

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: P937701

Luminaire Tested: SQ4-FB-100U-100D-B40-1D-UNV-W2A-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937701
REPORT IS A COMBINATION OF REPORTS P933559 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-B40-1D-UNV-W2A-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

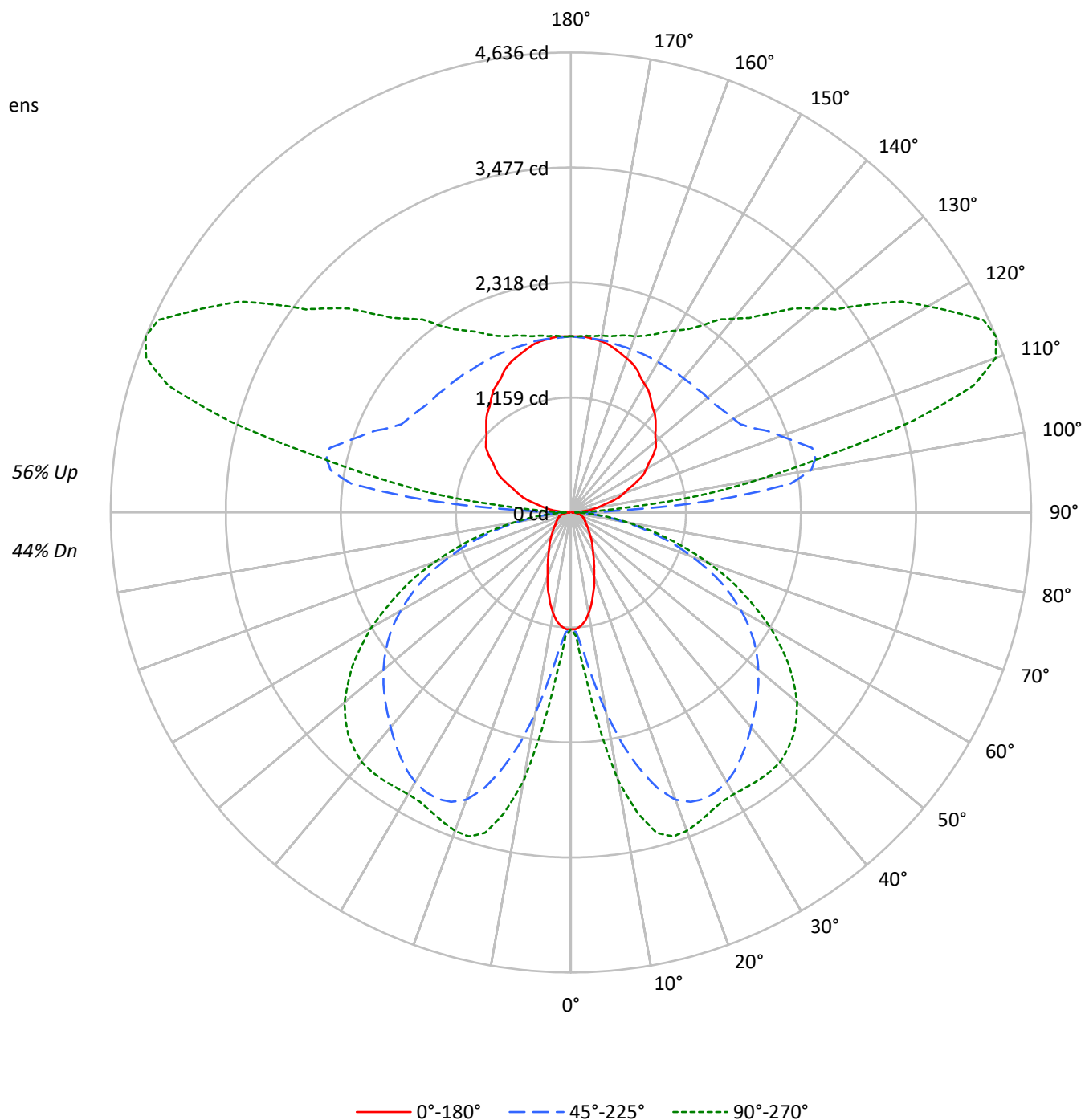
Lumens per Lamp: N/A
Luminaire Lumens: 20624.2 lumens
Efficiency: N/A
Efficacy: 118.5 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 174
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

