

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: P845547

Luminaire Tested: SQ2R-PC3-075D-830-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

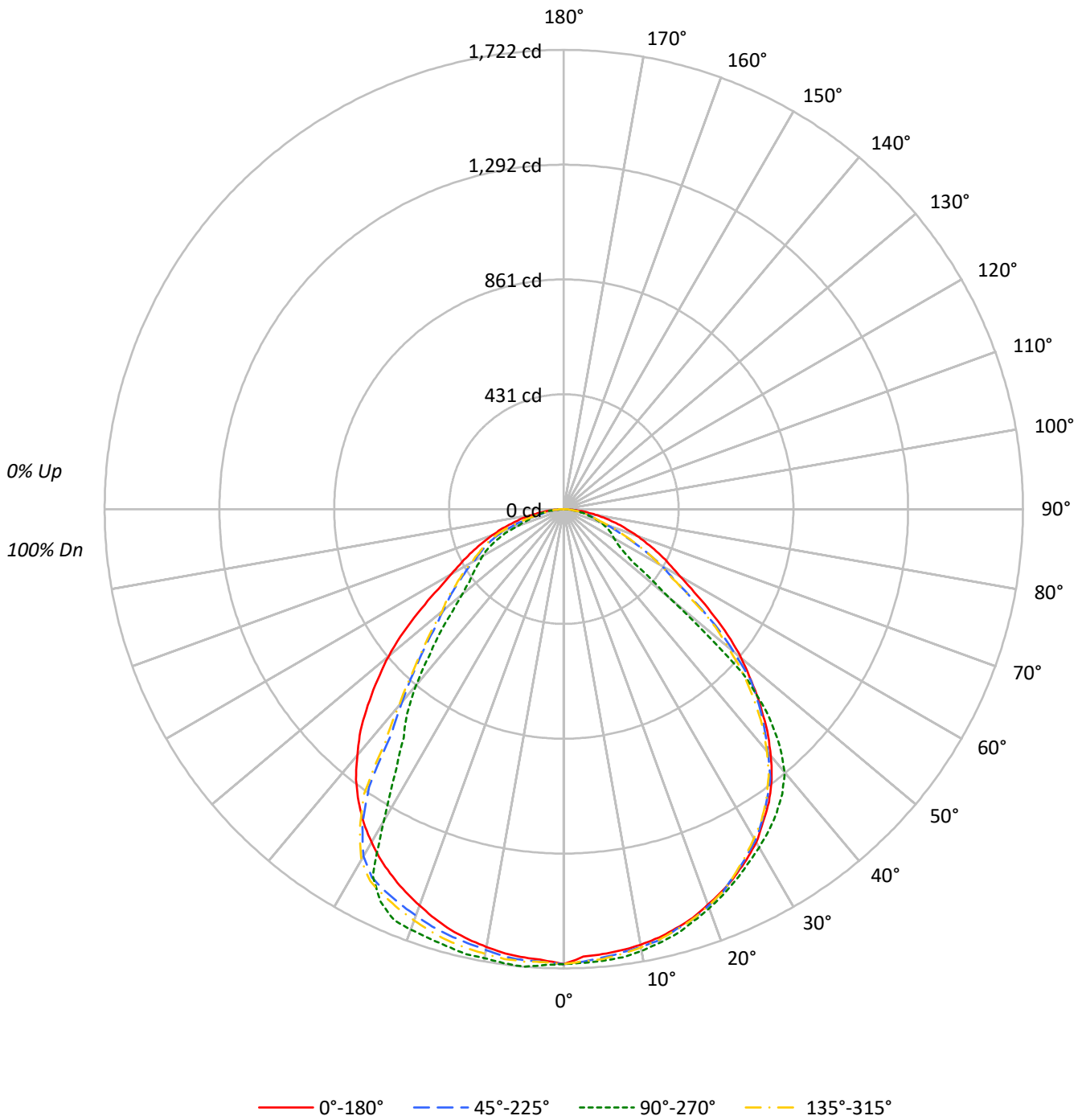
Test Method: LM-79-2019  
Report Number: P845547  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PC3-075D-830-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS  
750 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3824.9 lumens  
Efficiency: N/A  
Efficacy: 143.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.21 / 1.25  
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	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	108	104	100	97	100	97	94	96	94	91	92	90	89	87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	93	84	77	71	91	83	76	70	80	74	69	77	72	68	74	70	67	65				
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	63	59	57				
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50				
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44				
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42	40				
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				
10	57	44	37	32	56	44	37	32	43	36	32	42	36	31	41	35	31	30				

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

	0°	90°	180°	270°
0°	27546	27546	27546	27546
5°	27149	27545	27360	27916
10°	27196	27570	27329	28024
15°	27209	27537	27318	28354
20°	27129	27380	27184	28837
25°	27052	27285	27081	28940
30°	26912	27307	26880	25117
35°	26426	27423	26426	20639
40°	25474	27158	25370	18151
45°	23797	24544	23724	15009
50°	21835	12946	21549	12496
55°	19009	7485	18365	11617
60°	16223	7004	15697	11376
65°	15018	7167	14518	10781
70°	13785	7006	13397	8545
75°	12614	6307	12208	7735
80°	11223	5607	10618	7736
85°	8466	3020	7855	3927

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 24544 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.8	4.2
10°-20°	467.4	12.2
20°-30°	714.1	18.7
30°-40°	807.1	21.1
40°-50°	705.5	18.4
50°-60°	466.8	12.2
60°-70°	305.0	8.0
70°-80°	159.6	4.2
80°-90°	37.7	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°	1343.3	35.1
