

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: P854453

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854453  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2308-130-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBN-075D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

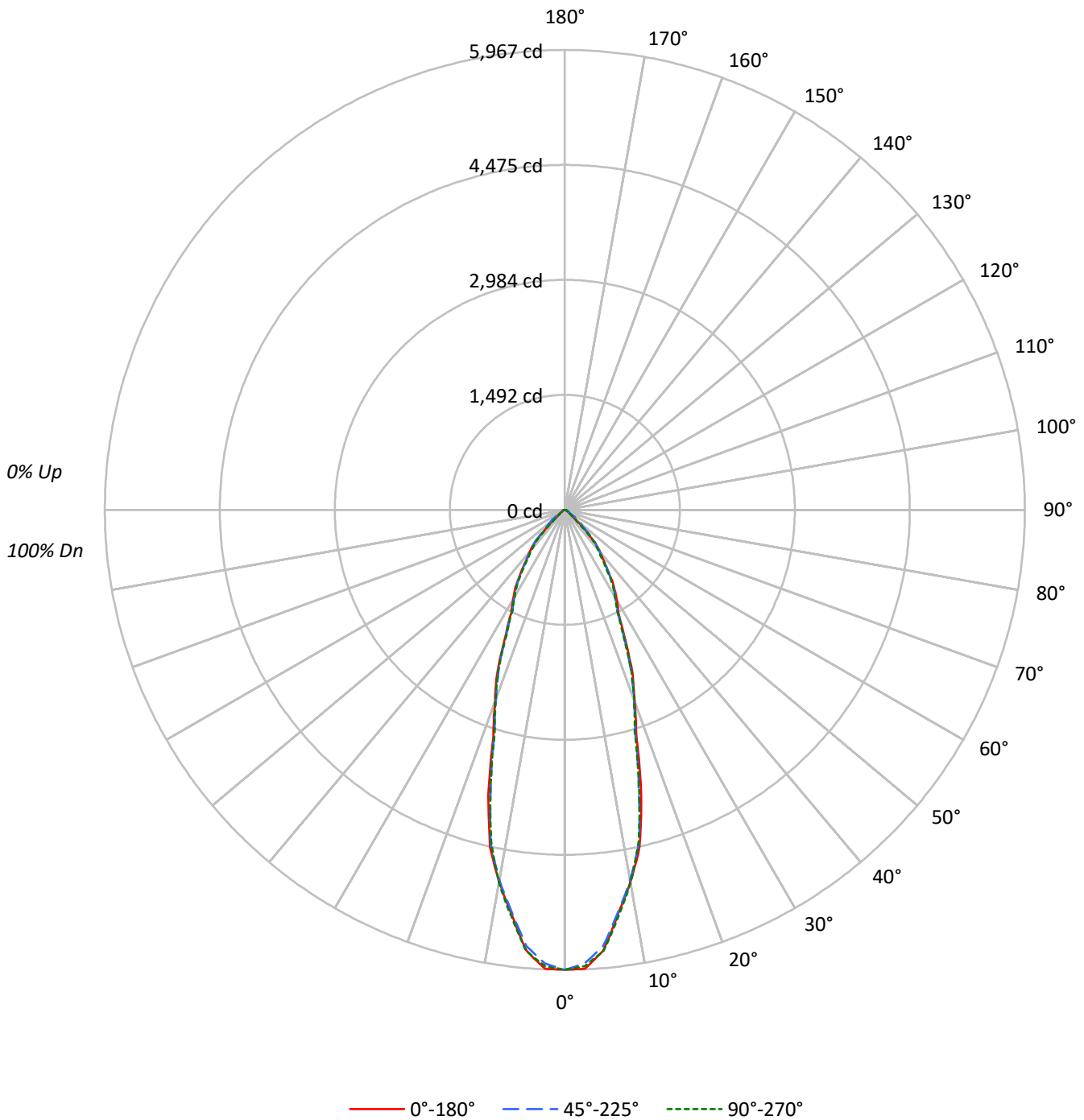
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3464.8 lumens  
Efficiency: N/A  
Efficacy: 125.5 lumens/watt  
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 27.6  
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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95				93	
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88				87	
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82				81	
4	97	90	84	80	95	88	83	79	86	82	78	84	81	78	82	79	77				75	
5	92	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72				70	
6	88	79	73	69	86	78	73	69	77	72	68	75	71	68	74	70	67				66	
7	84	75	69	64	82	74	68	64	73	68	64	71	67	64	70	66	63				62	
8	80	71	65	61	79	70	64	60	69	64	60	68	63	60	67	63	60				58	
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	57				55	
10	73	64	58	54	72	63	58	54	62	57	54	62	57	54	61	57	54				52	

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

	0°	45°	90°
0°	96339	96339	96339
5°	93020	92093	93122
10°	80402	80020	80592
15°	63980	61962	62210
20°	45450	44850	45177
25°	32699	32058	31832
30°	24984	24313	24253
35°	19612	19279	18778
40°	14859	14657	13944
45°	8314	9933	7421
50°	2924	6116	2580
55°	1787	3339	1697
60°	1366	1744	1266
65°	1253	1295	1173
70°	1199	1199	1100
75°	1123	1123	1054
80°	986	986	986
85°	982	778	778

