

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: P938505

Luminaire Tested: SQ4-FB-150U-100D-B50-1D-UNV-W2A-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938505
REPORT IS A COMBINATION OF REPORTS P933623 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-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

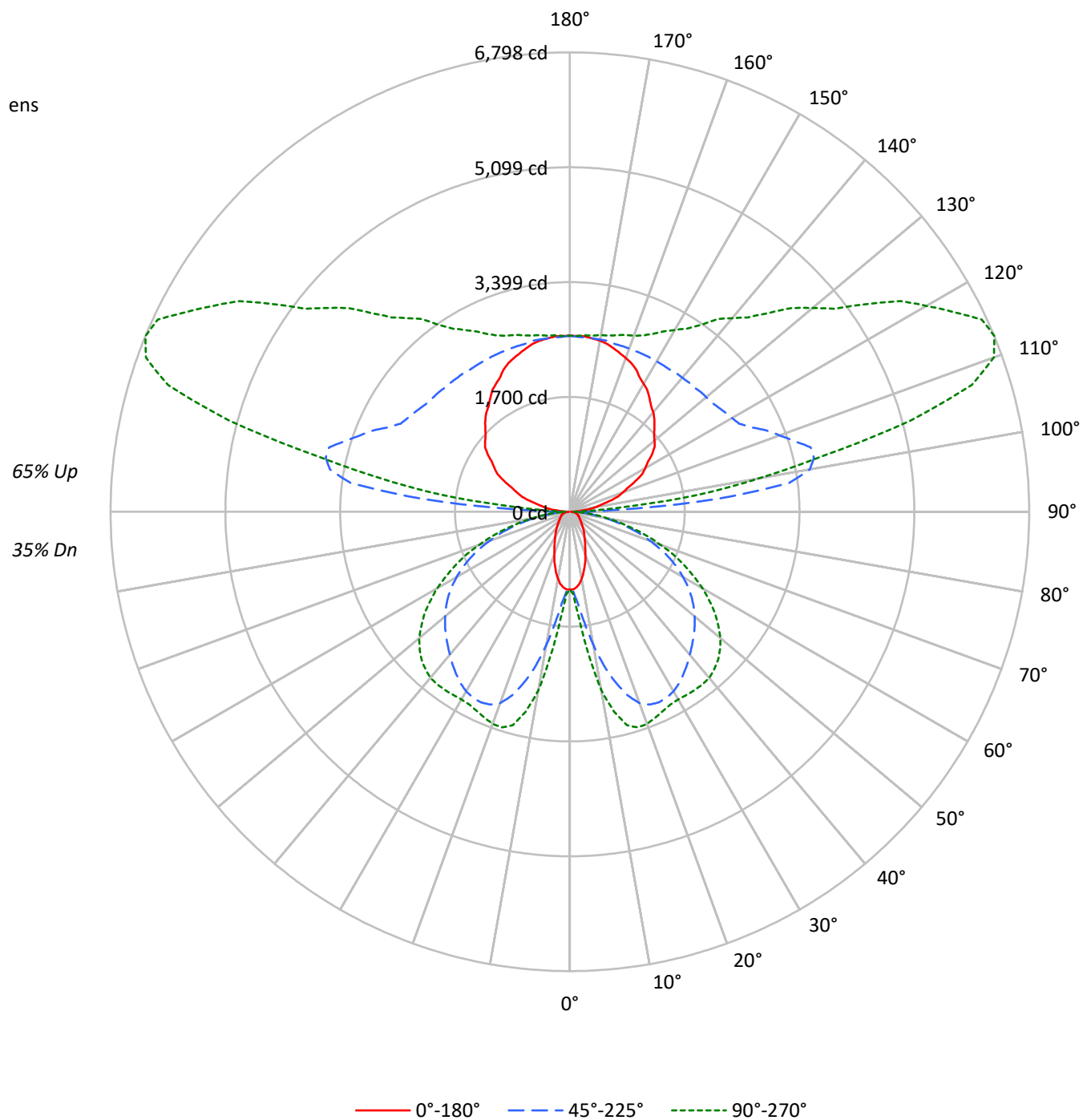
Lumens per Lamp: N/A
Luminaire Lumens: 25797.1 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 217.2
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	0
RCR																		
0	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3561	3561	3561
5°	3480	4117	4787
10°	3158	6003	7935
15°	2685	7844	9582
20°	2187	9093	9766
25°	1825	9517	9567
30°	1539	9580	9549
35°	1362	9423	9796
40°	1188	9219	10051
45°	1076	9070	10091
50°	988	8937	9924
55°	947	8741	9484
60°	971	8361	8789
65°	1012	7781	7835
70°	1080	6791	6619
75°	1202	5542	5166
80°	1322	3848	3480
85°	1199	2045	1782

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 10091 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.9	0.6
10°-20°	660.1	2.6
20°-30°	1154.5	4.5
30°-40°	1486.2	5.8
40°-50°	1660.1	6.4
50°-60°	1590.0	6.2
60°-70°	1260.1	4.9
70°-80°	740.9	2.9
80°-90°	215.8	0.8
90°-100°	1269.3	4.9
100°-110°	3337.1	12.9
110°-120°	3460.2	13.4
120°-130°	2775.5	10.8
130°-140°	2177.8	8.4
140°-150°	1671.5	6.5
150°-160°	1203.8	4.7
160°-170°	736.5	2.9
170°-180°	248.8	1.0
0°-30°	1963.5	7.6
0°-40°	3449.8	13.4
0°-60°	6699.8	26.0
0°-90°	8916.6	34.6
90°-120°	8066.6	31.3
90°-150°	14691.3	56.9
90°-180°	16880.0	65.4
0°-180°	25797.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1151	1151	1151	1151	1151	
5°	1122	1203	1355	1533	1588	104
15°	840	1551	2614	3169	3269	234
25°	537	1758	3113	3250	3254	247
35°	363	1681	2932	3098	3221	227
45°	248	1340	2591	2969	3102	192
55°	178	851	2199	2554	2625	162
65°	141	452	1632	1836	1862	139
75°	104	278	896	985	988	109
85°	37	85	222	244	248	39
