

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: P854112

Luminaire Tested: SQ2-PP3-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

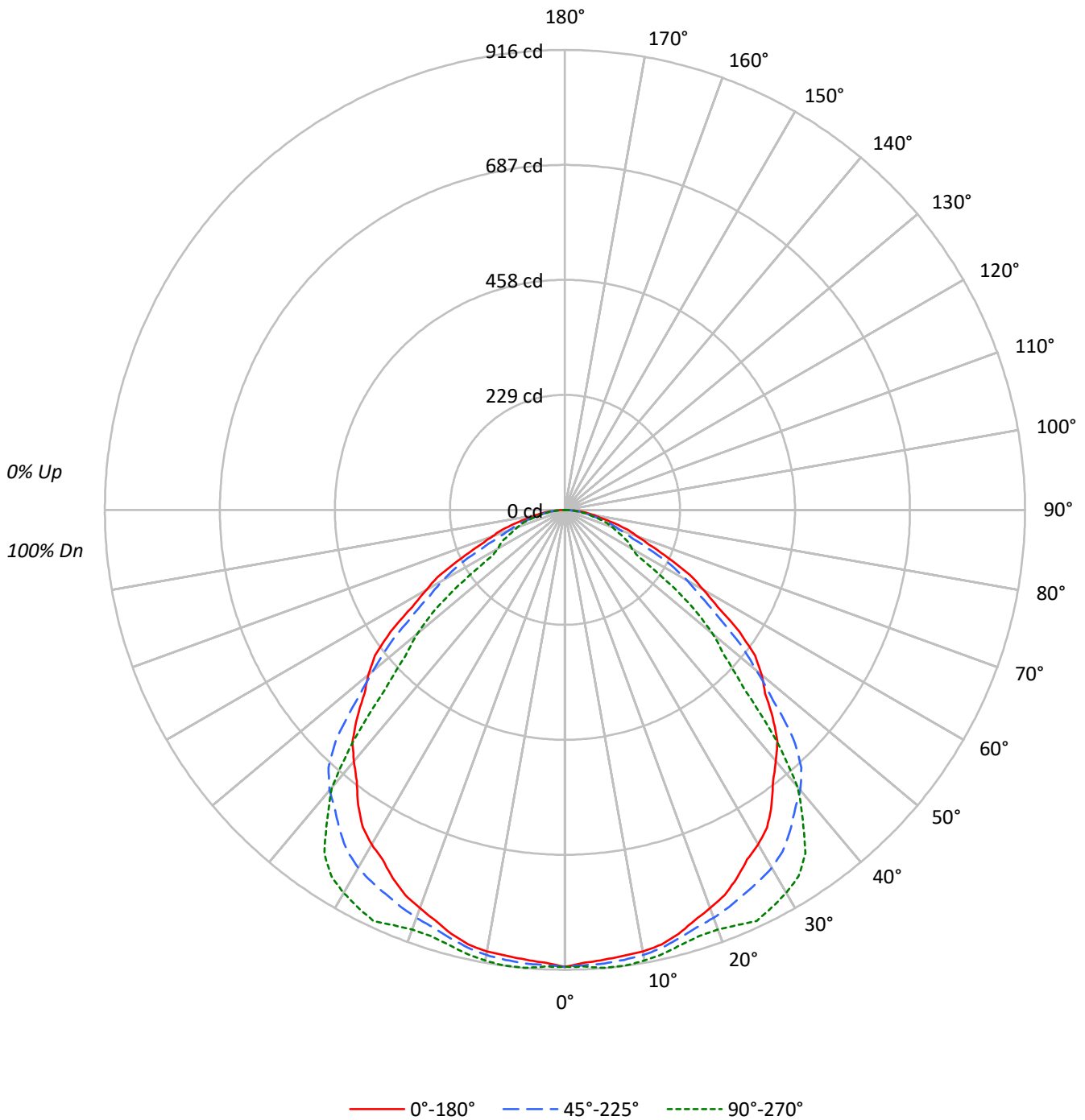
Test Method: LM-79-2019  
Report Number: P854112  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-050D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2291.4 lumens  
Efficiency: N/A  
Efficacy: 128.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4  
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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	89	87
2	101	94	88	82	99	92	86	81	88	84	80	85	81	78	82	79	76	74
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	74	66	60	83	73	66	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	50	48
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	50	42	37	62	50	42	37	48	41	36	47	41	36	46	40	36	34
9	59	46	38	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	40	34	30	28

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

	0°	45°	90°
0°	14691	14691	14691
5°	14575	14700	14840
10°	14649	14759	14949
15°	14614	14758	14984
20°	14510	14857	15287
25°	14427	15045	16089
30°	14344	15349	16425
35°	14142	15394	16454
40°	13765	15365	15205
45°	13353	14671	11574
50°	12828	12514	9640
55°	11941	10531	6930
60°	10282	9038	4970
65°	8672	6980	4886
70°	7218	5495	4678
75°	6120	4741	4379
80°	5188	4110	3933
85°	4094	3390	2130

