

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: P938508

Luminaire Tested: SQ4-FB-150U-100D-B50-1D-UNV-W2A-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938508
REPORT IS A COMBINATION OF REPORTS P933647 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-B50-1D-UNV-W2A-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

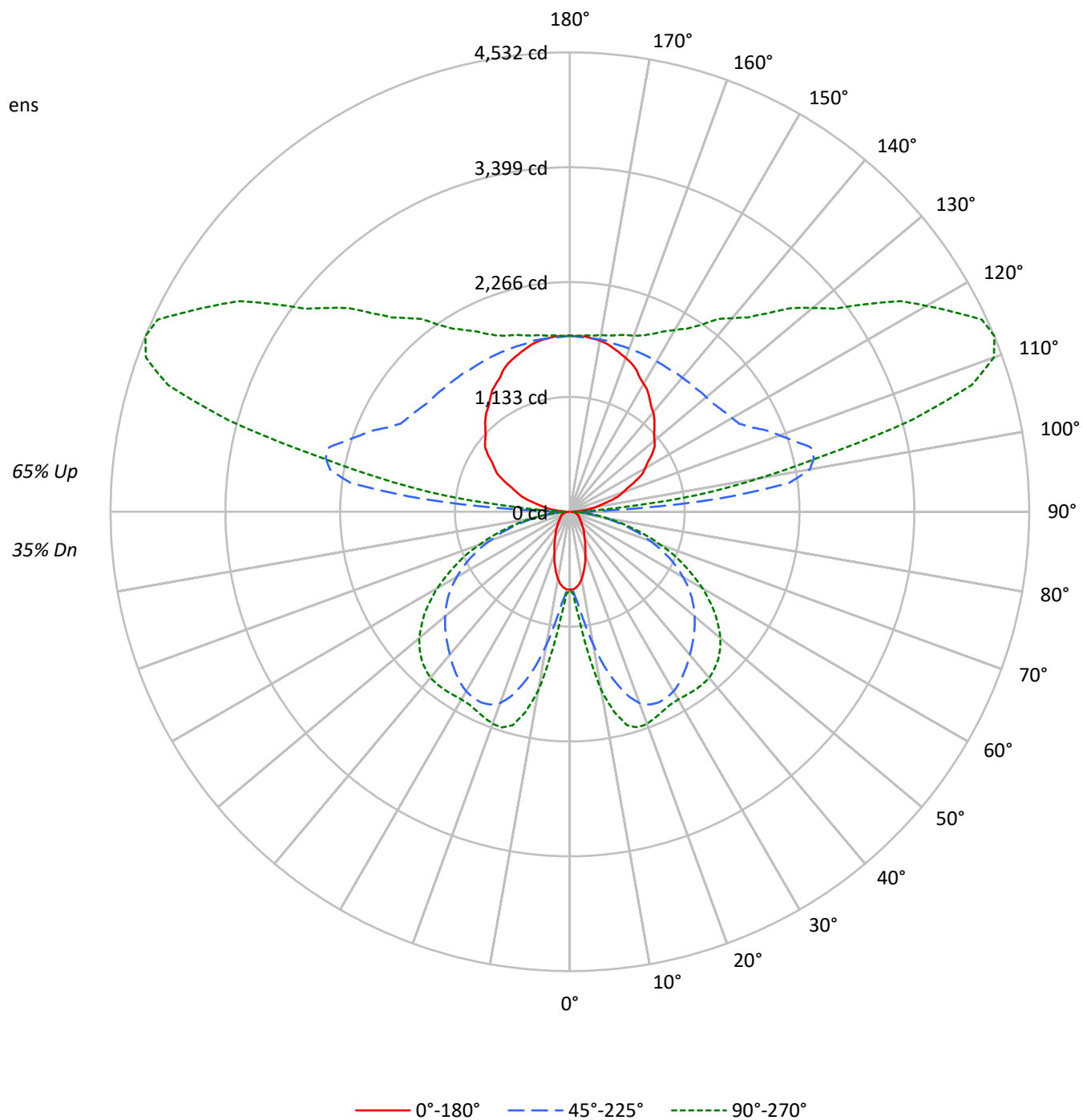
Lumens per Lamp: N/A
Luminaire Lumens: 17198.7 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 144.8
Input Voltage (V): NR
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

