

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: P855369

Luminaire Tested: SQ2-PH1-0U-050D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

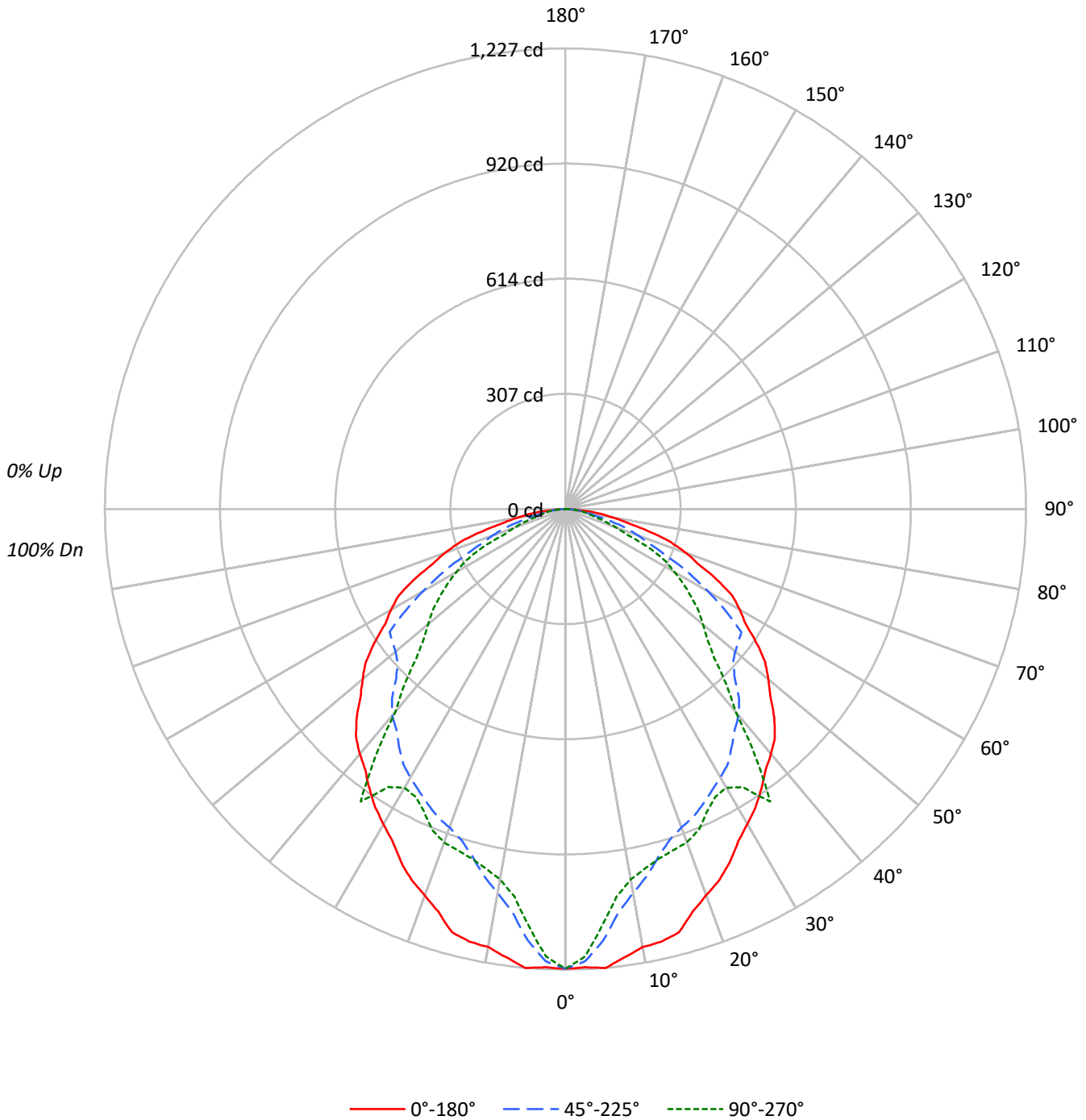
Test Method: LM-79-2019  
Report Number: P855369  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-0U-050D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2709.3 lumens  
Efficiency: N/A  
Efficacy: 152.2 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: Direct  
  
Input Watts (W): 17.8  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72
3	91	81	73	67	89	80	72	67	77	71	65	74	69	64	72	67	63	61
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	38	51	43	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

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

	0°	45°	90°
0°	19775	19775	19775
5°	19890	18699	18076
10°	19431	17024	16431
15°	19519	16013	16110
20°	18823	15519	16239
25°	18478	15447	15862
30°	18077	15405	15991
35°	17940	15230	18745
40°	17955	15131	14861
45°	17961	14556	12801
50°	17711	14843	12002
55°	17486	16107	11516
60°	17312	14111	10802
65°	17009	11442	9394
70°	16065	9739	6713
75°	14323	7342	5090
80°	11706	4770	4770
85°	7336	4316	3242

