

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: P510820

Luminaire Tested: **CST-CA8-480-722-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510820
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA8-480-722-U-T4-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 51253 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

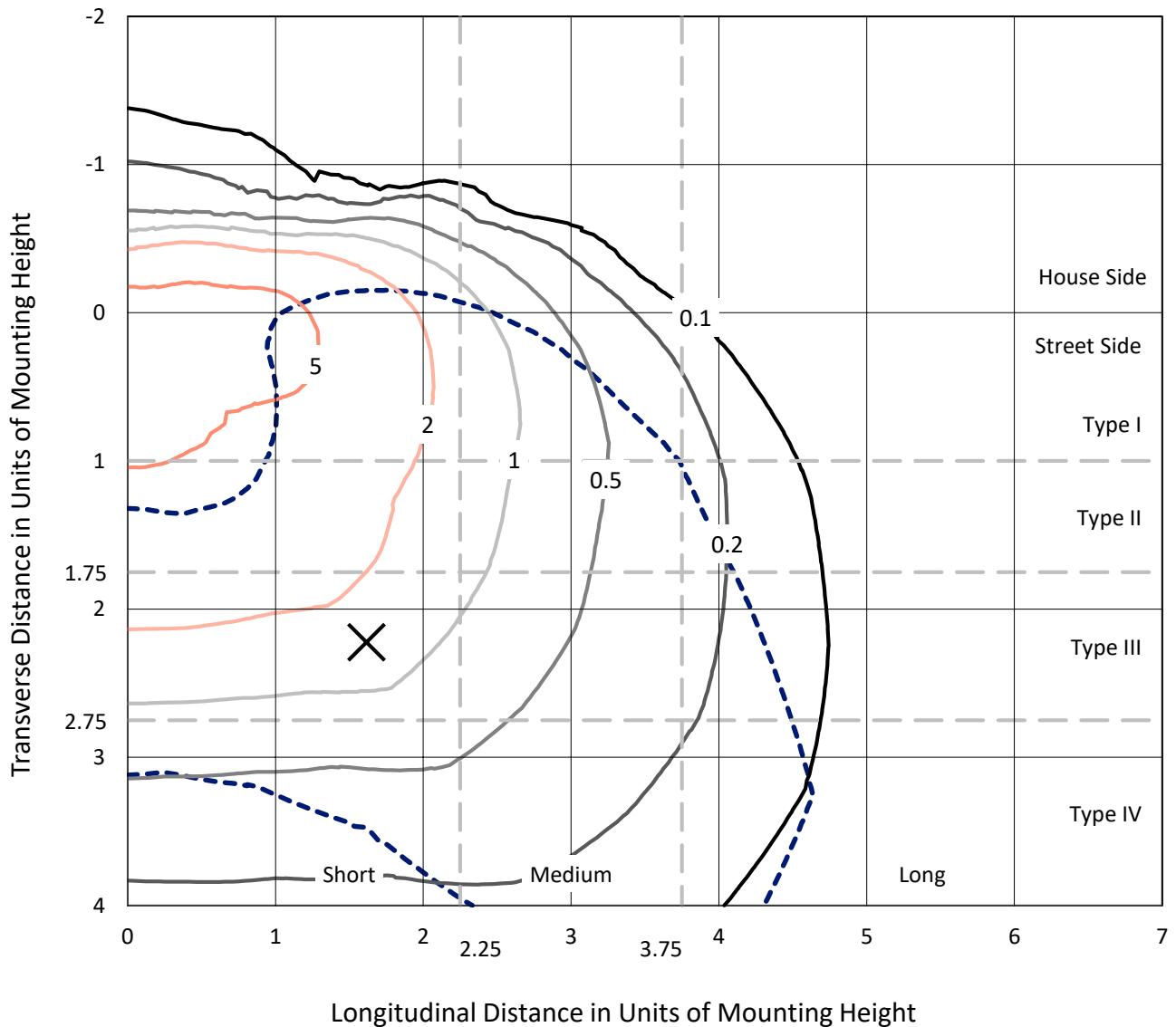
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

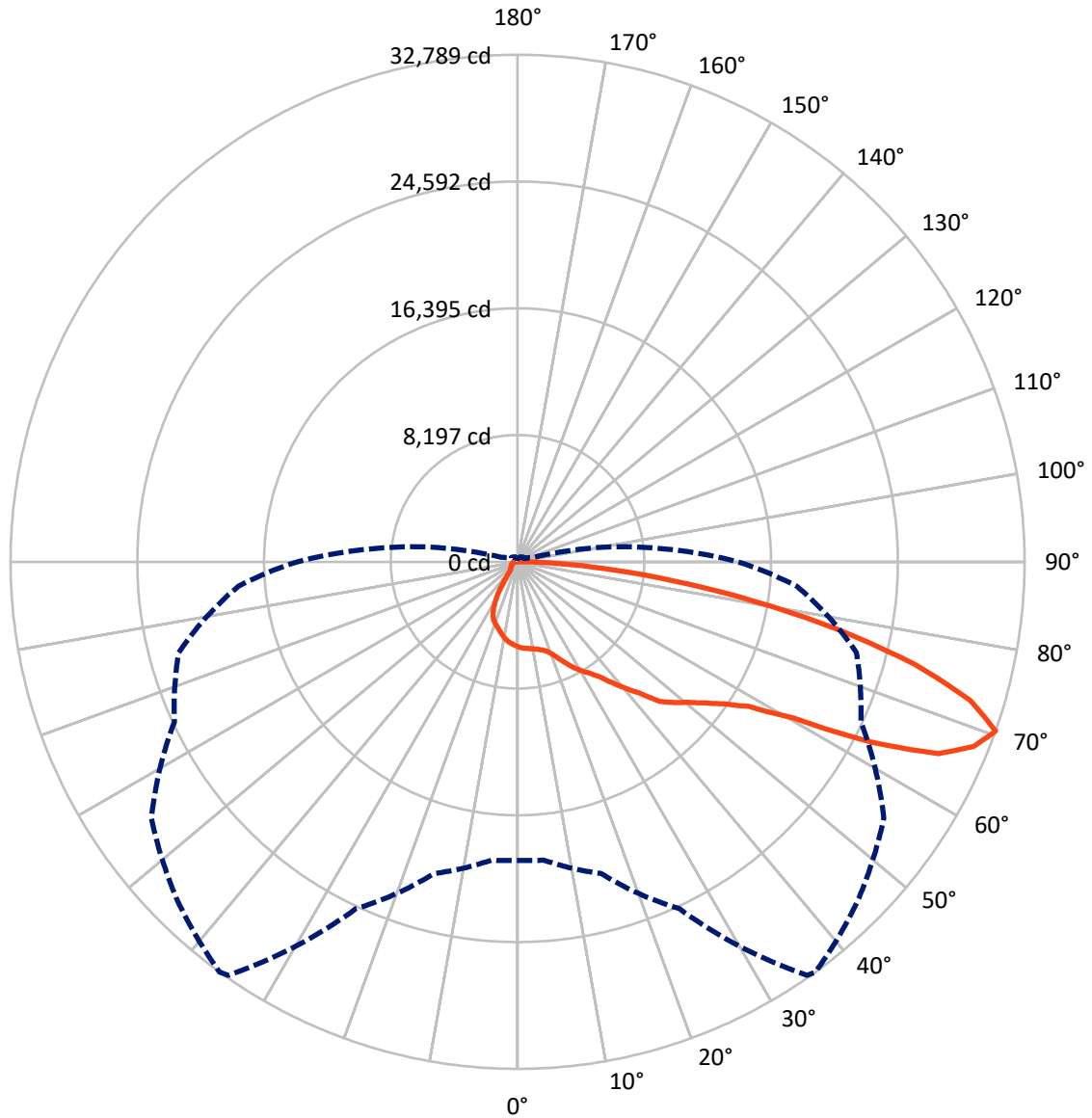
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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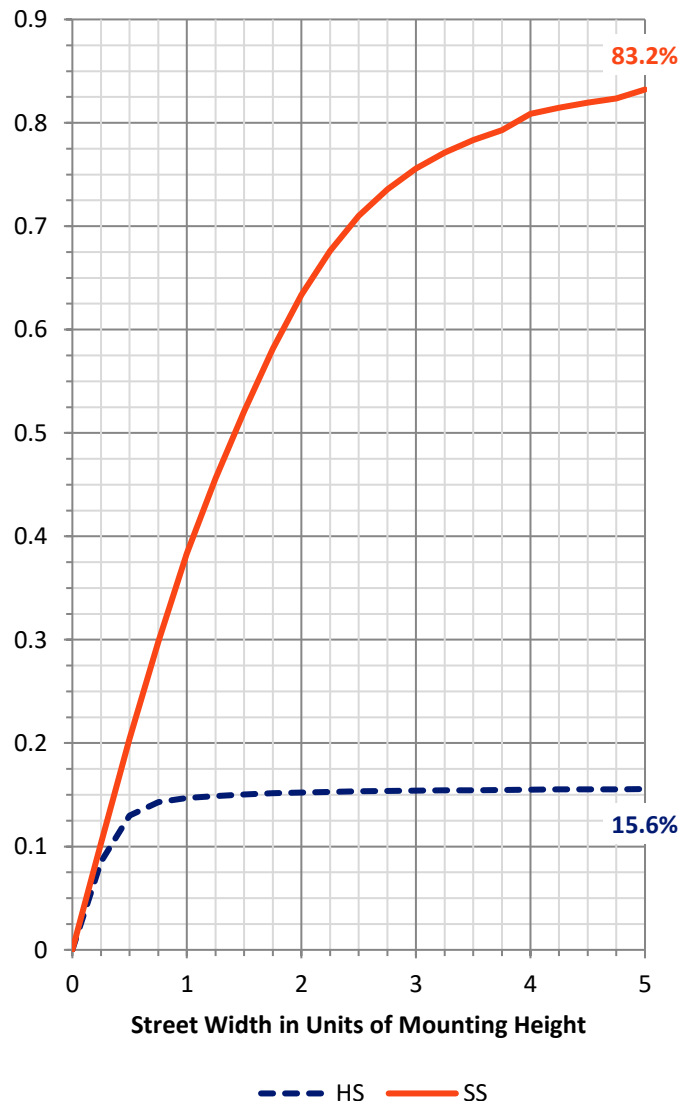
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8088.1	0.0	8088.1
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	43164.9	0.0	43164.9
	% Fixture	84.2	0.0	84.2
Total	Lumens	51253.0	0.0	51253.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	520.8	1.0
10°-20°	1548.8	3.0
20°-30°	2785.2	5.4
30°-40°	4407.6	8.6
40°-50°	6888.2	13.4
50°-60°	9891.3	19.3
60°-70°	13416.7	26.2
70°-80°	9929.8	19.4
80°-90°	1864.5	3.6
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°	51253.0	100.0
0°-180°	51253.0	100.0

Coefficient of Utilization



