

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: P845556

Luminaire Tested: SQ2R-PC3-100D-930-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

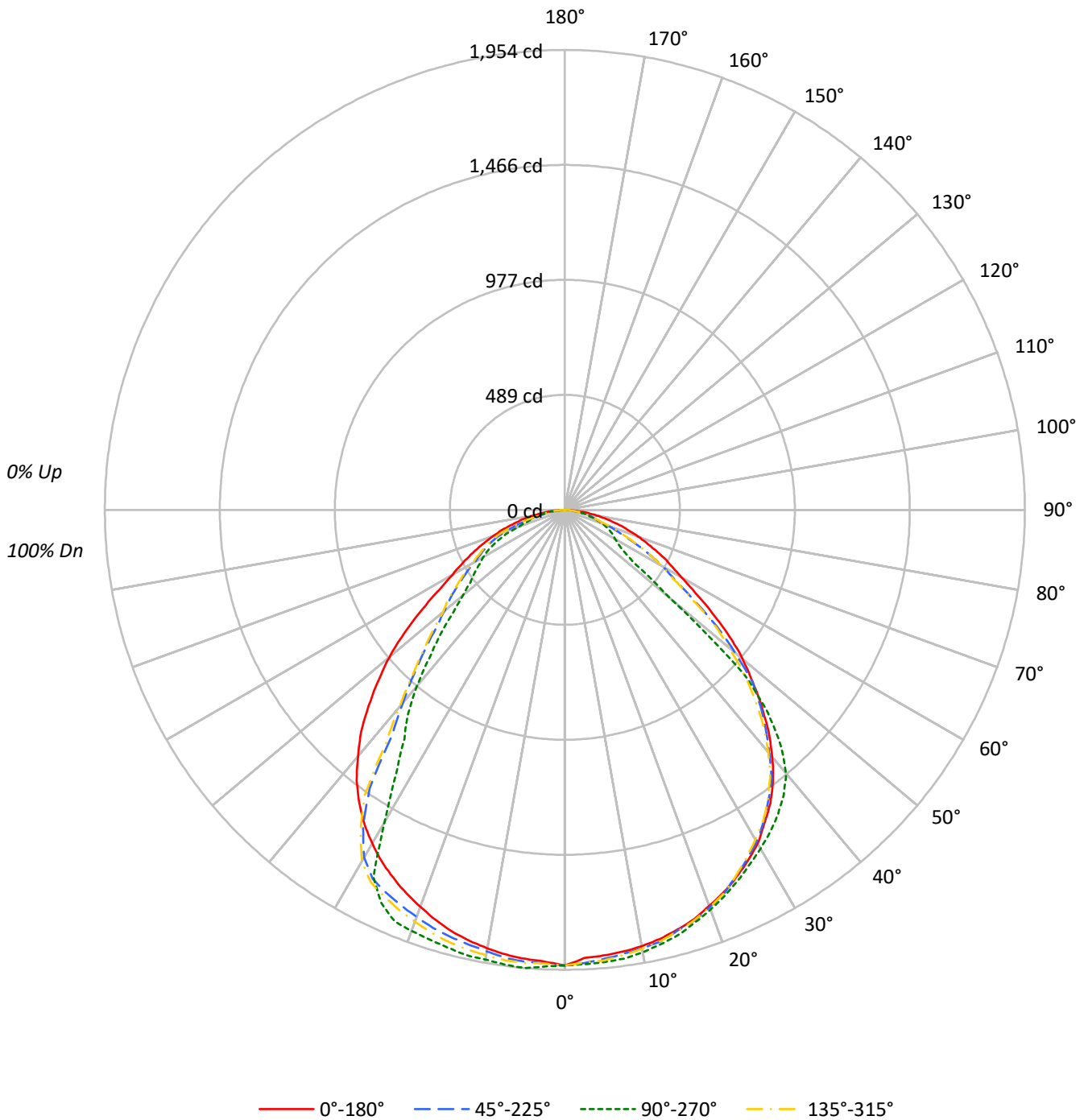
Test Method: LM-79-2019  
Report Number: P845556  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PC3-100D-930-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE PYRAMID CONTINUOUS LENS  
1000 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4340.1 lumens  
Efficiency: N/A  
Efficacy: 115.4 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): 37.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.9969  
Total Harmonic Distortion (THDi): 0.066  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 3 HR  
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	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°	31257	31257	31257	31257
5°	30806	31256	31045	31676
10°	30859	31283	31011	31800
15°	30873	31246	30999	32174
20°	30782	31069	30845	32721
25°	30695	30961	30729	32838
30°	30536	30986	30503	28500
35°	29985	31117	29985	23420
40°	28905	30817	28789	20596
45°	27003	27848	26919	17032
50°	24779	14689	24453	14179
55°	21568	8493	20839	13180
60°	18406	7947	17809	12910
65°	17039	8130	16474	12233
70°	15640	7950	15201	9696
75°	14317	7155	13855	8777
80°	12738	6369	12050	8777
85°	9596	3427	8911	4465

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 27848 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.6	4.2
10°-20°	530.3	12.2
20°-30°	810.3	18.7
30°-40°	915.8	21.1
40°-50°	800.5	18.4
50°-60°	529.7	12.2
60°-70°	346.1	8.0
70°-80°	181.1	4.2
80°-90°	42.7	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°	1524.2	35.1
0°-40°	2440.0	56.2
0°-60°	3770.2	86.9
0°-90°	4340.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4340.1	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1936	1936	1936	1936	1936	
5°	1901	1928	1916	1954	1901	181
15°	1847	1869	1854	1925	1847	521
25°	1723	1738	1725	1843	1723	794
