

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: P854285

Luminaire Tested: SQ2-PW1-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

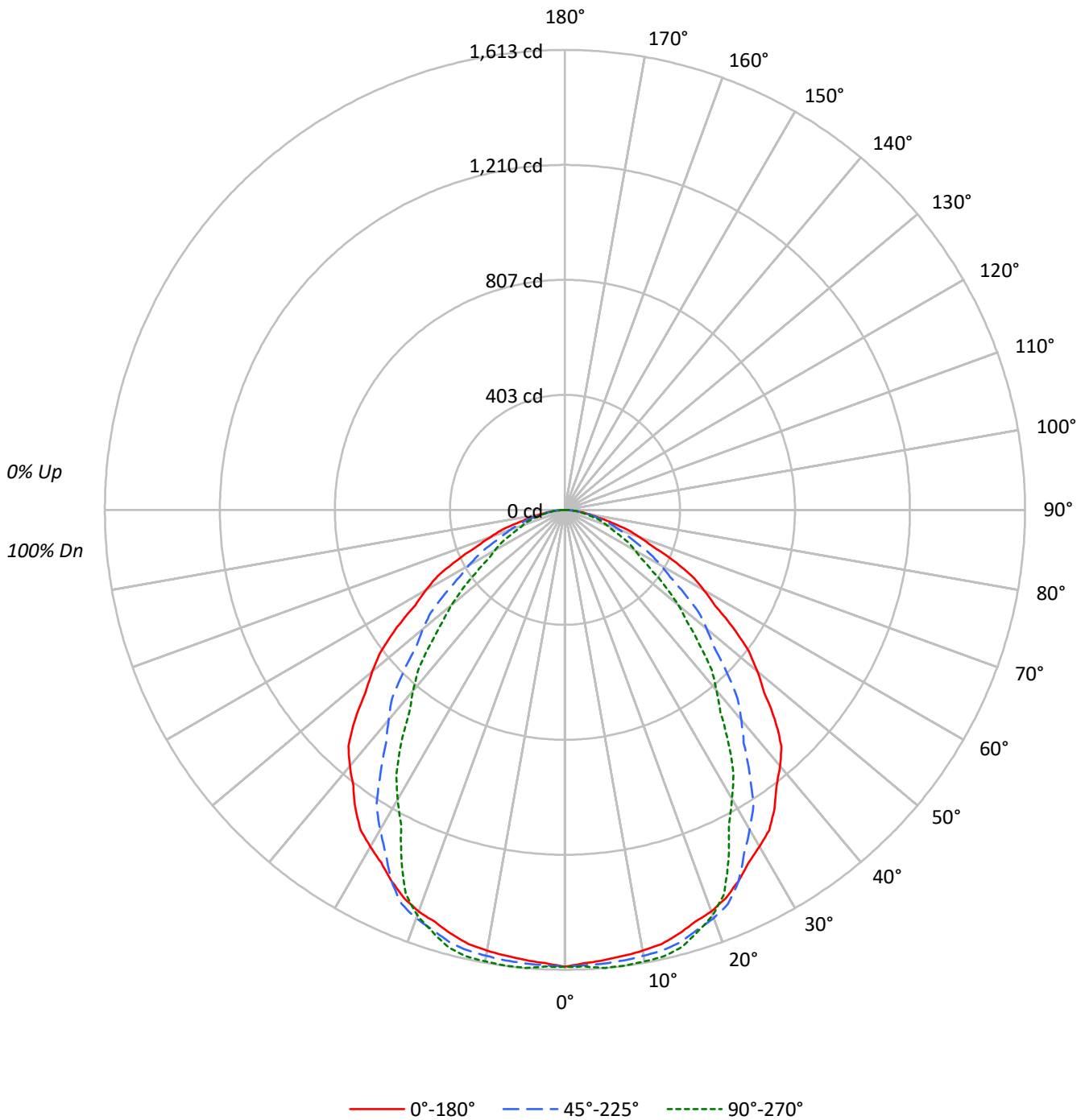
Test Method: LM-79-2019  
Report Number: P854285  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-075D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3555.0 lumens  
Efficiency: N/A  
Efficacy: 133.1 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.7  
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	
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	82	79	76	74	74	74	
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64	64	64	
4	86	75	67	61	84	74	66	61	71	65	60	69	63	59	67	62	58	56	56	56	
5	80	68	59	53	78	67	59	53	65	58	52	63	57	52	61	56	51	49	49	49	
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44	44	44	
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41	51	46	41	39	39	39	
8	64	52	44	38	63	51	43	38	50	43	38	48	42	37	47	42	37	35	35	35	
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32	32	32	
10	57	44	37	32	55	44	36	31	43	36	31	42	36	31	41	35	31	29	29	29	

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

	0°	45°	90°
0°	25869	25869	25869
5°	25695	25893	26141
10°	25743	26043	26368
15°	25737	26220	26527
20°	25747	26192	26008
25°	25607	25634	24166
30°	25434	24153	21848
35°	25233	22227	19730
40°	24732	20261	17431
45°	23763	18224	15225
50°	22117	16289	13031
55°	20231	14390	10567
60°	18132	12516	9116
65°	15855	10785	8103
70°	12968	9578	7345
75°	10087	8284	6756
80°	7522	7094	5960
85°	5094	5372	3390