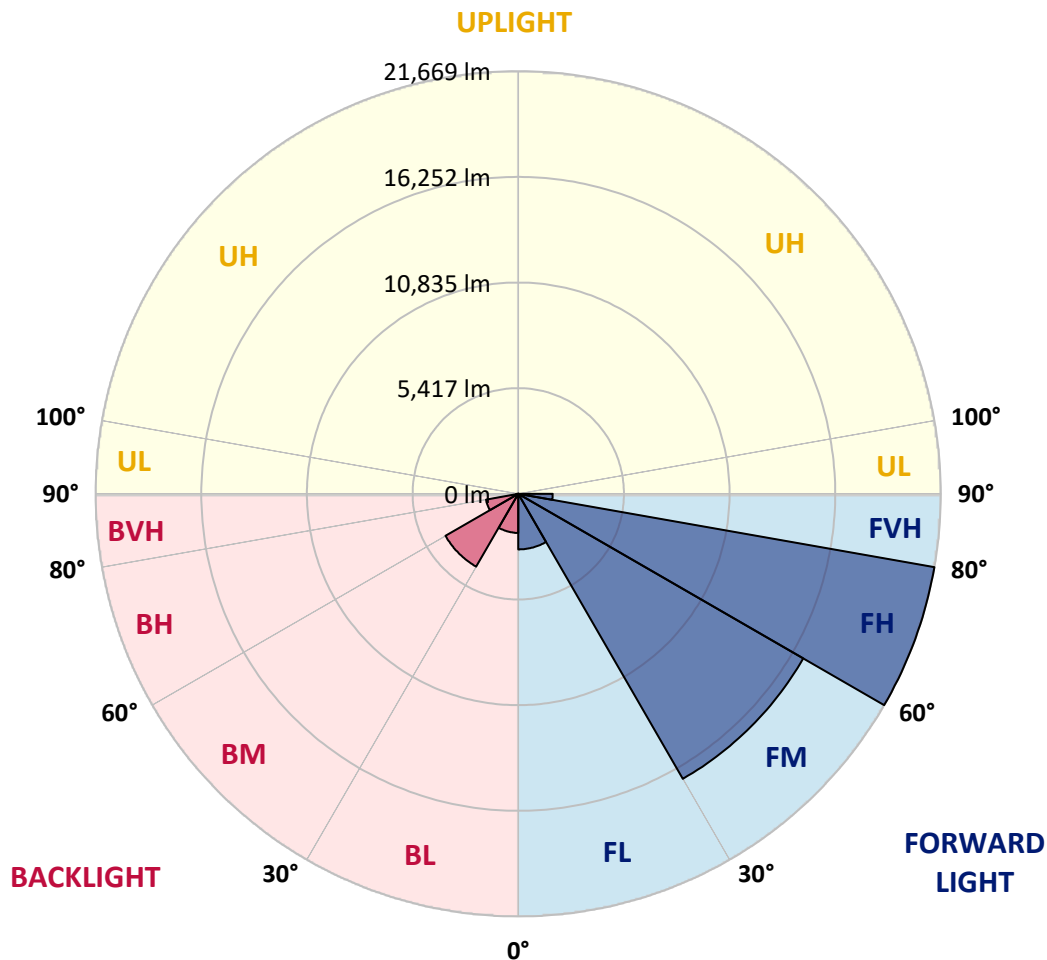
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2850.7	5.6			
FM (30°-60°)	16877.2	32.9			
FH (60°-80°)	21669.3	42.3			G5
FVH (80°-90°)	1767.8	3.4			G5
BL (0°-30°)	2004.2	3.9	B3/2500		
BM (30°-60°)	4310.0	8.4	B3/5000		
BH (60°-80°)	1677.2	3.3	B3/2500		G3/2500
BVH (80°-90°)	96.7	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	5491.5	5491.5	5491.5	5491.5	5491.5	5491.5	5491.5	5491.5	5491.5	5491.5	5491.5
2.5°	5602.7	5590.9	5581.4	5585.0	5577.9	5582.6	5572.0	5558.9	5528.2	5515.2	5509.3
5°	5652.4	5648.9	5639.4	5632.3	5619.3	5614.6	5602.7	5613.4	5596.8	5554.2	5529.4
7.5°	5682.0	5680.8	5670.2	5654.8	5661.9	5667.8	5679.6	5663.1	5641.8	5621.7	5570.8
10°	5695.0	5695.0	5682.0	5690.3	5727.0	5730.5	5736.4	5747.1	5727.0	5697.4	5646.5
12.5°	5728.2	5725.8	5730.5	5757.7	5795.6	5803.9	5833.5	5833.5	5835.8	5818.1	5758.9
15°	5811.0	5811.0	5821.6	5846.5	5911.6	5916.3	5960.1	5999.1	6003.9	5977.8	5932.9
17.5°	6002.7	5997.9	5992.0	6007.4	6077.2	6079.6	6155.3	6205.0	6218.0	6246.4	6239.3
20°	6367.1	6362.4	6361.2	6362.4	6357.6	6350.5	6425.1	6478.3	6544.6	6594.3	6619.1
22.5°	6888.9	6878.3	6878.3	6820.3	6775.3	6782.4	6794.3	6823.9	6911.4	6999.0	7092.5