35°	1521	1579	1521	1188	1521	948
45°	1183	1220	1179	746	1183	911
55°	766	302	740	468	766	688
65°	446	213	431	320	446	441
75°	230	115	222	141	230	244
85°	52	18	48	24	52	63
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°	1935.9	1935.9	1935.9	1935.9	1935.9	1935.9	1935.9	1935.9	1935.9	1935.9	1935.9
2.5°	1906.3	1954.4	1926.6	1924.8	1932.2	1934.0	1924.8	1945.1	1921.1	1947.0	1928.5
5°	1900.7	1948.8	1915.5	1911.8	1928.5	1922.9	1921.1	1939.6	1915.5	1935.9	1926.6
7.5°	1893.3	1937.7	1902.6	1900.7	1922.9	1915.5	1908.1	1930.3	1906.3	1928.5	1921.1
10°	1882.2	1921.1	1891.5	1893.3	1908.1	1900.7	1893.3	1911.8	1891.5	1919.2	1904.4
12.5°	1867.4	1906.3	1878.5	1873.0	1889.6	1876.7	1876.7	1891.5	1874.8	1904.4	1891.5
15°	1847.0	1885.9	1850.8	1854.5	1869.3	1856.3	1852.6	1871.1	1854.5	1884.1	1878.5
17.5°	1823.0	1856.3	1830.4	1832.2	1837.8	1832.2	1828.5	1843.3	1826.7	1858.2	1861.9
20°	1791.5	1830.4	1797.1	1797.1	1808.2	1793.4	1797.1	1810.0	1795.2	1832.2	1839.6
22.5°	1760.1	1797.1	1765.6	1765.6	1774.9	1754.5	1763.8	1773.0	1761.9	1802.6	1819.3
25°	1723.0	1752.7	1717.5	1728.6	1737.9	1719.3	1717.5	1732.3	1724.9	1765.6	1795.2
27.5°	1682.3	1708.2	1674.9	1689.7	1699.0	1686.0	1669.4	1687.9	1684.2	1730.5	1767.5
30°	1637.9	1662.0	1628.7	1649.0	1662.0	1643.5	1617.6	1634.2	1636.1	1689.7	1704.5
32.5°	1578.7	1602.8	1571.3	1604.6	1623.1	1597.2	1567.6	1576.8	1584.2	1637.9	1595.3
35°	1521.3	1532.4	1508.4	1550.9	1578.7	1547.2	1502.8	1513.9	1521.3	1582.4	1443.6
37.5°	1452.8	1452.8	1443.6	1489.9	1526.9	1480.6	1432.5	1438.0	1452.8	1504.7	1203.0
40°	1371.4	1360.3	1351.0	1412.1	1462.1	1401.0	1343.6	1345.5	1365.9	1378.8	1071.6
42.5°	1280.7	1267.8	1264.1	1328.8	1358.5	1308.5	1249.3	1251.1	1280.7	1204.8	949.4
45°	1182.6	1177.1	1173.4	1217.8	1219.6	1188.2	1145.6	1154.9	1178.9	1040.1	840.2
47.5°	1082.7	1079.0	1077.1	1042.0	1034.6	1012.4	1034.6	1054.9	1075.3	868.0	740.3
50°	986.5	960.5	945.7	816.2	584.8	803.2	910.6	945.7	973.5	757.0	666.3
