

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: P938501

Luminaire Tested: SQ4-FB-150U-100D-B40-1D-UNV-W2A-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938501
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-B40-1D-UNV-W2A-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

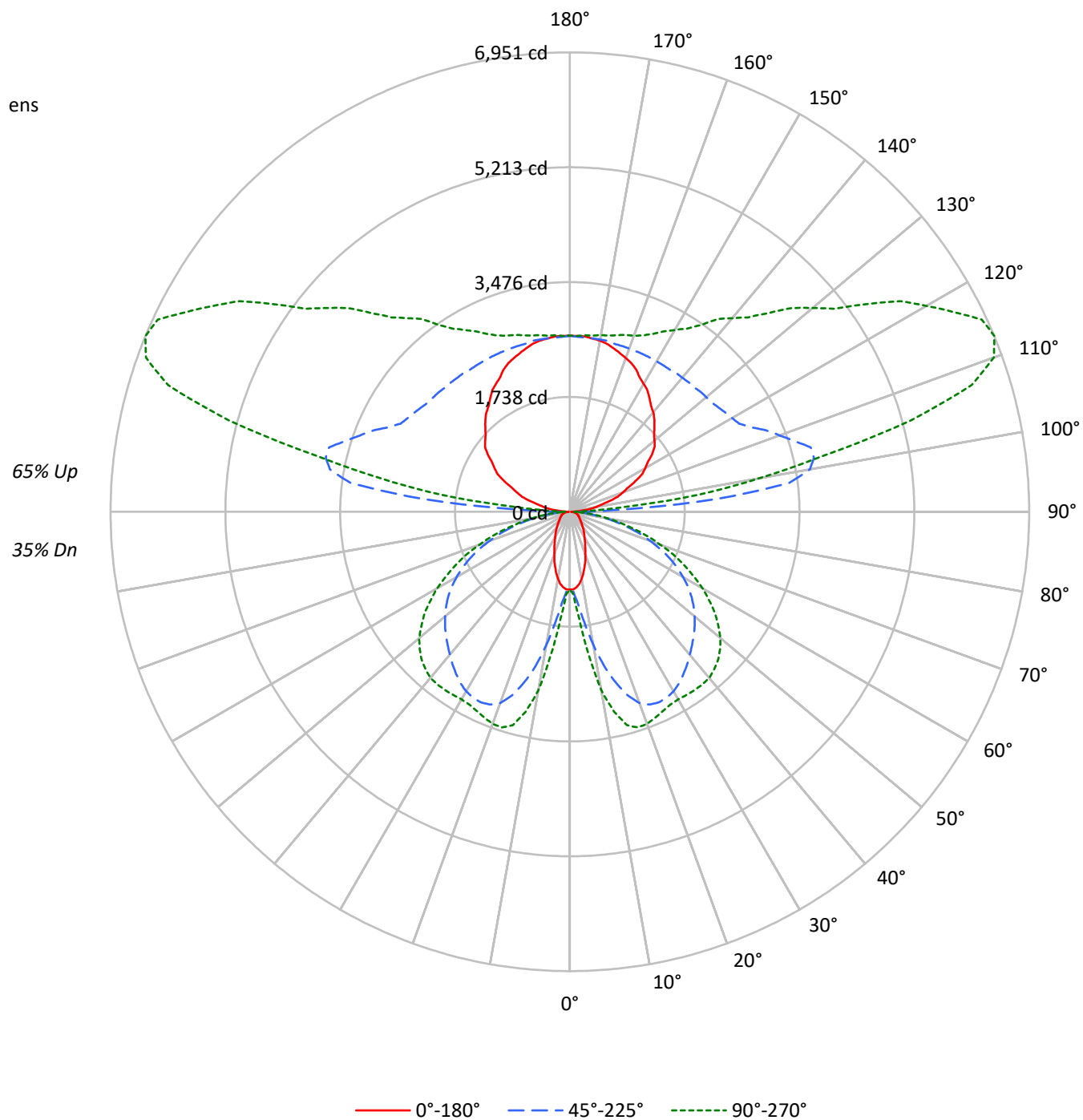
Lumens per Lamp: N/A
Luminaire Lumens: 26377.1 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