TEST NUMBER: P938508

CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-W2A-W-8

Luminous Intensity Polar Plot



TEST NUMBER: P938508

CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-W2A-W-8

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3562	3562	3562
5°	3479	4116	4787
10°	3156	6000	7936
15°	2682	7839	9583
20°	2184	9084	9767
25°	1822	9506	9568
30°	1536	9567	9551
35°	1358	9408	9797
40°	1183	9201	10052
45°	1072	9050	10092
50°	983	8914	9924
55°	941	8715	9485
60°	964	8332	8790
65°	1003	7750	7836
70°	1068	6759	6620
75°	1183	5511	5166
80°	1292	3822	3481
85°	1150	2028	1782

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10092 cd/sqm

TEST NUMBER: P938508

CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-W2A-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.3	0.6
10°-20°	440.1	2.6
20°-30°	769.8	4.5
30°-40°	990.9	5.8
40°-50°	1106.8	6.4
50°-60°	1060.1	6.2
60°-70°	840.1	4.9
70°-80°	494.0	2.9
80°-90°	143.9	0.8
90°-100°	846.2	4.9
100°-110°	2224.7	12.9
110°-120°	2306.8	13.4
120°-130°	1850.3	10.8
130°-140°	1451.9	8.4
140°-150°	1114.3	6.5
150°-160°	802.5	4.7
160°-170°	491.0	2.9
170°-180°	165.9	1.0
0°-30°	1309.2	7.6
0°-40°	2300.1	13.4
0°-60°	4467.0	26.0
0°-90°	5945.0	34.6
90°-120°	5377.7	31.3
90°-150°	9794.2	56.9
90°-180°	11254.0	65.4
0°-180°	17198.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	748	802	903	1022	1059	69
15°	560	1034	1743	2113	2180	156
25°	358	1172	2076	2167	2170	165
35°	242	1121	1955	2066	2147	151
45°	165	894	1728	1980	2068	128
55°	118	568	1466	1703	1750	108
65°	94	301	1088	1224	1242	93
75°	69	185	597	657	659	72
85°	25	57	148	163	165	26
90°	12	33	88	44	44	11
95°	112	438	1458	752	512	124
105°	401	607	2460	3734	3484	425
115°	712	864	1970	3930	4486	703
125°	990	1110	1792	3028	3572	879
135°	1180	1299	1736	2444	2772	913
145°	1369	1456	1714	2086	2249	858
155°	1547	1590	1714	1882	1936	711
165°	1670	1692	1714	1781	1804	471
175°	1736	1736	1726	1748	1748	165
180°	1736	1736	1736	1736	1736	

