

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: P854000

Luminaire Tested: SQ2-PH1-025U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

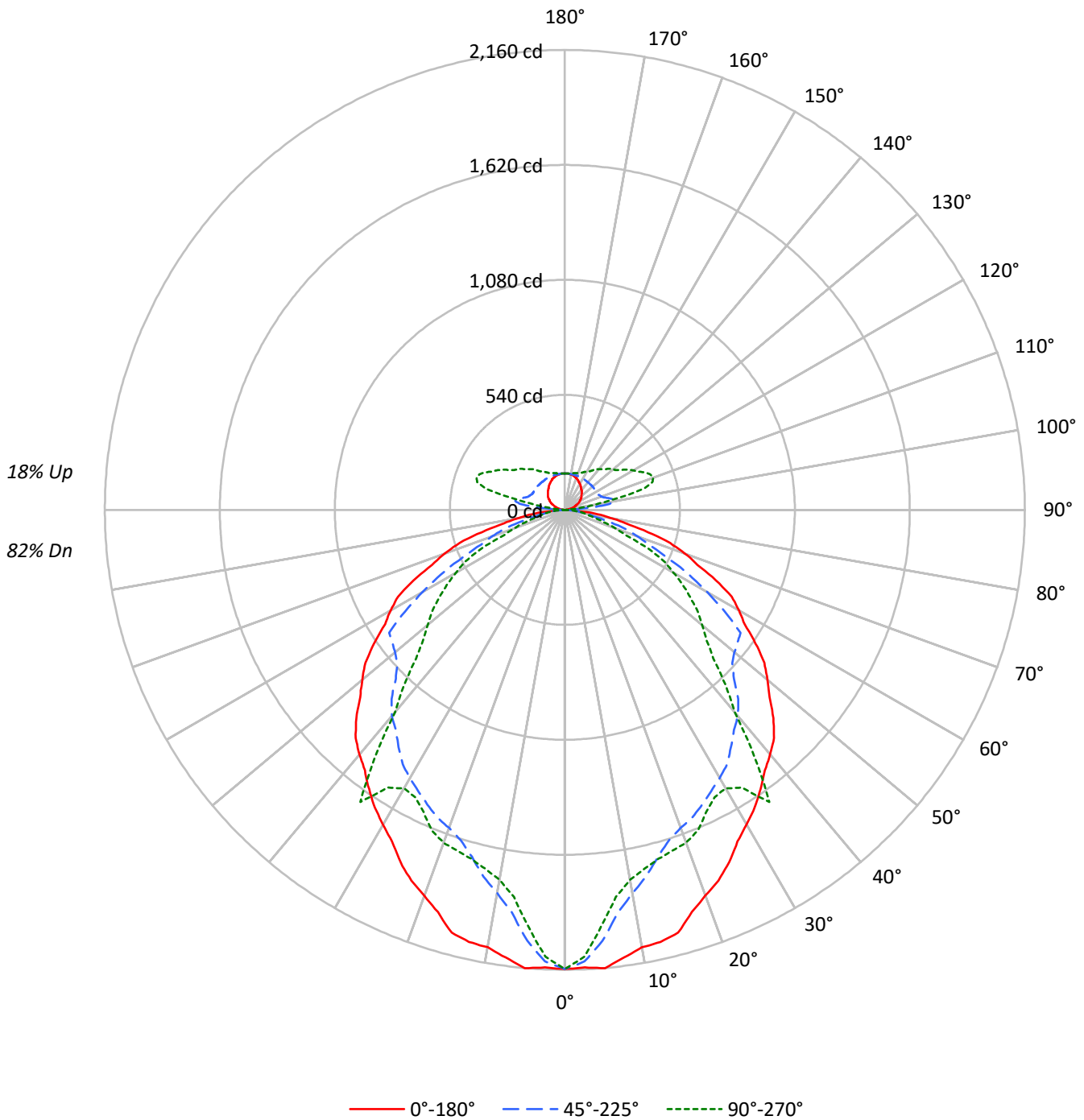
Test Method: LM-79-2019  
Report Number: P854000  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-025U-100D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5830.7 lumens  
Efficiency: N/A  
Efficacy: 129.6 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): 45  
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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	82
1	105	101	97	93	101	97	93	90	89	87	84	82	80	78	76	74	73	70
2	96	88	82	77	92	85	79	75	79	74	70	73	69	66	67	64	62	59
3	88	78	70	64	84	75	68	63	70	64	59	64	60	56	60	56	53	50
4	81	69	61	55	77	67	59	53	62	56	51	58	52	48	54	49	46	43
5	74	62	53	47	71	60	52	46	56	49	44	52	46	42	48	44	40	37
6	68	56	47	41	65	54	46	40	50	44	39	47	41	37	44	39	35	33
7	63	51	42	36	61	49	41	36	46	39	34	43	37	33	40	35	31	29
8	59	46	38	32	57	45	37	32	42	35	31	39	34	29	37	32	28	26
9	55	42	35	29	53	41	34	29	39	32	28	36	31	27	34	29	25	24
10	52	39	31	26	50	38	31	26	36	29	25	34	28	24	32	27	23	21