25°	7451.0	7443.9	7449.8	7301.9	7241.5	7265.2	7249.8	7296.0	7410.7	7486.5	7585.9
27.5°	7910.1	7920.7	7887.6	7772.8	7733.8	7751.5	7716.0	7848.6	7975.2	8107.7	8258.0
30°	8481.6	8424.8	8343.2	8203.5	8189.3	8191.7	8189.3	8402.3	8665.0	8854.3	9062.6
32.5°	9228.2	9237.7	9054.3	8725.3	8604.7	8588.1	8635.4	8947.8	9302.8	9722.8	9997.4
35°	9983.2	9998.5	9864.8	9521.7	9177.4	9125.3	9055.5	9461.3	9973.7	10816.2	11230.3
37.5°	10784.2	10838.6	10680.1	10373.6	9965.4	9916.9	9586.8	9985.5	10742.8	12110.7	12653.8
40°	11856.3	11798.3	11606.6	11217.3	10837.5	10759.4	10376.0	10585.4	11732.0	13731.7	14125.7
42.5°	12646.7	12630.1	12468.0	12083.4	11701.2	11638.5	11329.7	11556.9	12978.0	15375.3	15551.6
45°	13273.8	13375.6	13372.0	13130.6	12915.3	12879.8	12697.5	13032.4	14484.3	16926.5	16840.1
47.5°	13831.1	13893.8	13793.2	13687.9	13587.4	13599.2	13734.1	14422.7	16023.7	18281.3	17899.2
50°	14743.4	14662.9	14212.1	14131.7	14273.6	14279.6	14690.2	15750.4	17719.3	19452.8	18796.1
52.5°	15959.8	15872.2	14945.7	14808.5	15144.5	15169.4	15852.1	17073.2	19468.2	20572.1	19688.2
55°	17770.2	17566.7	16573.9	15958.6	16112.4	16213.0	17040.1	18345.2	20837.2	21559.0	20363.9
57.5°	19993.5	20141.4	19632.6	18242.3	17602.2	17640.0	18399.7	19562.8	22045.3	22422.8	20759.1
