

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: P855355

Luminaire Tested: SQ2-PH1-150U-100D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

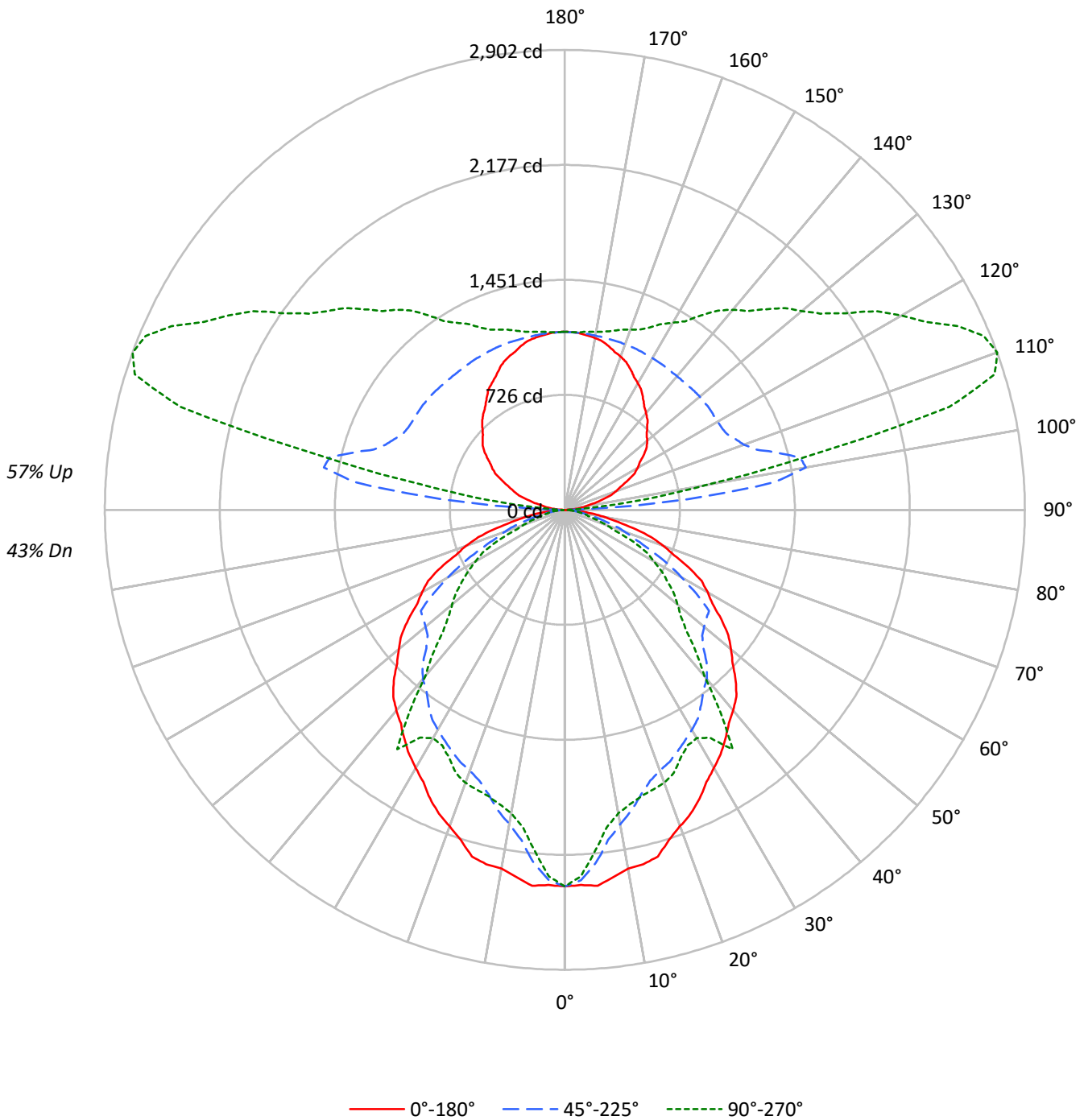
Test Method: LM-79-2019  
Report Number: P855355  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-150U-100D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12185.3 lumens  
Efficiency: N/A  
Efficacy: 129.4 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: General Diffuse  
  
Input Watts (W): 94.2  
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	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43
1	96	92	88	85	88	84	81	78	70	68	66	57	55	54	44	43	42	37
2	88	81	75	70	80	74	69	65	61	58	55	50	47	45	39	37	36	31
3	80	71	64	58	73	65	59	54	54	50	46	44	41	38	35	33	31	26
4	73	63	55	49	67	58	51	46	48	43	39	39	36	33	31	29	26	23
5	67	56	48	42	61	52	45	39	43	38	34	35	31	28	28	25	23	20
6	62	50	42	36	57	46	39	34	39	33	29	32	28	25	25	23	20	17
7	57	45	37	32	52	42	35	30	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	49	38	31	26	32	27	23	27	22	20	21	18	16	14
9	49	37	30	25	45	35	28	24	29	24	21	24	20	18	20	17	15	12
10	46	34	27	22	42	32	25	21	27	22	18	22	19	16	18	15	13	11

