

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: P845549

Luminaire Tested: SQ2R-PC3-075D-840-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

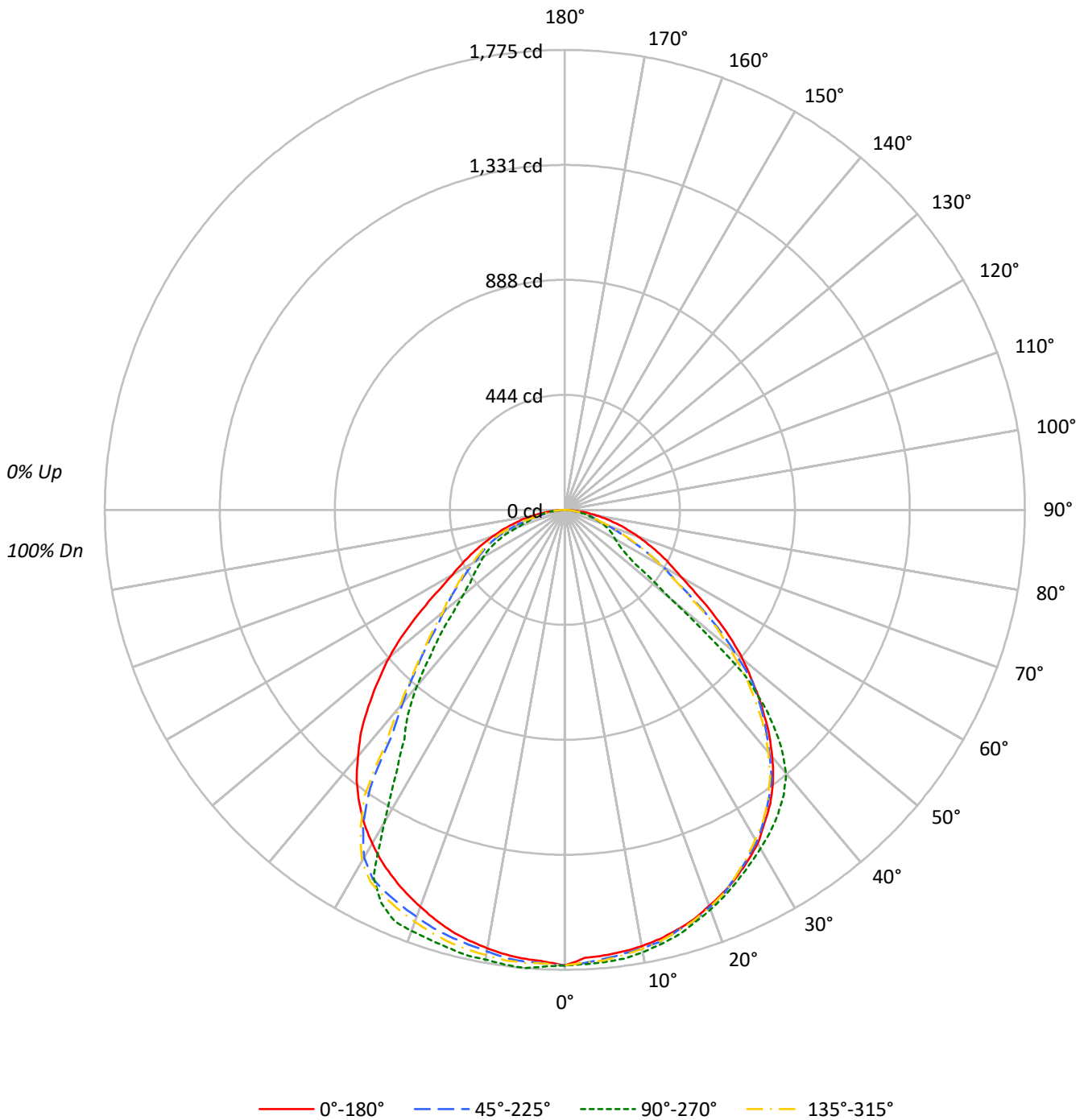
Test Method: LM-79-2019  
Report Number: P845549  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PC3-075D-840-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS  
750 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3942.5 lumens  
Efficiency: N/A  
Efficacy: 147.7 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°	28392	28392	28392	28392
5°	27984	28392	28201	28773
10°	28032	28417	28170	28886
15°	28045	28383	28157	29225
20°	27962	28222	28020	29723
25°	27884	28123	27914	29831
30°	27738	28146	27708	25890
35°	27238	28267	27238	21273
40°	26258	27992	26150	18710
45°	24530	25297	24453	15470
50°	22509	13345	22212	12881
55°	19592	7713	18930	11972
60°	16721	7220	16178	11725
65°	15480	7385	14965	11110
70°	14205	7223	13808	8809
75°	13007	6500	12583	7973
80°	11567	5783	10944	7968
85°	8725	3112	8096	4057

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 25297 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.8	4.2
10°-20°	481.7	12.2
20°-30°	736.1	18.7
30°-40°	831.9	21.1
40°-50°	727.2	18.4
50°-60°	481.1	12.2
60°-70°	314.4	8.0
70°-80°	164.5	4.2
80°-90°	38.8	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°	1384.6	35.1
0°-40°	2216.5	56.2
0°-60°	3424.8	86.9
0°-90°	3942.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3942.5	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1758	1758	1758	1758	1758	
5°	1727	1752	1740	1775	1727	164
15°	1678	1698	1684	1748	1678	474
25°	1565	1579	1567	1674	1565	721
35°	1382	1434	1382	1079	1382	861
45°	1074	1108	1071	678	1074	827
55°	696	274	672	425	696	625
65°	405	193	392	291	405	401
75°	208	104	202	128	208	221
85°	47	17	44	22	47	57