90°	18	49	133	66	66	17
95°	168	657	2186	1127	767	186
105°	601	911	3689	5601	5225	637
115°	1068	1297	2955	5895	6728	1055
125°	1486	1666	2688	4542	5358	1319
135°	1770	1949	2604	3666	4158	1370
145°	2054	2184	2571	3128	3373	1286
155°	2321	2386	2571	2822	2905	1066
165°	2504	2538	2571	2672	2705	707
175°	2604	2604	2588	2622	2622	247
180°	2604	2604	2604	2604	2604	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3
2.5°	1151.3	1151.3	1158.7	1162.5	1169.8	1173.6	1180.9	1188.3	1210.6	1214.3	1221.7
5°	1121.7	1136.5	1184.7	1203.2	1255.0	1325.3	1355.0	1403.1	1503.0	1532.6	1551.1
7.5°	1077.3	1110.6	1229.1	1258.7	1388.2	1573.3	1651.1	1754.7	1914.0	1991.7	2054.6
10°	1006.9	1077.3	1288.3	1358.6	1569.7	1851.0	1995.4	2139.8	2380.4	2487.7	2528.4
12.5°	929.2	1043.9	1351.2	1447.5	1751.1	2161.9	2335.9	2495.2	2769.1	2913.5	2935.7
15°	840.3	995.8	1410.4	1551.1	1943.6	2421.1	2613.6	2809.8	3065.3	3168.9	3194.8
17.5°	762.6	958.8	1466.0	1614.0	2091.6	2654.3	2850.6	3013.5	3220.7	3291.0	3309.6
20°	666.3	899.6	1503.0	1695.5	2247.1	2824.6	3013.5	3139.3	3279.9	3324.4	3331.8
22.5°	596.0	836.7	1525.2	1725.1	2350.8	2928.3	3087.4	3187.5	3283.7	3298.5	3302.2
25°	536.8	766.3	1521.5	1758.4	2439.6	2991.2	3113.4	3187.5	3242.9	3250.3	3250.3
27.5°	481.3	688.5	1506.7	1765.8	2506.3	3006.0	3102.3	3154.1	3180.0	3194.8	3194.8
30°	433.1	614.6	1469.6	1751.1	2535.9	2991.2	3068.9	3094.9	3120.8	3143.0	3154.1
32.5°	396.1	544.1	1414.2	1721.5	2539.5	2954.2	3009.7	3024.6	3061.6	3113.4	3131.9
35°	362.8	473.8	1351.2	1680.7	2517.3	2894.9	2932.0	2946.8	3020.8	3098.5	3124.5
37.5°	329.5	422.1	1269.8	1610.4	2484.1	2824.6	2850.6	2876.4	2991.2	3083.8	3113.4
40°	296.2	377.6	1173.6	1532.6	2432.2	2739.5	2761.7	2802.4	2954.2	3061.6	3091.2
42.5°	270.2	340.6	1069.9	1451.2	2365.5	2643.2	2676.6	2735.8	2909.8	3024.6	3057.8
45°	248.1	303.6	958.8	1340.1	2280.5	2543.3	2591.4	2672.8	2857.9	2969.0	2998.6
47.5°	225.8	277.7	844.1	1225.4	2187.9	2443.3	2506.3	2598.8	2787.6	2894.9	2920.9
