

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: P855156

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

Issue Date: 7/12/2024

**Test Information**

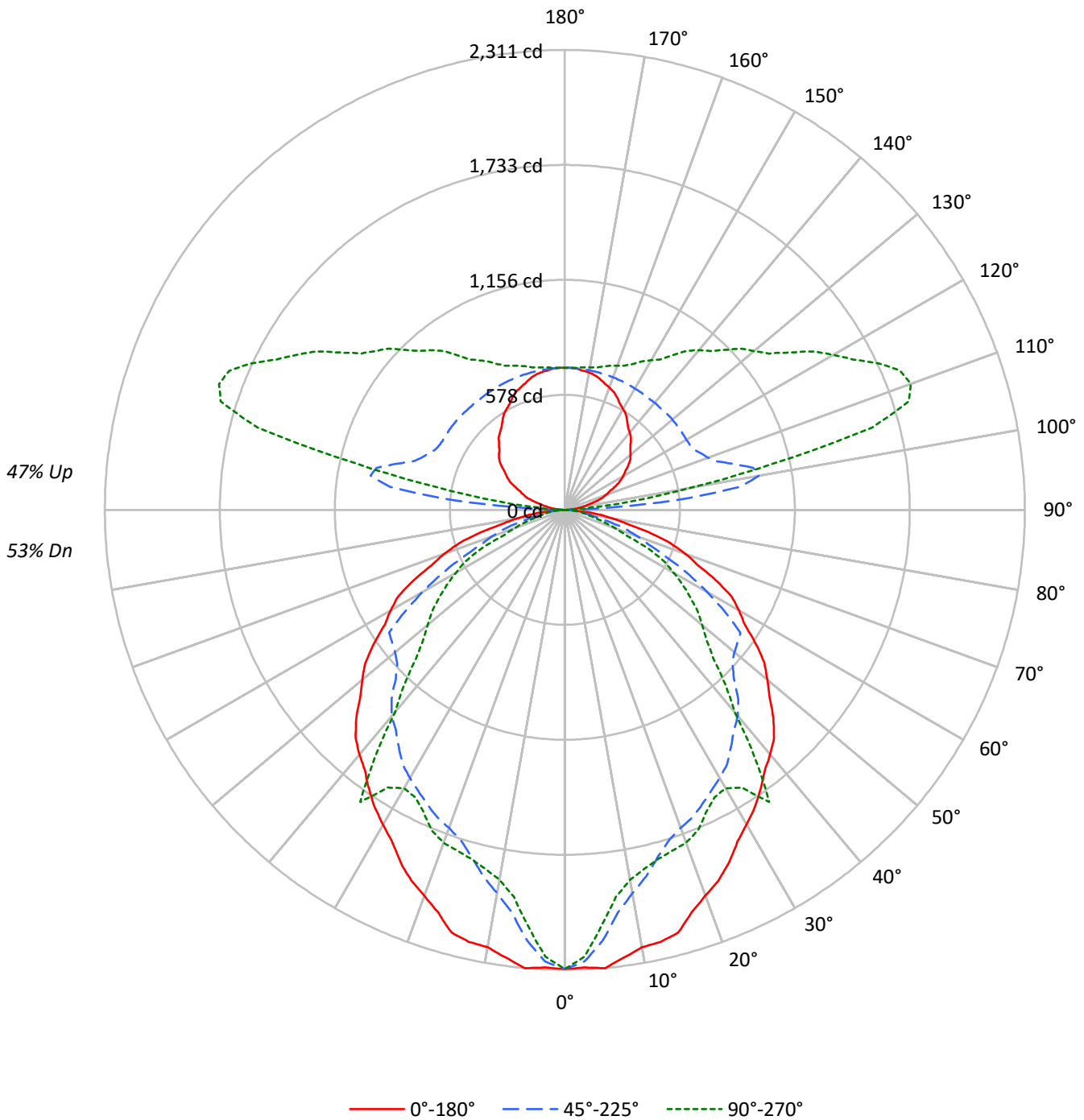
Test Method: LM-79-2019  
Report Number: P855156  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-100U-100D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9548.6 lumens  
Efficiency: N/A  
Efficacy: 136.0 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): 70.2  
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	50	30	10	0	
RCR																						
0	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53	53	53	53	
1	99	95	91	87	91	88	85	82	75	73	71	64	62	60	53	52	51	46	46	46	46	
2	90	83	77	72	83	77	72	67	66	62	59	56	53	51	47	45	43	38	38	38	38	
3	82	73	66	60	76	68	61	56	58	53	49	50	46	43	41	39	37	33	33	33	33	
4	75	65	57	51	70	60	53	48	52	47	42	44	40	37	37	34	32	28	28	28	28	
5	69	58	49	43	64	54	47	41	46	41	36	40	35	32	33	30	28	24	24	24	24	
6	64	52	44	38	59	48	41	36	42	36	32	36	31	28	30	27	24	21	21	21	21	
7	59	47	39	33	55	44	37	31	38	32	28	33	28	25	28	24	22	19	19	19	19	
8	55	42	35	29	51	40	33	28	35	29	25	30	25	22	25	22	19	17	17	17	17	
9	51	39	31	26	47	36	30	25	32	26	22	28	23	20	24	20	18	15	15	15	15	
10	48	36	28	23	44	33	27	22	29	24	20	25	21	18	22	18	16	14	14	14	14	

