

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: P845548

Luminaire Tested: SQ2R-PC3-075D-835-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

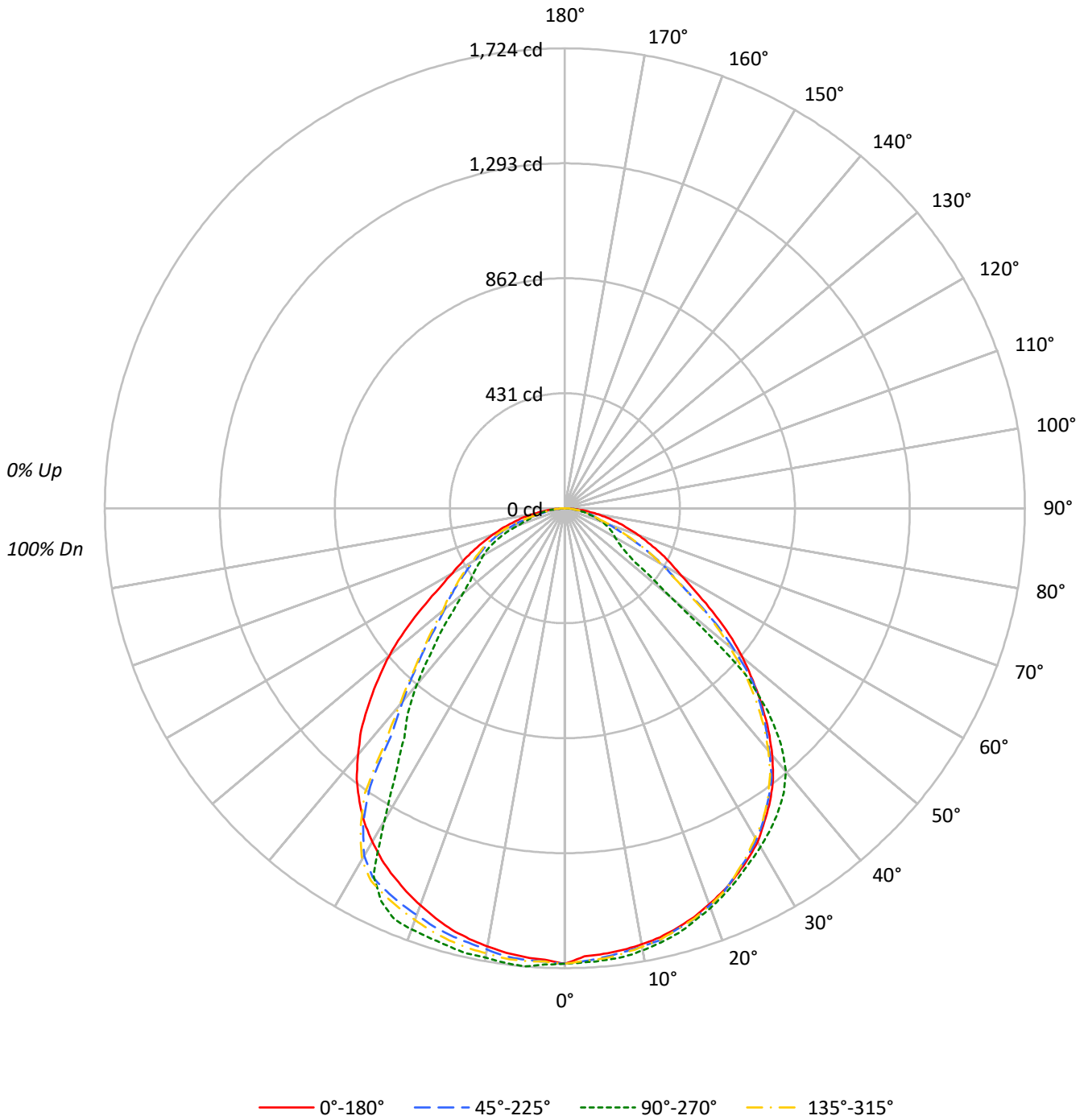
Test Method: LM-79-2019  
Report Number: P845548  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PC3-075D-835-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS  
750 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3828.3 lumens  
Efficiency: N/A  
Efficacy: 143.4 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				100
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				75
3	93	84	77	71	91	83	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	63	59	57				57
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50				50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44				44
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42	40				40
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36				36
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33				33
10	57	44	37	32	56	44	37	32	43	36	32	42	36	31	41	35	31	30				30

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

	0°	90°	180°	270°
0°	27571	27571	27571	27571
5°	27174	27571	27386	27940
10°	27220	27594	27353	28050
15°	27234	27560	27343	28379
20°	27153	27405	27208	28864
25°	27077	27309	27105	28967
30°	26936	27332	26905	25141
35°	26449	27447	26449	20659
40°	25497	27183	25393	18168
45°	23820	24564	23745	15022
50°	21856	12959	21569	12506
55°	19026	7491	18382	11626
60°	16236	7011	15710	11386
65°	15030	7171	14533	10789
70°	13794	7015	13412	8554
75°	12626	6313	12221	7742
80°	11232	5616	10628	7745
85°	8466	3020	7855	3927