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°	1758.5	1758.5	1758.5	1758.5	1758.5	1758.5	1758.5	1758.5	1758.5	1758.5	1758.5
2.5°	1731.6	1775.3	1750.1	1748.4	1755.2	1756.8	1748.4	1766.9	1745.1	1768.6	1751.8
5°	1726.6	1770.3	1740.0	1736.7	1751.8	1746.8	1745.1	1761.9	1740.0	1758.5	1750.1
7.5°	1719.9	1760.2	1728.3	1726.6	1746.8	1740.0	1733.3	1753.5	1731.6	1751.8	1745.1
10°	1709.8	1745.1	1718.2	1719.9	1733.3	1726.6	1719.9	1736.7	1718.2	1743.4	1729.9
12.5°	1696.3	1731.6	1706.4	1701.4	1716.5	1704.7	1704.7	1718.2	1703.0	1729.9	1718.2
15°	1677.8	1713.1	1681.2	1684.5	1698.0	1686.2	1682.9	1699.7	1684.5	1711.4	1706.4
17.5°	1656.0	1686.2	1662.7	1664.4	1669.4	1664.4	1661.0	1674.5	1659.3	1687.9	1691.3
20°	1627.4	1662.7	1632.4	1632.4	1642.5	1629.1	1632.4	1644.2	1630.8	1664.4	1671.1
22.5°	1598.8	1632.4	1603.9	1603.9	1612.3	1593.8	1602.2	1610.6	1600.5	1637.5	1652.6
25°	1565.2	1592.1	1560.1	1570.2	1578.6	1561.8	1560.1	1573.6	1566.9	1603.9	1630.8
27.5°	1528.2	1551.7	1521.5	1534.9	1543.3	1531.6	1516.4	1533.2	1529.9	1571.9	1605.5
30°	1487.8	1509.7	1479.4	1497.9	1509.7	1492.9	1469.4	1484.5	1486.2	1534.9	1548.4
32.5°	1434.1	1455.9	1427.3	1457.6	1474.4	1450.9	1424.0	1432.4	1439.1	1487.8	1449.2
35°	1381.9	1392.0	1370.2	1408.8	1434.1	1405.5	1365.1	1375.2	1381.9	1437.4	1311.3
37.5°	1319.7	1319.7	1311.3	1353.4	1387.0	1344.9	1301.2	1306.3	1319.7	1366.8	1092.8
40°	1245.8	1235.7	1227.3	1282.7	1328.1	1272.7	1220.5	1222.2	1240.7	1252.5	973.4
42.5°	1163.4	1151.6	1148.3	1207.1	1234.0	1188.6	1134.8	1136.5	1163.4	1094.5	862.4
45°	1074.3	1069.2	1065.9	1106.2	1107.9	1079.3	1040.7	1049.1	1070.9	944.8	763.3
47.5°	983.5	980.1	978.5	946.5	939.8	919.6	939.8	958.3	976.8	788.5	672.5
50°	896.1	872.5	859.1	741.4	531.3	729.6	827.1	859.1	884.3	687.6	605.2
52.5°	800.2	780.1	738.0	566.6	336.2	563.2	724.6	764.9	780.1	625.4	554.8
55°	696.0	696.0	605.2	363.1	274.0	381.6	595.1	684.2	672.5	559.8	497.6
