

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: P721841

Luminaire Tested: **CST-CA8-400-727-U-T3**

Issue Date: 10/25/2023

Test Information

Test Method: LM-79-08
Report Number: P721841
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-11)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA8-400-727-U-T3
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 51539 lumens
Efficiency: N/A
Efficacy: 128.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

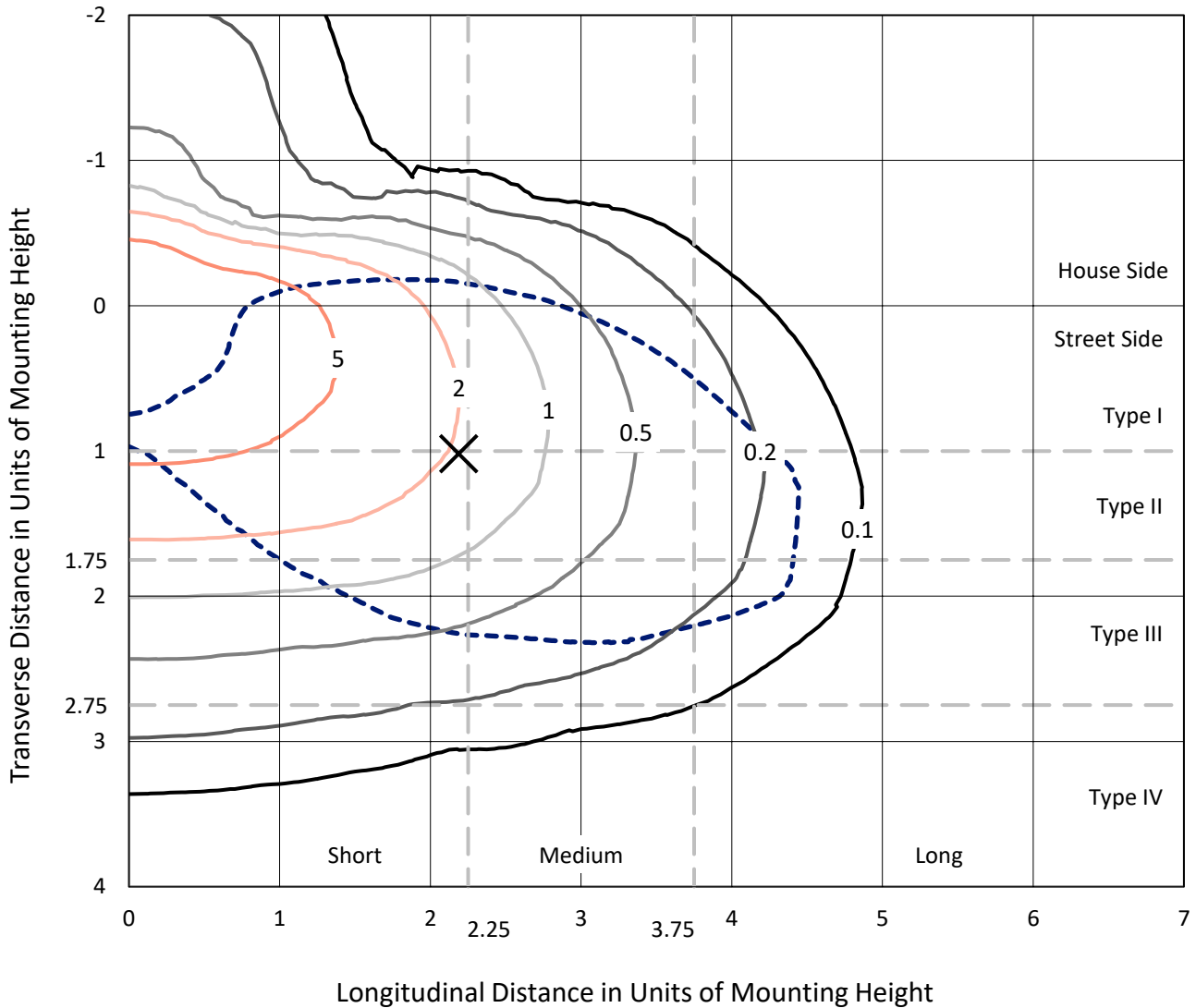
Input Watts (W): 400.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

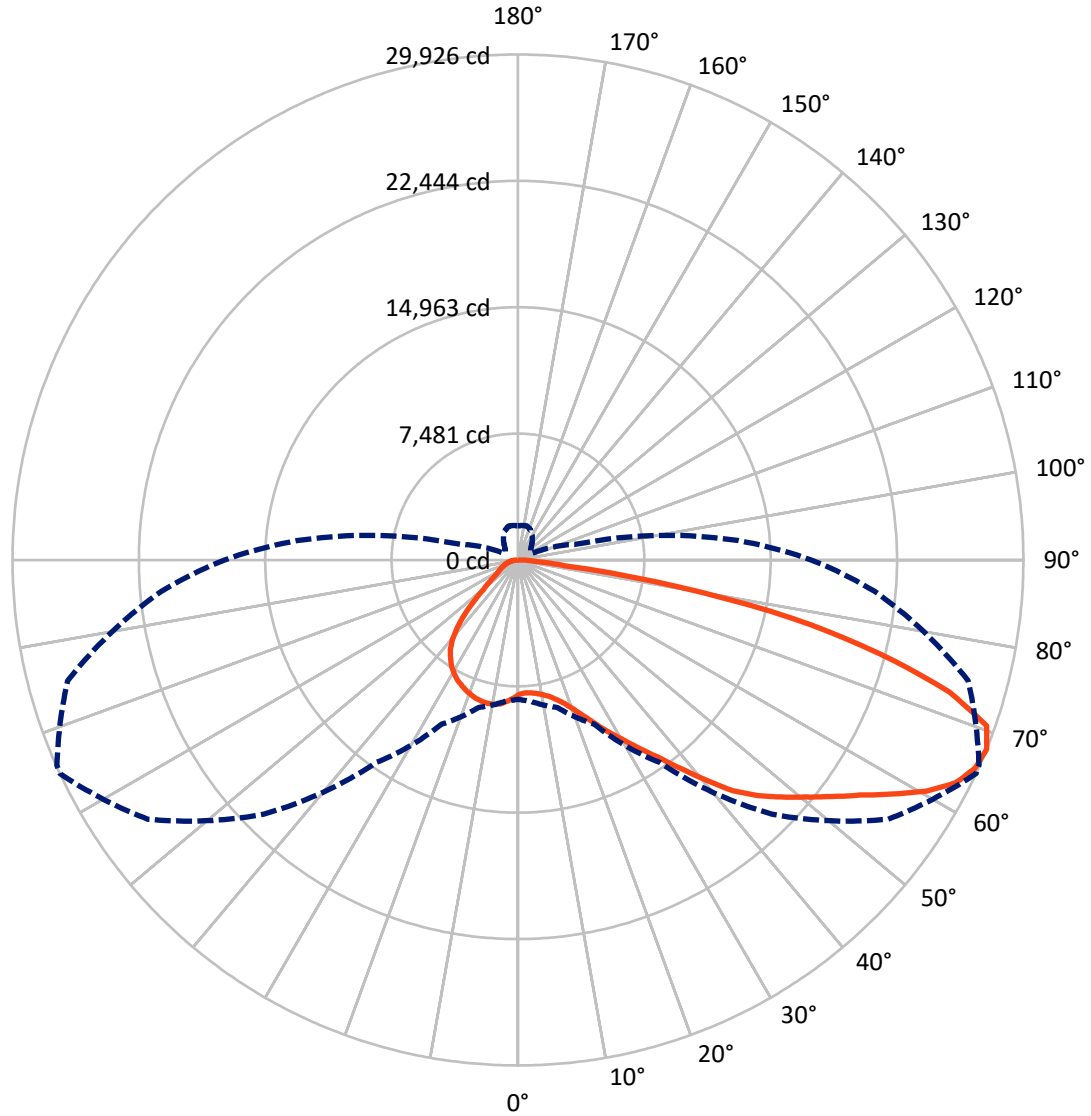
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.8 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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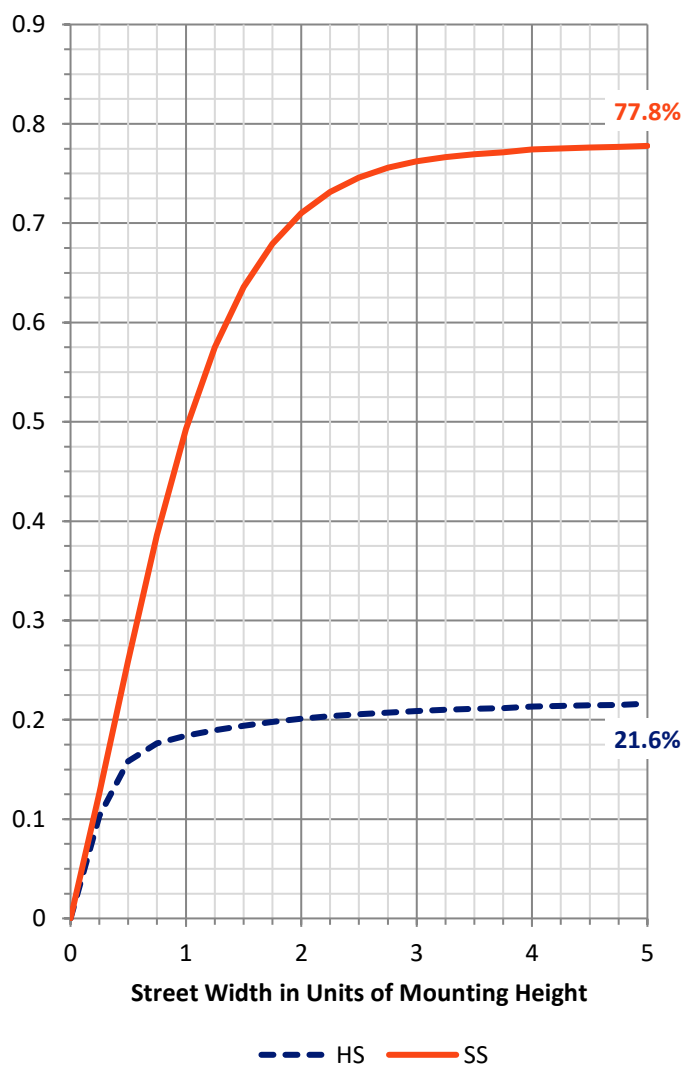
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11384.3	0.0	11384.3
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	40154.7	0.0	40154.7
	% Fixture	77.9	0.0	77.9
Total	Lumens	51539.0	0.0	51539.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	793.2	1.5
10°-20°	2478.1	4.8
20°-30°	4290.0	8.3
30°-40°	6303.7	12.2
40°-50°	8520.2	16.5
50°-60°	10477.3	20.3
60°-70°	11227.1	21.8
70°-80°	6621.6	12.8
80°-90°	827.7	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°	51539.0	100.0
