

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: P855148

Luminaire Tested: SQ2-PH1-150U-100D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855148  
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-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

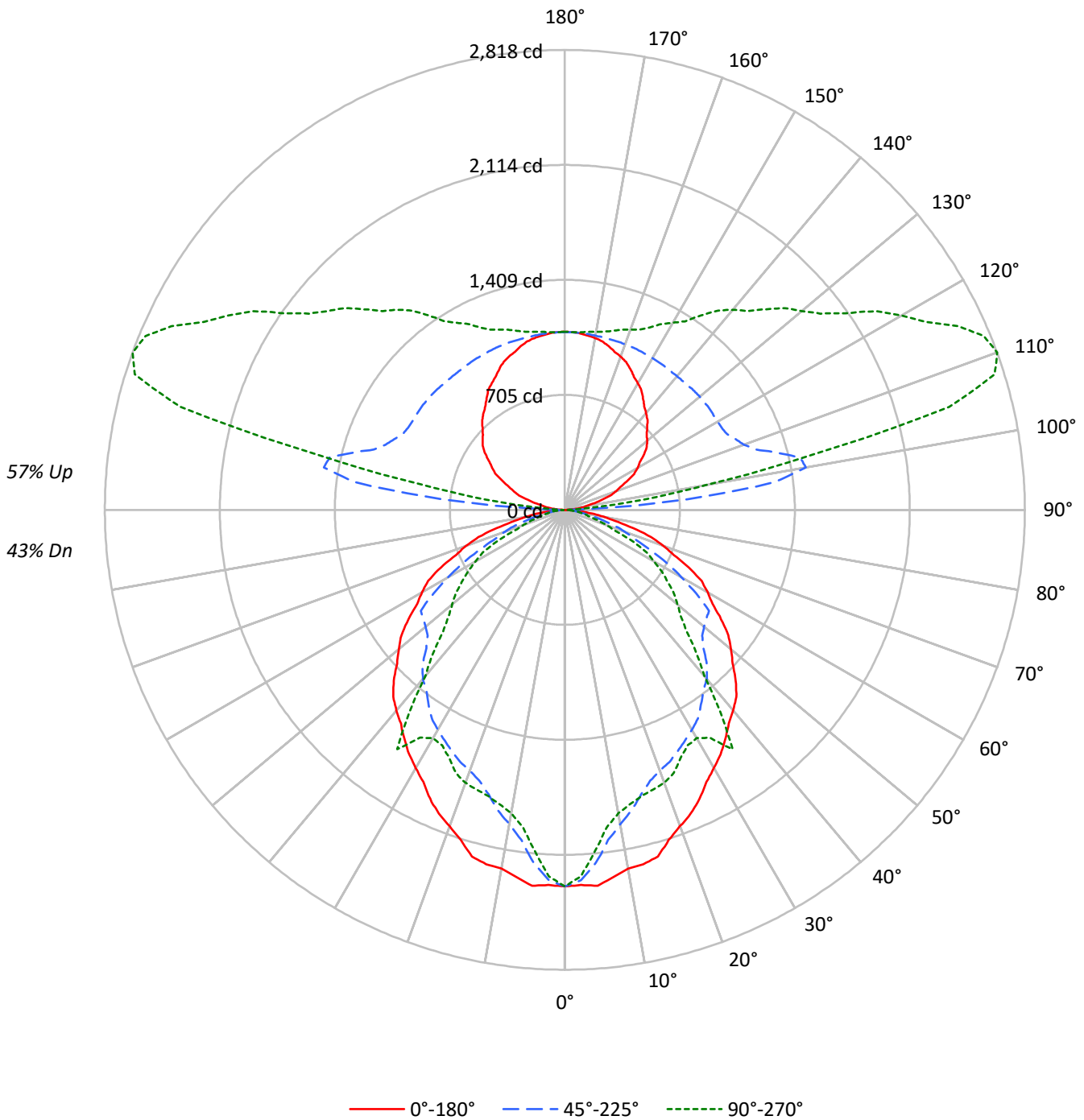
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11832.5 lumens  
Efficiency: N/A  
Efficacy: 125.6 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: 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

TEST NUMBER: P855148

CATALOG NUMBER: SQ2-PH1-150U-100D-835-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P855148

CATALOG NUMBER: SQ2-PH1-150U-100D-835-UNV-STD-W-4

**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	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°	37247	37247	37247
5°	37460	35219	34046
10°	36597	32064	30947
15°	36762	30158	30342
20°	35450	29228	30586
25°	34802	29092	29874
30°	34047	29015	30119
35°	33788	28683	35303
40°	33818	28498	27988
45°	33830	27414	24106
50°	33355	27954	22604
55°	32932	30337	21686
60°	32605	26579	20344
65°	32030	21551	17692
70°	30260	18340	12642
75°	26974	13830	9588
80°	22046	8973	8973
85°	13820	8133	6095