57.5°	596.8	617.0	502.7	243.8	242.1	243.8	499.3	608.6	575.0	507.7	450.6
60°	517.8	548.1	435.4	216.9	223.6	213.5	427.0	541.3	501.0	452.2	398.4
62.5°	459.0	484.2	359.8	198.4	210.1	195.0	361.5	482.5	443.8	411.9	363.1
65°	405.2	430.4	284.1	181.6	193.3	178.2	292.5	427.0	391.7	366.5	331.2
67.5°	348.0	371.5	225.3	164.8	173.2	163.1	235.4	371.5	339.6	322.8	289.2
70°	300.9	327.8	171.5	147.9	153.0	146.3	183.2	321.1	292.5	285.8	247.1
72.5°	253.9	275.7	132.8	131.1	129.5	127.8	134.5	274.0	247.1	235.4	191.7
75°	208.5	223.6	109.3	109.3	104.2	105.9	109.3	223.6	201.7	191.7	136.2
77.5°	164.8	176.5	89.1	85.7	80.7	80.7	87.4	171.5	159.7	147.9	90.8
80°	124.4	127.8	67.2	63.9	62.2	62.2	67.2	124.4	117.7	105.9	70.6
82.5°	84.1	70.6	45.4	47.1	45.4	45.4	43.7	72.3	79.0	53.8	52.1
85°	47.1	31.9	28.6	21.9	16.8	18.5	26.9	30.3	43.7	28.6	33.6
87.5°	16.8	13.4	5.0	6.7	5.0	5.0	5.0	13.4	13.4	10.1	5.0
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°	1758.5	1758.5	1758.5	1758.5	1758.5	1758.5
2.5°	1753.5	1763.6	1761.9	1751.8	1773.7	1731.6
5°	1755.2	1775.3	1765.2	1755.2	1768.6	1726.6
7.5°	1746.8	1770.3	1758.5	1753.5	1766.9	1719.9
10°	1741.7	1761.9	1751.8	1745.1	1758.5	1709.8
12.5°	1736.7	1760.2	1746.8	1738.3	1746.8	1696.3
15°	1723.2	1748.4	1740.0	1726.6	1726.6	1677.8
17.5°	1713.1	1738.3	1729.9	1711.4	1703.0	1656.0
20°	1706.4	1729.9	1718.2	1691.3	1677.8	1627.4
22.5°	1691.3	1718.2	1699.7	1671.1	1652.6	1598.8
25°	1664.4	1674.5	1672.8	1647.6	1617.3	1565.2
27.5°	1593.8	1598.8	1603.9	1620.7	1587.0	1528.2
30°	1471.0	1388.7	1491.2	1566.9	1550.1	1487.8
32.5°	1239.0	1212.1	1272.7	1467.7	1501.3	1434.1
35°	1111.3	1079.3	1129.8	1346.6	1445.8	1381.9
37.5°	995.3	995.3	1008.7	1131.4	1383.6	1319.7
40°	912.9	887.7	924.7	991.9	1289.5	1245.8
42.5°	780.1	771.7	795.2	874.2	1146.6	1163.4
45°	687.6	677.5	699.4	775.0	991.9	1074.3
47.5°	617.0	580.0	628.8	691.0	840.6	983.5
50°	551.4	512.8	559.8	613.6	712.8	896.1