0°-40°	2150.4	56.2
0°-60°	3322.6	86.9
0°-90°	3824.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3824.9	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1706	1706	1706	1706	1706	
5°	1675	1700	1688	1722	1675	159
15°	1628	1647	1634	1696	1628	459
25°	1518	1532	1520	1624	1518	700
35°	1341	1391	1341	1047	1341	836
45°	1042	1075	1039	657	1042	803
55°	675	266	652	413	675	606
65°	393	188	380	282	393	389
75°	202	101	196	124	202	215
85°	46	16	42	21	46	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1706.1	1706.1	1706.1	1706.1	1706.1	1706.1	1706.1	1706.1	1706.1	1706.1	1706.1
2.5°	1680.0	1722.4	1697.9	1696.3	1702.8	1704.4	1696.3	1714.2	1693.0	1715.9	1699.5
5°	1675.1	1717.5	1688.1	1684.9	1699.5	1694.7	1693.0	1709.3	1688.1	1706.1	1697.9
7.5°	1668.6	1707.7	1676.7	1675.1	1694.7	1688.1	1681.6	1701.2	1680.0	1699.5	1693.0
10°	1658.8	1693.0	1666.9	1668.6	1681.6	1675.1	1668.6	1684.9	1666.9	1691.4	1678.3
12.5°	1645.7	1680.0	1655.5	1650.6	1665.3	1653.9	1653.9	1666.9	1652.2	1678.3	1666.9
15°	1627.8	1662.0	1631.0	1634.3	1647.4	1635.9	1632.7	1649.0	1634.3	1660.4	1655.5
17.5°	1606.6	1635.9	1613.1	1614.7	1619.6	1614.7	1611.5	1624.5	1609.8	1637.6	1640.8
20°	1578.9	1613.1	1583.7	1583.7	1593.5	1580.5	1583.7	1595.2	1582.1	1614.7	1621.3
22.5°	1551.1	1583.7	1556.0	1556.0	1564.2	1546.2	1554.4	1562.5	1552.8	1588.6	1603.3
25°	1518.5	1544.6	1513.6	1523.4	1531.6	1515.2	1513.6	1526.7	1520.1	1556.0	1582.1
27.5°	1482.6	1505.5	1476.1	1489.1	1497.3	1485.9	1471.2	1487.5	1484.3	1525.0	1557.6
30°	1443.5	1464.7	1435.3	1453.3	1464.7	1448.4	1425.5	1440.2	1441.8	1489.1	1502.2
32.5°	1391.3	1412.5	1384.8	1414.1	1430.4	1407.6	1381.5	1389.7	1396.2	1443.5	1406.0
35°	1340.7	1350.5	1329.3	1366.8	1391.3	1363.6	1324.4	1334.2	1340.7	1394.5	1272.2
37.5°	1280.4	1280.4	1272.2	1313.0	1345.6	1304.8	1262.4	1267.3	1280.4	1326.0	1060.2
40°	1208.6	1198.8	1190.7	1244.5	1288.5	1234.7	1184.1	1185.8	1203.7	1215.1	944.4
42.5°	1128.7	1117.3	1114.0	1171.1	1197.2	1153.1	1101.0	1102.6	1128.7	1061.8	836.7