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 24564 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.9	4.2
10°-20°	467.8	12.2
20°-30°	714.8	18.7
30°-40°	807.8	21.1
40°-50°	706.1	18.4
50°-60°	467.2	12.2
60°-70°	305.3	8.0
70°-80°	159.8	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°	1344.5	35.1
0°-40°	2152.3	56.2
0°-60°	3325.6	86.9
0°-90°	3828.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3828.3	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1708	1708	1708	1708	1708	
5°	1677	1701	1690	1724	1677	160
15°	1629	1649	1636	1698	1629	460
25°	1520	1533	1522	1626	1520	700
35°	1342	1392	1342	1048	1342	836
45°	1043	1076	1040	658	1043	803
55°	676	266	653	413	676	607
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°	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6
2.5°	1681.5	1723.9	1699.5	1697.8	1704.3	1706.0	1697.8	1715.8	1694.6	1717.4	1701.1
5°	1676.6	1719.0	1689.7	1686.4	1701.1	1696.2	1694.6	1710.9	1689.7	1707.6	1699.5
7.5°	1670.1	1709.2	1678.2	1676.6	1696.2	1689.7	1683.1	1702.7	1681.5	1701.1	1694.6
10°	1660.3	1694.6	1668.4	1670.1	1683.1	1676.6	1670.1	1686.4	1668.4	1692.9	1679.9
12.5°	1647.2	1681.5	1657.0	1652.1	1666.8	1655.4	1655.4	1668.4	1653.7	1679.9	1668.4
15°	1629.3	1663.5	1632.5	1635.8	1648.8	1637.4	1634.1	1650.5	1635.8	1661.9	1657.0
17.5°	1608.0	1637.4	1614.6	1616.2	1621.1	1616.2	1612.9	1626.0	1611.3	1639.0	1642.3
20°	1580.3	1614.6	1585.2	1585.2	1595.0	1581.9	1585.2	1596.6	1583.5	1616.2	1622.7
22.5°	1552.5	1585.2	1557.4	1557.4	1565.6	1547.6	1555.8	1564.0	1554.2	1590.1	1604.8
25°	1519.9	1546.0	1515.0	1524.8	1532.9	1516.6	1515.0	1528.0	1521.5	1557.4	1583.5
27.5°	1484.0	1506.8	1477.4	1490.5	1498.7	1487.2	1472.5	1488.9	1485.6	1526.4	1559.1
30°	1444.8	1466.0	1436.6	1454.6	1466.0	1449.7	1426.8	1441.5	1443.1	1490.5	1503.5
32.5°	1392.5	1413.8	1386.0	1415.4	1431.7	1408.9	1382.7	1390.9	1397.4	1444.8	1407.2
35°	1341.9	1351.7	1330.5	1368.0	1392.5	1364.8	1325.6	1335.4	1341.9	1395.8	1273.4
37.5°	1281.5	1281.5	1273.4	1314.2	1346.8	1306.0	1263.6	1268.5	1281.5	1327.2	1061.1
40°	1209.7	1199.9	1191.7	1245.6	1289.7	1235.8	1185.2	1186.8	1204.8	1216.2	945.2
42.5°	1129.7	1118.3	1115.0	1172.1	1198.3	1154.2	1101.9	1103.6	1129.7	1062.8	837.5
45°	1043.2	1038.3	1035.0	1074.2	1075.8	1048.1	1010.5	1018.7	1039.9	917.5	741.2
47.5°	955.0	951.8	950.1	919.1	912.6	893.0	912.6	930.5	948.5	765.7	653.0
50°	870.1	847.3	834.2	719.9	515.9	708.5	803.2	834.2	858.7	667.7	587.7
52.5°	777.1	757.5	716.7	550.2	326.5	546.9	703.6	742.8	757.5	607.3	538.7
55°	675.9	675.9	587.7	352.6	266.1	370.6	577.9	664.4	653.0	543.6	483.2
57.5°	579.5	599.1	488.1	236.7	235.1	236.7	484.9	591.0	558.3	493.0	437.5
60°	502.8	532.2	422.8	210.6	217.1	207.3	414.7	525.7	486.5	439.1	386.9
62.5°	445.7	470.2	349.4	192.6	204.1	189.4	351.0	468.5	431.0	400.0	352.6
65°	393.4	417.9	275.9	176.3	187.7	173.0	284.1	414.7	380.4	355.9	321.6
67.5°	337.9	360.8	218.8	160.0	168.1	158.4	228.6	360.8	329.8	313.4	280.8
70°	292.2	318.3	166.5	143.7	148.6	142.0	177.9	311.8	284.1	277.5	240.0
72.5°	246.5	267.7	129.0	127.3	125.7	124.1	130.6	266.1	240.0	228.6	186.1
75°	202.4	217.1	106.1	106.1	101.2	102.8	106.1	217.1	195.9	186.1	132.2
