

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

Brand: CORELITE

Report Number: P854023

Luminaire Tested: SQ2-PH1-075U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

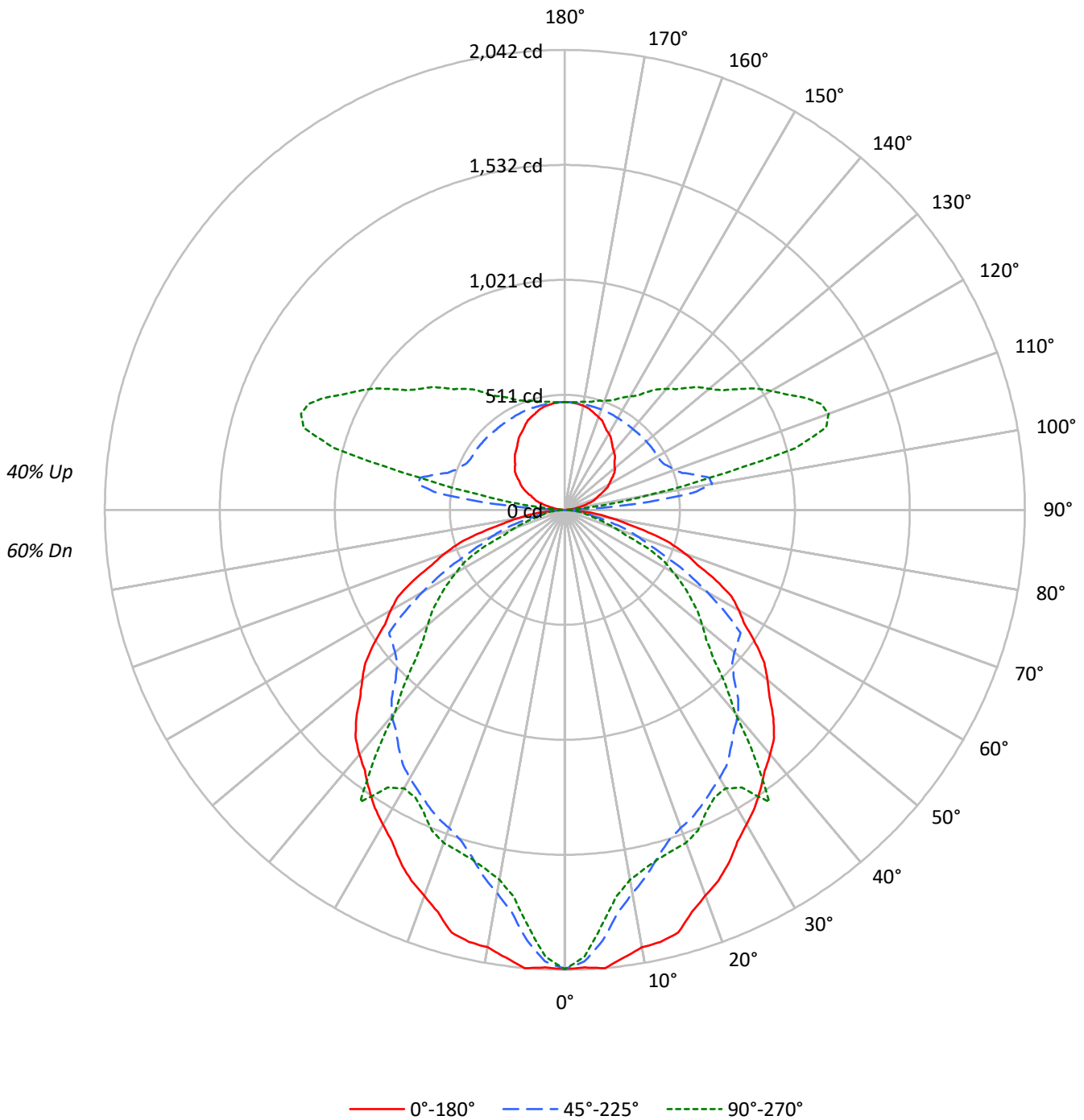
Test Method: LM-79-2019  
Report Number: P854023  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-075U-100D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7472.5 lumens  
Efficiency: N/A  
Efficacy: 122.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 60.9  
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	110	110	110	110	102	102	102	102	89	89	89	77	77	77	66	66	66	60
1	100	96	92	89	94	90	87	84	79	76	74	68	66	65	58	57	56	51
2	92	84	78	73	85	79	74	69	69	65	61	60	57	54	52	49	47	43
3	84	74	67	61	78	70	63	58	61	56	52	53	49	46	46	43	41	37
4	77	66	58	52	71	62	55	49	54	49	44	47	43	40	41	38	35	32
5	70	59	50	44	66	55	48	42	49	43	38	43	38	34	37	33	31	28
6	65	53	44	39	60	50	42	37	44	38	34	39	34	30	34	30	27	24
7	60	48	40	34	56	45	38	32	40	34	30	35	30	27	31	27	24	22
8	56	43	35	30	52	41	34	29	36	31	26	32	27	24	28	24	22	19
9	52	40	32	27	49	37	31	26	33	28	24	30	25	22	26	22	19	17
10	49	36	29	24	46	34	28	23	31	25	21	27	23	20	24	20	18	16