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 17961 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.8	4.0
10°-20°	283.5	10.5
20°-30°	415.7	15.3
30°-40°	503.4	18.6
40°-50°	495.0	18.3
50°-60°	430.9	15.9
60°-70°	299.6	11.1
70°-80°	142.0	5.2
80°-90°	31.3	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°	806.9	29.8
0°-40°	1310.3	48.4
0°-60°	2236.3	82.5
0°-90°	2709.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2709.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1225	1225	1225	1225	1225	
5°	1227	1226	1154	1118	1115	115
15°	1168	1040	958	951	964	326
25°	1037	882	867	894	890	477
35°	910	736	773	839	951	570
45°	787	583	638	660	561	605
55°	621	454	572	412	409	555
65°	445	312	300	246	246	437
75°	230	159	118	84	82	243
85°	40	26	23	19	18	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1224.8	1224.8	1224.8	1224.8	1224.8
2.5°	1222.0	1234.9	1206.2	1195.0	1193.1
5°	1227.2	1226.0	1153.7	1117.6	1115.3
7.5°	1204.8	1169.5	1083.1	1043.3	1041.4
10°	1185.2	1131.7	1038.4	1002.2	1002.2
12.5°	1180.6	1096.1	1002.0	975.3	980.8
15°	1167.7	1040.1	958.0	951.3	963.8
17.5°	1125.3	987.9	923.7	939.0	953.5
20°	1095.5	959.9	903.2	931.5	945.1
22.5°	1070.3	932.9	888.3	919.2	926.5
25°	1037.2	882.2	867.1	893.7	890.4
27.5°	997.6	835.8	845.8	862.2	864.3
30°	969.6	807.9	826.3	842.9	857.7
32.5°	942.6	775.3	804.8	844.3	878.2
35°	910.2	735.8	772.7	839.3	951.0
37.5°	876.1	689.2	740.3	796.3	831.9
40°	851.9	655.9	717.9	787.1	705.1
42.5°	825.8	629.8	684.3	773.7	635.1
45°	786.6	582.7	637.5	659.7	560.6
47.5°	740.5	546.1	605.8	550.1	511.4
50°	705.1	521.6	590.9	502.9	477.8
52.5°	670.6	496.2	580.6	463.9	447.0
55°	621.2	453.7	572.2	412.4	409.1
57.5°	568.7	410.3	506.0	367.7	373.6
60°	536.1	382.3	437.0	341.3	334.5
62.5°	501.6	355.1	372.7	307.8	300.9
65°	445.2	311.9	299.5	245.9	245.9
67.5°	383.2	267.0	242.6	201.3	173.9
70°	340.3	237.7	206.3	160.4	142.2
72.5°	294.6	206.6	169.0	131.5	110.5
75°	229.6	159.0	117.7	83.9	81.6
77.5°	166.0	114.4	79.2	62.2	62.5
80°	125.9	87.2	51.3	50.1	51.3
82.5°	88.6	59.9	38.2	39.9	40.1
85°	39.6	26.0	23.3	18.6	17.5
87.5°	8.4	7.5	4.7	4.7	4.7
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	21.54	23.13	21.90	23.44	23.76	20.21	21.80	20.58	22.12	22.43
	3H	23.62	25.05	23.99	25.37	25.73	21.30	22.73	21.67	23.05	23.42
	4H	24.38	25.72	24.78	26.07	26.45	21.54	22.89	21.94	23.24	23.61
	6H	24.90	26.14	25.31	26.51	26.90	21.72	22.97	22.13	23.33	23.72
	8H	25.05	26.23	25.47	26.62	27.02	21.78	22.96	22.20	23.35	23.75
	12H	25.11	26.25	25.54	26.63	27.06	21.80	22.93	22.23	23.31	23.74
4H	2H	22.00	23.34	22.40	23.69	24.07	20.94	22.28	21.34	22.63	23.01
	3H	24.17	25.29	24.58	25.69	26.09	22.18	23.30	22.59	23.70	24.10
	4H	25.01	26.02	25.45	26.44	26.87	22.49	23.49	22.92	23.91	24.35
	6H	25.64	26.52	26.09	26.96	27.42	22.73	23.61	23.19	24.05	24.51
	8H	25.82	26.64	26.29	27.09	27.55	22.81	23.63	23.27	24.07	24.54
	12H	25.93	26.66	26.41	27.14	27.61	22.85	23.58	23.33	24.06	24.53
8H	4H	25.09	25.91	25.55	26.35	26.82	22.76	23.58	23.22	24.02	24.49
	6H	25.77	26.45	26.26	26.94	27.41	23.06	23.74	23.55	24.23	24.70
	8H	26.00	26.61	26.51	27.12	27.60	23.17	23.78	23.68	24.28	24.77
	12H	26.15	26.68	26.65	27.17	27.74	23.24	23.78	23.75	24.27	24.84
12H	4H	25.07	25.81	25.55	26.28	26.75	22.79	23.52	23.27	24.00	24.47
	6H	25.75	26.36	26.26	26.86	27.35	23.09	23.70	23.61	24.21	24.70
	8H	26.01	26.55	26.52	27.04	27.60	23.24	23.78	23.75	24.27	24.83