0°-180°	51539.0	100.0

Coefficient of Utilization



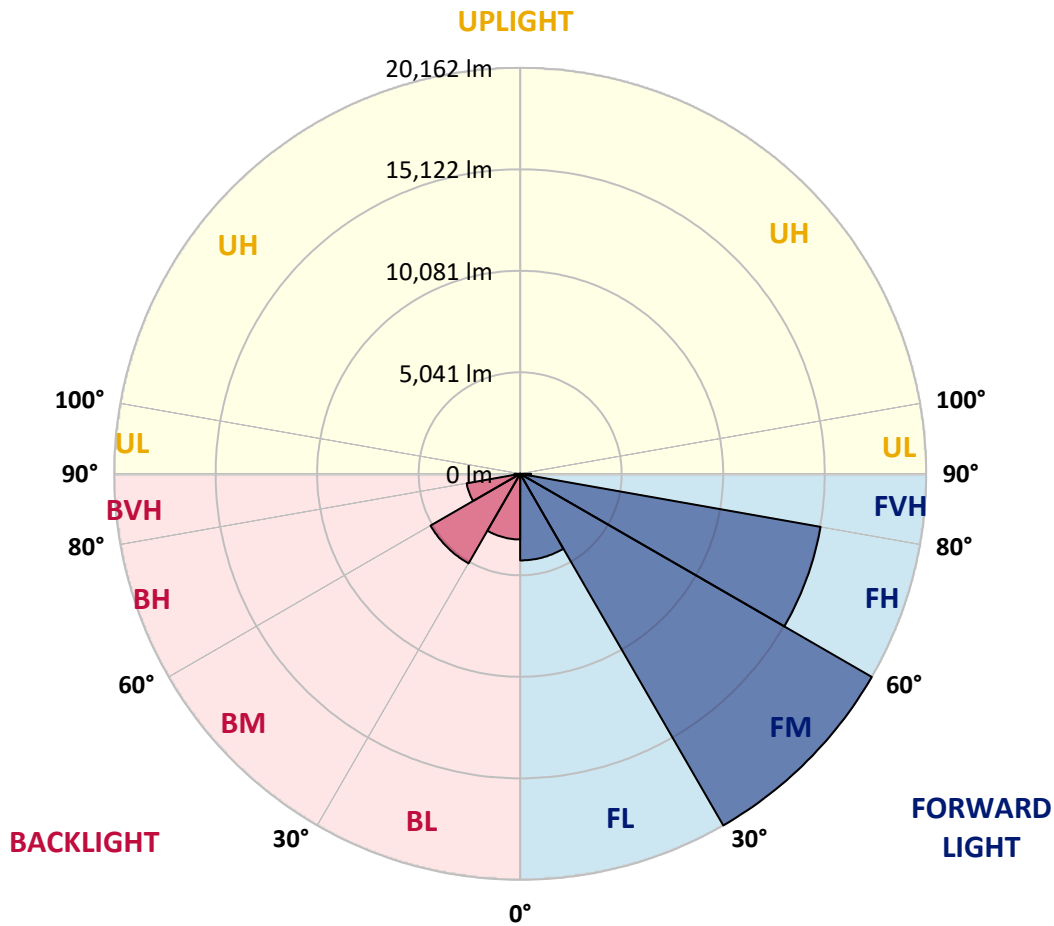
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4300.5	8.3			
FM	(30°-60°)	20162.4	39.1			
FH	(60°-80°)	15149.0	29.4			G5
FVH	(80°-90°)	542.8	1.1			G4/750
BL	(0°-30°)	3260.8	6.3	B4/5000		
BM	(30°-60°)	5138.9	10.0	B4/8500		
BH	(60°-80°)	2699.8	5.2	B4/5000		G4/5000
BVH	(80°-90°)	284.9	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°	7960.8	7960.8	7960.8	7960.8	7960.8	7960.8	7960.8	7960.8	7960.8	7960.8	7960.8
2.5°	7810.6	7795.8	7789.5	7809.5	7824.2	7841.0	7865.2	7888.3	7891.5	7921.9	7961.9
5°	7905.1	7892.5	7878.9	7875.7	7870.5	7869.4	7875.7	7902.0	7908.3	7937.7	8023.9
7.5°	8115.3	8102.7	8077.5	8068.0	8039.6	7989.2	7965.0	7978.7	7981.8	8017.6	8124.7
10°	8457.8	8419.0	8388.5	8357.0	8267.7	8187.8	8128.9	8103.7	8098.5	8133.2	8257.1
12.5°	8866.6	8834.0	8800.4	8717.4	8603.9	8459.9	8355.9	8298.1	8293.9	8323.3	8416.9
15°	9298.5	9298.5	9275.4	9176.6	9065.2	8826.7	8665.9	8569.2	8575.5	8598.7	8641.7
17.5°	9856.5	9810.2	9799.7	9687.3	9563.3	9345.8	9090.4	8936.0	8943.3	8953.8	8921.2
20°	10423.9	10410.2	10394.5	10319.9	10207.4	9927.9	9641.0	9438.2	9439.3	9401.5	9256.5
22.5°	11174.2	11129.0	11140.5	11056.5	10904.1	10617.2	10287.3	10046.6	10062.4	10007.8	9745.1
25°	11919.2	11874.0	11849.8	11793.1	11661.7	11389.6	10997.6	10777.0	10758.0	10659.3	10277.8
