

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: P845576

Luminaire Tested: SQ2R-PH1-075D-940-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

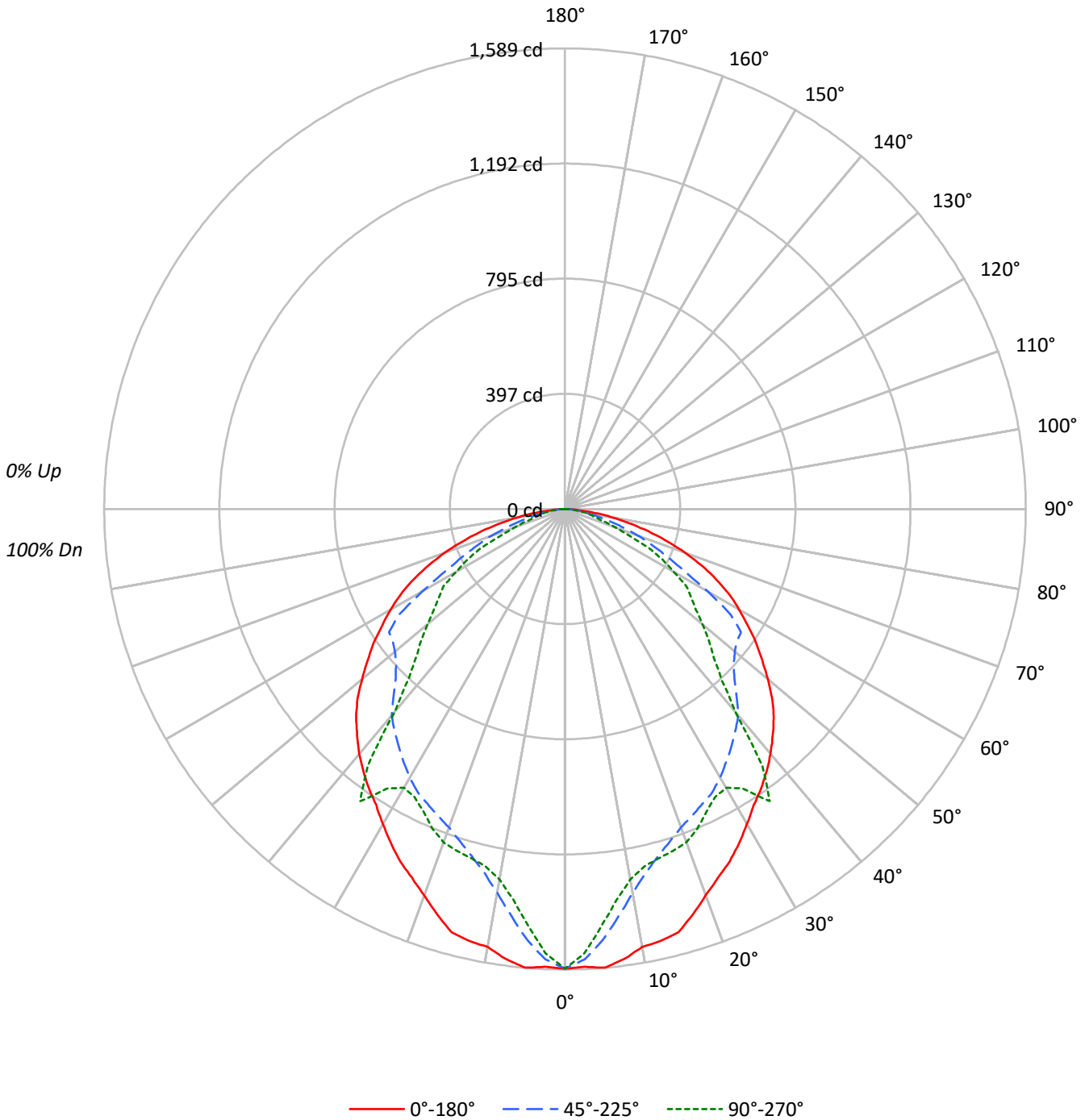
Test Method: LM-79-2019  
Report Number: P845576  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PH1-075D-940-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS  
750 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3503.2 lumens  
Efficiency: N/A  
Efficacy: 131.2 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): 26.7  
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	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°	25602	25602	25602
5°	25749	24208	23400
10°	25156	22040	21272
15°	25269	20730	20856
20°	24368	20091	21024
25°	23922	19997	20535
30°	23403	19943	20702
35°	23225	19716	24266
40°	23246	19589	19239
45°	23254	18845	16570
50°	22928	19213	15538
55°	22635	20853	14908
60°	22410	18271	13982
65°	22017	14812	12160
70°	20795	12604	8691
75°	18540	9507	6588
80°	15146	6174	6174
85°	9503	5595	4187

