

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: P688733

Luminaire Tested: SQ4R-PH1-050D-93050-1-UNV-STD-W-4\_4500K

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688733  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-36)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/22/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4R-PH1-050D-93050-1-UNV-STD-W-4\_4500K  
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS.  
500 LUMENS PER FOOT  
Light Source: 4500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2003.4 lumens  
Efficiency: N/A  
Efficacy: 94.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.22 / 1.28  
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')  
CIE Type: Direct

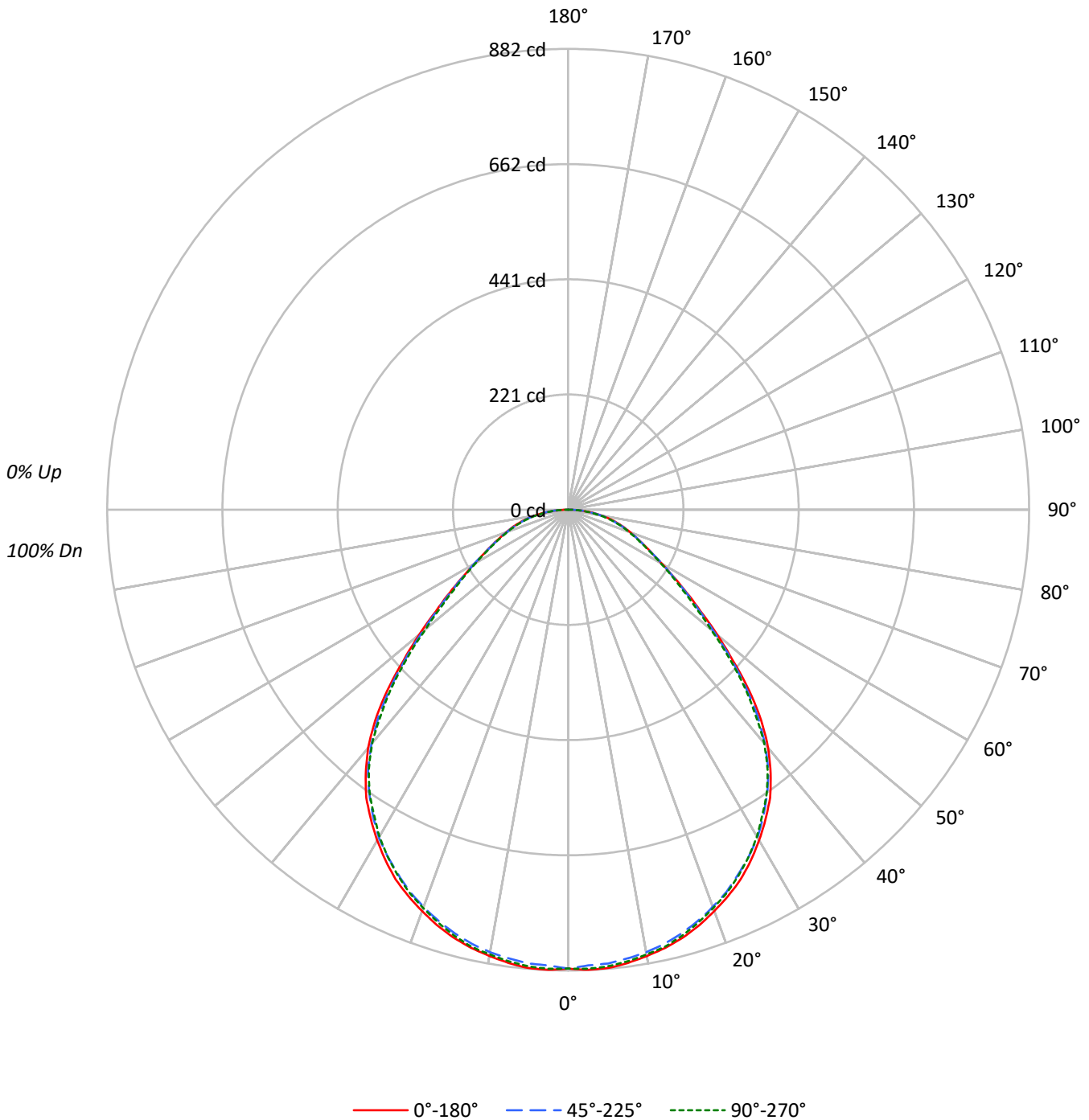
Input Watts (W): 21.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	105	102	98	107	103	100	96	99	96	93		95	93	91		92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79		85	81	77		82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		73	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66	62	57	55
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55	50	45	43
7	68	56	47	42	67	55	47	41	53	46	41		52	46	41		51	45	41	39
8	64	51	43	37	62	50	43	37	49	42	37		48	42	37		47	41	37	35
9	60	47	39	34	58	47	39	34	45	39	34		44	38	34		43	38	33	32
10	56	44	36	31	55	43	36	31	42	35	31		41	35	31		40	35	31	29

