

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: P854045

Luminaire Tested: SQ2-PH1-100U-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

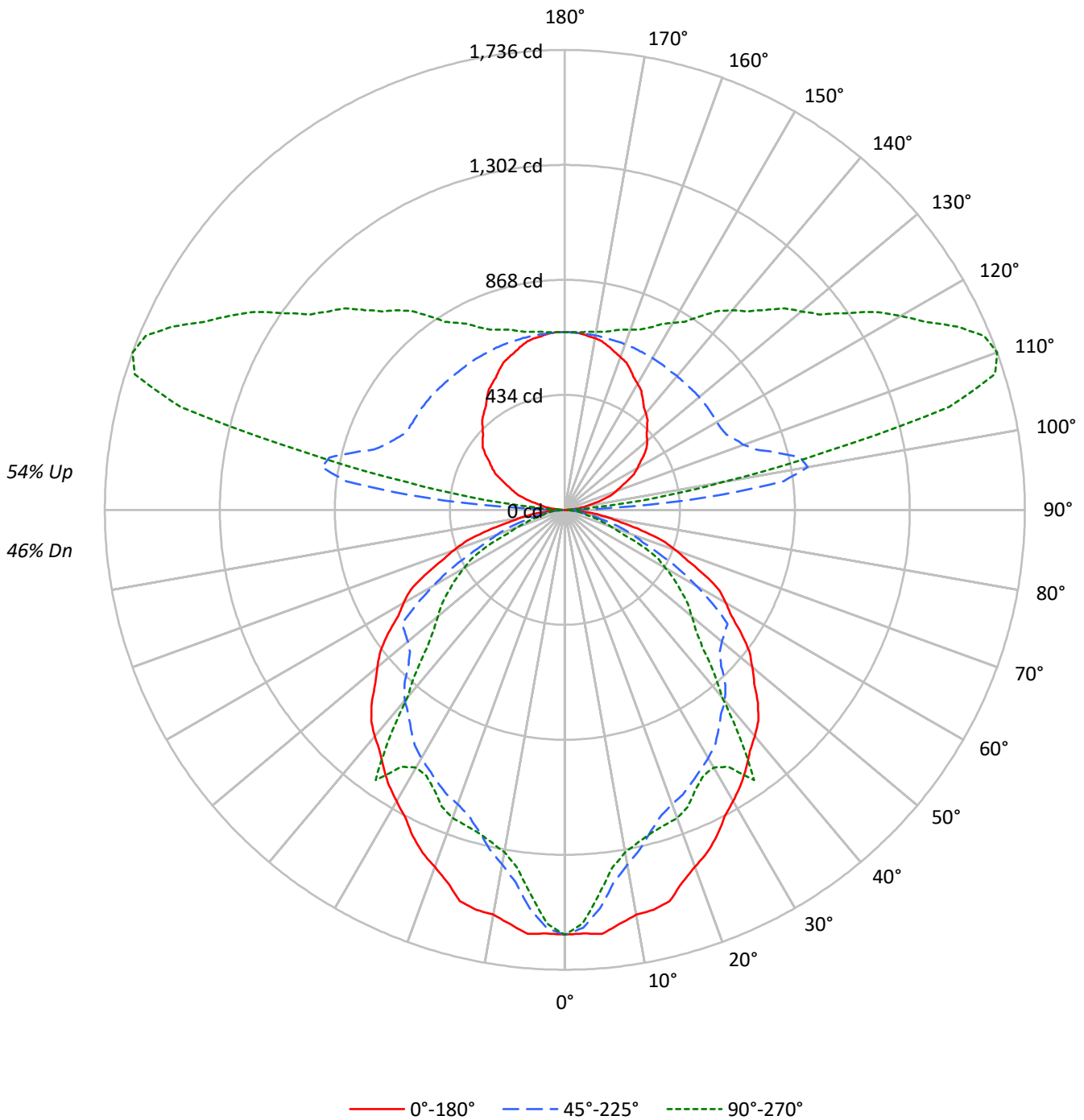
Test Method: LM-79-2019  
Report Number: P854045  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-100U-075D-940-UNV-STD-W-4  
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: 7721.8 lumens  
Efficiency: N/A  
Efficacy: 130.2 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): 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	97	97	97	97	81	81	81	66	66	66	52	52	52	46				
1	97	93	89	86	89	85	82	79	71	69	67	59	57	55	47	46	45	39				
2	89	81	75	70	81	75	70	65	63	59	56	52	49	47	41	39	38	33				
3	81	71	64	59	74	66	60	55	55	51	47	46	42	39	37	34	32	28				
4	74	63	56	50	68	58	52	46	49	44	40	41	37	34	33	30	28	24				
5	68	56	48	42	62	52	45	40	44	39	35	37	33	29	30	27	24	21				
6	62	51	43	37	57	47	40	35	40	34	30	33	29	26	27	24	21	18				
7	58	46	38	32	53	42	35	30	36	30	26	30	26	23	24	21	19	16				
8	54	41	34	28	49	38	32	27	33	27	24	27	23	20	22	19	17	15				
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15	13				
10	47	35	27	23	43	32	26	21	28	22	19	23	19	16	19	16	14	12				

