

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: P854031

Luminaire Tested: SQ2-PH1-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

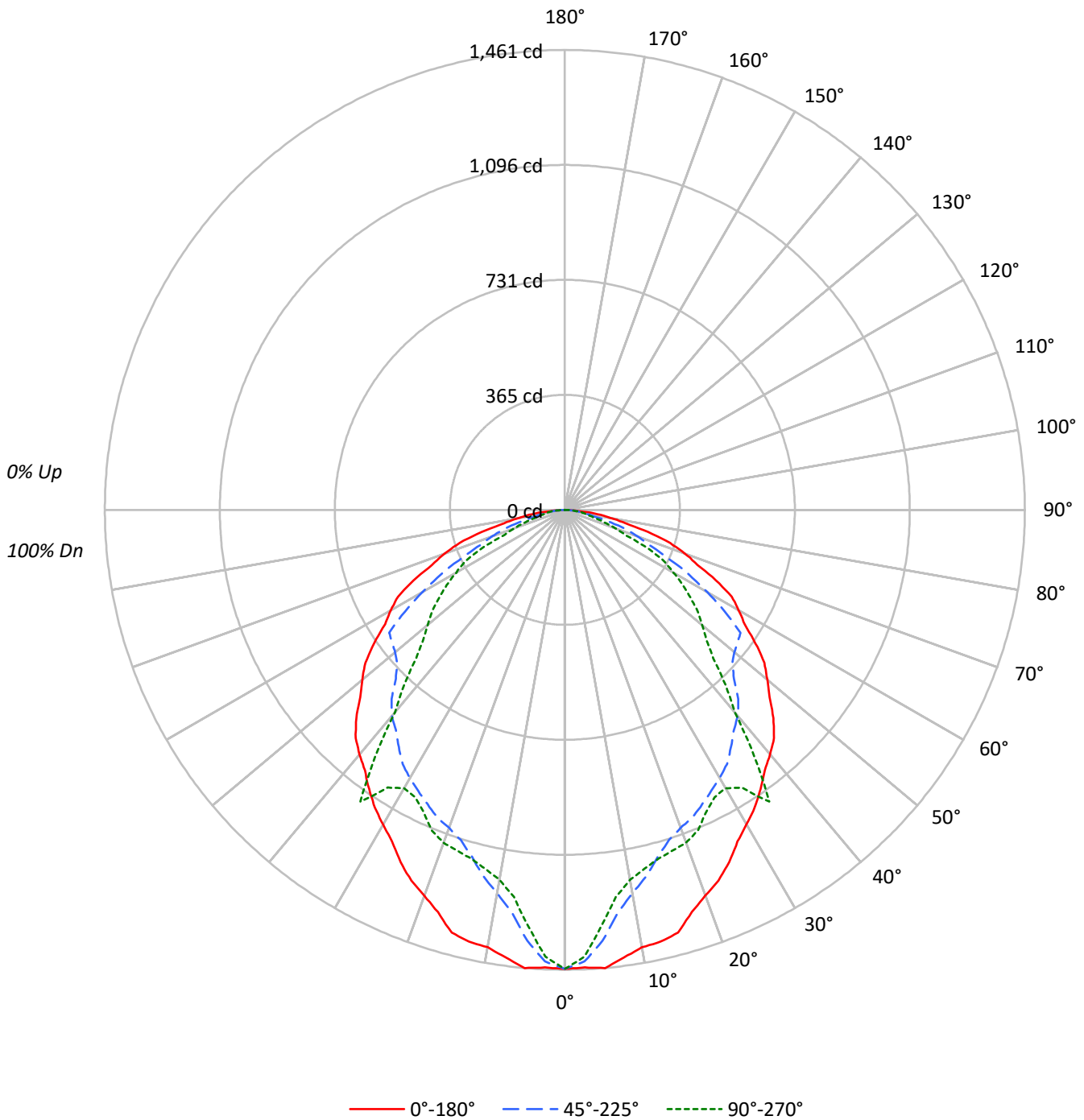
Test Method: LM-79-2019  
Report Number: P854031  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-075D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3225.4 lumens  
Efficiency: N/A  
Efficacy: 120.8 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: 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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85			85	
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72			72	
3	91	81	73	67	89	80	72	67	77	71	65	74	69	64	72	67	63	61			61	
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53			53	
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46			46	
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40			40	
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36			36	
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32			32	
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29			29	
10	54	41	34	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26			26	

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

	0°	45°	90°
0°	23544	23544	23544
5°	23679	22263	21520
10°	23135	20267	19562
15°	23238	19064	19179
20°	22409	18476	19333
25°	21998	18390	18884
30°	21522	18340	19039
35°	21358	18132	22316
40°	21376	18014	17692
45°	21384	17328	15239
50°	21084	17668	14290
55°	20816	19175	13709
60°	20609	16801	12859
65°	20248	13624	11186
70°	19124	11594	7992
75°	17049	8740	6057
80°	13928	5672	5672
85°	8744	5132	3853