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

	0°	45°	90°
0°	32913	32913	32913
5°	33102	31122	30084
10°	32339	28334	27347
15°	32485	26649	26812
20°	31326	25828	27027
25°	30752	25707	26398
30°	30085	25639	26614
35°	29857	25346	31196
40°	29883	25183	24732
45°	29894	24224	21302
50°	29474	24702	19974
55°	29101	26807	19164
60°	28811	23486	17977
65°	28306	19045	15633
70°	26738	16206	11169
75°	23836	12221	8472
80°	19479	7931	7931
85°	12208	7188	5391

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 29894 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.4	2.4
10°-20°	471.8	6.3
20°-30°	691.8	9.3
30°-40°	837.8	11.2
40°-50°	823.9	11.0
50°-60°	717.2	9.6
60°-70°	498.6	6.7
70°-80°	236.4	3.2
80°-90°	52.6	0.7
90°-100°	181.0	2.4
100°-110°	600.0	8.0
110°-120°	595.5	8.0
120°-130°	485.0	6.5
130°-140°	394.2	5.3
140°-150°	306.1	4.1
150°-160°	220.6	3.0
160°-170°	135.1	1.8
170°-180°	45.6	0.6
0°-30°	1343.0	18.0
0°-40°	2180.8	29.2
0°-60°	3721.8	49.8
0°-90°	4509.4	60.3
90°-120°	1376.5	18.4
90°-150°	2561.8	34.3
90°-180°	2963.0	39.7
0°-180°	7472.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2038	2038	2038	2038	2038	
5°	2042	2040	1920	1860	1856	192
15°	1943	1731	1594	1583	1604	542
25°	1726	1468	1443	1488	1482	794
35°	1515	1225	1286	1397	1583	949
45°	1309	970	1061	1098	933	1006
55°	1034	755	952	686	681	924
65°	741	519	498	409	409	728
75°	382	264	196	140	136	405
85°	66	43	39	31	29	88
90°	0	1	3	4	4	3
95°	26	76	328	117	78	29
105°	105	150	600	1133	1059	111
115°	187	224	484	1007	1177	185
125°	262	291	475	791	932	232
135°	313	345	471	679	766	242
145°	364	391	470	584	639	228
155°	415	430	473	522	541	191
165°	456	461	475	494	498	129
175°	477	477	478	480	480	45
180°	479	479	479	479	479	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2038.5	2038.5	2038.5	2038.5	2038.5
2.5°	2033.8	2055.1	2007.4	1988.8	1985.7
5°	2042.4	2040.5	1920.2	1860.0	1856.2
7.5°	2005.1	1946.3	1802.6	1736.2	1733.2
10°	1972.5	1883.4	1728.2	1668.0	1668.0
12.5°	1964.8	1824.1	1667.6	1623.2	1632.3
15°	1943.4	1731.0	1594.3	1583.2	1604.0
17.5°	1872.8	1644.1	1537.3	1562.7	1587.0
20°	1823.2	1597.5	1503.2	1550.2	1573.0
22.5°	1781.3	1552.6	1478.3	1529.8	1542.0
25°	1726.2	1468.3	1443.0	1487.5	1481.8
27.5°	1660.3	1391.0	1407.7	1435.0	1438.4
30°	1613.7	1344.4	1375.2	1402.9	1427.5
32.5°	1568.7	1290.3	1339.5	1405.1	1461.7
35°	1514.8	1224.6	1285.9	1396.8	1582.7
37.5°	1458.2	1147.1	1232.0	1325.3	1384.5
40°	1417.8	1091.6	1194.8	1310.0	1173.4
42.5°	1374.4	1048.2	1138.9	1287.7	1057.1
45°	1309.2	969.7	1060.9	1097.9	932.9
47.5°	1232.4	908.9	1008.2	915.6	851.1
50°	1173.4	868.1	983.4	836.9	795.2
52.5°	1116.0	825.9	966.3	772.1	744.0
55°	1033.8	755.0	952.3	686.5	680.8
57.5°	946.5	682.9	842.2	612.0	621.8
60°	892.2	636.2	727.3	568.0	556.7
62.5°	834.8	590.9	620.3	512.2	500.8
65°	740.9	519.0	498.5	409.2	409.2
67.5°	637.7	444.3	403.8	334.9	289.4
70°	566.4	395.7	343.3	267.0	236.6
72.5°	490.3	343.9	281.2	218.8	183.9
75°	382.1	264.5	195.9	139.6	135.8
77.5°	276.2	190.5	131.9	103.6	104.0
80°	209.5	145.0	85.3	83.4	85.3
82.5°	147.4	99.6	63.6	66.3	66.7
85°	65.9	43.2	38.8	31.0	29.1
87.5°	14.0	12.6	8.4	8.6	8.6
90°	0.0	1.0	3.0	4.0	4.0
92.5°	7.9	30.6	90.2	29.2	24.6
95°	25.8	76.1	328.0	117.0	78.3
97.5°	47.4	100.1	572.5	333.9	211.0
100°	62.4	112.8	662.9	569.3	377.5
102.5°	79.1	127.9	657.3	870.1	657.3
105°	105.0	149.6	600.4	1132.8	1059.2
107.5°	131.6	171.3	546.0	1159.6	1215.6
110°	146.6	186.4	518.2	1133.1	1246.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	162.5	201.4	501.6	1086.3	1230.6
115°	187.3	224.1	483.5	1006.6	1177.1
117.5°	211.8	244.6	477.0	930.5	1109.3
120°	226.9	258.9	474.6	882.8	1056.2
122.5°	240.4	271.6	474.6	843.7	1003.9
125°	261.6	290.6	474.6	790.9	932.4
127.5°	279.0	307.5	473.4	751.0	871.9
130°	289.3	319.4	472.6	727.8	836.3
132.5°	298.8	329.6	471.8	708.5	806.1
135°	313.1	345.1	470.6	678.7	765.9
137.5°	328.6	359.4	469.5	650.0	726.9
140°	338.9	368.9	468.7	630.8	701.5
142.5°	348.4	377.6	469.5	611.6	674.6
145°	363.6	390.8	469.7	583.9	639.1
147.5°	380.1	402.8	469.9	560.4	601.4
150°	390.4	410.7	470.6	546.7	581.6
152.5°	399.9	419.5	471.4	535.5	563.4
155°	415.2	429.7	472.6	521.6	541.0
157.5°	430.0	441.3	473.8	511.8	525.5
160°	437.9	447.6	474.6	504.6	515.2
162.5°	445.9	453.2	474.6	499.8	508.1
165°	455.8	460.6	474.6	493.5	498.4
167.5°	464.9	467.4	475.6	487.9	490.5
170°	469.7	470.6	475.6	485.5	486.5
172.5°	472.8	473.8	476.4	483.1	483.3
175°	476.6	476.6	477.6	480.5	479.6
177.5°	478.6	478.6	477.8	479.3	477.8
180°	478.6	478.6	478.6	478.6	478.6