45°	1042.2	1037.3	1034.1	1073.2	1074.9	1047.1	1009.6	1017.8	1039.0	916.6	740.5
47.5°	954.2	950.9	949.3	918.3	911.8	892.2	911.8	929.7	947.6	765.0	652.4
50°	869.3	846.5	833.5	719.3	515.4	707.9	802.5	833.5	857.9	667.1	587.2
52.5°	776.4	756.8	716.0	549.7	326.2	546.4	703.0	742.1	756.8	606.7	538.2
55°	675.3	675.3	587.2	352.3	265.9	370.2	577.4	663.8	652.4	543.1	482.8
57.5°	579.0	598.6	487.7	236.5	234.9	236.5	484.4	590.4	557.8	492.6	437.1
60°	502.4	531.7	422.4	210.4	216.9	207.1	414.3	525.2	486.1	438.8	386.6
62.5°	445.3	469.7	349.0	192.5	203.9	189.2	350.7	468.1	430.6	399.6	352.3
65°	393.1	417.5	275.6	176.2	187.6	172.9	283.8	414.3	380.0	355.6	321.3
67.5°	337.6	360.5	218.6	159.8	168.0	158.2	228.3	360.5	329.5	313.2	280.5
70°	292.0	318.1	166.4	143.5	148.4	141.9	177.8	311.5	283.8	277.3	239.8
72.5°	246.3	267.5	128.9	127.2	125.6	124.0	130.5	265.9	239.8	228.3	185.9
75°	202.2	216.9	106.0	106.0	101.1	102.8	106.0	216.9	195.7	185.9	132.1
77.5°	159.8	171.3	86.4	83.2	78.3	78.3	84.8	166.4	154.9	143.5	88.1
80°	120.7	124.0	65.2	62.0	60.3	60.3	65.2	120.7	114.2	102.8	68.5
82.5°	81.6	68.5	44.0	45.7	44.0	44.0	42.4	70.1	76.7	52.2	50.6
85°	45.7	31.0	27.7	21.2	16.3	17.9	26.1	29.4	42.4	27.7	32.6
87.5°	16.3	13.0	4.9	6.5	4.9	4.9	4.9	13.0	13.0	9.8	4.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1706.1	1706.1	1706.1	1706.1	1706.1	1706.1
2.5°	1701.2	1711.0	1709.3	1699.5	1720.8	1680.0
5°	1702.8	1722.4	1712.6	1702.8	1715.9	1675.1
7.5°	1694.7	1717.5	1706.1	1701.2	1714.2	1668.6
10°	1689.8	1709.3	1699.5	1693.0	1706.1	1658.8
12.5°	1684.9	1707.7	1694.7	1686.5	1694.7	1645.7
15°	1671.8	1696.3	1688.1	1675.1	1675.1	1627.8
17.5°	1662.0	1686.5	1678.3	1660.4	1652.2	1606.6
20°	1655.5	1678.3	1666.9	1640.8	1627.8	1578.9
22.5°	1640.8	1666.9	1649.0	1621.3	1603.3	1551.1
25°	1614.7	1624.5	1622.9	1598.4	1569.1	1518.5
27.5°	1546.2	1551.1	1556.0	1572.3	1539.7	1482.6
30°	1427.2	1347.2	1446.7	1520.1	1503.8	1443.5
32.5°	1202.1	1176.0	1234.7	1423.9	1456.5	1391.3
35°	1078.1	1047.1	1096.1	1306.5	1402.7	1340.7
37.5°	965.6	965.6	978.6	1097.7	1342.3	1280.4
40°	885.7	861.2	897.1	962.3	1251.0	1208.6