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

	0°	45°	90°
0°	25893	25893	25893
5°	26042	24485	23668
10°	25443	22291	21515
15°	25558	20966	21093
20°	24646	20319	21263
25°	24195	20225	20769
30°	23670	20171	20939
35°	23489	19941	24541
40°	23509	19812	19458
45°	23519	19059	16760
50°	23189	19432	15714
55°	22894	21090	15077
60°	22666	18477	14141
65°	22269	14984	12302
70°	21036	12751	8790
75°	18752	9613	6662
80°	15323	6239	6239
85°	9615	5650	4242

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 23519 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.1	1.8
10°-20°	371.2	4.8
20°-30°	544.3	7.0
30°-40°	659.1	8.5
40°-50°	648.2	8.4
50°-60°	564.2	7.3
60°-70°	392.3	5.1
70°-80°	186.0	2.4
80°-90°	42.2	0.5
90°-100°	280.0	3.6
100°-110°	847.0	11.0
110°-120°	826.8	10.7
120°-130°	675.6	8.7
130°-140°	551.5	7.1
140°-150°	429.3	5.6
150°-160°	309.5	4.0
160°-170°	189.5	2.5
170°-180°	64.0	0.8
0°-30°	1056.6	13.7
0°-40°	1715.7	22.2
0°-60°	2928.1	37.9
0°-90°	3548.5	46.0
90°-120°	1953.8	25.3
90°-150°	3610.3	46.8
90°-180°	4173.0	54.0
0°-180°	7721.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1604	1604	1604	1604	1604	
5°	1607	1605	1511	1463	1460	151
15°	1529	1362	1254	1246	1262	426
25°	1358	1155	1135	1170	1166	625
35°	1192	964	1012	1099	1245	746
45°	1030	763	835	864	734	792
55°	813	594	749	540	536	727
65°	583	408	392	322	322	573
75°	301	208	154	110	107	319
85°	52	34	30	24	23	70
90°	0	2	13	7	6	3
95°	35	110	528	195	123	41
105°	147	207	832	1579	1501	155
115°	262	312	673	1392	1635	259
125°	366	406	663	1099	1294	325
135°	439	485	659	948	1066	340
145°	513	551	659	815	892	321
155°	584	604	663	731	759	269
165°	639	646	666	692	700	180
175°	668	668	670	675	673	63
180°	670	670	670	670	670	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1603.7	1603.7	1603.7	1603.7	1603.7
2.5°	1600.1	1616.8	1579.3	1564.6	1562.2
5°	1606.8	1605.3	1510.7	1463.3	1460.3
7.5°	1577.5	1531.2	1418.2	1365.9	1363.6
10°	1551.9	1481.7	1359.6	1312.3	1312.3
12.5°	1545.7	1435.0	1312.0	1277.0	1284.2
15°	1529.0	1361.9	1254.3	1245.5	1261.9
17.5°	1473.4	1293.5	1209.4	1229.4	1248.5
20°	1434.4	1256.8	1182.6	1219.6	1237.5
22.5°	1401.4	1221.5	1163.1	1203.6	1213.1
25°	1358.1	1155.1	1135.3	1170.3	1165.8
27.5°	1306.2	1094.3	1107.5	1128.9	1131.6
30°	1269.6	1057.7	1081.9	1103.7	1123.1
32.5°	1234.2	1015.1	1053.8	1105.5	1149.9
35°	1191.7	963.5	1011.7	1098.9	1245.1
37.5°	1147.2	902.5	969.3	1042.6	1089.2
40°	1115.4	858.8	940.0	1030.6	923.2
42.5°	1081.3	824.6	896.0	1013.0	831.6
45°	1030.0	762.9	834.7	863.8	734.0
47.5°	969.6	715.0	793.2	720.3	669.6
50°	923.2	683.0	773.6	658.4	625.6
52.5°	878.0	649.7	760.2	607.4	585.3
55°	813.3	594.0	749.2	540.1	535.6
57.5°	744.6	537.3	662.6	481.4	489.2
60°	701.9	500.5	572.2	446.9	437.9
62.5°	656.8	464.9	488.0	402.9	394.0
65°	582.9	408.3	392.2	322.0	322.0
67.5°	501.7	349.5	317.7	263.5	227.7
70°	445.6	311.3	270.1	210.0	186.2
72.5°	385.8	270.6	221.3	172.1	144.7
75°	300.6	208.1	154.1	109.8	106.8
77.5°	217.3	149.9	103.8	81.5	81.8
80°	164.8	114.1	67.1	65.6	67.1
82.5°	116.0	78.4	50.0	52.2	52.5
85°	51.9	34.0	30.5	24.4	22.9
87.5°	11.0	10.2	8.6	7.6	7.4
90°	0.0	2.1	12.6	7.3	6.3
92.5°	11.8	47.6	171.0	56.7	40.8
95°	34.7	109.9	528.4	195.2	123.2
97.5°	67.2	139.8	832.9	551.1	335.6
100°	87.4	158.4	930.6	899.6	604.2
102.5°	110.1	178.7	910.3	1261.8	1005.9
105°	147.4	207.1	831.6	1579.3	1501.1
107.5°	182.7	239.8	755.8	1610.7	1701.3
110°	206.3	260.9	717.9	1571.2	1735.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	229.1	282.0	695.2	1504.8	1713.1
115°	262.1	312.5	672.7	1391.9	1634.8
117.5°	295.0	342.7	664.7	1286.1	1534.8
120°	316.9	362.1	662.1	1224.4	1463.2
122.5°	337.1	379.9	662.1	1170.1	1390.8
125°	366.3	406.5	663.2	1099.2	1293.7
127.5°	390.1	431.7	662.1	1045.7	1211.6
130°	405.3	448.5	662.1	1015.0	1165.3
132.5°	418.8	462.8	661.3	987.0	1125.7
135°	439.0	485.3	659.0	948.0	1066.3
137.5°	461.5	505.5	659.0	906.3	1016.0
140°	475.8	519.0	659.0	879.2	983.2
142.5°	490.1	531.7	658.1	854.5	945.3
145°	512.6	550.7	659.0	815.4	891.6
147.5°	535.2	567.5	660.2	783.2	841.7
150°	549.5	579.3	661.1	765.4	814.8
152.5°	563.0	589.5	661.9	750.0	790.3
155°	584.2	603.8	663.2	731.2	759.0
157.5°	602.8	618.6	664.4	717.3	736.7
160°	613.7	627.1	665.3	708.8	723.2
162.5°	624.7	634.7	666.1	701.1	713.1
165°	639.0	646.2	666.3	691.8	700.0
167.5°	651.2	654.9	667.6	684.5	688.0
170°	657.9	660.0	668.4	681.1	682.1
172.5°	662.1	663.4	668.4	677.7	677.9
175°	668.4	668.4	669.5	674.7	672.7
177.5°	671.4	670.6	669.7	672.2	670.5
180°	670.5	670.5	670.5	670.5	670.5