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 14671 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.6	3.8
10°-20°	250.7	10.9
20°-30°	392.8	17.1
30°-40°	484.6	21.1
40°-50°	456.2	19.9
50°-60°	323.0	14.1
60°-70°	184.0	8.0
70°-80°	91.1	4.0
80°-90°	22.3	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°	730.2	31.9
0°-40°	1214.8	53.0
0°-60°	1994.0	87.0
0°-90°	2291.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2291.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	899	915	907	909	916	86
15°	874	886	883	892	896	246
25°	810	830	844	879	903	373
35°	718	737	781	825	835	447
45°	585	629	642	544	507	450
55°	424	450	374	282	246	374
65°	227	239	183	129	128	228
75°	98	108	76	71	70	106
85°	22	20	18	14	12	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	909.9	909.9	909.9	909.9	909.9
2.5°	902.9	915.7	907.6	909.1	910.6
5°	899.3	915.3	907.0	909.1	915.6
7.5°	895.8	912.2	904.1	907.6	915.6
10°	893.5	907.6	900.2	905.2	911.8
12.5°	886.6	899.9	893.3	899.8	905.6
15°	874.3	886.5	882.9	891.7	896.4
17.5°	857.5	872.4	872.4	884.8	889.7
20°	844.5	862.3	864.7	880.3	889.7
22.5°	830.6	851.5	855.4	878.9	895.1
25°	809.8	830.5	844.5	878.7	903.1
27.5°	785.6	806.1	834.8	873.2	892.6
30°	769.4	789.2	823.3	863.1	881.0
32.5°	749.4	769.9	806.4	849.3	865.6
35°	717.5	737.3	781.0	825.4	834.8
37.5°	680.8	703.1	752.1	777.0	777.5
40°	653.1	682.2	729.0	733.6	721.4
42.5°	626.1	663.6	696.7	676.5	622.1
45°	584.8	629.0	642.5	544.5	506.9
47.5°	540.7	584.4	562.8	456.7	430.7
50°	510.7	552.1	498.2	408.2	383.8
52.5°	476.9	513.7	440.5	361.8	324.5
55°	424.2	449.5	374.1	282.0	246.2
57.5°	360.7	378.5	319.9	211.6	171.6
60°	318.4	332.5	279.9	173.6	153.9
62.5°	279.9	292.5	238.3	150.8	143.9
65°	227.0	239.2	182.7	128.9	127.9
67.5°	180.6	194.0	140.2	112.5	111.4
70°	152.9	167.0	116.4	100.9	99.1
72.5°	129.8	143.2	98.7	88.7	87.5
75°	98.1	108.4	76.0	71.2	70.2
77.5°	71.2	77.8	56.6	54.0	53.1
80°	55.8	58.6	44.2	43.3	42.3
82.5°	41.9	41.0	33.5	32.5	30.8
85°	22.1	20.2	18.3	14.4	11.5
87.5°	6.9	6.9	3.1	2.3	2.3
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	20.78	22.30	21.14	22.61	22.93	17.17	18.70	17.54	19.01	19.32
	3H	21.92	23.29	22.30	23.61	23.97	18.33	19.69	18.71	20.02	20.38
	4H	22.30	23.57	22.69	23.92	24.30	18.82	20.10	19.22	20.45	20.82
	6H	22.54	23.72	22.95	24.09	24.48	19.20	20.38	19.61	20.74	21.14
	8H	22.61	23.73	23.04	24.12	24.52	19.30	20.42	19.73	20.81	21.21
	12H	22.64	23.72	23.07	24.10	24.53	19.34	20.41	19.77	20.79	21.22
4H	2H	20.97	22.24	21.37	22.59	22.97	17.97	19.24	18.37	19.59	19.97
	3H	22.33	23.39	22.75	23.79	24.19	19.28	20.33	19.69	20.73	21.13
	4H	22.83	23.78	23.27	24.20	24.63	19.86	20.80	20.29	21.22	21.66
	6H	23.20	24.03	23.66	24.47	24.93	20.33	21.15	20.79	21.60	22.06
	8H	23.31	24.08	23.77	24.52	24.99	20.46	21.23	20.93	21.68	22.15
	12H	23.37	24.06	23.86	24.54	25.01	20.52	21.21	21.00	21.69	22.16
8H	4H	22.90	23.67	23.36	24.11	24.58	20.18	20.94	20.64	21.39	21.86
	6H	23.35	23.99	23.85	24.48	24.95	20.74	21.38	21.24	21.87	22.35
	8H	23.51	24.08	24.02	24.59	25.08	20.93	21.50	21.44	22.01	22.50
	12H	23.62	24.13	24.13	24.62	25.18	21.03	21.54	21.54	22.03	22.59
12H	4H	22.88	23.57	23.37	24.05	24.52	20.21	20.90	20.70	21.38	21.85
	6H	23.34	23.91	23.85	24.42	24.91	20.80	21.37	21.31	21.88	22.37
	8H	23.54	24.04	24.05	24.54	25.10	21.03	21.54	21.54	22.03	22.60