42.5°	756.8	748.6	771.5	848.1	1112.4	1128.7
45°	667.1	657.3	678.5	751.9	962.3	1042.2
47.5°	598.6	562.7	610.0	670.4	815.5	954.2
50°	535.0	497.5	543.1	595.3	691.6	869.3
52.5°	479.5	445.3	490.9	548.0	628.0	776.4
55°	422.4	412.7	433.9	494.2	566.0	675.3
57.5°	375.1	378.4	381.7	446.9	508.9	579.0
60°	345.8	352.3	350.7	401.2	461.6	502.4
62.5°	316.4	319.7	319.7	360.5	415.9	445.3
65°	282.2	282.2	285.4	331.1	376.8	393.1
67.5°	244.7	238.1	249.5	292.0	334.4	337.6
70°	192.5	181.0	200.6	252.8	298.5	292.0
72.5°	138.6	145.2	141.9	199.0	256.1	246.3
75°	114.2	124.0	115.8	141.9	208.8	202.2
77.5°	96.2	104.4	96.2	91.3	168.0	159.8
80°	76.7	83.2	76.7	70.1	124.0	120.7
82.5°	55.5	57.1	55.5	52.2	81.6	81.6
85°	26.1	21.2	29.4	34.3	32.6	45.7
87.5°	4.9	4.9	4.9	6.5	17.9	16.3
90°	0.0	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	21.75	23.23	22.11	23.55	23.86	19.25	20.73	19.61	21.05	21.36
	3H	23.38	24.72	23.76	25.04	25.41	20.73	22.06	21.11	22.39	22.75
	4H	23.98	25.23	24.38	25.58	25.96	21.18	22.43	21.58	22.78	23.16
	6H	24.42	25.57	24.83	25.93	26.32	21.57	22.72	21.98	23.09	23.48
	8H	24.54	25.64	24.97	26.03	26.43	21.69	22.78	22.12	23.17	23.57
	12H	24.60	25.65	25.04	26.03	26.46	21.73	22.78	22.16	23.16	23.59
4H	2H	22.01	23.26	22.41	23.61	23.99	20.06	21.30	20.46	21.65	22.03
	3H	23.91	24.94	24.32	25.34	25.74	21.70	22.73	22.11	23.13	23.54
	4H	24.66	25.58	25.09	26.00	26.44	22.21	23.14	22.64	23.55	23.99
	6H	25.24	26.05	25.70	26.49	26.95	22.68	23.49	23.14	23.93	24.39
	8H	25.42	26.17	25.88	26.61	27.08	22.83	23.58	23.30	24.03	24.50
	12H	25.51	26.18	26.00	26.66	27.14	22.90	23.57	23.38	24.05	24.52
8H	4H	24.72	25.48	25.19	25.92	26.39	22.52	23.27	22.98	23.72	24.19
	6H	25.41	26.03	25.91	26.53	27.00	23.07	23.69	23.57	24.18	24.66
	8H	25.65	26.21	26.17	26.72	27.21	23.27	23.83	23.79	24.34	24.83
	12H	25.80	26.29	26.31	26.78	27.35	23.38	23.88	23.89	24.37	24.93
12H	4H	24.71	25.38	25.19	25.86	26.33	22.56	23.23	23.04	23.71	24.18
	6H	25.40	25.95	25.91	26.46	26.95	23.12	23.67	23.63	24.19	24.67
	8H	25.67	26.17	26.18	26.66	27.22	23.37	23.86	23.88	24.35	24.92