

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: P855101

Luminaire Tested: SQ2-PR1-100U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855101  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-100U-075D-835-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

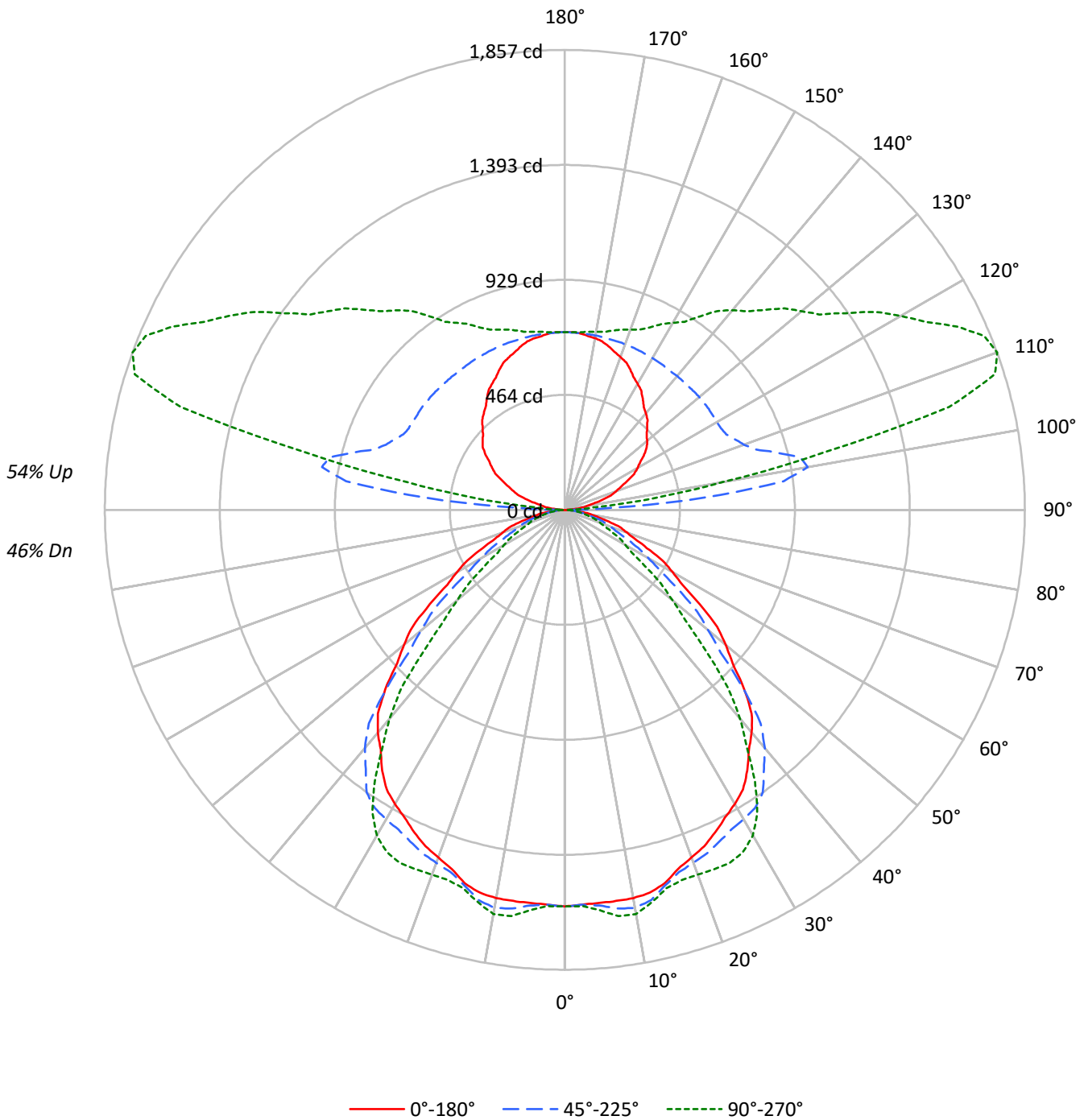
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8318.7 lumens  
Efficiency: N/A  
Efficacy: 140.3 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 59.3  
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	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46				46
1	98	93	90	87	89	86	83	80	72	70	68	59	58	56	48	47	46	40				40
2	89	82	76	72	82	76	71	67	64	60	57	53	50	48	43	41	39	35				35
3	82	73	66	60	75	67	61	56	57	52	49	47	44	41	38	36	34	30				30
4	75	65	57	51	69	60	53	48	51	46	42	42	39	36	34	32	30	26				26
5	69	58	50	44	63	54	47	42	46	40	36	38	34	31	31	28	26	23				23
6	64	52	44	39	58	48	41	36	41	36	32	35	31	28	28	26	23	20				20
7	59	47	39	34	54	44	37	32	37	32	28	32	27	24	26	23	21	18				18
8	55	43	35	30	50	40	33	28	34	29	25	29	25	22	24	21	19	16				16
9	51	39	32	27	47	36	30	25	31	26	23	27	23	20	22	19	17	15				15
10	48	36	29	24	44	33	27	23	29	24	20	25	21	18	21	18	15	13				13