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 33830 cd/sqm



TEST NUMBER: P855148

CATALOG NUMBER: SQ2-PH1-150U-100D-835-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	203.0	1.7
10°-20°	533.9	4.5
20°-30°	782.9	6.6
30°-40°	948.1	8.0
40°-50°	932.4	7.9
50°-60°	811.6	6.9
60°-70°	564.3	4.8
70°-80°	267.5	2.3
80°-90°	60.1	0.5
90°-100°	415.4	3.5
100°-110°	1360.2	11.5
110°-120°	1344.7	11.4
120°-130°	1099.2	9.3
130°-140°	897.0	7.6
140°-150°	698.1	5.9
150°-160°	502.7	4.2
160°-170°	307.5	2.6
170°-180°	103.9	0.9
0°-30°	1519.8	12.8
0°-40°	2467.9	20.9
0°-60°	4211.9	35.6
0°-90°	5103.8	43.1
90°-120°	3120.3	26.4
90°-150°	5814.7	49.1
90°-180°	6729.0	56.9
0°-180°	11832.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2307	2307	2307	2307	2307	
5°	2311	2309	2173	2105	2101	217
15°	2199	1959	1804	1792	1815	613
25°	1954	1662	1633	1683	1677	898
35°	1714	1386	1455	1581	1791	1074
45°	1482	1097	1201	1242	1056	1139
55°	1170	854	1078	777	770	1045
65°	838	587	564	463	463	824
75°	432	299	222	158	154	458
85°	75	49	44	35	33	100
90°	1	3	9	8	9	5
95°	58	169	755	269	175	66
105°	236	337	1350	2565	2437	249
115°	426	509	1097	2267	2661	421
125°	593	661	1081	1788	2100	527
135°	714	789	1072	1542	1738	552
145°	835	896	1070	1326	1453	523
155°	951	983	1077	1186	1232	438
165°	1039	1048	1081	1123	1135	293
175°	1086	1086	1087	1095	1092	103
180°	1090	1090	1090	1090	1090	

TEST NUMBER: P855148

CATALOG NUMBER: SQ2-PH1-150U-100D-835-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2306.9	2306.9	2306.9	2306.9	2306.9
2.5°	2301.6	2325.7	2271.7	2250.7	2247.1
5°	2311.3	2309.2	2173.0	2104.9	2100.6
7.5°	2269.1	2202.6	2039.9	1964.8	1961.4
10°	2232.2	2131.4	1955.7	1887.6	1887.6
12.5°	2223.5	2064.3	1887.2	1836.9	1847.2
15°	2199.3	1958.9	1804.2	1791.7	1815.2
17.5°	2119.4	1860.6	1739.7	1768.5	1796.0
20°	2063.2	1807.8	1701.1	1754.3	1780.1
22.5°	2015.8	1757.0	1672.9	1731.2	1745.0
25°	1953.5	1661.6	1633.0	1683.3	1676.9
27.5°	1878.9	1574.1	1593.0	1623.9	1627.8
30°	1826.2	1521.4	1556.3	1587.6	1615.5
32.5°	1775.2	1460.2	1515.9	1590.1	1654.2
35°	1714.2	1385.8	1455.2	1580.7	1791.1
37.5°	1650.2	1298.1	1394.2	1499.8	1566.8
40°	1604.5	1235.3	1352.1	1482.5	1327.9
42.5°	1555.4	1186.2	1288.9	1457.2	1196.3
45°	1481.6	1097.4	1200.6	1242.5	1055.7
47.5°	1394.7	1028.6	1140.9	1036.2	963.2
50°	1327.9	982.4	1112.9	947.1	899.9
52.5°	1262.9	934.6	1093.5	873.8	842.0
55°	1169.9	854.4	1077.7	776.9	770.4
57.5°	1071.1	772.8	953.1	692.6	703.7
60°	1009.7	720.0	823.1	642.8	630.0
62.5°	944.7	668.7	702.0	579.6	566.7
65°	838.4	587.3	564.1	463.1	463.1
67.5°	721.7	502.8	457.0	379.0	327.5
70°	641.0	447.8	388.5	302.2	267.8
72.5°	554.9	389.2	318.2	247.6	208.1
75°	432.4	299.3	221.7	158.0	153.7
77.5°	312.6	215.6	149.3	117.2	117.7
80°	237.1	164.1	96.5	94.4	96.5
82.5°	166.8	112.7	72.0	75.0	75.5
85°	74.6	48.9	43.9	35.1	32.9
87.5°	16.1	14.7	10.5	10.3	10.5
90°	1.1	3.3	8.9	7.9	8.9
92.5°	19.0	69.5	213.3	69.4	55.6
95°	58.3	169.0	755.2	269.0	174.8
97.5°	105.8	222.8	1295.6	783.8	485.8
100°	139.0	250.7	1499.1	1338.8	887.3
102.5°	176.5	285.7	1476.7	1972.6	1529.2
105°	236.4	337.2	1350.1	2565.1	2436.9
107.5°	295.4	387.8	1226.6	2620.5	2761.4
110°	333.8	423.7	1167.5	2556.1	2817.8