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

	0°	45°	90°
0°	38358	38358	38358
5°	38577	36269	35060
10°	37689	33019	31870
15°	37857	31057	31246
20°	36508	30100	31498
25°	35838	29959	30765
30°	35061	29880	31016
35°	34795	29538	36356
40°	34825	29347	28823
45°	34837	28232	24825
50°	34350	28788	23277
55°	33914	31240	22334
60°	33577	27370	20951
65°	32986	22197	18220
70°	31162	18888	13015
75°	27779	14242	9875
80°	22706	9242	9242
85°	14227	8373	6280

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 34837 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	209.0	1.7
10°-20°	549.8	4.5
20°-30°	806.2	6.6
30°-40°	976.4	8.0
40°-50°	960.2	7.9
50°-60°	835.8	6.9
60°-70°	581.1	4.8
70°-80°	275.5	2.3
80°-90°	61.9	0.5
90°-100°	427.8	3.5
100°-110°	1400.7	11.5
110°-120°	1384.8	11.4
120°-130°	1132.0	9.3
130°-140°	923.8	7.6
140°-150°	718.9	5.9
150°-160°	517.6	4.2
160°-170°	316.7	2.6
170°-180°	107.0	0.9
0°-30°	1565.1	12.8
0°-40°	2541.5	20.9
0°-60°	4337.4	35.6
0°-90°	5255.9	43.1
90°-120°	3213.3	26.4
90°-150°	5988.0	49.1
90°-180°	6929.0	56.9
0°-180°	12185.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2376	2376	2376	2376	2376	
5°	2380	2378	2238	2168	2163	224
15°	2265	2017	1858	1845	1869	631
25°	2012	1711	1682	1734	1727	925
35°	1765	1427	1499	1628	1844	1106
45°	1526	1130	1236	1280	1087	1173
55°	1205	880	1110	800	793	1076
65°	863	605	581	477	477	848
75°	445	308	228	163	158	472
85°	77	50	45	36	34	103
90°	1	3	9	8	9	5
95°	60	174	778	277	180	68
105°	244	347	1390	2642	2510	256
115°	438	524	1130	2334	2740	433
125°	610	680	1113	1841	2162	543
135°	735	813	1104	1588	1790	569
145°	860	923	1102	1366	1496	539
155°	980	1012	1109	1222	1269	451
165°	1070	1080	1113	1156	1169	301
175°	1118	1118	1119	1127	1125	106
180°	1123	1123	1123	1123	1123	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2375.7	2375.7	2375.7	2375.7	2375.7
2.5°	2370.2	2395.0	2339.4	2317.7	2314.1
5°	2380.2	2378.0	2237.8	2167.6	2163.2
7.5°	2336.7	2268.2	2100.8	2023.4	2019.9
10°	2298.8	2194.9	2014.0	1943.9	1943.9
12.5°	2289.8	2125.8	1943.4	1891.7	1902.3
15°	2264.8	2017.3	1858.0	1845.1	1869.3
17.5°	2182.6	1916.0	1791.6	1821.2	1849.5
20°	2124.8	1861.7	1751.8	1806.6	1833.2
22.5°	2075.9	1809.4	1722.8	1782.8	1797.0
25°	2011.7	1711.2	1681.7	1733.5	1726.9
27.5°	1934.9	1621.1	1640.5	1672.4	1676.3
30°	1880.6	1566.8	1602.7	1634.9	1663.6
32.5°	1828.2	1503.7	1561.1	1637.5	1703.5
35°	1765.3	1427.2	1498.6	1627.8	1844.5
37.5°	1699.4	1336.8	1435.8	1544.5	1613.5
40°	1652.3	1272.2	1392.4	1526.7	1367.5
42.5°	1601.7	1221.6	1327.3	1500.7	1231.9
45°	1525.7	1130.1	1236.4	1279.5	1087.2
47.5°	1436.2	1059.2	1175.0	1067.0	991.9
50°	1367.5	1011.7	1146.1	975.3	926.7
52.5°	1300.6	962.5	1126.1	899.8	867.1
55°	1204.8	879.9	1109.8	800.0	793.4
57.5°	1103.1	795.9	981.5	713.2	724.6
60°	1039.8	741.4	847.6	661.9	648.8
62.5°	972.9	688.6	722.9	596.9	583.6
65°	863.4	604.8	581.0	476.9	476.9
67.5°	743.2	517.8	470.6	390.3	337.3
70°	660.1	461.1	400.1	311.2	275.7
72.5°	571.4	400.8	327.7	255.0	214.3
75°	445.3	308.2	228.3	162.7	158.3
77.5°	321.9	222.0	153.7	120.7	121.2
80°	244.2	169.0	99.4	97.2	99.4
82.5°	171.8	116.1	74.1	77.3	77.7
85°	76.8	50.3	45.2	36.1	33.9
87.5°	16.5	15.2	10.8	10.6	10.8
90°	1.2	3.4	9.2	8.2	9.2
92.5°	19.6	71.6	219.7	71.4	57.2
95°	60.0	174.0	777.7	277.0	180.1
97.5°	109.0	229.5	1334.3	807.2	500.3
100°	143.1	258.1	1543.8	1378.7	913.8
102.5°	181.8	294.3	1520.7	2031.4	1574.8
105°	243.5	347.3	1390.3	2641.6	2509.6
107.5°	304.2	399.4	1263.2	2698.6	2843.7
110°	343.8	436.3	1202.3	2632.3	2901.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	381.7	471.5	1165.4	2516.7	2862.2
115°	438.4	524.2	1129.6	2334.2	2740.3
117.5°	493.7	573.7	1116.0	2154.8	2567.3
120°	529.6	605.2	1112.3	2050.3	2451.9
122.5°	562.0	635.7	1112.3	1960.1	2332.8
125°	610.3	680.4	1113.4	1840.8	2162.3
127.5°	651.5	722.8	1112.0	1752.8	2032.6
130°	677.3	749.5	1111.1	1699.6	1952.3
132.5°	700.4	774.4	1108.4	1653.8	1883.1
135°	735.0	812.9	1104.2	1587.6	1789.6
137.5°	771.5	848.6	1101.7	1518.6	1701.3
140°	797.3	871.7	1100.7	1475.0	1647.6
142.5°	823.1	893.0	1100.7	1428.5	1584.9
145°	859.6	922.8	1101.9	1365.6	1496.5
147.5°	897.9	950.5	1103.5	1311.0	1409.8
150°	921.9	968.2	1105.4	1279.1	1362.7
152.5°	946.0	986.7	1106.3	1253.0	1322.0
155°	979.6	1012.3	1108.9	1221.8	1269.2
157.5°	1009.8	1033.5	1111.3	1197.3	1231.6
160°	1029.2	1048.4	1112.3	1183.3	1210.4
162.5°	1045.8	1061.4	1112.3	1172.0	1191.9
165°	1069.6	1079.7	1113.4	1156.4	1168.8
167.5°	1089.7	1094.7	1114.8	1144.3	1151.1
170°	1100.7	1103.1	1115.8	1137.8	1140.0
172.5°	1109.1	1110.4	1118.6	1133.1	1133.5
175°	1118.1	1118.1	1119.3	1127.3	1125.0
177.5°	1122.6	1121.8	1120.9	1126.2	1122.6
180°	1122.6	1122.6	1122.6	1122.6	1122.6