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

	0°	45°	90°
0°	34814	34814	34814
5°	35013	32919	31822
10°	34208	29970	28927
15°	34362	28189	28361
20°	33136	27319	28589
25°	32528	27193	27923
30°	31823	27119	28152
35°	31582	26810	32997
40°	31609	26637	26161
45°	31620	25624	22532
50°	31177	26128	21130
55°	30781	28355	20270
60°	30474	24845	19013
65°	29941	20145	16539
70°	28282	17141	11816
75°	25215	12926	8958
80°	20604	8396	8396
85°	12931	7595	5706

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 31620 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.7	3.3
10°-20°	499.1	8.6
20°-30°	731.8	12.6
30°-40°	886.2	15.2
40°-50°	871.5	14.9
50°-60°	758.6	13.0
60°-70°	527.4	9.0
70°-80°	250.1	4.3
80°-90°	55.5	1.0
90°-100°	69.2	1.2
100°-110°	215.2	3.7
110°-120°	210.5	3.6
120°-130°	171.8	2.9
130°-140°	140.6	2.4
140°-150°	109.7	1.9
150°-160°	79.2	1.4
160°-170°	48.4	0.8
170°-180°	16.3	0.3
0°-30°	1420.6	24.4
0°-40°	2306.7	39.6
0°-60°	3936.8	67.5
0°-90°	4769.8	81.8
90°-120°	494.8	8.5
90°-150°	917.0	15.7
90°-180°	1061.0	18.2
0°-180°	5830.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2156	2156	2156	2156	2156	
5°	2160	2158	2031	1967	1963	203
15°	2056	1831	1686	1675	1697	573
25°	1826	1553	1526	1573	1567	840
35°	1602	1295	1360	1478	1674	1004
45°	1385	1026	1122	1161	987	1064
55°	1094	799	1007	726	720	977
65°	784	549	527	433	433	770
75°	404	280	207	148	144	428
85°	70	46	41	33	31	93
90°	0	1	3	3	3	2
95°	9	28	127	47	30	11
105°	38	53	212	404	386	40
115°	67	79	172	355	415	66
125°	93	104	170	279	327	83
135°	112	124	169	241	271	87
145°	131	141	169	208	226	82
155°	150	155	170	187	193	69
165°	165	166	171	176	178	46
175°	171	171	171	172	171	16
180°	171	171	171	171	171	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2156.2	2156.2	2156.2	2156.2	2156.2
2.5°	2151.3	2173.8	2123.4	2103.6	2100.4
5°	2160.3	2158.3	2031.1	1967.4	1963.4
7.5°	2121.0	2058.8	1906.8	1836.5	1833.3
10°	2086.5	1992.2	1828.0	1764.4	1764.4
12.5°	2078.3	1929.4	1764.0	1717.0	1726.6
15°	2055.7	1831.0	1686.4	1674.6	1696.7
17.5°	1981.0	1739.1	1626.1	1652.9	1678.6
20°	1928.5	1689.8	1590.0	1639.8	1663.9
22.5°	1884.2	1642.3	1563.7	1618.2	1631.0
25°	1825.9	1553.1	1526.4	1573.4	1567.4
27.5°	1756.2	1471.3	1489.1	1517.9	1521.5
30°	1706.9	1422.1	1454.6	1483.9	1510.0
32.5°	1659.3	1364.9	1416.8	1486.3	1546.1
35°	1602.3	1295.4	1360.2	1477.5	1674.1
37.5°	1542.4	1213.4	1303.2	1401.8	1464.4
40°	1499.7	1154.7	1263.8	1385.7	1241.2
42.5°	1453.8	1108.7	1204.7	1362.1	1118.1
45°	1384.8	1025.8	1122.2	1161.3	986.8
47.5°	1303.6	961.4	1066.4	968.4	900.2
50°	1241.2	918.3	1040.2	885.3	841.2
52.5°	1180.5	873.6	1022.1	816.7	787.0
55°	1093.5	798.6	1007.3	726.1	720.1
57.5°	1001.2	722.3	890.8	647.3	657.7
60°	943.7	672.9	769.4	600.8	588.8
62.5°	883.0	625.0	656.1	541.8	529.7
65°	783.7	549.0	527.3	432.9	432.9
67.5°	674.6	470.0	427.1	354.2	306.1
70°	599.1	418.5	363.1	282.4	250.3
72.5°	518.6	363.8	297.5	231.4	194.5
75°	404.2	279.8	207.2	147.6	143.6
77.5°	292.1	201.5	139.5	109.6	110.0
80°	221.6	153.4	90.3	88.3	90.3
82.5°	155.9	105.4	67.3	70.2	70.6
85°	69.8	45.7	41.0	32.8	30.8
87.5°	14.8	13.4	8.8	8.8	8.8
90°	0.0	1.0	3.1	3.1	3.1
92.5°	3.4	11.8	40.1	13.2	10.7
95°	9.4	27.9	126.9	46.8	30.4
97.5°	17.2	36.3	210.2	130.8	82.4
100°	23.1	40.5	237.0	221.7	147.9
102.5°	28.9	45.6	232.0	316.6	248.5
105°	37.8	53.1	211.8	404.4	385.9
107.5°	46.6	60.9	192.5	411.1	431.4
110°	52.4	66.8	182.5	401.5	441.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	58.3	71.8	177.4	384.1	434.8
115°	67.1	79.4	172.0	354.8	415.3
117.5°	75.7	87.0	169.7	326.7	388.7
120°	80.8	92.0	168.8	310.7	370.2
122.5°	85.8	97.1	169.7	297.2	351.7
125°	93.3	103.6	169.9	279.0	327.2
127.5°	99.4	109.9	169.9	265.4	306.4
130°	102.8	114.1	169.9	257.8	294.7
132.5°	107.0	118.2	169.1	251.0	285.5
135°	112.2	124.5	168.8	240.8	270.6
137.5°	118.3	129.6	168.8	230.7	257.8
140°	121.7	132.9	168.8	223.9	248.5
142.5°	125.8	136.3	168.8	217.2	239.3
145°	131.1	141.3	168.8	208.1	226.5
147.5°	137.4	146.2	169.9	199.6	214.1
150°	141.6	148.8	169.9	195.3	206.6
152.5°	144.9	151.3	169.9	191.1	200.7
155°	150.0	155.1	169.9	186.8	193.0
157.5°	155.0	158.9	169.9	183.0	186.9
160°	158.4	161.4	169.9	180.5	183.5
162.5°	160.9	163.1	169.9	178.8	181.0
165°	164.7	165.7	170.9	176.2	178.3
167.5°	167.0	167.2	169.9	174.7	175.8
170°	167.8	168.8	169.9	173.1	174.1
172.5°	169.5	169.7	170.7	172.2	172.4
175°	170.9	170.9	170.9	172.0	170.9
177.5°	170.9	170.9	170.9	170.9	170.9
180°	170.9	170.9	170.9	170.9	170.9