TEST NUMBER: P938508

CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-W2A-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7	767.7
2.5°	767.7	767.7	772.6	775.0	780.0	782.4	787.4	792.3	807.2	809.6	814.5
5°	747.9	757.8	789.9	802.2	836.8	883.7	903.4	935.5	1002.1	1021.9	1034.2
7.5°	718.2	740.5	819.5	839.2	925.6	1049.0	1100.8	1169.9	1276.1	1328.0	1369.9
10°	671.4	718.2	859.0	905.9	1046.5	1234.1	1330.4	1426.7	1587.1	1658.7	1685.8
12.5°	619.5	696.0	900.9	965.1	1167.5	1441.4	1557.4	1663.6	1846.2	1942.5	1957.3
15°	560.3	664.0	940.4	1034.2	1295.8	1614.2	1742.6	1873.4	2043.7	2112.8	2130.1
17.5°	508.5	639.3	977.4	1076.2	1394.6	1769.7	1900.6	2009.1	2147.4	2194.2	2206.7
20°	444.3	599.8	1002.1	1130.4	1498.2	1883.3	2009.1	2093.1	2186.9	2216.5	2221.4
22.5°	397.4	557.8	1016.9	1150.2	1567.3	1952.4	2058.5	2125.1	2189.4	2199.2	2201.7
25°	357.9	510.9	1014.4	1172.5	1626.6	1994.4	2075.8	2125.1	2162.2	2167.2	2167.2
27.5°	320.8	459.1	1004.6	1177.4	1671.0	2004.3	2068.4	2103.0	2120.3	2130.1	2130.1
30°	288.8	409.7	979.9	1167.5	1690.7	1994.4	2046.2	2063.5	2080.8	2095.5	2103.0
32.5°	264.1	362.9	942.9	1147.7	1693.2	1969.7	2006.7	2016.6	2041.3	2075.8	2088.1
35°	241.9	316.0	900.9	1120.6	1678.4	1930.2	1954.9	1964.8	2014.1	2065.9	2083.2
37.5°	219.7	281.4	846.6	1073.7	1656.2	1883.3	1900.6	1917.9	1994.4	2056.0	2075.8
40°	197.4	251.8	782.4	1021.9	1621.6	1826.5	1841.3	1868.5	1969.7	2041.3	2061.0
42.5°	180.2	227.1	713.3	967.5	1577.2	1762.4	1784.6	1824.0	1940.0	2016.6	2038.8
45°	165.4	202.4	639.3	893.5	1520.5	1695.7	1727.8	1782.1	1905.5	1979.5	1999.3
47.5°	150.6	185.1	562.7	817.0	1458.7	1629.1	1671.0	1732.8	1858.6	1930.2	1947.5
50°	138.2	167.8	486.2	735.5	1392.1	1557.4	1606.9	1671.0	1799.4	1866.0	1888.2
52.5°	128.3	153.0	414.7	654.1	1315.5	1483.4	1540.2	1606.9	1727.8	1792.0	1806.7
55°	118.4	140.7	353.0	567.7	1236.6	1404.5	1466.1	1530.4	1648.8	1703.1	1713.0
57.5°	113.6	130.9	301.1	486.2	1152.6	1315.5	1384.7	1444.0	1555.0	1597.0	1606.9
60°	106.1	123.4	261.6	417.1	1061.4	1231.7	1290.9	1350.1	1444.0	1478.5	1485.9
62.5°	98.7	118.4	232.0	350.5	967.5	1132.9	1192.2	1246.5	1325.4	1350.1	1360.0
65°	93.8	113.6	209.8	301.1	871.3	1029.3	1088.5	1135.4	1199.5	1224.3	1229.2
67.5°	88.8	108.6	192.5	259.2	775.0	925.6	970.1	1014.4	1063.8	1088.5	1091.0
70°	81.4	103.7	177.7	229.6	676.3	807.2	844.1	891.0	930.5	942.9	950.3
72.5°	76.5	96.3	167.8	207.3	575.1	693.6	728.1	755.3	789.9	802.2	802.2
75°	69.1	86.4	157.9	185.1	471.5	567.7	597.3	624.5	651.7	656.6	649.1
77.5°	61.7	76.5	135.7	155.5	367.8	449.3	473.9	488.7	510.9	515.8	518.4
80°	51.8	66.7	106.1	121.0	266.6	330.7	348.0	360.3	380.1	380.1	385.1
82.5°	39.5	51.8	76.5	86.4	180.2	227.1	241.9	249.3	261.6	261.6	261.6
85°	24.7	32.1	49.4	56.8	108.6	138.2	148.1	150.6	160.5	162.9	162.9
87.5°	12.3	17.3	32.1	34.6	56.8	71.5	71.5	76.5	76.5	74.1	71.5
90°	11.7	21.0	30.3	32.6	51.3	76.1	88.5	78.7	59.0	44.3	44.3
92.5°	46.6	125.8	205.1	224.9	316.2	437.9	498.7	437.0	313.8	221.4	212.6
95°	111.9	256.8	401.8	438.0	777.8	1230.9	1457.5	1300.6	986.9	751.5	724.8
97.5°	193.4	321.3	449.3	481.2	1047.9	1803.4	2181.1	2081.9	1883.6	1734.8	1684.1
100°	256.3	372.3	488.3	517.3	1146.1	1984.4	2403.6	2410.8	2425.3	2436.2	2375.7
102.5°	309.9	418.2	526.3	553.4	1191.1	2041.4	2466.5	2592.9	2845.5	3035.0	2983.3
105°	400.8	492.4	584.1	607.0	1224.5	2047.8	2459.5	2742.8	3309.3	3734.1	3706.3
107.5°	494.0	579.5	664.8	686.2	1230.7	1956.7	2319.7	2714.8	3505.0	4097.6	4104.4
110°	556.9	634.1	711.2	730.5	1221.4	1875.9	2203.2	2644.9	3528.3	4190.9	4219.8