TEST NUMBER: P855148

CATALOG NUMBER: SQ2-PH1-150U-100D-835-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	370.6	457.9	1131.7	2443.8	2779.4
115°	425.7	509.0	1096.9	2266.6	2661.0
117.5°	479.4	557.1	1083.7	2092.4	2492.9
120°	514.2	587.7	1080.1	1990.9	2380.9
122.5°	545.7	617.3	1080.1	1903.3	2265.3
125°	592.7	660.7	1081.2	1787.5	2099.7
127.5°	632.6	701.9	1079.8	1702.0	1973.7
130°	657.7	727.8	1078.9	1650.4	1895.8
132.5°	680.1	752.0	1076.3	1605.9	1828.5
135°	713.7	789.3	1072.3	1541.7	1737.8
137.5°	749.2	824.1	1069.8	1474.7	1652.0
140°	774.2	846.5	1068.9	1432.3	1599.9
142.5°	799.3	867.2	1068.9	1387.2	1539.1
145°	834.7	896.1	1070.0	1326.1	1453.2
147.5°	871.9	923.0	1071.6	1273.0	1369.0
150°	895.3	940.2	1073.4	1242.1	1323.3
152.5°	918.6	958.2	1074.3	1216.8	1283.8
155°	951.3	983.0	1076.8	1186.4	1232.5
157.5°	980.6	1003.6	1079.2	1162.7	1195.9
160°	999.4	1018.0	1080.1	1149.1	1175.3
162.5°	1015.6	1030.7	1080.1	1138.1	1157.4
165°	1038.6	1048.5	1081.2	1122.9	1134.9
167.5°	1058.1	1063.0	1082.5	1111.2	1117.7
170°	1068.9	1071.1	1083.5	1104.8	1107.0
172.5°	1077.0	1078.2	1086.2	1100.3	1100.7
175°	1085.7	1085.7	1086.8	1094.7	1092.4
177.5°	1090.1	1089.3	1088.4	1093.6	1090.1
180°	1090.1	1090.1	1090.1	1090.1	1090.1



TEST NUMBER: P855148

CATALOG NUMBER: SQ2-PH1-150U-100D-835-UNV-STD-W-4

**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	19.23	20.02	20.24	21.05	22.41	17.90	18.70	18.91	19.72	21.09
	3H	21.25	21.96	22.27	22.99	24.38	18.93	19.64	19.95	20.67	22.06
	4H	21.97	22.65	23.01	23.68	25.08	19.14	19.81	20.18	20.85	22.24
	6H	22.46	23.08	23.50	24.12	25.52	19.28	19.90	20.33	20.94	22.35
	8H	22.58	23.17	23.63	24.23	25.63	19.31	19.90	20.36	20.96	22.36
	12H	22.62	23.18	23.68	24.23	25.66	19.31	19.87	20.36	20.92	22.34
4H	2H	19.59	20.27	20.64	21.30	22.70	18.53	19.21	19.58	20.24	21.64
	3H	21.69	22.26	22.75	23.32	24.73	19.71	20.27	20.76	21.33	22.74
	4H	22.51	23.02	23.57	24.07	25.50	19.98	20.49	21.04	21.55	22.98
	6H	23.09	23.53	24.16	24.61	26.03	20.18	20.62	21.25	21.70	23.13
	8H	23.26	23.67	24.32	24.74	26.18	20.24	20.65	21.31	21.72	23.16
	12H	23.32	23.69	24.41	24.78	26.22	20.24	20.61	21.33	21.70	23.14
8H	4H	22.52	22.93	23.59	24.00	25.44	20.19	20.60	21.26	21.67	23.11
	6H	23.17	23.51	24.26	24.62	26.06	20.46	20.80	21.55	21.91	23.35
	8H	23.39	23.69	24.49	24.78	26.24	20.56	20.86	21.66	21.95	23.41
	12H	23.50	23.76	24.61	24.86	26.35	20.60	20.86	21.71	21.95	23.45
12H	4H	22.47	22.84	23.55	23.92	25.37	20.18	20.56	21.27	21.64	23.08
	6H	23.14	23.44	24.24	24.53	25.99	20.49	20.79	21.59	21.88	23.34
	8H	23.37	23.63	24.47	24.72	26.22	20.60	20.86	21.70	21.95	23.45