

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P510499

Luminaire Tested: **CST-CA10-310-750-U-T3**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510499
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-11)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA10-310-750-U-T3
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 49441 lumens
Efficiency: N/A
Efficacy: 158.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

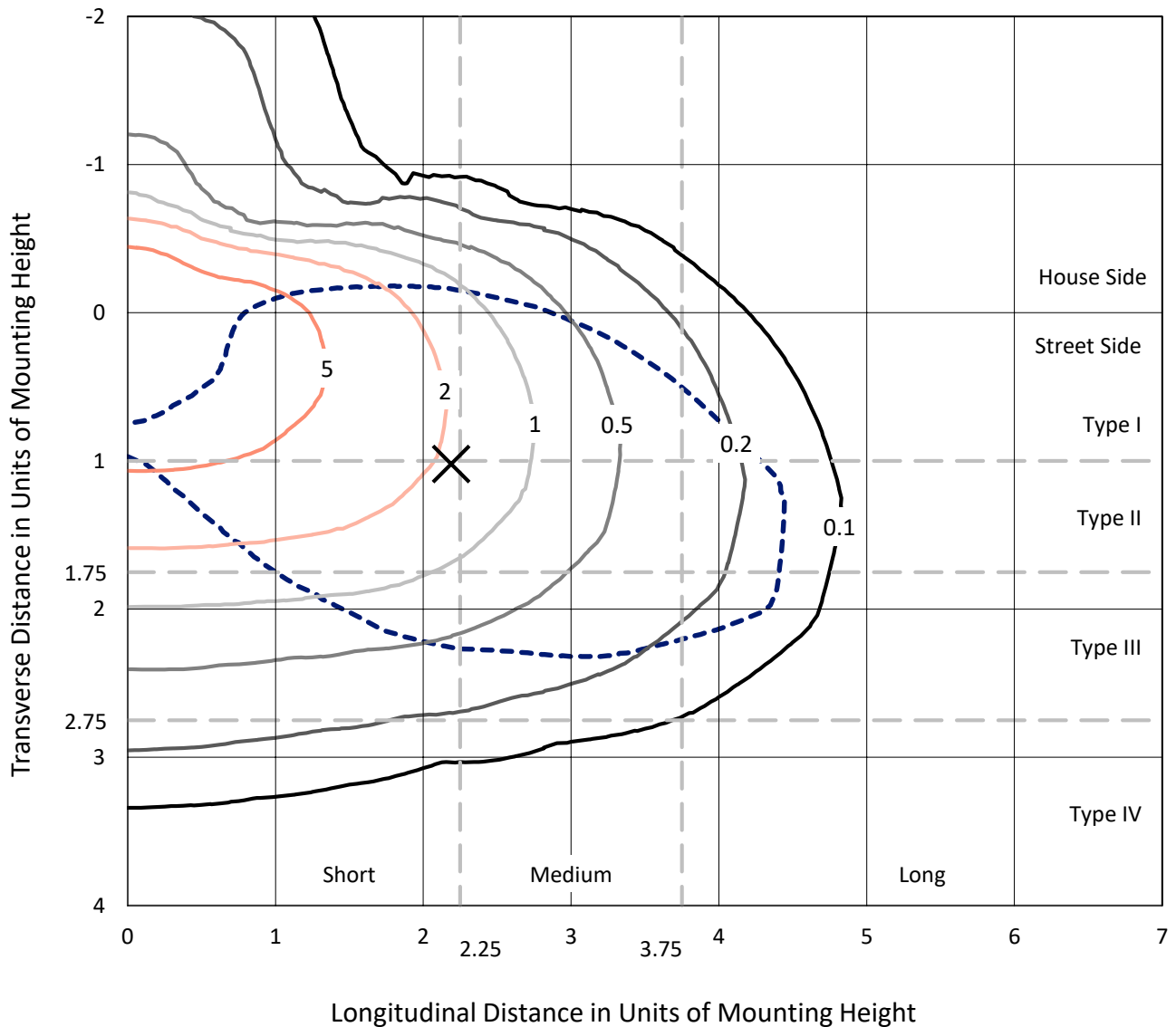
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

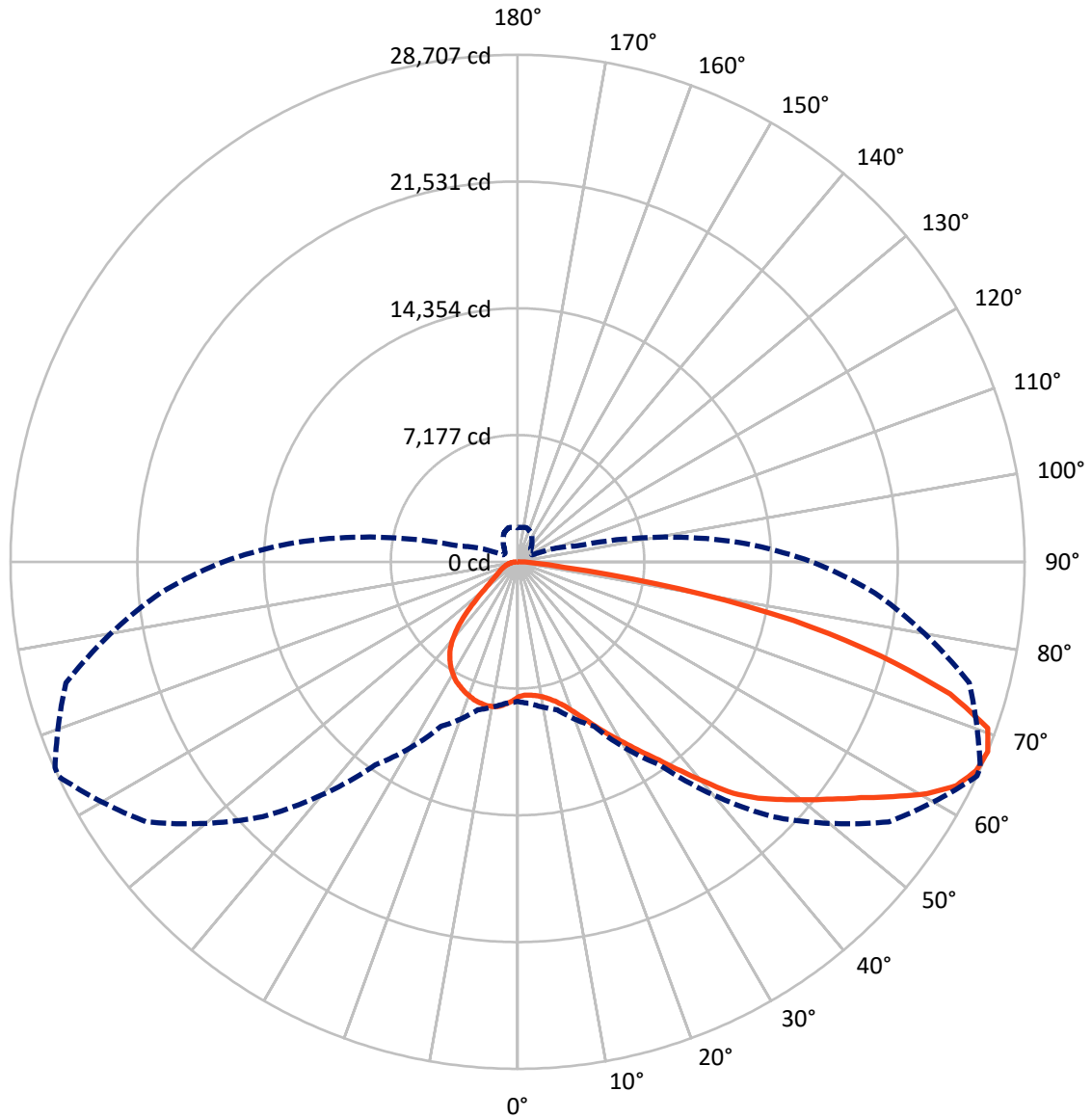
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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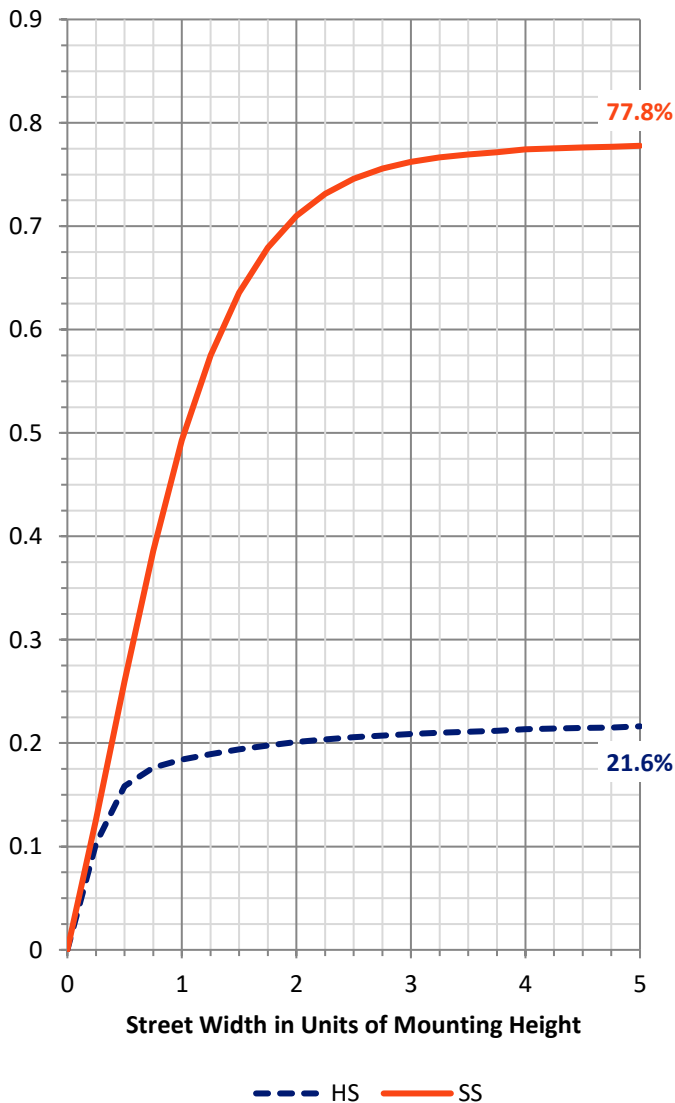
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10920.9	0.0	10920.9
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	38520.1	0.0	38520.1
	% Fixture	77.9	0.0	77.9
Total	Lumens	49441.0	0.0	49441.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	760.9	1.5
10°-20°	2377.3	4.8
20°-30°	4115.3	8.3
30°-40°	6047.1	12.2
40°-50°	8173.4	16.5
50°-60°	10050.8	20.3
60°-70°	10770.1	21.8
70°-80°	6352.1	12.8
80°-90°	794.0	1.6
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°-90°	49441.0	100.0
0°-180°	49441.0	100.0



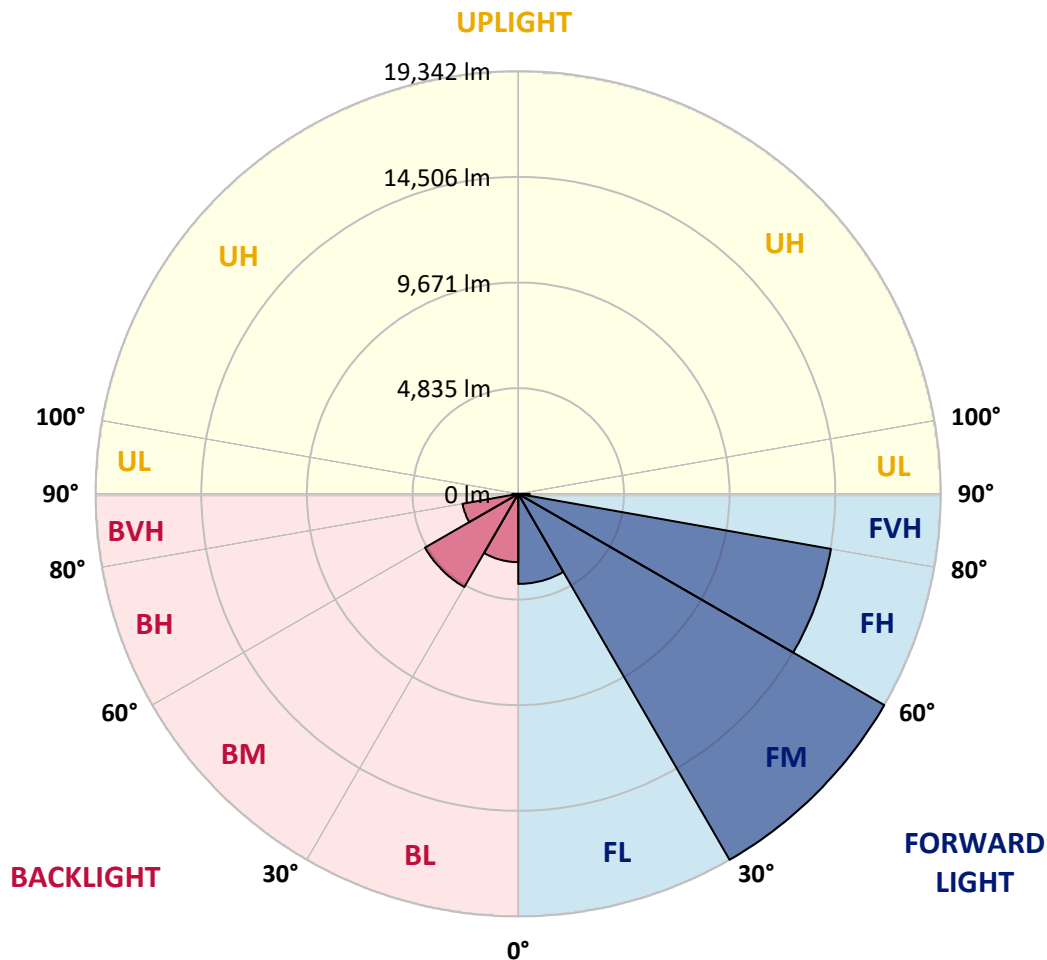