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 21384 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.3	4.0
10°-20°	337.5	10.5
20°-30°	494.9	15.3
30°-40°	599.3	18.6
40°-50°	589.4	18.3
50°-60°	513.0	15.9
60°-70°	356.7	11.1
70°-80°	169.1	5.2
80°-90°	37.3	1.2
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°	960.7	29.8
0°-40°	1560.0	48.4
0°-60°	2662.4	82.5
0°-90°	3225.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3225.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1458	1458	1458	1458	1458	
5°	1461	1460	1374	1330	1328	137
15°	1390	1238	1140	1132	1147	388
25°	1235	1050	1032	1064	1060	568
35°	1084	876	920	999	1132	679
45°	936	694	759	785	667	720
55°	740	540	681	491	487	661
65°	530	371	357	293	293	521
75°	273	189	140	100	97	290
85°	47	31	28	22	21	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1458.2	1458.2	1458.2	1458.2	1458.2
2.5°	1454.9	1470.1	1436.0	1422.7	1420.5
5°	1461.0	1459.6	1373.6	1330.5	1327.8
7.5°	1434.4	1392.3	1289.5	1242.0	1239.8
10°	1411.1	1347.3	1236.2	1193.2	1193.2
12.5°	1405.5	1304.8	1192.9	1161.2	1167.7
15°	1390.2	1238.3	1140.5	1132.5	1147.4
17.5°	1339.7	1176.1	1099.7	1117.9	1135.2
20°	1304.2	1142.8	1075.3	1109.0	1125.2
22.5°	1274.3	1110.6	1057.5	1094.4	1103.0
25°	1234.8	1050.3	1032.3	1064.1	1060.0
27.5°	1187.7	995.0	1007.0	1026.5	1028.9
30°	1154.4	961.7	983.7	1003.5	1021.2
32.5°	1122.2	923.0	958.2	1005.2	1045.6
35°	1083.6	876.0	919.9	999.2	1132.2
37.5°	1043.1	820.6	881.3	948.0	990.4
40°	1014.2	780.9	854.7	937.1	839.4
42.5°	983.2	749.8	814.7	921.1	756.2
45°	936.5	693.7	758.9	785.4	667.4
47.5°	881.6	650.2	721.2	654.9	608.8
50°	839.4	621.0	703.4	598.7	568.9
52.5°	798.4	590.8	691.2	552.3	532.2
55°	739.5	540.1	681.2	491.1	487.0
57.5°	677.1	488.5	602.4	437.8	444.8
60°	638.2	455.1	520.3	406.3	398.2
62.5°	597.2	422.7	443.7	366.4	358.2
65°	530.0	371.3	356.6	292.8	292.8
67.5°	456.2	317.8	288.9	239.6	207.0
70°	405.1	283.0	245.6	191.0	169.3
72.5°	350.8	246.0	201.2	156.5	131.5
75°	273.3	189.2	140.1	99.8	97.1
77.5°	197.6	136.3	94.3	74.1	74.4
80°	149.8	103.7	61.0	59.7	61.0
82.5°	105.4	71.3	45.5	47.5	47.7
85°	47.2	30.9	27.7	22.2	20.8
87.5°	10.0	8.9	5.5	5.5	5.5
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	22.14	23.73	22.51	24.05	24.36	20.82	22.41	21.18	22.72	23.04
	3H	24.22	25.65	24.60	25.98	26.34	21.90	23.33	22.28	23.66	24.02
	4H	24.98	26.33	25.38	26.68	27.05	22.15	23.49	22.55	23.84	24.22
	6H	25.51	26.75	25.92	27.11	27.51	22.33	23.57	22.74	23.94	24.33
	8H	25.65	26.84	26.08	27.23	27.62	22.38	23.57	22.81	23.96	24.36
	12H	25.72	26.85	26.15	27.24	27.66	22.40	23.54	22.83	23.92	24.35
4H	2H	22.60	23.95	23.00	24.30	24.67	21.54	22.89	21.94	23.24	23.61
	3H	24.77	25.89	25.18	26.29	26.69	22.79	23.91	23.20	24.31	24.71
	4H	25.62	26.63	26.05	27.04	27.48	23.09	24.10	23.52	24.52	24.95
	6H	26.24	27.12	26.70	27.56	28.02	23.34	24.22	23.80	24.66	25.12
	8H	26.43	27.25	26.89	27.69	28.16	23.41	24.23	23.87	24.68	25.14
	12H	26.53	27.27	27.01	27.74	28.21	23.45	24.19	23.93	24.67	25.14
8H	4H	25.69	26.51	26.15	26.96	27.42	23.36	24.18	23.83	24.63	25.09
	6H	26.37	27.05	26.87	27.54	28.02	23.67	24.34	24.16	24.83	25.31
	8H	26.60	27.21	27.12	27.72	28.21	23.77	24.38	24.29	24.89	25.38
	12H	26.75	27.29	27.26	27.78	28.34	23.85	24.39	24.36	24.88	25.44
12H	4H	25.68	26.41	26.16	26.89	27.36	23.39	24.13	23.88	24.61	25.08
	6H	26.35	26.96	26.86	27.47	27.96	23.70	24.31	24.21	24.82	25.30
	8H	26.62	27.15	27.13	27.65	28.21	23.85	24.39	24.36	24.88	25.44