27.5°	12663.1	12636.9	12656.8	12588.5	12481.3	12177.7	11818.3	11573.5	11586.1	11517.8	10949.3
30°	13433.4	13403.9	13491.2	13380.8	13314.6	13019.3	12674.7	12386.8	12397.3	12422.5	11784.7
32.5°	14014.5	14049.1	14201.5	14188.9	14176.3	13847.4	13484.9	13325.1	13340.9	13429.2	12776.6
35°	14575.6	14578.7	14793.1	14954.9	15023.2	14747.9	14371.7	14366.5	14469.4	14738.4	14159.5
37.5°	15041.1	15030.6	15316.4	15567.5	15754.6	15541.3	15334.2	15656.8	15750.4	16308.3	15551.8
40°	15295.4	15317.4	15685.2	15998.4	16366.1	16265.3	16287.3	17112.2	17342.3	17830.9	16593.1
42.5°	15116.7	15184.0	15756.7	16395.6	16950.4	17084.9	17528.3	18684.2	18781.9	18870.2	17617.6
45°	14817.3	14887.7	15522.3	16554.2	17432.7	18001.2	18763.0	19893.6	20000.8	19902.1	18469.8
47.5°	14505.2	14577.7	15284.9	16490.1	17832.0	18921.7	19861.1	20963.4	21100.0	20794.2	19289.4
50°	14109.0	14221.5	14994.8	16354.6	18155.6	19914.7	20900.3	22064.6	22127.6	21686.3	19910.5
52.5°	13621.5	13745.4	14581.9	16122.3	18408.9	20608.2	21952.2	23259.3	23253.0	22728.7	20620.8
55°	13108.7	13221.1	14082.8	15756.7	18550.7	21142.0	22792.8	24576.0	24651.6	24212.4	21263.9
57.5°	12451.9	12553.8	13493.3	15264.9	18403.6	21594.9	24154.6	26140.6	26178.5	25245.3	21775.6
60°	11581.9	11732.1	12675.7	14639.7	17981.2	22119.2	25655.2	27786.2	27832.4	26261.5	22104.5