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4125.5	8.3			
FM (30°-60°)	19341.7	39.1			
FH (60°-80°)	14532.3	29.4			G5
FVH (80°-90°)	520.7	1.1			G4/750
BL (0°-30°)	3128.0	6.3	B4/5000		
BM (30°-60°)	4929.7	10.0	B3/5000		
BH (60°-80°)	2589.9	5.2	B4/5000		G4/5000
BVH (80°-90°)	273.3	0.6			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	7636.8	7636.8	7636.8	7636.8	7636.8	7636.8	7636.8	7636.8	7636.8	7636.8	7636.8
2.5°	7492.6	7478.5	7472.5	7491.6	7505.7	7521.8	7545.0	7567.2	7570.2	7599.5	7637.8
5°	7583.3	7571.2	7558.1	7555.1	7550.1	7549.1	7555.1	7580.3	7586.4	7614.6	7697.2
7.5°	7784.9	7772.8	7748.7	7739.6	7712.4	7664.0	7640.8	7653.9	7656.9	7691.2	7794.0
10°	8113.6	8076.3	8047.0	8016.8	7931.1	7854.5	7798.0	7773.9	7768.8	7802.1	7921.0
12.5°	8505.7	8474.4	8442.2	8362.5	8253.7	8115.6	8015.8	7960.3	7956.3	7984.5	8074.2
15°	8920.0	8920.0	8897.8	8803.0	8696.2	8467.4	8313.1	8220.4	8226.5	8248.6	8290.0
17.5°	9455.2	9410.9	9400.8	9292.9	9174.0	8965.3	8720.4	8572.2	8579.3	8589.3	8558.1
20°	9999.6	9986.5	9971.3	9899.8	9791.9	9523.8	9248.6	9054.0	9055.0	9018.8	8879.6
22.5°	10719.3	10675.9	10687.0	10606.4	10460.2	10185.0	9868.5	9637.7	9652.8	9600.4	9348.4
25°	11434.0	11390.6	11367.4	11313.0	11187.0	10925.9	10549.9	10338.3	10320.1	10225.4	9859.4
27.5°	12147.7	12122.4	12141.6	12076.1	11973.3	11681.9	11337.2	11102.3	11114.4	11048.9	10503.6