52.5°	881.0	858.7	812.5	623.7	370.2	620.0	797.7	842.1	858.7	688.5	610.7
55°	766.2	766.2	666.3	399.8	301.7	420.1	655.2	753.3	740.3	616.3	547.8
57.5°	657.0	679.2	553.4	268.4	266.5	268.4	549.7	670.0	633.0	558.9	496.0
60°	570.0	603.3	479.3	238.7	246.1	235.0	470.1	595.9	551.5	497.9	438.6
62.5°	505.3	533.0	396.1	218.4	231.3	214.7	397.9	531.2	488.6	453.4	399.8
65°	446.0	473.8	312.8	199.9	212.8	196.2	322.0	470.1	431.2	403.5	364.6
67.5°	383.1	409.0	248.0	181.4	190.6	179.5	259.1	409.0	373.9	355.3	318.3
70°	331.3	360.9	188.8	162.9	168.4	161.0	201.7	353.5	322.0	314.6	272.1
72.5°	279.5	303.5	146.2	144.4	142.5	140.7	148.1	301.7	272.1	259.1	211.0
75°	229.5	246.1	120.3	120.3	114.7	116.6	120.3	246.1	222.1	211.0	149.9
77.5°	181.4	194.3	98.1	94.4	88.8	88.8	96.2	188.8	175.8	162.9	99.9
80°	137.0	140.7	74.0	70.3	68.5	68.5	74.0	137.0	129.6	116.6	77.7
82.5°	92.5	77.7	50.0	51.8	50.0	50.0	48.1	79.6	87.0	59.2	57.4
85°	51.8	35.2	31.5	24.1	18.5	20.4	29.6	33.3	48.1	31.5	37.0
87.5°	18.5	14.8	5.6	7.4	5.6	5.6	5.6	14.8	14.8	11.1	5.6
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°	1935.9	1935.9	1935.9	1935.9	1935.9	1935.9
2.5°	1930.3	1941.4	1939.6	1928.5	1952.5	1906.3
5°	1932.2	1954.4	1943.3	1932.2	1947.0	1900.7
7.5°	1922.9	1948.8	1935.9	1930.3	1945.1	1893.3
10°	1917.4	1939.6	1928.5	1921.1	1935.9	1882.2
12.5°	1911.8	1937.7	1922.9	1913.7	1922.9	1867.4
15°	1897.0	1924.8	1915.5	1900.7	1900.7	1847.0
17.5°	1885.9	1913.7	1904.4	1884.1	1874.8	1823.0
20°	1878.5	1904.4	1891.5	1861.9	1847.0	1791.5
22.5°	1861.9	1891.5	1871.1	1839.6	1819.3	1760.1
25°	1832.2	1843.3	1841.5	1813.7	1780.4	1723.0
27.5°	1754.5	1760.1	1765.6	1784.1	1747.1	1682.3
30°	1619.4	1528.7	1641.6	1724.9	1706.4	1637.9
32.5°	1364.0	1334.4	1401.0	1615.7	1652.7	1578.7
35°	1223.3	1188.2	1243.7	1482.5	1591.6	1521.3
37.5°	1095.6	1095.6	1110.5	1245.6	1523.2	1452.8
40°	1005.0	977.2	1017.9	1091.9	1419.5	1371.4
42.5°	858.7	849.5	875.4	962.4	1262.2	1280.7
45°	757.0	745.9	769.9	853.2	1091.9	1182.6
