

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: P688759

Luminaire Tested: SQ4R-PH1-100D-93050-1-UNV-STD-W-4\_4500K

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688759  
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-PH1-100D-93050-1-UNV-STD-W-4\_4500K  
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS.  
1000 LUMENS PER FOOT  
Light Source: 4500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3988.0 lumens  
Efficiency: N/A  
Efficacy: 85.9 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

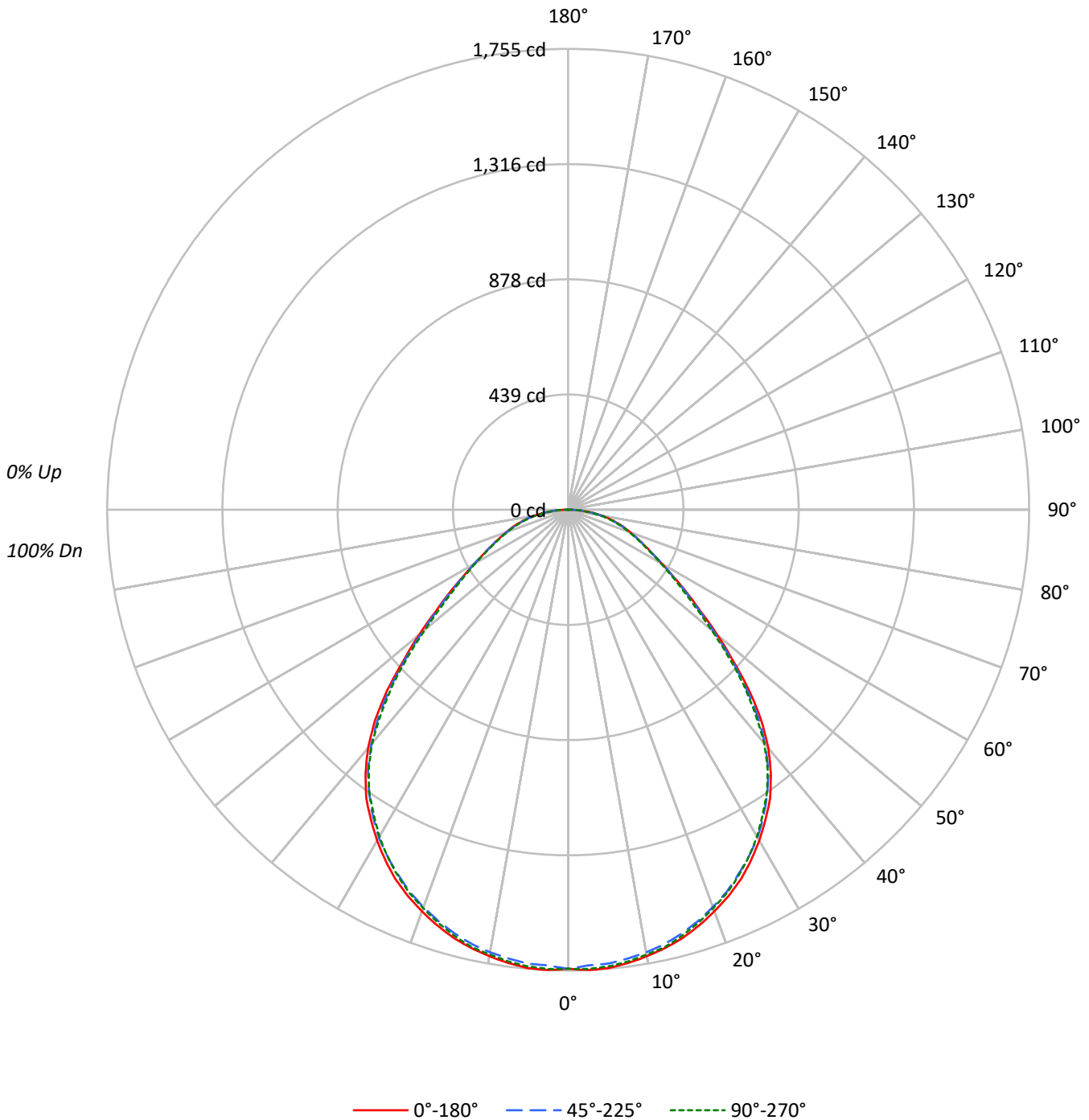
Input Watts (W): 46.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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°	16831	16831	16831
5°	16937	16770	16875
10°	16880	16732	16816
15°	16823	16651	16737
20°	16673	16497	16541
25°	16508	16279	16325
30°	16173	16028	15980
35°	15753	15524	15500
40°	14893	14648	14594
45°	13283	13019	12872
50°	11088	10862	10636
55°	9238	9129	8913
60°	7939	7979	7814
65°	7276	7228	7130
70°	7048	6986	6865
75°	7146	6986	6826
80°	7180	7058	6819
85°	6915	6915	6440