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

	0°	45°	90°
0°	25858	25858	25858
5°	25825	25982	26300
10°	26096	26765	27166
15°	26088	26223	26444
20°	25667	26060	26928
25°	25593	26320	28035
30°	25568	26905	28305
35°	25324	27480	26355
40°	24740	26460	23191
45°	23409	23222	18338
50°	21283	18985	14230
55°	18702	15626	11077
60°	16185	12494	9122
65°	13967	10353	7985
70°	12562	9172	7091
75°	11510	7941	6519
80°	10014	6378	6378
85°	7262	5743	3020

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 25304 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	154.7	1.9
10°-20°	447.7	5.4
20°-30°	692.0	8.3
30°-40°	832.4	10.0
40°-50°	747.4	9.0
50°-60°	500.7	6.0
60°-70°	291.3	3.5
70°-80°	149.6	1.8
80°-90°	38.2	0.5
90°-100°	299.6	3.6
100°-110°	906.1	10.9
110°-120°	884.6	10.6
120°-130°	722.8	8.7
130°-140°	590.0	7.1
140°-150°	459.3	5.5
150°-160°	331.1	4.0
160°-170°	202.7	2.4
170°-180°	68.4	0.8
0°-30°	1294.4	15.6
0°-40°	2126.8	25.6
0°-60°	3374.9	40.6
0°-90°	3853.9	46.3
90°-120°	2090.4	25.1
90°-150°	3862.5	46.4
90°-180°	4465.0	53.7
0°-180°	8318.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1602	1602	1602	1602	1602	
5°	1593	1620	1603	1607	1623	152
15°	1561	1624	1569	1574	1582	438
25°	1437	1494	1477	1532	1574	663
35°	1285	1296	1394	1367	1337	801
45°	1025	1108	1017	858	803	784
55°	664	690	555	429	394	597
65°	366	374	271	220	209	370
75°	184	180	127	108	104	196
85°	39	31	31	21	16	49
90°	0	2	14	8	7	3
95°	37	118	565	209	132	44
105°	158	222	890	1690	1606	166
115°	280	334	720	1489	1749	277
125°	392	435	710	1176	1384	348
135°	470	519	705	1014	1141	364
145°	548	589	705	872	954	343
155°	625	646	710	782	812	288
165°	684	691	713	740	749	193
175°	715	715	716	722	720	68
180°	717	717	717	717	717	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1601.5	1601.5	1601.5	1601.5	1601.5
2.5°	1595.0	1614.1	1596.3	1597.7	1601.5
5°	1593.4	1620.4	1603.1	1606.7	1622.7
7.5°	1593.0	1631.6	1623.4	1633.3	1654.4
10°	1591.7	1638.0	1632.5	1634.7	1657.0
12.5°	1583.9	1637.9	1613.0	1610.9	1623.0
15°	1560.7	1624.5	1568.8	1573.9	1582.0
17.5°	1519.8	1586.6	1533.6	1551.6	1567.2
20°	1493.8	1559.2	1516.7	1540.1	1567.2
22.5°	1470.3	1535.7	1500.9	1533.7	1571.1
25°	1436.6	1494.0	1477.4	1532.3	1573.7
27.5°	1401.3	1435.2	1454.9	1528.4	1557.4
30°	1371.4	1393.6	1443.1	1507.0	1518.2
32.5°	1338.6	1352.1	1427.5	1460.8	1446.4
35°	1284.8	1296.0	1394.2	1367.4	1337.1
37.5°	1220.8	1243.8	1319.4	1242.2	1207.4
40°	1173.8	1212.1	1255.4	1140.3	1100.3
42.5°	1116.3	1177.6	1170.5	1023.8	974.9
45°	1025.2	1108.2	1017.0	857.5	803.1
47.5°	917.8	1003.0	853.8	711.3	660.6
50°	847.3	916.0	755.8	622.3	566.5
52.5°	775.4	825.0	672.3	538.9	488.1
55°	664.4	690.0	555.1	428.6	393.5
57.5°	562.6	578.8	453.5	346.2	320.3
60°	501.2	512.3	386.9	303.2	282.5
62.5°	445.0	453.7	333.4	266.7	251.1
65°	365.6	373.7	271.0	220.1	209.0
67.5°	302.7	306.8	223.1	182.9	172.4
70°	266.1	267.8	194.3	158.2	150.2
72.5°	233.5	231.2	166.8	137.4	132.0
75°	184.5	179.7	127.3	107.6	104.5
77.5°	137.8	132.6	89.5	83.0	83.0
80°	107.7	101.4	68.6	68.6	68.6
82.5°	80.3	71.4	52.8	52.8	51.6
85°	39.2	31.2	31.0	21.2	16.3
87.5°	10.4	10.9	6.7	5.5	5.3
90°	0.0	2.2	13.5	7.8	6.8
92.5°	12.6	50.9	182.9	60.7	43.7
95°	37.1	117.6	565.4	208.9	131.7
97.5°	71.9	149.6	891.1	589.6	359.1
100°	93.5	169.4	995.5	962.5	646.4
102.5°	117.8	191.1	973.9	1350.0	1076.2
105°	157.6	221.6	889.7	1689.7	1605.9
107.5°	195.6	256.5	808.6	1723.3	1820.2
110°	220.8	279.1	768.1	1681.0	1857.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	245.1	301.7	743.7	1609.9	1832.8
115°	280.4	334.4	719.6	1489.2	1749.0
117.5°	315.5	366.7	711.1	1376.0	1642.0
120°	338.9	387.5	708.4	1309.9	1565.4
122.5°	360.7	406.4	708.4	1251.8	1487.9
125°	391.9	434.9	709.6	1176.0	1384.1
127.5°	417.4	461.8	708.4	1118.8	1296.2
130°	433.5	479.8	708.4	1085.9	1246.8
132.5°	448.0	495.1	707.5	1056.0	1204.3
135°	469.6	519.2	705.0	1014.2	1140.8
137.5°	493.7	540.8	705.0	969.6	1087.0
140°	509.0	555.3	705.0	940.6	1051.9
142.5°	524.4	568.9	704.1	914.2	1011.4
145°	548.5	589.3	705.0	872.4	953.9
147.5°	572.5	607.1	706.4	838.0	900.5
150°	587.9	619.8	707.3	818.9	871.7
152.5°	602.3	630.7	708.2	802.3	845.6
155°	625.0	646.0	709.6	782.2	812.0
157.5°	644.8	661.8	710.9	767.4	788.1
160°	656.6	670.9	711.8	758.3	773.7
162.5°	668.2	679.1	712.6	750.1	762.9
165°	683.6	691.3	712.8	740.1	748.9
167.5°	696.7	700.6	714.2	732.3	736.0
170°	703.9	706.0	715.1	728.7	729.8
172.5°	708.4	709.7	715.1	725.1	725.3
175°	715.1	715.1	716.2	721.9	719.6
177.5°	718.3	717.4	716.5	719.2	717.4
180°	717.4	717.4	717.4	717.4	717.4