62.5°	10626.7	10686.6	11648.1	13677.1	17366.5	22523.8	26695.4	29073.4	29006.1	27055.9	22203.3
65°	9462.4	9509.7	10341.9	12439.3	16224.3	22302.1	27068.5	29735.4	29652.4	27555.0	21899.6
67.5°	8243.5	8389.5	9043.1	10722.3	14630.2	21278.6	26753.2	29925.6	29883.6	27592.8	21174.6
70°	6661.0	6712.5	7303.0	8735.3	12207.1	19229.5	25702.4	29438.0	29405.4	26748.0	19694.0
72.5°	4697.1	4646.6	4933.5	6056.8	8817.2	15296.4	21944.8	26698.6	26753.2	23927.6	17150.0
75°	2493.5	2590.2	3036.8	3708.3	4998.6	9833.3	17495.7	22096.1	22077.2	20008.2	13556.3
77.5°	1328.2	1326.1	1632.9	1919.8	2447.3	4518.4	11539.8	16663.5	16756.0	15502.4	9307.9
80°	637.8	662.0	680.9	780.7	1220.0	2087.9	4827.4	9663.1	10293.6	9245.9	4421.7
82.5°	510.7	512.8	514.9	492.8	504.4	850.1	1859.9	2796.2	2897.0	2328.6	1425.9
85°	378.3	355.2	352.0	298.4	337.3	510.7	938.4	1193.7	1134.9	1104.4	804.9
87.5°	152.4	142.9	138.7	130.3	130.3	192.3	331.0	431.9	430.8	393.0	270.1
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°	7960.8	7960.8	7960.8	7960.8	7960.8	7960.8	7960.8	7960.8	7960.8	7960.8	7960.8
2.5°	7993.4	8031.2	8119.5	8195.1	8223.5	8292.9	8358.0	8395.9	8422.1	8437.9	8509.3
5°	8076.4	8152.1	8292.9	8399.0	8502.0	8630.2	8713.2	8765.7	8795.2	8812.0	8863.5
7.5°	8203.6	8280.3	8429.5	8592.3	8686.9	8792.0	8845.6	8883.4	8902.3	8897.1	8938.1