30°	12886.5	12858.3	12942.0	12836.1	12772.6	12489.4	12158.7	11882.5	11892.6	11916.8	11304.9
32.5°	13444.0	13477.2	13623.4	13611.3	13599.2	13283.7	12935.9	12782.7	12797.8	12882.5	12256.5
35°	13982.2	13985.3	14190.9	14346.1	14411.7	14147.6	13786.7	13781.7	13880.4	14138.5	13583.1
37.5°	14428.8	14418.7	14692.9	14933.8	15113.2	14908.6	14710.0	15019.5	15109.2	15644.5	14918.7
40°	14672.7	14693.9	15046.7	15347.1	15699.9	15603.1	15624.3	16415.6	16636.4	17105.1	15917.6
42.5°	14501.4	14565.9	15115.3	15728.1	16260.4	16389.4	16814.8	17923.6	18017.4	18102.0	16900.5
45°	14214.1	14281.6	14890.5	15880.3	16723.1	17268.4	17999.2	19083.8	19186.7	19091.9	17718.0
47.5°	13914.7	13984.3	14662.7	15818.9	17106.1	18151.4	19052.6	20110.0	20241.0	19947.7	18504.2
50°	13534.7	13642.5	14384.4	15688.8	17416.6	19104.0	20049.5	21166.4	21226.9	20803.5	19100.0
52.5°	13067.0	13185.9	13988.3	15466.1	17659.5	19769.3	21058.5	22312.5	22306.5	21803.5	19781.4
55°	12575.1	12682.9	13509.5	15115.3	17795.6	20281.4	21865.0	23575.6	23648.2	23226.8	20398.3
57.5°	11945.0	12042.8	12944.0	14643.5	17654.5	20715.8	23171.4	25076.5	25112.8	24217.7	20889.2
60°	11110.4	11254.5	12159.7	14043.7	17249.2	21218.8	24610.8	26655.1	26699.4	25192.4	21204.7
62.5°	10194.1	10251.6	11173.9	13120.4	16659.5	21606.9	25608.8	27889.9	27825.4	25954.5	21299.5