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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	20.37	21.33	21.24	22.21	23.33	19.05	20.00	19.91	20.88	22.00
	3H	22.41	23.26	23.28	24.15	25.30	20.09	20.94	20.96	21.83	22.98
	4H	23.14	23.95	24.03	24.85	26.00	20.31	21.11	21.20	22.01	23.16
	6H	23.63	24.37	24.54	25.28	26.45	20.45	21.20	21.36	22.10	23.27
	8H	23.76	24.46	24.67	25.39	26.55	20.49	21.20	21.40	22.12	23.28
	12H	23.81	24.48	24.72	25.40	26.59	20.49	21.16	21.41	22.08	23.27
4H	2H	20.76	21.57	21.66	22.47	23.62	19.70	20.50	20.60	21.41	22.56
	3H	22.87	23.55	23.78	24.48	25.64	20.89	21.56	21.80	22.49	23.66
	4H	23.69	24.30	24.61	25.23	26.42	21.17	21.78	22.09	22.70	23.90
	6H	24.28	24.81	25.22	25.76	26.96	21.38	21.91	22.31	22.86	24.05
	8H	24.46	24.95	25.39	25.89	27.10	21.44	21.93	22.38	22.87	24.08
	12H	24.53	24.97	25.48	25.93	27.15	21.45	21.89	22.41	22.86	24.07
8H	4H	23.72	24.21	24.66	25.15	26.36	21.39	21.88	22.33	22.83	24.03
	6H	24.37	24.78	25.34	25.77	26.97	21.67	22.07	22.63	23.06	24.26
	8H	24.60	24.96	25.57	25.94	27.16	21.77	22.13	22.74	23.10	24.33
	12H	24.72	25.03	25.69	26.00	27.28	21.82	22.13	22.79	23.10	24.38
12H	4H	23.67	24.12	24.63	25.08	26.29	21.39	21.83	22.35	22.80	24.01
	6H	24.35	24.71	25.32	25.68	26.91	21.70	22.05	22.67	23.03	24.26
	8H	24.59	24.90	25.56	25.87	27.14	21.82	22.13	22.79	23.10	24.37