50°	207.3	251.7	729.3	1103.2	2088.0	2335.9	2410.0	2506.3	2698.8	2798.7	2832.1
52.5°	192.5	229.5	622.0	981.1	1973.2	2224.9	2310.1	2410.0	2591.4	2687.7	2709.9
55°	177.7	211.0	529.4	851.4	1854.7	2106.5	2199.0	2295.2	2473.0	2554.4	2569.2
57.5°	170.3	196.2	451.7	729.3	1728.8	1973.2	2076.8	2165.7	2332.3	2395.1	2410.0
60°	159.2	185.1	392.4	625.6	1591.8	1847.3	1936.2	2025.0	2165.7	2217.5	2228.6
62.5°	148.0	177.7	348.0	525.7	1451.2	1699.2	1788.0	1869.5	1988.0	2025.0	2039.8
65°	140.7	170.3	314.7	451.7	1306.9	1543.7	1632.5	1703.0	1799.2	1836.2	1843.6
67.5°	133.3	162.9	288.8	388.7	1162.5	1388.2	1454.9	1521.5	1595.6	1632.5	1636.3
70°	122.2	155.5	266.6	344.3	1014.3	1210.6	1266.1	1336.5	1395.7	1414.2	1425.3
72.5°	114.8	144.4	251.7	310.9	862.5	1040.3	1092.1	1132.8	1184.7	1203.2	1203.2
75°	103.7	129.5	237.0	277.7	707.0	851.4	895.9	936.6	977.3	984.7	973.6
77.5°	92.6	114.8	203.6	233.2	551.6	673.8	710.8	733.0	766.3	773.7	777.5
80°	77.7	99.9	159.2	181.4	399.8	496.0	522.0	540.5	570.1	570.1	577.5
82.5°	59.2	77.7	114.8	129.5	270.2	340.6	362.8	373.9	392.4	392.4	392.4
85°	37.0	48.1	74.1	85.2	162.9	207.3	222.1	225.8	240.6	244.3	244.3
87.5°	18.5	25.9	48.1	51.8	85.2	107.3	107.3	114.8	114.8	111.1	107.3
90°	17.5	31.5	45.5	48.9	76.9	114.1	132.8	118.1	88.5	66.4	66.4
92.5°	69.9	188.7	307.6	337.3	474.2	656.7	747.9	655.5	470.6	332.0	318.9
95°	167.7	385.2	602.7	657.1	1166.8	1846.5	2186.3	1950.9	1480.3	1127.2	1087.3
97.5°	290.1	481.9	673.8	721.8	1571.7	2705.0	3271.5	3122.8	2825.4	2602.2	2526.1
100°	384.4	558.4	732.4	776.0	1719.1	2976.6	3605.3	3616.2	3637.9	3654.3	3563.6
102.5°	464.9	627.2	789.5	830.1	1786.6	3062.0	3699.8	3889.3	4268.3	4552.6	4474.9
105°	601.2	738.7	876.2	910.6	1836.8	3071.7	3689.2	4114.1	4963.8	5601.1	5559.4
107.5°	741.0	869.2	997.3	1029.4	1846.1	2935.0	3479.5	4072.1	5257.4	6146.4	6156.5
110°	835.4	951.1	1066.8	1095.8	1832.1	2813.9	3304.8	3967.4	5292.4	6286.2	6329.7