10°	8317.0	8392.7	8541.9	8667.0	8720.5	8780.4	8808.8	8817.2	8818.3	8822.5	8863.5
12.5°	8471.5	8517.7	8597.6	8679.6	8668.0	8670.1	8694.3	8683.8	8659.6	8655.4	8682.7
15°	8637.5	8638.6	8644.9	8627.0	8554.5	8523.0	8489.4	8461.0	8394.8	8390.6	8433.7
17.5°	8845.6	8796.2	8681.7	8559.8	8387.4	8268.7	8148.9	8099.5	8018.6	8002.9	8023.9
20°	9113.5	9010.6	8732.1	8429.5	8106.9	7894.6	7749.6	7603.6	7491.1	7463.8	7483.8
22.5°	9498.1	9295.3	8796.2	8290.8	7791.6	7429.1	7147.5	6972.0	6782.9	6686.2	6695.7
25°	9962.6	9645.2	8907.6	8115.3	7420.7	6897.4	6440.3	6088.3	5875.0	5733.1	5771.0
27.5°	10571.0	10134.9	9041.0	7941.9	6959.4	6217.6	5554.5	5077.4	4859.9	4792.7	4748.5
30°	11276.1	10726.5	9181.8	7685.5	6461.3	5375.9	4526.8	4129.6	3880.6	3840.7	3807.0
32.5°	12219.7	11471.5	9445.6	7407.1	5866.6	4534.2	3612.6	3155.5	3098.8	3066.2	3058.9
35°	13436.5	12447.7	9722.0	7045.6	5091.1	3547.5	2733.1	2486.2	2458.9	2494.6	2497.7
37.5°	14727.9	13506.9	10053.0	6637.9	4199.0	2647.0	2091.1	1919.8	1950.3	2061.7	2086.9
40°	15602.2	14204.6	10353.5	6084.1	3096.7	1923.0	1521.6	1484.8	1652.9	1795.8	1825.2
42.5°	16440.7	14733.2	10475.4	5351.7	2208.8	1369.2	1228.4	1354.5	1589.9	1746.4	1767.4
45°	17156.3	15347.9	10168.5	4473.2	1497.4	1144.3	1176.9	1351.3	1613.0	1786.4	1802.1
47.5°	17837.2	15850.2	9749.3	3524.4	1181.1	1101.2	1175.8	1379.7	1664.5	1828.4	1837.8