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 9933 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	517.9	14.9
10°-20°	1029.4	29.7
20°-30°	852.5	24.6
30°-40°	613.3	17.7
40°-50°	312.4	9.0
50°-60°	81.3	2.3
60°-70°	33.7	1.0
70°-80°	18.7	0.5
80°-90°	5.5	0.2
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°	2399.8	69.3
0°-40°	3013.1	87.0
0°-60°	3406.8	98.3
0°-90°	3464.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3464.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5967	5967	5967	5967	5967	
5°	5739	5731	5682	5764	5746	518
15°	3828	3784	3707	3733	3722	1039
25°	1836	1832	1800	1784	1787	863
35°	995	1001	978	962	953	624
45°	364	419	435	405	325	291
55°	64	74	119	69	60	62
65°	33	34	34	32	31	33
75°	18	18	18	17	17	19
85°	5	5	4	5	4	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5966.8	5966.8	5966.8	5966.8	5966.8
2.5°	5957.5	5947.6	5890.6	5937.8	5926.2
5°	5739.3	5731.0	5682.1	5764.2	5745.6
7.5°	5288.5	5295.6	5266.9	5339.5	5319.7
10°	4904.1	4922.7	4880.8	4986.1	4915.7
12.5°	4479.8	4467.8	4438.8	4455.0	4416.1
15°	3827.6	3784.1	3706.9	3733.1	3721.7
17.5°	3083.0	3099.8	3032.8	3030.0	3017.2
20°	2645.2	2650.4	2610.3	2631.4	2629.3
22.5°	2292.9	2294.0	2242.8	2273.7	2255.1
25°	1835.5	1832.4	1799.5	1783.7	1786.8
27.5°	1505.2	1492.4	1467.5	1477.9	1470.3
30°	1340.1	1329.7	1304.1	1310.2	1300.9
32.5°	1191.9	1192.3	1166.1	1162.9	1156.1
35°	995.0	1001.2	978.1	962.0	952.7
37.5°	819.3	825.1	805.5	782.1	774.2
40°	705.0	709.1	695.4	667.8	661.6
42.5°	580.5	597.9	584.5	558.4	544.7
45°	364.1	419.0	435.0	404.7	325.0
47.5°	184.2	260.1	310.4	229.2	150.9
50°	116.4	169.2	243.5	137.9	102.7
52.5°	89.3	116.5	194.3	101.8	82.4
55°	63.5	73.9	118.6	68.6	60.3
57.5°	49.1	54.9	70.9	52.0	46.8
60°	42.3	46.5	54.0	44.3	39.2
62.5°	38.1	40.6	43.8	37.6	35.8
65°	32.8	33.8	33.9	31.7	30.7
67.5°	27.9	29.0	28.8	27.7	26.7
70°	25.4	26.4	25.4	24.3	23.3
72.5°	22.0	23.1	22.0	21.8	20.7
75°	18.0	18.0	18.0	16.9	16.9
77.5°	14.0	14.2	13.1	13.1	12.3
80°	10.6	11.6	10.6	10.6	10.6
82.5°	8.9	9.1	8.0	8.0	8.0
85°	5.3	5.3	4.2	5.3	4.2
87.5°	1.7	1.7	1.7	1.7	1.7
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	7.07	8.13	7.43	8.44	8.76	6.68	7.74	7.04	8.05	8.37
	3H	8.12	9.06	8.51	9.39	9.76	7.69	8.62	8.07	8.95	9.32
	4H	8.56	9.42	8.97	9.78	10.16	8.12	8.98	8.53	9.34	9.72
	6H	8.88	9.67	9.30	10.04	10.44	8.46	9.25	8.88	9.62	10.02
	8H	8.99	9.73	9.42	10.12	10.53	8.57	9.31	9.00	9.70	10.11
	12H	9.06	9.77	9.49	10.15	10.58	8.62	9.33	9.06	9.71	10.14
4H	2H	7.31	8.17	7.72	8.53	8.91	6.98	7.84	7.38	8.19	8.58
	3H	8.61	9.31	9.03	9.72	10.13	8.23	8.93	8.65	9.34	9.74
	4H	9.17	9.80	9.61	10.22	10.67	8.78	9.41	9.22	9.83	10.28
	6H	9.63	10.17	10.10	10.62	11.09	9.25	9.79	9.72	10.23	10.71
	8H	9.79	10.28	10.26	10.73	11.21	9.40	9.90	9.88	10.35	10.82
	12H	9.90	10.33	10.39	10.82	11.30	9.50	9.93	9.99	10.42	10.89
8H	4H	9.32	9.82	9.79	10.27	10.74	8.97	9.47	9.44	9.92	10.39
	6H	9.90	10.30	10.41	10.80	11.29	9.55	9.95	10.06	10.45	10.94
	8H	10.13	10.49	10.66	11.01	11.51	9.78	10.14	10.31	10.66	11.15
	12H	10.34	10.65	10.86	11.14	11.72	9.96	10.27	10.48	10.77	11.35
12H	4H	9.30	9.74	9.79	10.22	10.70	8.96	9.39	9.45	9.88	10.36
	6H	9.91	10.27	10.44	10.79	11.28	9.57	9.93	10.10	10.45	10.95
	8H	10.20	10.51	10.72	11.00	11.58	9.86	10.17	10.38	10.66	11.24