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	928.0	1038.3	1148.6	1176.2	1832.7	2708.0	3145.7	3823.8	5180.0	6197.1	6263.9
115°	1067.8	1169.6	1271.4	1296.8	1849.6	2586.7	2955.3	3608.5	4914.9	5894.8	5987.4
117.5°	1205.9	1298.3	1390.7	1413.8	1883.9	2510.7	2824.1	3413.7	4592.8	5477.1	5579.8
120°	1286.2	1373.3	1460.2	1482.0	1911.9	2485.1	2771.7	3310.4	4387.7	5195.7	5295.5
122.5°	1364.9	1452.7	1540.4	1562.4	1952.2	2471.7	2731.6	3216.6	4186.7	4914.3	5012.8
125°	1485.5	1565.5	1645.5	1665.5	2006.3	2460.7	2687.9	3099.9	3924.0	4542.0	4632.7
127.5°	1583.3	1664.1	1744.9	1765.1	2060.4	2454.3	2651.2	3005.0	3712.6	4243.3	4319.8
130°	1635.8	1722.8	1809.7	1831.5	2100.0	2458.1	2637.1	2952.1	3582.1	4054.5	4125.2
132.5°	1690.0	1776.9	1863.9	1885.7	2132.0	2460.6	2624.9	2906.9	3470.8	3893.8	3957.1
135°	1770.3	1849.5	1928.8	1948.6	2167.1	2458.4	2604.0	2840.1	3312.3	3666.5	3721.1
137.5°	1852.5	1931.0	2009.4	2029.0	2219.5	2473.4	2600.4	2800.0	3199.3	3498.8	3543.4
140°	1920.7	1992.9	2065.2	2083.2	2251.5	2475.9	2588.2	2760.6	3105.6	3364.2	3405.9
142.5°	1973.1	2039.9	2106.6	2123.4	2278.3	2484.9	2588.2	2739.7	3042.6	3269.8	3305.8
145°	2053.5	2111.8	2170.0	2184.5	2313.2	2484.9	2570.7	2694.6	2942.4	3128.2	3155.4
147.5°	2133.8	2190.5	2247.2	2261.4	2364.5	2502.0	2570.7	2668.3	2863.2	3009.4	3032.0
150°	2186.3	2237.6	2288.9	2301.7	2391.3	2511.0	2570.7	2653.1	2817.8	2941.3	2959.5
152.5°	2240.5	2279.3	2318.1	2327.8	2408.8	2516.8	2570.7	2641.1	2781.6	2887.1	2900.9
155°	2320.9	2349.7	2378.3	2385.5	2447.3	2529.6	2570.7	2626.7	2738.6	2822.5	2831.6
157.5°	2380.3	2408.2	2436.2	2443.2	2485.7	2542.3	2570.7	2614.3	2701.2	2766.5	2773.0
160°	2420.5	2442.2	2464.0	2469.4	2503.2	2548.2	2570.7	2608.0	2682.5	2738.5	2742.2
162.5°	2460.6	2477.0	2493.2	2497.3	2521.8	2554.4	2570.7	2602.2	2665.2	2712.3	2715.8
165°	2504.3	2519.1	2533.8	2537.6	2548.6	2563.4	2570.7	2593.3	2638.3	2672.1	2675.8
167.5°	2544.6	2551.6	2558.5	2560.3	2569.6	2582.0	2588.2	2603.0	2632.5	2654.6	2656.2
