

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: P855514

Luminaire Tested: SQ2-PP3-050D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

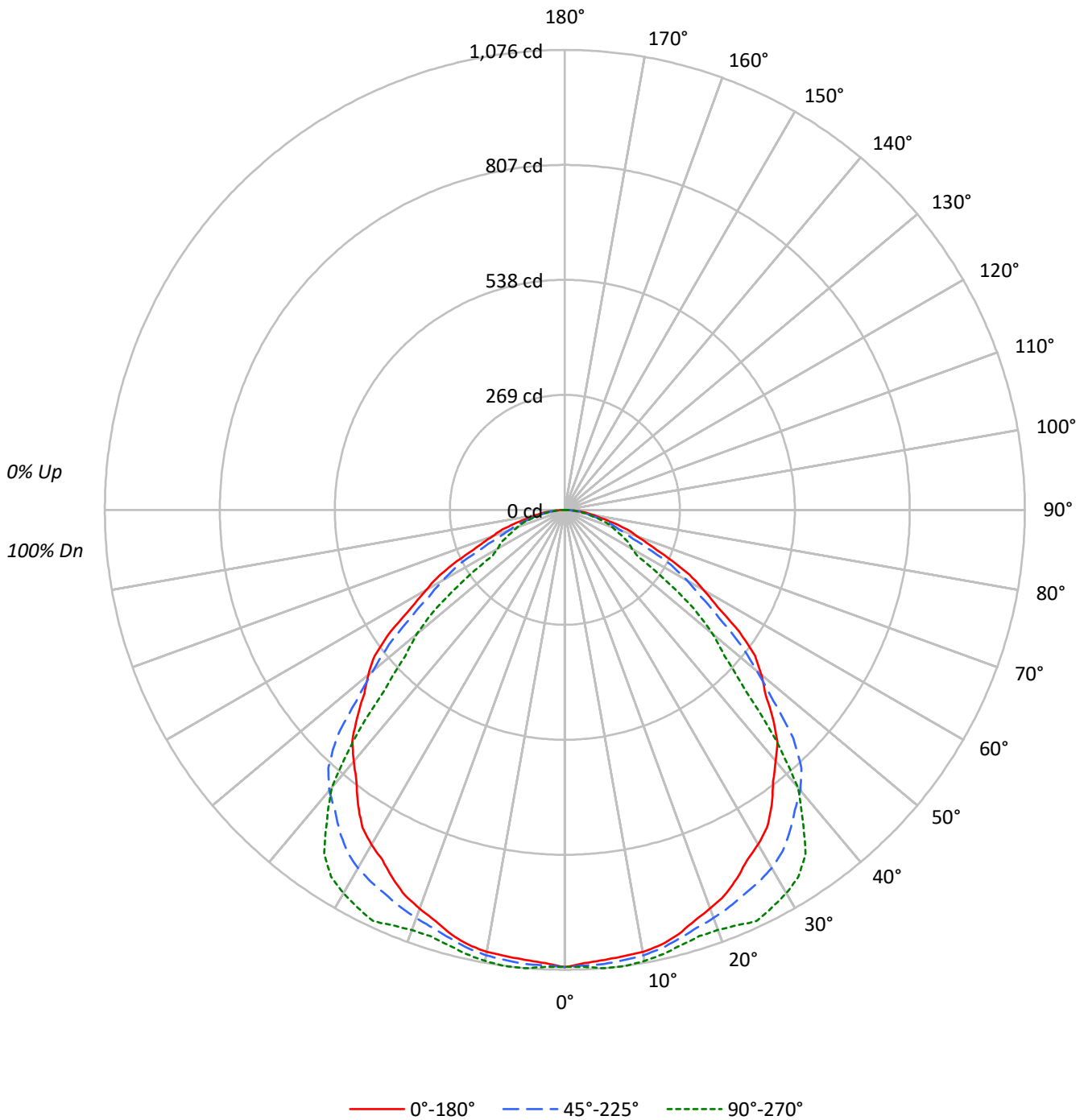
Test Method: LM-79-2019  
Report Number: P855514  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PP3-050D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SURFACE LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
DIRECT ONLY  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2693.6 lumens  
Efficiency: N/A  
Efficacy: 151.3 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

TEST NUMBER: P855514  
CATALOG NUMBER: SQ2-PP3-050D-830-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P855514

CATALOG NUMBER: SQ2-PP3-050D-830-UNV-STD-W-4

**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°	17270	17270	17270
5°	17135	17280	17446
10°	17221	17351	17572
15°	17180	17349	17615
20°	17057	17464	17969
25°	16960	17685	18914
30°	16863	18043	19309
35°	16626	18096	19344
40°	16181	18063	17873
45°	15696	17246	13604
50°	15081	14712	11331
55°	14035	12380	8146
60°	12084	10624	5842
65°	10193	8206	5746
70°	8488	6458	5500
75°	7193	5571	5147
80°	6100	4835	4621
85°	4817	3983	2519