60°	22343.5	22308.0	22521.0	21935.2	20709.4	20505.9	20118.9	20805.2	22981.3	23150.5	21166.1
62.5°	23630.9	23837.9	24547.9	24665.0	25771.4	25663.7	23026.2	22345.8	24062.7	23607.2	21277.4
65°	23623.8	23713.7	25035.4	26488.4	29944.7	29914.0	28688.1	24573.9	24868.5	23850.9	21054.9
67.5°	22097.4	22237.0	23782.3	26621.0	31873.4	31836.8	30989.5	27706.0	25121.8	23557.5	20017.2
70°	19314.3	19361.7	20869.1	24755.0	32648.5	32789.3	31068.8	28908.2	24492.3	22685.4	18125.2
72.5°	15933.8	15835.6	17309.9	21140.1	30674.8	30590.8	29755.4	27472.9	23432.1	20992.2	14782.5
75°	11732.0	12005.3	13328.2	16973.8	26263.6	26571.3	26941.6	25276.8	20811.2	17300.4	10222.2
77.5°	7746.8	8094.7	9431.8	12727.1	20792.2	21270.3	22229.9	21498.6	16930.1	12410.0	4867.9
80°	4003.0	4265.6	5469.0	8444.9	14905.5	15595.3	17354.9	16282.8	12003.0	5611.0	1089.8
82.5°	1514.6	1480.3	2450.5	4833.6	9557.2	10184.3	11463.4	9764.3	4271.6	985.7	506.4
85°	665.0	704.0	1015.2	2204.4	5464.3	5545.9	6493.7	3806.5	625.9	470.9	344.3
87.5°	287.5	330.1	426.0	634.2	1843.5	2128.7	2633.9	1209.3	189.3	163.3	172.8
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°	5491.5	5491.5	5491.5	5491.5	5491.5	5491.5	5491.5	5491.5	5491.5	5491.5	5491.5