170°	2570.7	2577.7	2584.8	2586.5	2587.1	2587.8	2588.2	2603.0	2632.5	2654.6	2654.6
172.5°	2584.8	2586.2	2587.8	2588.2	2588.2	2588.2	2588.2	2599.9	2623.2	2640.7	2639.3
175°	2604.0	2604.0	2604.0	2604.0	2598.8	2591.8	2588.2	2595.6	2610.3	2621.5	2621.5
177.5°	2604.0	2604.0	2604.0	2604.0	2599.9	2594.5	2591.8	2597.5	2609.2	2617.9	2616.3
180°	2604.0	2604.0	2604.0	2604.0	2604.0	2604.0	2604.0	2604.0	2604.0	2604.0	2604.0

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1151.3	1151.3
2.5°	1229.1	1221.7
5°	1580.8	1588.2
7.5°	2128.7	2124.9
10°	2647.0	2680.2
12.5°	3024.6	3032.0
15°	3254.1	3268.9
17.5°	3342.9	3346.6
20°	3346.6	3339.2
22.5°	3305.9	3298.5
25°	3257.8	3254.1
27.5°	3213.3	3217.1
30°	3194.8	3206.0
32.5°	3194.8	3213.3
35°	3202.2	3220.7
37.5°	3198.5	3220.7
40°	3183.7	3209.6
42.5°	3143.0	3161.5
45°	3080.1	3102.3
47.5°	2998.6	3013.5
50°	2894.9	2909.8
52.5°	2765.4	2769.1
55°	2609.9	2624.7
57.5°	2443.3	2447.0
60°	2258.2	2269.3
62.5°	2062.0	2062.0
65°	1854.7	1862.1
67.5°	1640.0	1658.5
70°	1421.5	1425.3
72.5°	1206.8	1206.8
75°	984.7	988.5
77.5°	773.7	773.7
80°	573.8	577.5
82.5°	396.1	403.5
85°	248.1	248.1
87.5°	114.8	103.7
90°	66.4	66.4
92.5°	266.0	213.2
95°	927.2	767.2
97.5°	2221.6	1917.1
100°	3200.9	2838.1
102.5°	4164.2	3853.5
105°	5392.4	5225.4
107.5°	6196.9	6237.3
110°	6503.7	6677.7

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6531.1	6798.3
115°	6357.8	6728.3
117.5°	5990.7	6401.5
120°	5694.7	6094.0
122.5°	5406.6	5800.4
125°	4995.5	5358.3
127.5°	4625.8	4931.8
130°	4407.9	4690.6
132.5°	4210.2	4463.4
135°	3939.3	4157.6
137.5°	3722.1	3900.7
140°	3572.9	3739.9
142.5°	3449.4	3593.1
145°	3264.2	3373.0
147.5°	3122.1	3212.1
150°	3032.5	3105.6
152.5°	2956.0	3011.1
155°	2868.0	2904.6
157.5°	2798.5	2824.1
160°	2757.0	2771.7
162.5°	2729.8	2743.8
165°	2690.6	2705.3
167.5°	2662.4	2668.6
170°	2654.6	2654.6
172.5°	2633.9	2628.5
175°	2621.5	2621.5
177.5°	2610.2	2604.0
180°	2604.0	2604.0

(END OF REPORT)