50°	18487.7	16232.7	9033.7	2681.6	1106.5	1081.3	1185.3	1423.8	1692.8	1795.8	1791.6
52.5°	18970.0	16430.2	8271.9	2164.6	1077.1	1065.5	1210.5	1479.5	1698.1	1760.1	1755.9
55°	19324.1	16392.4	7771.7	1772.7	1052.9	1059.2	1251.5	1521.6	1748.5	1842.0	1838.9
57.5°	19356.7	16221.1	7203.2	1497.4	1023.5	1058.2	1295.6	1580.4	2000.7	2173.0	2120.5
60°	19317.8	15937.4	6635.8	1314.5	990.9	1064.5	1341.9	1756.9	2364.3	2499.8	2463.1
62.5°	19126.6	15408.9	5785.7	1193.7	962.5	1087.6	1376.5	1896.7	2346.4	2362.2	2309.6
65°	18536.0	14701.7	4669.7	1071.8	934.2	1103.3	1404.9	1933.5	2155.2	2104.7	2078.5
67.5°	17367.5	13122.3	3602.1	960.4	897.4	1100.2	1489.0	1880.9	2082.7	2045.9	2012.3
70°	15707.3	11327.6	2500.9	845.9	835.4	1080.2	1468.0	1898.8	2048.0	1991.3	1946.1
72.5°	13122.3	8886.6	1590.9	752.4	742.9	1032.9	1415.4	1887.2	2024.9	1999.7	1937.7
75°	9880.6	6202.8	1010.9	650.4	660.9	946.8	1331.4	1825.2	2013.3	1934.5	1815.8
77.5°	6220.7	3062.0	786.0	552.7	568.5	816.5	1150.6	1594.1	1932.4	1885.1	1732.8
80°	2352.7	1243.1	614.7	448.7	462.3	634.7	943.6	1311.4	1779.0	1856.8	1791.6
82.5°	1083.4	777.6	461.3	360.4	365.7	462.3	704.0	970.9	1505.8	1704.4	1867.3
85°	632.6	509.6	307.9	240.6	250.1	273.2	396.1	592.6	976.2	1299.8	1454.3
87.5°	215.4	177.6	119.8	101.9	98.8	112.4	95.6	194.4	290.0	510.7	583.2
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)