65°	9077.2	9122.6	9920.9	11932.9	15563.8	21394.2	25966.6	28525.0	28445.3	26433.3	21008.1
67.5°	7907.9	8048.0	8675.0	10285.8	14034.7	20412.4	25664.2	28707.4	28667.1	26469.6	20312.6
70°	6389.8	6439.2	7005.7	8379.7	11710.2	18446.8	24656.2	28239.7	28208.4	25659.2	18892.3
72.5°	4505.8	4457.5	4732.7	5810.2	8458.3	14673.7	21051.5	25611.8	25664.2	22953.6	16451.9
75°	2392.0	2484.8	2913.2	3557.3	4795.2	9433.1	16783.5	21196.6	21178.5	19193.7	13004.5
77.5°	1274.1	1272.1	1566.5	1841.7	2347.7	4334.5	11070.1	15985.2	16073.9	14871.3	8929.0
80°	611.9	635.1	653.2	749.0	1170.3	2002.9	4630.8	9269.8	9874.6	8869.6	4241.7
82.5°	489.9	491.9	493.9	472.8	483.8	815.5	1784.2	2682.3	2779.1	2233.8	1367.9
85°	362.9	340.7	337.7	286.3	323.6	489.9	900.2	1145.1	1088.7	1059.4	772.1
87.5°	146.2	137.1	133.1	125.0	125.0	184.5	317.5	414.3	413.3	377.0	259.1
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7636.8	7636.8	7636.8	7636.8	7636.8	7636.8	7636.8	7636.8	7636.8	7636.8	7636.8
2.5°	7668.0	7704.3	7789.0	7861.5	7888.8	7955.3	8017.8	8054.1	8079.3	8094.4	8162.9
5°	7747.6	7820.2	7955.3	8057.1	8155.9	8278.9	8358.5	8408.9	8437.1	8453.3	8502.6
7.5°	7869.6	7943.2	8086.3	8242.6	8333.3	8434.1	8485.5	8521.8	8539.9	8534.9	8574.2
10°	7978.5	8051.1	8194.2	8314.1	8365.6	8423.0	8450.2	8458.3	8459.3	8463.3	8502.6