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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	17.73	18.52	18.72	19.52	20.85	14.45	15.24	15.45	16.25	17.57
	3H	18.95	19.66	19.96	20.67	22.02	15.51	16.22	16.52	17.23	18.58
	4H	19.40	20.07	20.42	21.09	22.44	15.91	16.58	16.93	17.59	18.95
	6H	19.72	20.33	20.75	21.35	22.72	16.24	16.85	17.27	17.87	19.24
	8H	19.80	20.38	20.83	21.42	22.78	16.32	16.91	17.36	17.94	19.30
	12H	19.82	20.38	20.86	21.41	22.80	16.33	16.88	17.37	17.91	19.30
4H	2H	17.80	18.46	18.82	19.48	20.83	15.01	15.68	16.04	16.70	18.05
	3H	19.26	19.82	20.30	20.86	22.23	16.27	16.83	17.31	17.87	19.24
	4H	19.85	20.36	20.90	21.40	22.79	16.78	17.28	17.82	18.32	19.71
	6H	20.30	20.74	21.36	21.80	23.18	17.21	17.64	18.26	18.70	20.09
	8H	20.43	20.84	21.49	21.89	23.29	17.33	17.74	18.38	18.79	20.19
	12H	20.49	20.85	21.55	21.92	23.32	17.35	17.71	18.42	18.78	20.19
8H	4H	19.88	20.28	20.93	21.33	22.73	17.08	17.48	18.13	18.53	19.93
	6H	20.42	20.76	21.50	21.85	23.25	17.61	17.94	18.68	19.04	20.44
	8H	20.62	20.91	21.70	21.99	23.41	17.80	18.09	18.88	19.17	20.58
	12H	20.72	20.98	21.81	22.05	23.51	17.86	18.11	18.94	19.19	20.65
12H	4H	19.83	20.20	20.90	21.26	22.67	17.09	17.46	18.16	18.52	19.93
	6H	20.41	20.70	21.49	21.78	23.20	17.67	17.96	18.75	19.04	20.46
	8H	20.62	20.88	21.70	21.95	23.41	17.88	18.13	18.96	19.21	20.67