TEST NUMBER: P938508

CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-W2A-W-8

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	618.7	692.2	765.7	784.1	1221.8	1805.3	2097.1	2549.2	3453.3	4131.4	4175.9
115°	711.9	779.7	847.5	864.5	1233.1	1724.4	1970.2	2405.6	3276.6	3929.8	3991.5
117.5°	803.9	865.5	927.2	942.6	1255.9	1673.8	1882.8	2275.8	3061.8	3651.4	3719.8
120°	857.5	915.5	973.5	988.0	1274.6	1656.7	1847.8	2206.9	2925.2	3463.8	3530.3
122.5°	909.9	968.5	1026.9	1041.6	1301.4	1647.9	1821.0	2144.4	2791.2	3276.2	3341.9
125°	990.3	1043.7	1097.0	1110.3	1337.5	1640.4	1791.9	2066.6	2615.9	3028.0	3088.5
127.5°	1055.6	1109.4	1163.3	1176.7	1373.6	1636.2	1767.4	2003.2	2475.0	2828.8	2879.8
130°	1090.5	1148.5	1206.5	1221.0	1400.1	1638.7	1758.1	1968.0	2388.1	2703.0	2750.2
132.5°	1126.7	1184.7	1242.7	1257.2	1421.5	1640.5	1749.9	1937.9	2313.8	2595.8	2638.0
135°	1180.2	1233.1	1285.9	1299.1	1444.7	1638.9	1735.9	1893.4	2208.3	2444.4	2480.7
137.5°	1235.0	1287.3	1339.5	1352.6	1479.6	1649.0	1733.7	1866.8	2132.9	2332.5	2362.3
140°	1280.4	1328.6	1376.7	1388.8	1501.0	1650.7	1725.5	1840.4	2070.4	2242.8	2270.6
142.5°	1315.4	1359.9	1404.5	1415.6	1518.9	1656.6	1725.5	1826.4	2028.4	2179.9	2203.8
145°	1369.0	1407.8	1446.7	1456.4	1542.2	1656.6	1713.8	1796.4	1961.6	2085.5	2103.6
147.5°	1422.6	1460.4	1498.2	1507.7	1576.4	1668.0	1713.8	1778.8	1908.7	2006.2	2021.3
150°	1457.5	1491.7	1525.9	1534.4	1594.2	1673.9	1713.8	1768.7	1878.5	1960.8	1973.0
152.5°	1493.7	1519.5	1545.5	1551.9	1605.9	1677.8	1713.8	1760.7	1854.4	1924.7	1933.8
155°	1547.3	1566.4	1585.6	1590.3	1631.5	1686.3	1713.8	1751.1	1825.7	1881.6	1887.7
157.5°	1586.9	1605.5	1624.1	1628.8	1657.1	1694.9	1713.8	1742.8	1800.8	1844.4	1848.7
160°	1613.7	1628.1	1642.6	1646.3	1668.8	1698.8	1713.8	1738.6	1788.4	1825.7	1828.1
162.5°	1640.5	1651.3	1662.2	1664.9	1681.2	1703.0	1713.8	1734.8	1776.7	1808.2	1810.6
165°	1669.5	1679.3	1689.2	1691.7	1699.0	1708.8	1713.8	1728.8	1758.9	1781.4	1783.8
167.5°	1696.3	1701.0	1705.7	1706.9	1713.0	1721.4	1725.5	1735.3	1755.0	1769.7	1770.8
170°	1713.8	1718.5	1723.1	1724.4	1724.7	1725.2	1725.5	1735.3	1755.0	1769.7	1769.7
172.5°	1723.1	1724.2	1725.2	1725.5	1725.5	1725.5	1725.5	1733.2	1748.7	1760.4	1759.5
175°	1735.9	1735.9	1735.9	1735.9	1732.5	1727.8	1725.5	1730.4	1740.2	1747.6	1747.6
177.5°	1735.9	1735.9	1735.9	1735.9	1733.2	1729.6	1727.8	1731.7	1739.5	1745.3	1744.2
180°	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9