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
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°	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	0.6
10°-20°	674.9	2.6
20°-30°	1180.5	4.5
30°-40°	1519.6	5.8
40°-50°	1697.4	6.4
50°-60°	1625.7	6.2
60°-70°	1288.4	4.9
70°-80°	757.6	2.9
80°-90°	220.6	0.8
90°-100°	1297.8	4.9
100°-110°	3412.1	12.9
110°-120°	3538.0	13.4
120°-130°	2837.9	10.8
130°-140°	2226.7	8.4
140°-150°	1709.1	6.5
150°-160°	1230.8	4.7
160°-170°	753.1	2.9
170°-180°	254.4	1.0
0°-30°	2007.7	7.6
0°-40°	3527.3	13.4
0°-60°	6850.4	26.0
0°-90°	9117.0	34.6
90°-120°	8247.9	31.3
90°-150°	15021.7	56.9
90°-180°	17260.0	65.4
0°-180°	26377.1	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°	18	50	136	68	68	17
95°	172	672	2236	1153	784	190
105°	615	931	3772	5727	5343	652
115°	1092	1326	3022	6027	6880	1078
125°	1519	1703	2748	4644	5479	1348
135°	1810	1992	2662	3749	4251	1401
145°	2100	2234	2628	3199	3449	1315
155°	2373	2439	2628	2886	2970	1090
165°	2561	2595	2628	2732	2766	723
175°	2662	2662	2646	2680	2680	253
180°	2662	2662	2662	2662	2662	

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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°	17.9	32.2	46.5	50.0	78.6	116.7	135.8	120.7	90.5	67.9	67.9
92.5°	71.4	192.9	314.5	344.9	484.9	671.5	764.8	670.2	481.2	339.5	326.0
95°	171.5	393.8	616.3	671.8	1193.1	1888.0	2235.5	1994.8	1513.6	1152.6	1111.7
97.5°	296.6	492.8	688.9	738.0	1607.1	2765.8	3345.1	3193.0	2888.9	2660.7	2582.9
100°	393.1	571.0	748.9	793.4	1757.8	3043.5	3686.4	3697.5	3719.7	3736.4	3643.7
102.5°	475.3	641.3	807.3	848.8	1826.8	3130.9	3782.9	3976.7	4364.3	4655.0	4575.5
105°	614.7	755.3	895.9	931.0	1878.1	3140.8	3772.2	4206.6	5075.4	5727.0	5684.4
107.5°	757.7	888.7	1019.7	1052.5	1887.6	3001.0	3557.8	4163.7	5375.6	6284.6	6294.9
110°	854.2	972.5	1090.8	1120.4	1873.3	2877.1	3379.1	4056.6	5411.4	6427.5	6472.0