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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3641	3641	3641
5°	3559	4210	4894
10°	3229	6138	8114
15°	2745	8021	9798
20°	2236	9297	9985
25°	1866	9731	9782
30°	1574	9795	9764
35°	1392	9635	10016
40°	1214	9426	10277
45°	1100	9274	10317
50°	1010	9138	10147
55°	968	8938	9697
60°	992	8549	8987
65°	1034	7956	8011
70°	1104	6944	6768
75°	1229	5666	5282
80°	1352	3934	3559
85°	1225	2091	1821

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10317 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.3	0.7
10°-20°	674.9	3.3
20°-30°	1180.5	5.7
30°-40°	1519.6	7.4
40°-50°	1697.4	8.2
50°-60°	1625.7	7.9
60°-70°	1288.4	6.2
70°-80°	757.6	3.7
80°-90°	217.2	1.1
90°-100°	865.5	4.2
100°-110°	2275.5	11.0
110°-120°	2359.4	11.4
120°-130°	1892.6	9.2
130°-140°	1485.0	7.2
140°-150°	1139.8	5.5
150°-160°	820.8	4.0
160°-170°	502.2	2.4
170°-180°	169.7	0.8
0°-30°	2007.7	9.7
0°-40°	3527.3	17.1
0°-60°	6850.4	33.2
0°-90°	9113.7	44.2
90°-120°	5500.5	26.7
90°-150°	10017.8	48.6
90°-180°	11511.0	55.8
0°-180°	20624.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1177	1177	1177	1177	1177	
5°	1147	1230	1385	1567	1624	106
15°	859	1586	2672	3240	3342	239
25°	549	1798	3183	3323	3327	253
35°	371	1718	2998	3168	3293	232
45°	254	1370	2650	3036	3172	196
55°	182	871	2248	2612	2684	166
65°	144	462	1669	1877	1904	143
75°	106	284	916	1007	1011	111
85°	38	87	227	250	254	40
90°	12	33	90	45	45	12
95°	114	448	1491	769	523	127
105°	410	621	2516	3819	3563	435
115°	728	884	2015	4020	4588	719
125°	1013	1136	1833	3097	3654	899
135°	1207	1329	1776	2500	2835	934
145°	1400	1490	1753	2133	2300	877
155°	1582	1627	1753	1924	1981	727
165°	1708	1730	1753	1822	1845	482
175°	1776	1776	1765	1788	1788	169
180°	1776	1776	1776	1776	1776	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2	1177.2
2.5°	1177.2	1177.2	1184.8	1188.6	1196.1	1200.0	1207.5	1215.0	1237.8	1241.6	1249.1
5°	1147.0	1162.0	1211.3	1230.2	1283.2	1355.1	1385.4	1434.6	1536.8	1567.1	1586.0
7.5°	1101.5	1135.6	1256.7	1287.0	1419.4	1608.7	1688.2	1794.2	1957.0	2036.4	2100.8
10°	1029.6	1101.5	1317.2	1389.1	1605.0	1892.6	2040.3	2187.9	2433.9	2543.6	2585.3
12.5°	950.1	1067.4	1381.6	1480.1	1790.4	2210.5	2388.5	2551.3	2831.4	2979.0	3001.7
15°	859.2	1018.2	1442.1	1586.0	1987.3	2475.6	2672.4	2873.0	3134.2	3240.1	3266.7
17.5°	779.8	980.4	1499.0	1650.3	2138.6	2714.0	2914.7	3081.2	3293.1	3365.0	3384.0
20°	681.3	919.9	1536.8	1733.6	2297.6	2888.1	3081.2	3209.9	3353.7	3399.1	3406.7
22.5°	609.4	855.5	1559.5	1763.9	2403.6	2994.1	3156.8	3259.1	3357.5	3372.7	3376.4
25°	548.8	783.6	1555.7	1798.0	2494.5	3058.5	3183.4	3259.1	3315.9	3323.4	3323.4