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 23763 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.6	4.3
10°-20°	442.0	12.4
20°-30°	650.5	18.3
30°-40°	711.2	20.0
40°-50°	638.0	17.9
50°-60°	476.0	13.4
60°-70°	300.8	8.5
70°-80°	149.0	4.2
80°-90°	34.9	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1245.1	35.0
0°-40°	1956.4	55.0
0°-60°	3070.4	86.4
0°-90°	3555.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3555.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1602	1602	1602	1602	1602	
5°	1585	1611	1598	1600	1613	151
15°	1540	1570	1569	1580	1587	435
25°	1437	1469	1439	1379	1356	662
35°	1280	1267	1128	1029	1001	798
45°	1041	957	798	698	667	798
55°	719	650	511	401	375	642
65°	415	381	282	227	212	411
75°	162	174	133	111	108	178
85°	28	35	29	20	18	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1602.2	1602.2	1602.2	1602.2	1602.2
2.5°	1591.2	1611.5	1598.6	1599.9	1603.4
5°	1585.4	1610.8	1597.6	1599.5	1612.9
7.5°	1577.5	1603.2	1593.4	1598.8	1612.0
10°	1570.2	1597.0	1588.5	1596.4	1608.3
12.5°	1560.4	1588.5	1582.4	1591.5	1603.4
15°	1539.7	1569.5	1568.6	1579.5	1587.0
17.5°	1515.5	1545.4	1543.9	1546.8	1550.3
20°	1498.5	1528.3	1524.4	1513.7	1513.7
22.5°	1474.0	1506.3	1496.3	1467.1	1457.6
25°	1437.4	1468.7	1438.9	1378.9	1356.5
27.5°	1394.7	1420.1	1360.2	1275.0	1243.9
30°	1364.2	1383.6	1295.5	1201.7	1171.9
32.5°	1332.4	1339.9	1229.6	1132.1	1099.9
35°	1280.2	1266.8	1127.7	1029.4	1001.0
37.5°	1218.6	1178.6	1029.7	926.7	895.4
40°	1173.4	1116.7	961.3	858.4	827.0
42.5°	1123.4	1052.4	896.6	793.7	761.1
45°	1040.7	957.1	798.1	698.2	666.8
47.5°	947.6	864.6	705.9	609.1	582.3
50°	880.5	799.9	648.5	551.6	518.8
52.5°	812.1	739.9	592.4	492.8	448.0
55°	718.7	650.1	511.2	400.7	375.4
57.5°	622.6	563.2	437.6	337.4	316.5
60°	561.5	509.3	387.6	303.2	282.3
62.5°	502.9	456.7	338.8	271.5	254.2
65°	415.0	380.7	282.3	227.0	212.1
67.5°	329.6	310.5	234.7	186.2	176.4
70°	274.7	268.7	202.9	163.1	155.6
72.5°	227.1	229.4	172.4	141.2	136.1
75°	161.7	173.7	132.8	111.3	108.3
77.5°	110.2	128.1	98.3	82.3	80.0
80°	80.9	98.8	76.3	64.1	64.1
82.5°	56.5	70.8	54.3	48.2	48.2
85°	27.5	34.9	29.0	19.8	18.3
87.5°	7.3	10.9	4.9	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0



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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	22.27	23.78	22.64	24.09	24.40	18.76	20.26	19.12	20.58	20.89
	3H	23.64	24.99	24.02	25.32	25.68	20.01	21.36	20.39	21.68	22.05
	4H	24.04	25.30	24.44	25.65	26.03	20.49	21.75	20.89	22.10	22.47
	6H	24.28	25.44	24.69	25.81	26.20	20.83	22.00	21.25	22.36	22.76
	8H	24.33	25.44	24.75	25.82	26.23	20.93	22.03	21.35	22.42	22.82
	12H	24.34	25.40	24.77	25.79	26.21	20.96	22.02	21.39	22.40	22.83
4H	2H	22.45	23.71	22.85	24.06	24.44	19.52	20.78	19.92	21.13	21.51
	3H	24.05	25.10	24.46	25.50	25.90	20.96	22.00	21.37	22.40	22.80
	4H	24.58	25.52	25.02	25.94	26.38	21.53	22.47	21.96	22.88	23.32
	6H	24.95	25.76	25.41	26.21	26.67	21.97	22.78	22.42	23.22	23.68
	8H	25.04	25.80	25.50	26.24	26.71	22.08	22.84	22.55	23.29	23.76
	12H	25.08	25.76	25.56	26.24	26.71	22.13	22.81	22.62	23.29	23.76
8H	4H	24.67	25.43	25.13	25.87	26.34	21.90	22.66	22.36	23.11	23.57
	6H	25.12	25.75	25.62	26.24	26.72	22.43	23.06	22.92	23.55	24.02
	8H	25.27	25.83	25.78	26.34	26.83	22.59	23.16	23.11	23.67	24.15
	12H	25.36	25.86	25.87	26.35	26.92	22.68	23.18	23.19	23.67	24.24
12H	4H	24.65	25.33	25.14	25.81	26.28	21.94	22.62	22.43	23.10	23.57
	6H	25.12	25.68	25.63	26.19	26.68	22.49	23.06	23.01	23.57	24.06
	8H	25.31	25.80	25.82	26.30	26.86	22.71	23.21	23.22	23.70	24.26