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	948.9	1061.7	1174.5	1202.6	1873.9	2768.9	3216.4	3909.8	5296.4	6336.4	6404.7
115°	1091.9	1195.9	1299.9	1325.9	1891.2	2644.9	3021.7	3689.6	5025.4	6027.3	6122.0
117.5°	1233.0	1327.4	1422.0	1445.6	1926.2	2567.1	2887.6	3490.4	4696.0	5600.2	5705.3
120°	1315.1	1404.1	1493.0	1515.3	1954.9	2541.0	2834.1	3384.8	4486.3	5312.5	5414.6
122.5°	1395.5	1485.3	1575.1	1597.5	1996.0	2527.3	2793.0	3288.9	4280.9	5024.8	5125.5
125°	1518.9	1600.7	1682.5	1703.0	2051.4	2516.0	2748.3	3169.6	4012.2	4644.2	4736.9
127.5°	1618.9	1701.5	1784.1	1804.8	2106.7	2509.5	2710.8	3072.5	3796.0	4338.7	4416.9
130°	1672.6	1761.5	1850.4	1872.7	2147.2	2513.4	2696.4	3018.5	3662.6	4145.7	4217.9
132.5°	1728.0	1816.9	1905.8	1928.0	2180.0	2515.9	2683.9	2972.2	3548.9	3981.3	4046.0
135°	1810.1	1891.1	1972.2	1992.4	2215.8	2513.7	2662.5	2904.0	3386.8	3748.9	3804.7
137.5°	1894.1	1974.4	2054.6	2074.6	2269.4	2529.0	2658.9	2863.0	3271.3	3577.4	3623.1
140°	1963.9	2037.7	2111.6	2130.0	2302.1	2531.6	2646.4	2822.7	3175.4	3439.8	3482.5
142.5°	2017.4	2085.7	2154.0	2171.1	2329.5	2540.8	2646.4	2801.3	3111.0	3343.4	3380.1
145°	2099.7	2159.3	2218.8	2233.6	2365.2	2540.8	2628.5	2755.2	3008.5	3198.6	3226.4
147.5°	2181.8	2239.8	2297.7	2312.2	2417.7	2558.3	2628.5	2728.2	2927.6	3077.1	3100.1
150°	2235.5	2287.9	2340.3	2353.4	2445.1	2567.4	2628.5	2712.8	2881.1	3007.4	3026.0
152.5°	2290.9	2330.6	2370.2	2380.1	2462.9	2573.3	2628.5	2700.5	2844.2	2952.0	2966.1
155°	2373.1	2402.5	2431.8	2439.2	2502.3	2586.4	2628.5	2685.7	2800.2	2885.9	2895.3
157.5°	2433.8	2462.4	2490.9	2498.1	2541.5	2599.5	2628.5	2673.0	2762.0	2828.7	2835.3
160°	2474.9	2497.1	2519.4	2524.9	2559.5	2605.5	2628.5	2666.6	2742.9	2800.1	2803.9
162.5°	2515.9	2532.7	2549.3	2553.5	2578.5	2611.8	2628.5	2660.7	2725.1	2773.3	2776.9
165°	2560.6	2575.7	2590.8	2594.6	2605.9	2621.0	2628.5	2651.6	2697.6	2732.2	2736.0
167.5°	2601.8	2609.0	2616.0	2617.8	2627.4	2640.1	2646.4	2661.5	2691.7	2714.3	2715.9
170°	2628.5	2635.7	2642.9	2644.7	2645.3	2646.0	2646.4	2661.5	2691.7	2714.3	2714.3
172.5°	2642.9	2644.4	2646.0	2646.4	2646.4	2646.4	2646.4	2658.3	2682.2	2700.1	2698.6
175°	2662.5	2662.5	2662.5	2662.5	2657.2	2650.0	2646.4	2653.9	2669.0	2680.4	2680.4
177.5°	2662.5	2662.5	2662.5	2662.5	2658.3	2652.8	2650.0	2656.0	2667.9	2676.8	2675.1
180°	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5

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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°	67.9	67.9
92.5°	272.0	218.0
95°	948.0	784.4
97.5°	2271.6	1960.2
100°	3272.9	2902.0
102.5°	4257.9	3940.1
105°	5513.7	5342.9
107.5°	6336.2	6377.5
110°	6650.0	6827.9

TEST NUMBER: P938501

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6677.9	6951.2
115°	6500.8	6879.6
117.5°	6125.4	6545.5
120°	5822.7	6231.0
122.5°	5528.2	5930.8
125°	5107.8	5478.7
127.5°	4729.8	5042.7
130°	4507.0	4796.1
132.5°	4304.9	4563.8
135°	4027.9	4251.1
137.5°	3805.8	3988.4
140°	3653.3	3824.0
142.5°	3527.0	3673.9
145°	3337.6	3448.8
147.5°	3192.3	3284.3
150°	3100.7	3175.4
152.5°	3022.5	3078.8
155°	2932.5	2969.9
157.5°	2861.5	2887.6
160°	2819.0	2834.1
162.5°	2791.2	2805.5
165°	2751.1	2766.2
167.5°	2722.2	2728.6
170°	2714.3	2714.3
172.5°	2693.1	2687.6
175°	2680.4	2680.4
177.5°	2668.8	2662.5
180°	2662.5	2662.5

(END OF REPORT)