

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: P845569

Luminaire Tested: SQ2R-PH1-050D-935-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

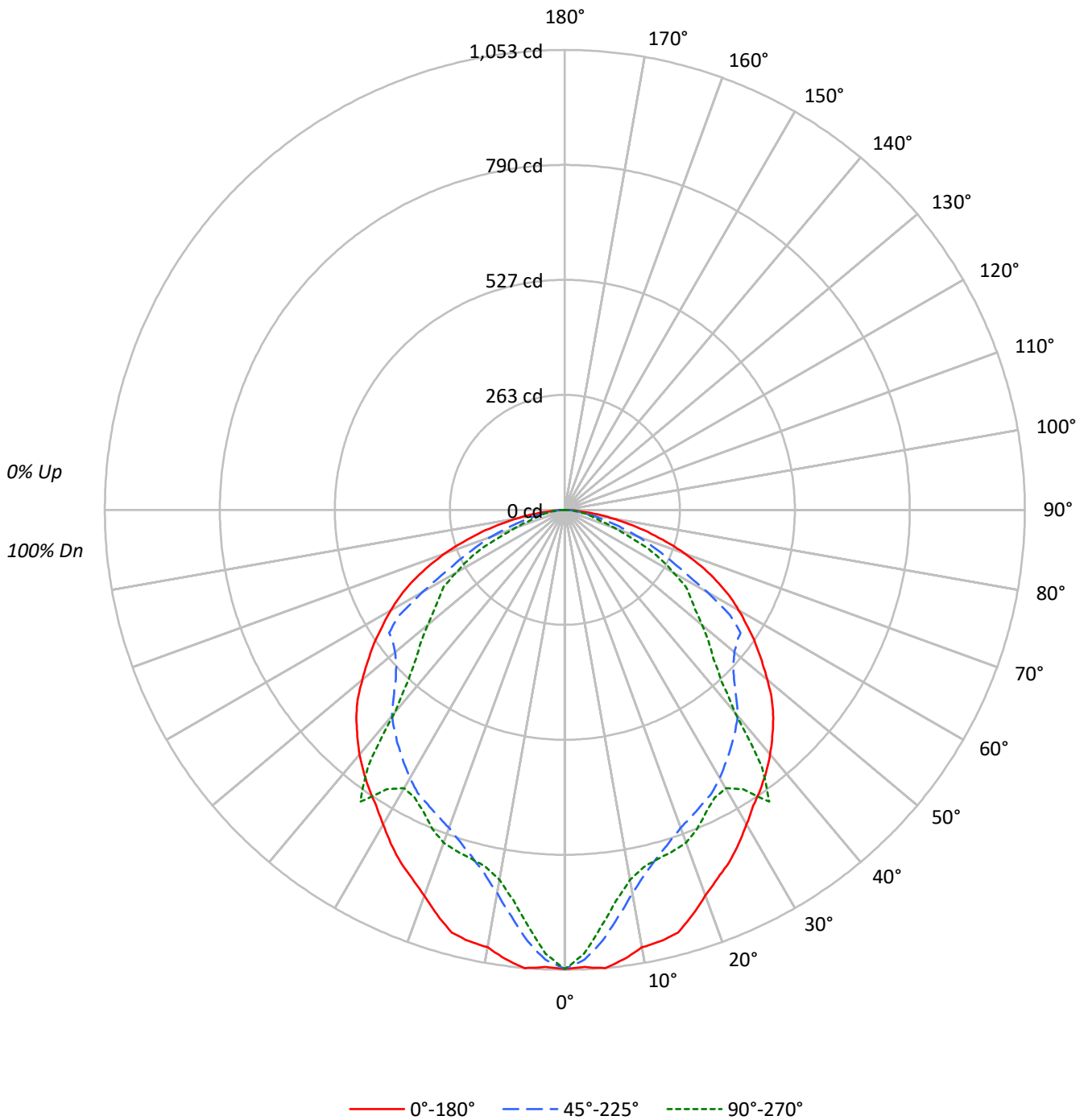
Test Method: LM-79-2019  
Report Number: P845569  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PH1-050D-935-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS  
500 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2322.0 lumens  
Efficiency: N/A  
Efficacy: 130.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.03 / 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: 0.9973  
Total Harmonic Distortion (THDi): 0.0531  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 3 HR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P845569  
CATALOG NUMBER: SQ2R-PH1-050D-935-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P845569

CATALOG NUMBER: SQ2R-PH1-050D-935-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	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	74	67	89	80	73	67	77	71	66	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	56	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	44	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	33	28	38	32	28	26

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

	0°	45°	90°
0°	16969	16969	16969
5°	17067	16045	15511
10°	16674	14608	14100
15°	16749	13740	13824
20°	16151	13316	13935
25°	15855	13254	13611
30°	15511	13218	13722
35°	15394	13068	16084
40°	15407	12983	12752
45°	15413	12490	10983
50°	15197	12735	10299
55°	15004	13821	9880
60°	14854	12109	9268
65°	14594	9819	8061
70°	13785	8356	5759
75°	12289	6301	4367
80°	10042	4091	4091
85°	6299	3705	2779