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 17246 cd/sqm



TEST NUMBER: P855514

CATALOG NUMBER: SQ2-PP3-050D-830-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.8	3.8
10°-20°	294.7	10.9
20°-30°	461.8	17.1
30°-40°	569.6	21.1
40°-50°	536.3	19.9
50°-60°	379.7	14.1
60°-70°	216.4	8.0
70°-80°	107.1	4.0
80°-90°	26.2	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°	858.4	31.9
0°-40°	1428.0	53.0
0°-60°	2344.1	87.0
0°-90°	2693.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2693.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1057	1076	1066	1069	1076	101
15°	1028	1042	1038	1048	1054	290
25°	952	976	993	1033	1062	438
35°	844	867	918	970	981	526
45°	687	739	755	640	596	529
55°	499	528	440	332	289	440
65°	267	281	215	152	150	268
75°	115	128	89	84	82	125
85°	26	24	22	17	14	32
90°	0	0	0	0	0	



TEST NUMBER: P855514

CATALOG NUMBER: SQ2-PP3-050D-830-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1069.6	1069.6	1069.6	1069.6	1069.6
2.5°	1061.4	1076.5	1066.9	1068.7	1070.5
5°	1057.2	1075.9	1066.2	1068.7	1076.4
7.5°	1053.1	1072.3	1062.8	1066.9	1076.4
10°	1050.4	1067.0	1058.3	1064.2	1071.8
12.5°	1042.2	1057.9	1050.1	1057.7	1064.6
15°	1027.8	1042.1	1037.9	1048.2	1053.8
17.5°	1008.1	1025.6	1025.5	1040.1	1045.8
20°	992.7	1013.7	1016.4	1034.8	1045.8
22.5°	976.4	1001.0	1005.6	1033.2	1052.2
25°	952.0	976.3	992.7	1033.0	1061.7
27.5°	923.5	947.6	981.4	1026.5	1049.2
30°	904.5	927.7	967.8	1014.6	1035.7
32.5°	881.0	905.1	947.9	998.4	1017.6
35°	843.5	866.6	918.1	970.3	981.4
37.5°	800.3	826.6	884.2	913.3	914.0
40°	767.7	802.0	857.0	862.3	848.0
42.5°	736.0	780.0	819.0	795.2	731.3
45°	687.4	739.4	755.3	640.1	595.8
47.5°	635.6	687.0	661.7	536.8	506.3
50°	600.4	649.0	585.7	479.8	451.1
52.5°	560.6	603.9	517.8	425.2	381.5
55°	498.6	528.5	439.8	331.5	289.4
57.5°	424.0	445.0	376.1	248.9	201.7
60°	374.2	390.9	329.0	204.1	180.9
62.5°	329.0	343.8	280.2	177.3	169.1
65°	266.8	281.2	214.8	151.5	150.4
67.5°	212.3	228.1	164.8	132.3	130.9
70°	179.8	196.4	136.8	118.7	116.5
72.5°	152.6	168.4	116.0	104.2	102.9
75°	115.3	127.5	89.3	83.7	82.5
77.5°	83.7	91.4	66.5	63.5	62.4
80°	65.6	68.9	52.0	50.9	49.7
82.5°	49.3	48.2	39.3	38.2	36.2
85°	26.0	23.7	21.5	16.8	13.6
87.5°	8.1	8.1	3.6	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P855514

CATALOG NUMBER: SQ2-PP3-050D-830-UNV-STD-W-4

**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	21.34	22.86	21.71	23.18	23.49	17.74	19.26	18.10	19.57	19.89
	3H	22.49	23.85	22.86	24.18	24.54	18.89	20.25	19.27	20.58	20.94
	4H	22.86	24.13	23.26	24.48	24.86	19.38	20.66	19.78	21.01	21.39
	6H	23.10	24.28	23.52	24.65	25.04	19.76	20.94	20.17	21.31	21.70
	8H	23.17	24.29	23.60	24.68	25.08	19.86	20.98	20.29	21.37	21.78
	12H	23.21	24.28	23.64	24.66	25.09	19.90	20.97	20.33	21.35	21.78
4H	2H	21.53	22.80	21.93	23.15	23.53	18.53	19.81	18.93	20.15	20.53
	3H	22.90	23.95	23.31	24.35	24.75	19.84	20.89	20.25	21.29	21.70
	4H	23.40	24.34	23.83	24.76	25.20	20.42	21.37	20.85	21.78	22.22
	6H	23.77	24.59	24.22	25.03	25.49	20.89	21.72	21.35	22.16	22.62
	8H	23.87	24.64	24.34	25.09	25.55	21.03	21.80	21.49	22.24	22.71
	12H	23.94	24.62	24.42	25.10	25.57	21.08	21.77	21.57	22.25	22.72
8H	4H	23.46	24.23	23.92	24.67	25.14	20.74	21.51	21.20	21.95	22.42
	6H	23.91	24.55	24.41	25.04	25.52	21.31	21.94	21.80	22.43	22.91
	8H	24.07	24.64	24.58	25.15	25.64	21.49	22.06	22.01	22.57	23.06
	12H	24.18	24.69	24.69	25.18	25.75	21.59	22.10	22.10	22.59	23.16
12H	4H	23.45	24.13	23.93	24.61	25.08	20.78	21.46	21.26	21.94	22.41
	6H	23.90	24.47	24.42	24.98	25.47	21.36	21.93	21.87	22.44	22.93
	8H	24.10	24.61	24.61	25.10	25.66	21.59	22.10	22.10	22.59	23.16