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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	19.33	20.12	20.34	21.15	22.52	18.00	18.80	19.02	19.82	21.19
	3H	21.35	22.06	22.37	23.09	24.48	19.03	19.74	20.06	20.77	22.16
	4H	22.08	22.75	23.11	23.79	25.18	19.24	19.92	20.28	20.95	22.35
	6H	22.56	23.18	23.61	24.22	25.63	19.38	20.00	20.43	21.04	22.45
	8H	22.68	23.27	23.73	24.33	25.73	19.41	20.00	20.47	21.06	22.46
	12H	22.72	23.29	23.78	24.33	25.76	19.41	19.97	20.47	21.02	22.44
4H	2H	19.70	20.37	20.74	21.41	22.80	18.63	19.31	19.68	20.34	21.74
	3H	21.80	22.36	22.85	23.42	24.83	19.81	20.37	20.86	21.43	22.84
	4H	22.61	23.12	23.67	24.18	25.61	20.08	20.59	21.14	21.65	23.08
	6H	23.19	23.63	24.26	24.71	26.13	20.28	20.73	21.35	21.80	23.23
	8H	23.36	23.77	24.43	24.84	26.28	20.34	20.75	21.41	21.82	23.26
	12H	23.42	23.79	24.51	24.88	26.32	20.34	20.72	21.43	21.80	23.25
8H	4H	22.62	23.03	23.69	24.10	25.54	20.29	20.70	21.36	21.77	23.21
	6H	23.27	23.61	24.36	24.72	26.16	20.56	20.90	21.65	22.01	23.45
	8H	23.49	23.79	24.59	24.89	26.34	20.66	20.96	21.76	22.06	23.51
	12H	23.60	23.87	24.71	24.96	26.45	20.70	20.97	21.81	22.06	23.55
12H	4H	22.57	22.94	23.66	24.02	25.47	20.29	20.66	21.37	21.74	23.19
	6H	23.24	23.54	24.34	24.64	26.09	20.59	20.89	21.69	21.98	23.44
	8H	23.47	23.73	24.58	24.82	26.32	20.70	20.96	21.81	22.06	23.55