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

	0°	45°	90°
0°	8456	8456	8456
5°	8509	8425	8477
10°	8480	8406	8448
15°	8451	8365	8408
20°	8376	8287	8310
25°	8293	8178	8201
30°	8124	8052	8027
35°	7914	7799	7786
40°	7481	7358	7332
45°	6673	6539	6466
50°	5570	5456	5342
55°	4641	4586	4476
60°	3988	4009	3924
65°	3656	3631	3581
70°	3541	3510	3448
75°	3590	3508	3430
80°	3609	3548	3426
85°	3468	3468	3237

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6673 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.3	4.2
10°-20°	238.0	11.9
20°-30°	356.5	17.8
30°-40°	414.8	20.7
40°-50°	368.9	18.4
50°-60°	247.7	12.4
60°-70°	160.1	8.0
70°-80°	99.8	5.0
80°-90°	34.2	1.7
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°	677.8	33.8
0°-40°	1092.6	54.5
0°-60°	1709.3	85.3
0°-90°	2003.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2003.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	878	878	878	878	878	
5°	880	878	872	878	877	84
15°	848	846	839	845	844	239
25°	781	777	770	774	772	359
35°	673	670	664	664	662	419
45°	490	488	480	474	475	375
55°	276	276	273	269	267	251
65°	160	162	159	158	157	161
75°	96	95	94	94	92	102
85°	31	32	31	30	29	35
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	878.3	878.3	878.3	878.3	878.3
2.5°	881.5	879.4	872.9	880.5	879.4
5°	880.5	878.3	871.8	878.3	877.2
7.5°	875.0	874.0	866.4	874.0	871.8
10°	867.4	867.4	859.9	866.4	864.2
12.5°	858.8	857.7	851.2	857.7	856.6
15°	847.9	845.8	839.3	844.7	843.6
17.5°	833.8	832.7	825.2	830.6	828.4
20°	817.6	815.4	808.9	813.2	811.1
22.5°	800.2	798.1	791.5	794.8	793.7
25°	780.7	777.4	769.9	774.2	772.0
27.5°	756.8	755.8	748.2	750.3	748.2
30°	730.8	729.7	724.3	724.3	722.1
32.5°	702.6	703.7	695.0	696.1	691.8
35°	673.4	670.1	663.6	663.6	662.5
37.5°	636.5	634.3	628.9	627.8	626.7
40°	595.3	593.1	585.5	583.4	583.4
42.5°	546.5	544.3	536.7	533.5	529.1
45°	490.1	487.9	480.3	473.8	474.9
47.5°	427.2	429.4	421.8	416.4	415.3
50°	371.9	370.8	364.3	361.1	356.7
52.5°	318.8	319.9	314.4	312.3	306.9
55°	276.5	276.5	273.2	268.9	266.7
57.5°	238.5	240.7	237.5	235.3	233.1
60°	207.1	208.2	208.2	203.8	203.8
62.5°	181.1	182.2	181.1	178.9	178.9
65°	160.5	161.6	159.4	158.3	157.2
67.5°	142.0	143.1	142.0	141.0	138.8
70°	125.8	125.8	124.7	124.7	122.5
72.5°	111.7	110.6	109.5	109.5	108.4
75°	96.5	95.4	94.3	94.3	92.2
77.5°	81.3	80.2	80.2	78.1	77.0
80°	65.1	65.1	64.0	62.9	61.8
82.5°	49.9	48.8	47.7	46.6	45.5
85°	31.4	32.5	31.4	30.4	29.3
87.5°	14.1	15.2	15.2	15.2	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)