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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	22.21	23.44	22.84	24.08	24.81	20.89	22.12	21.51	22.75	23.49
	3H	24.27	25.37	24.91	26.02	26.79	21.95	23.05	22.59	23.70	24.47
	4H	25.01	26.05	25.68	26.71	27.49	22.18	23.22	22.84	23.88	24.66
	6H	25.52	26.48	26.19	27.15	27.94	22.34	23.30	23.02	23.97	24.77
	8H	25.65	26.57	26.34	27.26	28.06	22.38	23.30	23.07	23.99	24.79
	12H	25.71	26.58	26.40	27.27	28.09	22.39	23.27	23.09	23.95	24.78
4H	2H	22.63	23.67	23.30	24.33	25.11	21.57	22.61	22.24	23.27	24.05
	3H	24.77	25.64	25.45	26.34	27.14	22.79	23.65	23.46	24.35	25.15
	4H	25.60	26.39	26.30	27.09	27.92	23.08	23.86	23.77	24.56	25.39
	6H	26.21	26.89	26.92	27.62	28.46	23.31	23.98	24.02	24.71	25.55
	8H	26.39	27.02	27.11	27.75	28.60	23.37	24.00	24.09	24.73	25.58
	12H	26.47	27.04	27.21	27.79	28.65	23.40	23.96	24.13	24.71	25.57
8H	4H	25.65	26.28	26.37	27.01	27.86	23.32	23.95	24.04	24.68	25.53
	6H	26.32	26.84	27.07	27.61	28.46	23.61	24.13	24.36	24.90	25.75
	8H	26.55	27.01	27.31	27.78	28.65	23.71	24.18	24.48	24.95	25.82
	12H	26.68	27.09	27.44	27.85	28.78	23.78	24.19	24.54	24.95	25.88
12H	4H	25.62	26.19	26.36	26.94	27.79	23.34	23.90	24.07	24.65	25.51
	6H	26.29	26.76	27.06	27.53	28.40	23.64	24.11	24.40	24.88	25.75
	8H	26.54	26.95	27.31	27.71	28.64	23.77	24.18	24.54	24.94	25.88