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15413 cd/sqm

TEST NUMBER: P845569

CATALOG NUMBER: SQ2R-PH1-050D-935-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.7	4.0
10°-20°	243.1	10.5
20°-30°	356.5	15.4
30°-40°	432.1	18.6
40°-50°	424.5	18.3
50°-60°	369.8	15.9
60°-70°	256.4	11.0
70°-80°	121.0	5.2
80°-90°	26.0	1.1
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°	692.2	29.8
0°-40°	1124.3	48.4
0°-60°	1918.6	82.6
0°-90°	2322.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2322.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1053	1052	990	959	957	99
15°	1002	890	822	816	827	280
25°	890	754	744	767	764	409
35°	781	628	663	718	816	489
45°	675	496	547	568	481	519
55°	533	386	491	354	351	476
65°	382	265	257	211	211	376
75°	197	135	101	72	70	208
85°	34	22	20	16	15	45
90°	0	0	0	0	0	



TEST NUMBER: P845569

CATALOG NUMBER: SQ2R-PH1-050D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1051	1051	1051	1051	1051
2.5°	1048	1062	1031	1019	1017
5°	1053	1052	990	959	957
7.5°	1038	1011	939	904	902
10°	1017	970	891	860	860
12.5°	1012	931	852	831	837
15°	1002	890	822	816	827
17.5°	972	851	797	807	820
20°	940	821	775	799	811
22.5°	913	792	759	786	791
25°	890	754	744	767	764
27.5°	862	720	730	744	743
30°	832	690	709	723	736
32.5°	803	655	686	724	758
35°	781	628	663	718	816
37.5°	757	595	640	684	741
40°	731	559	616	677	605
42.5°	703	531	580	664	530
45°	675	496	547	568	481
47.5°	643	470	523	483	446
50°	605	444	507	432	410
52.5°	568	417	496	390	377
55°	533	386	491	354	351
57.5°	495	355	449	321	329
60°	460	325	375	293	287
62.5°	423	296	306	257	251
65°	382	265	257	211	211
67.5°	338	233	216	182	156
70°	292	202	177	138	122
72.5°	243	169	137	107	88
75°	197	135	101	72	70
77.5°	151	103	74	56	56
80°	108	74	44	43	44
82.5°	68	45	30	32	32
85°	34	22	20	16	15
87.5°	9	8	5	5	5
90°	0	0	0	0	0



TEST NUMBER: P845569

CATALOG NUMBER: SQ2R-PH1-050D-935-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	20.98	22.56	21.34	22.88	23.19	19.69	21.28	20.05	21.59	21.90
	3H	23.06	24.49	23.43	24.81	25.17	20.77	22.20	21.15	22.53	22.89
	4H	23.82	25.17	24.22	25.51	25.89	21.02	22.36	21.42	22.71	23.09
	6H	24.35	25.59	24.76	25.95	26.35	21.20	22.44	21.61	22.81	23.20
	8H	24.49	25.68	24.92	26.07	26.47	21.25	22.44	21.68	22.83	23.23
	12H	24.56	25.69	24.99	26.08	26.51	21.27	22.41	21.70	22.79	23.22
4H	2H	21.44	22.79	21.84	23.13	23.51	20.41	21.76	20.81	22.10	22.48
	3H	23.61	24.73	24.02	25.13	25.53	21.66	22.78	22.07	23.17	23.57
	4H	24.46	25.46	24.89	25.88	26.32	21.96	22.97	22.39	23.38	23.82
	6H	25.08	25.96	25.54	26.40	26.86	22.21	23.09	22.67	23.53	23.99
	8H	25.27	26.09	25.73	26.53	27.00	22.28	23.10	22.74	23.55	24.01
	12H	25.37	26.10	25.85	26.58	27.05	22.32	23.06	22.81	23.53	24.00
8H	4H	24.53	25.35	24.99	25.79	26.26	22.23	23.05	22.69	23.49	23.96
	6H	25.21	25.89	25.71	26.38	26.86	22.53	23.21	23.03	23.70	24.18
	8H	25.44	26.05	25.96	26.56	27.05	22.64	23.25	23.15	23.76	24.24
	12H	25.59	26.13	26.10	26.62	27.18	22.72	23.25	23.23	23.75	24.31
12H	4H	24.52	25.25	25.00	25.73	26.20	22.26	23.00	22.74	23.47	23.94
	6H	25.19	25.80	25.70	26.31	26.79	22.57	23.18	23.08	23.68	24.17
	8H	25.46	25.99	25.97	26.48	27.05	22.72	23.25	23.23	23.74	24.31