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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	18.25	19.07	19.24	20.07	21.40	16.92	17.74	17.91	18.74	20.07
	3H	20.27	21.00	21.27	22.01	23.36	17.95	18.68	18.95	19.70	21.05
	4H	21.00	21.69	22.01	22.71	24.06	18.16	18.86	19.18	19.87	21.23
	6H	21.48	22.12	22.51	23.14	24.51	18.30	18.94	19.33	19.96	21.33
	8H	21.60	22.21	22.64	23.25	24.61	18.33	18.94	19.37	19.98	21.34
	12H	21.65	22.23	22.68	23.26	24.65	18.33	18.91	19.37	19.94	21.33
4H	2H	18.62	19.31	19.64	20.33	21.68	17.56	18.25	18.58	19.27	20.62
	3H	20.72	21.30	21.75	22.34	23.71	18.73	19.31	19.76	20.35	21.72
	4H	21.53	22.06	22.57	23.10	24.49	19.01	19.53	20.04	20.57	21.96
	6H	22.12	22.57	23.16	23.63	25.02	19.21	19.66	20.26	20.72	22.11
	8H	22.28	22.71	23.33	23.76	25.16	19.27	19.69	20.32	20.74	22.15
	12H	22.35	22.73	23.42	23.80	25.21	19.27	19.65	20.34	20.72	22.13
8H	4H	21.55	21.97	22.60	23.02	24.43	19.22	19.64	20.27	20.69	22.10
	6H	22.20	22.55	23.27	23.64	25.04	19.49	19.84	20.56	20.93	22.33
	8H	22.42	22.73	23.50	23.81	25.23	19.59	19.90	20.67	20.97	22.40
	12H	22.53	22.80	23.62	23.88	25.34	19.63	19.90	20.72	20.97	22.44
12H	4H	21.50	21.88	22.56	22.94	24.35	19.21	19.59	20.28	20.66	22.07
	6H	22.17	22.48	23.25	23.55	24.98	19.52	19.82	20.60	20.90	22.32
	8H	22.40	22.67	23.48	23.74	25.21	19.63	19.90	20.72	20.97	22.44