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	203.0	2.1
10°-20°	533.9	5.6
20°-30°	782.9	8.2
30°-40°	948.1	9.9
40°-50°	932.4	9.8
50°-60°	811.6	8.5
60°-70°	564.3	5.9
70°-80°	267.5	2.8
80°-90°	60.2	0.6
90°-100°	298.3	3.1
100°-110°	902.1	9.4
110°-120°	880.6	9.2
120°-130°	719.6	7.5
130°-140°	587.4	6.2
140°-150°	457.2	4.8
150°-160°	329.6	3.5
160°-170°	201.8	2.1
170°-180°	68.1	0.7
0°-30°	1519.8	15.9
0°-40°	2467.9	25.8
0°-60°	4211.9	44.1
0°-90°	5103.9	53.5
90°-120°	2081.0	21.8
90°-150°	3845.2	40.3
90°-180°	4445.0	46.6
0°-180°	9548.6	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°	0	2	14	8	7	4
95°	37	117	563	208	131	44
105°	157	221	886	1682	1599	165
115°	279	333	716	1482	1741	276
125°	390	433	706	1171	1378	347
135°	468	517	702	1010	1136	362
145°	546	586	702	868	950	342
155°	622	643	706	779	808	286
165°	681	688	710	737	746	192
175°	712	712	713	719	716	68
180°	714	714	714	714	714	



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**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°	15.8	14.5	11.4	10.3	10.1
90°	0.0	2.2	13.5	7.8	6.7
92.5°	12.6	50.7	182.1	60.4	43.5
95°	37.0	117.0	562.8	207.9	131.2
97.5°	71.5	148.9	887.0	587.0	357.4
100°	93.0	168.7	991.1	958.2	643.6
102.5°	117.2	190.2	969.6	1343.9	1071.3
105°	157.0	220.6	885.8	1682.1	1598.7
107.5°	194.6	255.3	805.0	1715.5	1812.0
110°	219.8	277.8	764.7	1673.4	1848.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	244.0	300.3	740.4	1602.7	1824.6
115°	279.2	332.8	716.5	1482.4	1741.2
117.5°	314.1	365.0	707.9	1369.8	1634.6
120°	337.5	385.7	705.1	1304.0	1558.4
122.5°	359.0	404.6	705.1	1246.2	1481.2
125°	390.2	432.9	706.3	1170.7	1377.9
127.5°	415.5	459.8	705.1	1113.7	1290.4
130°	431.6	477.7	705.1	1081.1	1241.1
132.5°	446.0	493.0	704.3	1051.2	1199.0
135°	467.5	516.8	701.9	1009.7	1135.7
137.5°	491.5	538.4	701.9	965.3	1082.1
140°	506.8	552.8	701.9	936.5	1047.1
142.5°	522.0	566.3	701.0	910.1	1006.7
145°	546.0	586.5	701.9	868.4	949.6
147.5°	570.0	604.4	703.2	834.1	896.5
150°	585.2	617.0	704.1	815.1	867.8
152.5°	599.6	627.8	704.9	798.7	841.7
155°	622.2	643.0	706.3	778.7	808.3
157.5°	642.0	658.9	707.6	764.0	784.6
160°	653.6	667.9	708.5	754.8	770.2
162.5°	665.3	676.1	709.4	746.8	759.5
165°	680.6	688.2	709.7	736.8	745.5
167.5°	693.5	697.4	711.0	729.0	732.8
170°	700.7	702.9	711.9	725.4	726.5
172.5°	705.1	706.5	711.9	721.8	722.0
175°	711.9	711.9	713.1	718.6	716.5
177.5°	715.1	714.2	713.3	715.9	714.2
180°	714.2	714.2	714.2	714.2	714.2

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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	20.21	21.10	21.14	22.04	23.26	18.88	19.77	19.81	20.71	21.94
	3H	22.24	23.03	23.18	23.98	25.23	19.92	20.71	20.86	21.67	22.91
	4H	22.97	23.72	23.93	24.68	25.93	20.13	20.88	21.09	21.84	23.10
	6H	23.46	24.15	24.42	25.11	26.38	20.28	20.97	21.25	21.93	23.20
	8H	23.58	24.24	24.55	25.22	26.48	20.31	20.97	21.29	21.95	23.22
	12H	23.63	24.25	24.61	25.23	26.52	20.31	20.94	21.29	21.91	23.20
4H	2H	20.59	21.34	21.55	22.30	23.55	19.53	20.28	20.49	21.24	22.49
	3H	22.70	23.32	23.67	24.31	25.58	20.71	21.33	21.68	22.32	23.59
	4H	23.51	24.08	24.49	25.06	26.36	20.99	21.56	21.97	22.54	23.83
	6H	24.10	24.59	25.09	25.60	26.89	21.20	21.68	22.19	22.69	23.98
	8H	24.27	24.73	25.26	25.73	27.03	21.25	21.71	22.25	22.71	24.02
	12H	24.34	24.75	25.35	25.77	27.08	21.26	21.67	22.27	22.69	24.00
8H	4H	23.53	23.99	24.53	24.99	26.29	21.20	21.66	22.20	22.66	23.97
	6H	24.19	24.56	25.20	25.60	26.91	21.48	21.85	22.50	22.90	24.20
	8H	24.41	24.74	25.44	25.77	27.09	21.58	21.91	22.61	22.94	24.26
	12H	24.53	24.82	25.56	25.84	27.21	21.63	21.92	22.66	22.94	24.31
12H	4H	23.49	23.90	24.50	24.91	26.22	21.20	21.61	22.22	22.63	23.94
	6H	24.16	24.49	25.19	25.52	26.84	21.51	21.84	22.53	22.87	24.19
	8H	24.39	24.69	25.42	25.71	27.08	21.62	21.92	22.66	22.94	24.31