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13283 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.8	4.2
10°-20°	473.7	11.9
20°-30°	709.7	17.8
30°-40°	825.7	20.7
40°-50°	734.4	18.4
50°-60°	493.1	12.4
60°-70°	318.7	8.0
70°-80°	198.7	5.0
80°-90°	68.1	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°	1349.2	33.8
0°-40°	2174.9	54.5
0°-60°	3402.5	85.3
0°-90°	3988.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3988.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1748	1748	1748	1748	1748	
5°	1753	1748	1735	1748	1746	166
15°	1688	1684	1671	1681	1679	476
25°	1554	1548	1532	1541	1537	714
35°	1340	1334	1321	1321	1319	833
45°	976	971	956	943	945	746
55°	550	550	544	535	531	499
65°	319	322	317	315	313	320
75°	192	190	188	188	184	202
85°	63	65	63	60	58	69
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1748.3	1748.3	1748.3	1748.3	1748.3
2.5°	1754.8	1750.5	1737.5	1752.6	1750.5
5°	1752.6	1748.3	1735.3	1748.3	1746.1
7.5°	1741.8	1739.7	1724.6	1739.7	1735.3
10°	1726.7	1726.7	1711.6	1724.6	1720.2
12.5°	1709.4	1707.3	1694.3	1707.3	1705.1
15°	1687.9	1683.5	1670.6	1681.4	1679.2
17.5°	1659.8	1657.6	1642.5	1653.3	1649.0
20°	1627.4	1623.1	1610.2	1618.8	1614.5
22.5°	1592.9	1588.6	1575.6	1582.1	1579.9
25°	1554.0	1547.6	1532.5	1541.1	1536.8
27.5°	1506.6	1504.4	1489.3	1493.6	1489.3
30°	1454.8	1452.6	1441.8	1441.8	1437.5
32.5°	1398.6	1400.8	1383.5	1385.7	1377.1
35°	1340.4	1333.9	1320.9	1320.9	1318.8
37.5°	1267.0	1262.7	1251.9	1249.7	1247.5
40°	1185.0	1180.6	1165.5	1161.2	1161.2
42.5°	1087.8	1083.5	1068.4	1061.9	1053.3
45°	975.6	971.3	956.2	943.2	945.4
47.5°	850.4	854.7	839.6	828.8	826.7
50°	740.3	738.2	725.2	718.7	710.1
52.5°	634.6	636.7	625.9	621.6	610.8
55°	550.4	550.4	543.9	535.3	531.0
57.5°	474.8	479.2	472.7	468.4	464.1
60°	412.3	414.4	414.4	405.8	405.8
62.5°	360.5	362.6	360.5	356.1	356.1
65°	319.4	321.6	317.3	315.1	313.0
67.5°	282.7	284.9	282.7	280.6	276.3
70°	250.4	250.4	248.2	248.2	243.9
72.5°	222.3	220.2	218.0	218.0	215.8
75°	192.1	189.9	187.8	187.8	183.5
77.5°	161.9	159.7	159.7	155.4	153.2
80°	129.5	129.5	127.3	125.2	123.0
82.5°	99.3	97.1	95.0	92.8	90.7
85°	62.6	64.8	62.6	60.4	58.3
87.5°	28.1	30.2	30.2	30.2	28.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)