12.5°	8126.7	8171.0	8247.6	8326.2	8315.2	8317.2	8340.4	8330.3	8307.1	8303.1	8329.3
15°	8285.9	8286.9	8293.0	8275.8	8206.3	8176.1	8143.8	8116.6	8053.1	8049.0	8090.4
17.5°	8485.5	8438.1	8328.3	8211.3	8046.0	7932.1	7817.2	7769.8	7692.2	7677.1	7697.2
20°	8742.6	8643.8	8376.6	8086.3	7776.9	7573.3	7434.1	7294.0	7186.2	7160.0	7179.1
22.5°	9111.5	8916.9	8438.1	7953.3	7474.5	7126.7	6856.6	6688.2	6506.8	6414.0	6423.1
25°	9557.0	9252.6	8545.0	7784.9	7118.6	6616.6	6178.2	5840.5	5635.8	5499.8	5536.0
27.5°	10140.7	9722.4	8673.0	7618.6	6676.1	5964.5	5328.4	4870.8	4662.1	4597.6	4555.2
30°	10817.1	10289.9	8808.1	7372.7	6198.3	5157.0	4342.6	3961.5	3722.6	3684.3	3652.1
32.5°	11722.3	11004.6	9061.1	7105.5	5627.8	4349.6	3465.6	3027.1	2972.7	2941.4	2934.3
35°	12889.6	11941.0	9326.2	6758.8	4883.9	3403.1	2621.9	2385.0	2358.8	2393.0	2396.1
37.5°	14128.4	12957.1	9643.7	6367.7	4028.0	2539.2	2006.0	1841.7	1870.9	1977.7	2001.9
40°	14967.1	13626.4	9932.0	5836.4	2970.6	1844.7	1459.6	1424.3	1585.6	1722.7	1750.9
42.5°	15771.5	14133.4	10049.0	5133.8	2118.9	1313.5	1178.4	1299.3	1525.1	1675.3	1695.5
45°	16457.9	14723.1	9754.6	4291.1	1436.4	1097.7	1129.0	1296.3	1547.3	1713.6	1728.8
47.5°	17111.1	15205.0	9352.4	3380.9	1133.0	1056.4	1128.0	1323.5	1596.7	1754.0	1763.0