27.5°	492.1	704.0	1540.6	1805.5	2562.6	3073.6	3172.0	3225.0	3251.5	3266.7	3266.7
30°	442.8	628.4	1502.7	1790.4	2592.9	3058.5	3137.9	3164.5	3190.9	3213.7	3225.0
32.5°	405.0	556.4	1446.0	1760.2	2596.6	3020.7	3077.4	3092.6	3130.4	3183.4	3202.3
35°	370.9	484.5	1381.6	1718.5	2573.9	2960.0	2997.9	3013.0	3088.8	3168.2	3194.8
37.5°	336.9	431.6	1298.3	1646.6	2539.9	2888.1	2914.7	2941.1	3058.5	3153.1	3183.4
40°	302.8	386.1	1200.0	1567.1	2486.9	2801.1	2823.7	2865.4	3020.7	3130.4	3160.7
42.5°	276.3	348.3	1094.0	1483.8	2418.7	2702.6	2736.7	2797.3	2975.2	3092.6	3126.6
45°	253.6	310.4	980.4	1370.2	2331.7	2600.5	2649.6	2732.9	2922.2	3035.8	3066.0
47.5°	230.9	283.9	863.0	1253.0	2237.1	2498.3	2562.6	2657.2	2850.3	2960.0	2986.6
50°	212.0	257.4	745.7	1128.0	2134.9	2388.5	2464.2	2562.6	2759.5	2861.7	2895.8
52.5°	196.8	234.6	635.9	1003.1	2017.5	2274.9	2362.0	2464.2	2649.6	2748.1	2770.8
55°	181.7	215.7	541.3	870.6	1896.4	2153.8	2248.5	2346.8	2528.6	2611.8	2626.9
57.5°	174.1	200.6	461.8	745.7	1767.7	2017.5	2123.5	2214.4	2384.7	2449.0	2464.2
60°	162.7	189.3	401.2	639.7	1627.6	1888.8	1979.7	2070.5	2214.4	2267.4	2278.7
62.5°	151.4	181.7	355.8	537.5	1483.8	1737.4	1828.3	1911.5	2032.7	2070.5	2085.6
65°	143.8	174.1	321.7	461.8	1336.2	1578.4	1669.2	1741.3	1839.6	1877.4	1885.1
67.5°	136.3	166.6	295.3	397.5	1188.6	1419.4	1487.6	1555.7	1631.4	1669.2	1673.1
70°	124.9	159.0	272.6	352.0	1037.1	1237.8	1294.6	1366.5	1427.1	1446.0	1457.3
72.5°	117.4	147.6	257.4	317.9	881.9	1063.7	1116.7	1158.3	1211.3	1230.2	1230.2
75°	106.0	132.5	242.3	283.9	722.9	870.6	916.0	957.7	999.3	1006.9	995.5
77.5°	94.6	117.4	208.2	238.5	564.0	688.9	726.8	749.5	783.6	791.1	794.9
80°	79.5	102.2	162.7	185.5	408.8	507.2	533.7	552.7	582.9	582.9	590.5
82.5°	60.5	79.5	117.4	132.5	276.3	348.3	370.9	382.3	401.2	401.2	401.2
85°	37.8	49.2	75.7	87.1	166.6	212.0	227.1	230.9	246.0	249.8	249.8
87.5°	18.9	26.5	49.2	53.0	87.1	109.7	109.7	117.4	117.4	113.5	109.7
90°	11.9	21.5	30.9	33.3	52.4	77.8	90.5	80.5	60.4	45.3	45.3
92.5°	47.7	128.6	209.7	230.0	323.4	447.8	510.1	447.0	321.0	226.4	217.5
95°	114.4	262.7	411.0	448.1	795.6	1259.1	1490.8	1330.3	1009.3	768.6	741.3
97.5°	197.8	328.6	459.5	492.2	1071.7	1844.4	2230.8	2129.4	1926.5	1774.4	1722.5
100°	262.1	380.8	499.4	529.1	1172.2	2029.7	2458.5	2465.9	2480.7	2491.8	2430.0
102.5°	317.0	427.6	538.3	566.0	1218.3	2088.0	2522.8	2652.0	2910.5	3104.3	3051.3
105°	410.0	503.7	597.4	620.8	1252.5	2094.6	2515.7	2805.4	3384.8	3819.3	3790.9
107.5°	505.3	592.7	680.1	701.9	1258.8	2001.3	2372.6	2776.8	3585.0	4191.1	4198.0
110°	569.7	648.5	727.4	747.2	1249.2	1918.7	2253.4	2705.2	3608.8	4286.4	4316.1