52.5°	494.3	459.0	506.0	564.9	647.3	800.2
55°	435.4	425.3	447.2	509.4	583.4	696.0
57.5°	386.7	390.0	393.4	460.6	524.5	596.8
60°	356.4	363.1	361.5	413.6	475.8	517.8
62.5°	326.2	329.5	329.5	371.5	428.7	459.0
65°	290.8	290.8	294.2	341.3	388.4	405.2
67.5°	252.2	245.5	257.2	300.9	344.6	348.0
70°	198.4	186.6	206.8	260.6	307.7	300.9
72.5°	142.9	149.6	146.3	205.1	263.9	253.9
75°	117.7	127.8	119.4	146.3	215.2	208.5
77.5°	99.2	107.6	99.2	94.1	173.2	164.8
80°	79.0	85.7	79.0	72.3	127.8	124.4
82.5°	57.2	58.8	57.2	53.8	84.1	84.1
85°	26.9	21.9	30.3	35.3	33.6	47.1
87.5°	5.0	5.0	5.0	6.7	18.5	16.8
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	21.85	23.34	22.22	23.65	23.97	19.35	20.84	19.72	21.15	21.47
	3H	23.49	24.82	23.87	25.15	25.51	20.84	22.17	21.21	22.49	22.86
	4H	24.09	25.34	24.49	25.69	26.06	21.29	22.53	21.69	22.88	23.26
	6H	24.52	25.67	24.93	26.04	26.43	21.67	22.82	22.09	23.19	23.58
	8H	24.65	25.74	25.07	26.13	26.53	21.79	22.89	22.22	23.28	23.68
	12H	24.71	25.76	25.14	26.14	26.57	21.83	22.88	22.26	23.26	23.69
4H	2H	22.12	23.37	22.52	23.72	24.09	20.16	21.41	20.56	21.76	22.14
	3H	24.02	25.05	24.43	25.45	25.85	21.81	22.84	22.22	23.24	23.64
	4H	24.76	25.69	25.20	26.11	26.54	22.32	23.24	22.75	23.66	24.10
	6H	25.35	26.15	25.81	26.60	27.06	22.79	23.59	23.25	24.04	24.50
	8H	25.52	26.27	25.99	26.72	27.19	22.94	23.69	23.40	24.13	24.60
	12H	25.62	26.29	26.10	26.77	27.24	23.00	23.67	23.48	24.15	24.62
8H	4H	24.83	25.58	25.29	26.03	26.50	22.63	23.38	23.09	23.82	24.29
	6H	25.52	26.14	26.02	26.63	27.11	23.18	23.80	23.67	24.29	24.77
	8H	25.76	26.31	26.27	26.82	27.31	23.38	23.93	23.89	24.44	24.93
	12H	25.90	26.40	26.41	26.89	27.45	23.49	23.98	24.00	24.47	25.04
12H	4H	24.81	25.49	25.30	25.96	26.44	22.66	23.33	23.14	23.81	24.28
	6H	25.50	26.06	26.02	26.57	27.06	23.22	23.78	23.74	24.29	24.78
	8H	25.78	26.27	26.29	26.76	27.33	23.47	23.96	23.98	24.46	25.02