TEST NUMBER: P938508

CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-W2A-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	767.7	767.7
2.5°	819.5	814.5
5°	1053.9	1058.9
7.5°	1419.2	1416.8
10°	1764.8	1787.0
12.5°	2016.6	2021.5
15°	2169.6	2179.5
17.5°	2228.8	2231.3
20°	2231.3	2226.4
22.5°	2204.1	2199.2
25°	2172.1	2169.6
27.5°	2142.4	2144.9
30°	2130.1	2137.6
32.5°	2130.1	2142.4
35°	2135.0	2147.4
37.5°	2132.6	2147.4
40°	2122.7	2140.0
42.5°	2095.5	2107.9
45°	2053.6	2068.4
47.5°	1999.3	2009.1
50°	1930.2	1940.0
52.5°	1843.8	1846.2
55°	1740.1	1750.0
57.5°	1629.1	1631.5
60°	1505.6	1513.1
62.5°	1374.8	1374.8
65°	1236.6	1241.6
67.5°	1093.4	1105.8
70°	947.8	950.3
72.5°	804.6	804.6
75°	656.6	659.0
77.5°	515.8	515.8
80°	382.6	385.1
82.5°	264.1	269.1
85°	165.4	165.4
87.5°	76.5	69.1
90°	44.3	44.3
92.5°	177.4	142.2
95°	618.1	511.5
97.5°	1481.0	1278.1
100°	2133.9	1892.1
102.5°	2776.1	2569.1
105°	3595.0	3483.6
107.5°	4131.3	4158.2
110°	4335.8	4451.8

TEST NUMBER: P938508

CATALOG NUMBER: SQ4-FB-150U-100D-B50-1D-UNV-W2A-W-8

CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4354.0	4532.1
115°	4238.6	4485.5
117.5°	3993.8	4267.7
120°	3796.5	4062.6
122.5°	3604.4	3866.9
125°	3330.4	3572.2
127.5°	3083.9	3287.9
130°	2938.6	3127.1
132.5°	2806.8	2975.6
135°	2626.2	2771.7
137.5°	2481.4	2600.4
140°	2382.0	2493.3
142.5°	2299.6	2395.4
145°	2176.1	2248.6
147.5°	2081.3	2141.4
150°	2021.7	2070.4
152.5°	1970.6	2007.4
155°	1912.1	1936.4
157.5°	1865.7	1882.8
160°	1838.0	1847.8
162.5°	1819.8	1829.1
165°	1793.7	1803.6
167.5°	1775.0	1779.1
170°	1769.7	1769.7
172.5°	1755.9	1752.3
175°	1747.6	1747.6
177.5°	1740.0	1735.9
180°	1735.9	1735.9

(END OF REPORT)