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	632.8	708.0	783.2	802.0	1249.7	1846.6	2145.0	2607.4	3532.2	4225.7	4271.2
115°	728.1	797.5	866.9	884.2	1261.2	1763.8	2015.1	2460.6	3351.4	4019.5	4082.6
117.5°	822.3	885.3	948.3	964.1	1284.7	1712.0	1925.8	2327.7	3131.7	3734.7	3804.7
120°	877.1	936.4	995.8	1010.6	1303.8	1694.6	1890.0	2257.3	2991.9	3542.9	3611.0
122.5°	930.7	990.6	1050.4	1065.4	1331.2	1685.5	1862.6	2193.3	2854.9	3351.0	3418.1
125°	1013.0	1067.5	1122.0	1135.7	1368.0	1677.9	1832.8	2113.8	2675.7	3097.2	3158.9
127.5°	1079.6	1134.7	1189.8	1203.6	1405.0	1673.5	1807.8	2049.0	2531.5	2893.4	2945.5
130°	1115.4	1174.7	1234.1	1248.9	1432.0	1676.2	1798.3	2013.0	2442.6	2764.7	2813.0
132.5°	1152.4	1211.7	1271.0	1285.8	1453.8	1677.8	1789.9	1982.1	2366.7	2655.1	2698.3
135°	1207.2	1261.2	1315.2	1328.7	1477.7	1676.3	1775.6	1936.6	2258.6	2500.1	2537.3
137.5°	1263.2	1316.7	1370.1	1383.5	1513.4	1686.6	1773.2	1909.3	2181.6	2385.8	2416.2
140°	1309.7	1359.0	1408.1	1420.5	1535.3	1688.3	1764.8	1882.4	2117.6	2294.0	2322.5
142.5°	1345.4	1391.0	1436.5	1447.9	1553.5	1694.4	1764.8	1868.2	2074.7	2229.6	2254.1
145°	1400.2	1439.9	1479.7	1489.6	1577.4	1694.5	1753.0	1837.4	2006.4	2133.1	2151.6
147.5°	1455.0	1493.7	1532.4	1542.0	1612.3	1706.1	1753.0	1819.5	1952.4	2052.1	2067.5
150°	1490.8	1525.7	1560.7	1569.4	1630.7	1712.2	1753.0	1809.2	1921.4	2005.6	2018.0
152.5°	1527.7	1554.2	1580.7	1587.3	1642.5	1716.1	1753.0	1800.9	1896.7	1968.6	1978.0
155°	1582.5	1602.1	1621.8	1626.7	1668.8	1724.9	1753.0	1791.1	1867.3	1924.5	1930.7
157.5°	1623.0	1642.1	1661.2	1666.0	1695.0	1733.7	1753.0	1782.6	1841.9	1886.4	1890.8
160°	1650.4	1665.3	1680.1	1683.9	1706.9	1737.6	1753.0	1778.4	1829.2	1867.3	1869.8
162.5°	1677.8	1688.9	1700.1	1702.9	1719.6	1741.8	1753.0	1774.4	1817.3	1849.5	1851.8
165°	1707.6	1717.7	1727.8	1730.3	1737.8	1747.9	1753.0	1768.4	1799.0	1822.0	1824.5
167.5°	1735.0	1739.8	1744.6	1745.8	1752.1	1760.6	1764.8	1775.0	1795.1	1810.2	1811.3
170°	1753.0	1757.8	1762.5	1763.7	1764.1	1764.6	1764.8	1775.0	1795.1	1810.2	1810.2
172.5°	1762.5	1763.5	1764.6	1764.8	1764.8	1764.8	1764.8	1772.8	1788.7	1800.7	1799.7
175°	1775.6	1775.6	1775.6	1775.6	1772.0	1767.2	1764.8	1769.9	1779.9	1787.5	1787.5
177.5°	1775.6	1775.6	1775.6	1775.6	1772.9	1769.1	1767.2	1771.2	1779.2	1785.1	1784.0
180°	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6	1775.6