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 23254 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.9	4.0
10°-20°	366.7	10.5
20°-30°	537.8	15.4
30°-40°	651.9	18.6
40°-50°	640.4	18.3
50°-60°	557.9	15.9
60°-70°	386.8	11.0
70°-80°	182.5	5.2
80°-90°	39.3	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°	1044.4	29.8
0°-40°	1696.3	48.4
0°-60°	2894.6	82.6
0°-90°	3503.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3503.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1586	1586	1586	1586	1586	
5°	1589	1587	1494	1447	1444	150
15°	1512	1343	1240	1231	1248	422
25°	1343	1138	1122	1157	1153	618
35°	1178	948	1000	1083	1231	738
45°	1018	748	825	857	726	784
55°	804	582	741	534	530	718
65°	576	400	388	318	318	567
75°	297	204	152	109	106	315
85°	51	33	30	24	23	68
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1585.7	1585.7	1585.7	1585.7	1585.7
2.5°	1581.1	1602.3	1555.5	1537.4	1534.4
5°	1588.7	1587.2	1493.6	1446.9	1443.8
7.5°	1566.1	1525.3	1416.7	1363.9	1360.9
10°	1534.4	1463.5	1344.3	1297.5	1297.5
12.5°	1526.8	1404.6	1285.4	1253.7	1262.8
15°	1511.7	1342.8	1240.2	1231.1	1247.7
17.5°	1466.5	1283.9	1202.5	1217.5	1237.2
20°	1418.2	1238.7	1169.3	1205.5	1223.6
22.5°	1377.5	1194.9	1145.1	1185.9	1193.4
25°	1342.8	1137.6	1122.5	1157.2	1152.7
27.5°	1300.5	1086.3	1101.4	1122.5	1121.0
30°	1255.3	1041.0	1069.7	1090.8	1110.4
32.5°	1211.5	988.2	1035.0	1092.3	1143.6
35°	1178.3	947.5	1000.3	1083.3	1231.1
37.5°	1142.1	897.7	965.6	1032.0	1118.0
40°	1102.9	843.4	929.4	1021.4	912.8
42.5°	1060.6	801.1	875.1	1001.8	799.6
45°	1018.4	748.3	825.3	857.0	725.7
47.5°	970.1	709.1	789.1	728.7	672.9
50°	912.8	669.9	764.9	651.8	618.6
52.5°	857.0	629.1	748.3	588.4	568.8
55°	804.1	582.4	740.8	534.1	529.6
57.5°	746.8	535.6	677.4	484.3	496.4
60°	694.0	490.3	565.8	442.1	433.0
62.5°	638.2	446.6	461.7	387.7	378.7
65°	576.3	399.8	387.7	318.3	318.3
67.5°	509.9	351.5	325.9	274.6	235.4
70°	440.5	304.8	267.0	208.2	184.1
72.5°	366.6	255.0	206.7	161.4	132.8
75°	297.2	203.7	152.4	108.6	105.6
77.5°	227.8	155.4	111.6	84.5	84.5
80°	162.9	111.6	66.4	64.9	66.4
82.5°	102.6	67.9	45.3	48.3	48.3
85°	51.3	33.2	30.2	24.1	22.6
87.5°	13.6	12.1	7.5	7.5	7.5
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	22.40	23.99	22.77	24.31	24.62	21.12	22.71	21.48	23.02	23.33
	3H	24.48	25.92	24.86	26.24	26.60	22.20	23.63	22.58	23.96	24.32
	4H	25.25	26.60	25.65	26.94	27.32	22.45	23.79	22.85	24.14	24.52
	6H	25.77	27.02	26.19	27.38	27.77	22.63	23.87	23.04	24.24	24.63
	8H	25.92	27.10	26.35	27.49	27.89	22.68	23.87	23.11	24.25	24.65
	12H	25.99	27.12	26.42	27.50	27.93	22.70	23.84	23.13	24.22	24.65
4H	2H	22.87	24.21	23.27	24.56	24.94	21.84	23.18	22.24	23.53	23.91
	3H	25.04	26.16	25.45	26.56	26.96	23.09	24.21	23.50	24.60	25.00
	4H	25.89	26.89	26.32	27.31	27.74	23.39	24.40	23.82	24.81	25.25
	6H	26.51	27.39	26.97	27.83	28.29	23.64	24.52	24.09	24.96	25.41
	8H	26.70	27.52	27.16	27.96	28.43	23.71	24.53	24.17	24.97	25.44
	12H	26.80	27.53	27.28	28.01	28.48	23.75	24.49	24.23	24.96	25.43
8H	4H	25.96	26.78	26.42	27.22	27.69	23.66	24.48	24.12	24.92	25.39
	6H	26.64	27.32	27.14	27.81	28.28	23.96	24.64	24.46	25.13	25.61
	8H	26.87	27.48	27.38	27.99	28.47	24.07	24.68	24.58	25.19	25.67
	12H	27.02	27.55	27.53	28.05	28.61	24.15	24.68	24.66	25.17	25.74
12H	4H	25.95	26.68	26.43	27.16	27.63	23.69	24.42	24.17	24.90	25.37
	6H	26.62	27.23	27.13	27.74	28.22	24.00	24.60	24.51	25.11	25.60
	8H	26.89	27.42	27.39	27.91	28.48	24.15	24.68	24.65	25.17	25.74