47.5°	679.2	638.5	692.2	760.7	925.4	1082.7
50°	607.0	564.5	616.3	675.5	784.7	986.5
52.5°	544.1	505.3	557.1	621.9	712.5	881.0
55°	479.3	468.2	492.3	560.8	642.2	766.2
57.5°	425.7	429.4	433.1	507.1	577.4	657.0
60°	392.4	399.8	397.9	455.3	523.8	570.0
62.5°	359.0	362.7	362.7	409.0	471.9	505.3
65°	320.2	320.2	323.9	375.7	427.5	446.0
67.5°	277.6	270.2	283.2	331.3	379.4	383.1
70°	218.4	205.4	227.6	286.9	338.7	331.3
72.5°	157.3	164.7	161.0	225.8	290.6	279.5
75°	129.6	140.7	131.4	161.0	236.9	229.5
77.5°	109.2	118.4	109.2	103.6	190.6	181.4
80°	87.0	94.4	87.0	79.6	140.7	137.0
82.5°	62.9	64.8	62.9	59.2	92.5	92.5
85°	29.6	24.1	33.3	38.9	37.0	51.8
87.5°	5.6	5.6	5.6	7.4	20.4	18.5
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	22.18	23.67	22.55	23.98	24.30	19.69	21.17	20.05	21.49	21.80
	3H	23.82	25.15	24.20	25.48	25.84	21.17	22.50	21.55	22.83	23.19
	4H	24.42	25.67	24.82	26.02	26.40	21.62	22.87	22.02	23.21	23.59
	6H	24.85	26.00	25.27	26.37	26.76	22.01	23.16	22.42	23.53	23.92
	8H	24.98	26.07	25.41	26.46	26.87	22.13	23.22	22.55	23.61	24.01
	12H	25.04	26.09	25.47	26.47	26.90	22.17	23.21	22.60	23.60	24.03
4H	2H	22.45	23.70	22.85	24.05	24.43	20.50	21.74	20.90	22.09	22.47
	3H	24.35	25.38	24.76	25.78	26.18	22.14	23.17	22.55	23.57	23.97
	4H	25.10	26.02	25.53	26.44	26.88	22.65	23.58	23.08	23.99	24.43
	6H	25.68	26.49	26.14	26.93	27.39	23.12	23.93	23.58	24.37	24.83
	8H	25.86	26.61	26.32	27.05	27.52	23.27	24.02	23.74	24.47	24.94
	12H	25.95	26.62	26.44	27.10	27.57	23.33	24.01	23.82	24.48	24.96
8H	4H	25.16	25.92	25.63	26.36	26.83	22.96	23.71	23.42	24.16	24.62
	6H	25.85	26.47	26.35	26.96	27.44	23.51	24.13	24.01	24.62	25.10
	8H	26.09	26.65	26.60	27.16	27.65	23.71	24.27	24.23	24.78	25.27
	12H	26.24	26.73	26.75	27.22	27.79	23.82	24.32	24.33	24.81	25.37
12H	4H	25.15	25.82	25.63	26.30	26.77	23.00	23.67	23.48	24.15	24.62
	6H	25.83	26.39	26.35	26.90	27.39	23.56	24.11	24.07	24.62	25.11
	8H	26.11	26.61	26.62	27.10	27.66	23.80	24.30	24.31	24.79	25.36