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1177.2	1177.2
2.5°	1256.7	1249.1
5°	1616.3	1623.9
7.5°	2176.5	2172.7
10°	2706.5	2740.5
12.5°	3092.6	3100.1
15°	3327.2	3342.4
17.5°	3418.0	3421.9
20°	3421.9	3414.3
22.5°	3380.2	3372.7
25°	3331.0	3327.2
27.5°	3285.6	3289.4
30°	3266.7	3278.0
32.5°	3266.7	3285.6
35°	3274.2	3293.1
37.5°	3270.4	3293.1
40°	3255.3	3281.8
42.5°	3213.7	3232.6
45°	3149.3	3172.0
47.5°	3066.0	3081.2
50°	2960.0	2975.2
52.5°	2827.6	2831.4
55°	2668.6	2683.7
57.5°	2498.3	2502.0
60°	2309.0	2320.4
62.5°	2108.4	2108.4
65°	1896.4	1904.0
67.5°	1676.9	1695.8
70°	1453.5	1457.3
72.5°	1234.0	1234.0
75°	1006.9	1010.7
77.5°	791.1	791.1
80°	586.8	590.5
82.5°	405.0	412.6
85°	253.6	253.6
87.5°	117.4	106.0
90°	45.3	45.3
92.5°	181.4	145.4
95°	632.2	523.1
97.5°	1514.9	1307.3
100°	2182.7	1935.3
102.5°	2839.5	2627.7
105°	3676.9	3563.1
107.5°	4225.6	4253.1
110°	4434.7	4553.4

TEST NUMBER: P937701

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4453.5	4635.7
115°	4335.3	4587.9
117.5°	4084.9	4365.1
120°	3883.1	4155.4
122.5°	3686.6	3955.1
125°	3406.3	3653.6
127.5°	3154.3	3362.9
130°	3005.7	3198.5
132.5°	2870.9	3043.6
135°	2686.1	2835.0
137.5°	2538.0	2659.9
140°	2436.4	2550.2
142.5°	2352.1	2450.1
145°	2225.8	2299.9
147.5°	2128.9	2190.3
150°	2067.9	2117.6
152.5°	2015.6	2053.2
155°	1955.6	1980.6
157.5°	1908.3	1925.8
160°	1879.9	1890.0
162.5°	1861.4	1870.9
165°	1834.7	1844.7
167.5°	1815.5	1819.7
170°	1810.2	1810.2
172.5°	1796.0	1792.2
175°	1787.5	1787.5
177.5°	1779.8	1775.6
180°	1775.6	1775.6

(END OF REPORT)