77.5°	160.0	171.4	86.5	83.3	78.4	78.4	84.9	166.5	155.1	143.7	88.2
80°	120.8	124.1	65.3	62.0	60.4	60.4	65.3	120.8	114.3	102.8	68.6
82.5°	81.6	68.6	44.1	45.7	44.1	44.1	42.4	70.2	76.7	52.2	50.6
85°	45.7	31.0	27.8	21.2	16.3	18.0	26.1	29.4	42.4	27.8	32.7
87.5°	16.3	13.1	4.9	6.5	4.9	4.9	4.9	13.1	13.1	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°	1707.6	1707.6	1707.6	1707.6	1707.6	1707.6
2.5°	1702.7	1712.5	1710.9	1701.1	1722.3	1681.5
5°	1704.3	1723.9	1714.1	1704.3	1717.4	1676.6
7.5°	1696.2	1719.0	1707.6	1702.7	1715.8	1670.1
10°	1691.3	1710.9	1701.1	1694.6	1707.6	1660.3
12.5°	1686.4	1709.2	1696.2	1688.0	1696.2	1647.2
15°	1673.3	1697.8	1689.7	1676.6	1676.6	1629.3
17.5°	1663.5	1688.0	1679.9	1661.9	1653.7	1608.0
20°	1657.0	1679.9	1668.4	1642.3	1629.3	1580.3
22.5°	1642.3	1668.4	1650.5	1622.7	1604.8	1552.5
25°	1616.2	1626.0	1624.4	1599.9	1570.5	1519.9
27.5°	1547.6	1552.5	1557.4	1573.7	1541.1	1484.0
30°	1428.5	1348.5	1448.0	1521.5	1505.2	1444.8
32.5°	1203.2	1177.0	1235.8	1425.2	1457.8	1392.5
35°	1079.1	1048.1	1097.1	1307.6	1404.0	1341.9
37.5°	966.5	966.5	979.5	1098.7	1343.6	1281.5
40°	886.5	862.0	897.9	963.2	1252.1	1209.7
42.5°	757.5	749.3	772.2	848.9	1113.4	1129.7
45°	667.7	657.9	679.1	752.6	963.2	1043.2
47.5°	599.1	563.2	610.6	671.0	816.3	955.0
50°	535.5	497.9	543.6	595.9	692.2	870.1
52.5°	480.0	445.7	491.4	548.5	628.5	777.1
55°	422.8	413.0	434.2	494.7	566.5	675.9
57.5°	375.5	378.7	382.0	447.3	509.3	579.5
60°	346.1	352.6	351.0	401.6	462.0	502.8
62.5°	316.7	320.0	320.0	360.8	416.3	445.7
65°	282.4	282.4	285.7	331.4	377.1	393.4
67.5°	244.9	238.3	249.8	292.2	334.7	337.9
70°	192.6	181.2	200.8	253.0	298.8	292.2
72.5°	138.8	145.3	142.0	199.2	256.3	246.5
75°	114.3	124.1	115.9	142.0	209.0	202.4
77.5°	96.3	104.5	96.3	91.4	168.1	160.0
80°	76.7	83.3	76.7	70.2	124.1	120.8
82.5°	55.5	57.1	55.5	52.2	81.6	81.6
85°	26.1	21.2	29.4	34.3	32.7	45.7
87.5°	4.9	4.9	4.9	6.5	18.0	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	23.24	22.11	23.55	23.86	19.25	20.74	19.61	21.05	21.36
	3H	23.39	24.72	23.77	25.05	25.41	20.73	22.06	21.11	22.39	22.75
	4H	23.99	25.23	24.39	25.58	25.96	21.18	22.43	21.58	22.78	23.16
	6H	24.42	25.57	24.83	25.94	26.33	21.57	22.72	21.99	23.09	23.48
	8H	24.54	25.64	24.97	26.03	26.43	21.69	22.79	22.12	23.18	23.58
	12H	24.61	25.65	25.04	26.04	26.47	21.73	22.78	22.16	23.16	23.59
4H	2H	22.02	23.26	22.42	23.61	23.99	20.06	21.31	20.46	21.66	22.04
	3H	23.91	24.94	24.32	25.35	25.75	21.70	22.74	22.12	23.14	23.54
	4H	24.66	25.59	25.09	26.00	26.44	22.21	23.14	22.65	23.56	24.00
	6H	25.25	26.05	25.70	26.49	26.96	22.69	23.49	23.14	23.93	24.40
	8H	25.42	26.17	25.88	26.62	27.08	22.83	23.59	23.30	24.03	24.50
	12H	25.52	26.19	26.00	26.67	27.14	22.90	23.57	23.38	24.05	24.52
8H	4H	24.73	25.48	25.19	25.92	26.39	22.52	23.28	22.99	23.72	24.19
	6H	25.42	26.04	25.91	26.53	27.01	23.07	23.69	23.57	24.19	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	26.79	27.35	23.39	23.88	23.90	24.37	24.94
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	25.96	25.91	26.47	26.96	23.12	23.68	23.63	24.19	24.68
	8H	25.68	26.17	26.19	26.66	27.23	23.37	23.86	23.88	24.35	24.92