.4	2032.8
7.5°	2026.2	2022.2	2001.1	2017.8	2015.3
10°	2011.7	2007.6	1986.4	2003.2	2001.9
12.5°	1992.6	1988.5	1967.4	1984.1	1982.7
15°	1961.1	1954.3	1934.5	1949.9	1949.9
17.5°	1919.6	1914.5	1896.0	1909.0	1909.3
20°	1888.2	1884.1	1865.8	1879.9	1881.2
22.5°	1856.8	1852.7	1832.1	1845.1	1847.6
25°	1801.2	1797.2	1780.2	1790.1	1794.3
27.5°	1744.0	1738.0	1721.3	1730.1	1733.0
30°	1700.3	1697.5	1682.0	1686.3	1690.4
32.5°	1654.3	1651.5	1638.2	1640.4	1647.7
35°	1588.0	1581.2	1568.4	1571.3	1576.8
37.5°	1509.7	1506.4	1494.1	1492.5	1497.6
40°	1460.4	1454.9	1443.5	1440.9	1444.9
42.5°	1406.5	1401.0	1387.4	1384.8	1389.9
45°	1324.3	1317.4	1306.0	1299.1	1301.8
47.5°	1232.3	1232.3	1220.5	1212.5	1216.5
50°	1172.7	1172.7	1158.8	1151.8	1156.0
52.5°	1111.0	1112.2	1097.0	1093.4	1092.0
55°	1015.7	1017.1	1004.4	994.7	997.5
57.5°	923.6	920.6	905.9	899.6	901.0
60°	858.5	854.4	843.1	833.5	840.3
62.5°	792.4	790.4	779.2	768.2	767.4
65°	690.2	687.4	674.8	667.8	669.2
67.5°	588.6	585.4	573.8	563.8	567.3
70°	519.1	519.1	506.4	500.8	496.6
72.5°	455.1	449.6	440.2	432.3	429.2
75°	350.8	346.6	339.5	332.5	332.5
77.5°	255.3	251.8	247.2	242.4	241.0
80°	193.6	192.2	186.6	185.0	178.1
82.5°	136.3	136.0	132.7	129.1	128.8
85°	57.5	63.0	63.1	64.5	64.5
87.5°	10.4	17.8	17.6	16.0	16.0
90°	1.4	5.5	9.7	12.5	12.5
92.5°	12.5	56.8	98.6	42.4	35.8
95°	30.5	113.4	361.1	157.2	105.6
97.5°	50.5	125.2	553.6	430.7	302.5
100°	63.9	133.2	612.5	620.9	501.3
102.5°	77.2	141.0	628.0	767.9	662.5
105°	100.0	155.6	619.4	943.1	887.5
107.5°	123.6	172.8	583.6	1033.7	1049.2
110°	140.3	185.1	557.0	1051.4	1118.1



TEST NUMBER: P519933

CATALOG NUMBER: SQ4-F-050U-100D-830-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	154.7	197.3	530.3	1036.7	1136.9
115°	177.8	215.8	495.8	986.4	1123.6
117.5°	199.4	235.8	473.9	915.1	1069.7
120°	213.9	249.1	463.9	867.4	1020.8
122.5°	226.1	261.4	457.2	819.5	967.4
125°	244.4	278.4	448.6	755.9	891.7
127.5°	260.8	294.5	443.8	707.6	824.2
130°	270.8	303.4	441.7	677.4	781.9
132.5°	280.8	313.4	439.4	651.6	744.1
135°	294.5	327.1	436.1	615.7	694.5
137.5°	309.2	338.7	434.4	584.0	650.3
140°	318.0	346.6	433.3	563.8	623.6
142.5°	327.0	353.3	432.3	548.0	598.0
145°	340.3	364.7	430.6	523.1	562.5
147.5°	355.2	376.2	429.1	503.5	534.4
150°	365.2	382.9	429.1	492.2	516.6
152.5°	373.1	388.5	428.0	482.1	502.2
155°	384.8	398.3	427.7	469.7	483.3
157.5°	396.1	406.7	427.7	461.3	471.7
160°	402.8	412.2	427.7	455.7	463.9
162.5°	409.4	416.8	428.9	451.2	457.2
165°	416.7	422.1	429.1	447.3	448.6
167.5°	424.1	426.9	430.6	442.6	443.6
170°	426.4	429.1	430.6	440.3	440.3
172.5°	428.6	430.2	430.6	438.0	438.0
175°	432.0	433.3	430.6	436.1	434.7
177.5°	433.0	433.0	429.7	434.1	432.0
180°	432.0	432.0	432.0	432.0	432.0

(END OF REPORT)