50°	17735.1	15571.9	8665.9	2572.5	1061.4	1037.3	1137.0	1365.9	1623.9	1722.7	1718.7
52.5°	18197.8	15761.4	7935.1	2076.5	1033.2	1022.1	1161.2	1419.3	1629.0	1688.4	1684.4
55°	18537.5	15725.1	7455.3	1700.5	1010.0	1016.1	1200.6	1459.6	1677.3	1767.1	1764.0
57.5°	18568.7	15560.8	6910.0	1436.4	981.8	1015.1	1242.9	1516.1	1919.3	2084.6	2034.2
60°	18531.4	15288.6	6365.6	1261.0	950.6	1021.1	1287.2	1685.4	2268.0	2398.1	2362.8
62.5°	18348.0	14781.6	5550.2	1145.1	923.3	1043.3	1320.5	1819.5	2250.9	2266.0	2215.6
65°	17781.5	14103.2	4479.6	1028.2	896.1	1058.4	1347.7	1854.8	2067.4	2019.1	1993.9
67.5°	16660.6	12588.2	3455.5	921.3	860.8	1055.4	1428.4	1804.4	1997.9	1962.6	1930.4
70°	15067.9	10866.5	2399.1	811.5	801.4	1036.2	1408.2	1821.5	1964.6	1910.2	1866.9
72.5°	12588.2	8524.8	1526.1	721.7	712.7	990.9	1357.8	1810.4	1942.5	1918.3	1858.8
75°	9478.4	5950.3	969.7	624.0	634.0	908.2	1277.2	1750.9	1931.4	1855.8	1741.9
77.5°	5967.5	2937.4	754.0	530.2	545.3	783.2	1103.8	1529.2	1853.7	1808.4	1662.2
80°	2257.0	1192.5	589.7	430.4	443.5	608.8	905.2	1258.0	1706.6	1781.2	1718.7
82.5°	1039.3	745.9	442.5	345.8	350.8	443.5	675.4	931.4	1444.5	1635.0	1791.3
85°	606.8	488.9	295.3	230.8	239.9	262.1	380.0	568.5	936.5	1246.9	1395.1
87.5°	206.6	170.4	114.9	97.8	94.8	107.9	91.7	186.5	278.2	489.9	559.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)