2.5°	5498.6	5491.5	5479.7	5450.1	5401.6	5395.7	5390.9	5386.2	5376.7	5381.5	5408.7
5°	5510.4	5497.4	5454.8	5412.2	5369.6	5331.8	5285.6	5267.9	5244.2	5228.8	5257.2
7.5°	5550.7	5523.5	5460.7	5402.8	5286.8	5231.2	5172.0	5102.2	5052.5	5020.6	5049.0
10°	5618.1	5583.8	5505.7	5386.2	5250.1	5097.5	4993.4	4877.4	4782.7	4756.7	4782.7
12.5°	5728.2	5677.3	5586.2	5424.1	5182.7	4982.7	4785.1	4632.5	4479.8	4436.0	4449.1
15°	5906.8	5866.6	5727.0	5503.3	5183.9	4878.6	4585.1	4339.0	4139.0	4069.2	4064.5
17.5°	6193.2	6150.6	5989.7	5660.7	5226.5	4796.9	4388.7	4013.6	3710.7	3556.9	3532.0
20°	6603.8	6544.6	6300.9	5892.6	5318.7	4761.4	4206.5	3702.4	3231.5	2942.8	2899.0
22.5°	7060.5	6997.8	6638.1	6071.3	5385.0	4691.6	4032.5	3358.1	2738.1	2385.4	2335.8
25°	7628.5	7491.2	6961.1	6240.5	5369.6	4544.9	3749.7	2890.7	2218.6	1913.3	1880.2
27.5°	8189.3	8015.4	7290.1	6329.3	5302.2	4311.8	3335.6	2344.0	1737.0	1520.5	1493.3
30°	8885.1	8549.0	7582.3	6370.7	5131.8	3962.7	2780.7	1782.0	1300.4	1151.3	1125.3
32.5°	9712.2	9203.4	7856.8	6324.5	4847.8	3430.3	2161.8	1305.1	966.7	873.2	872.1
35°	10803.2	10005.6	8158.6	6173.1	4412.4	2856.4	1515.8	892.2	753.7	721.8	727.7
37.5°	12078.7	11091.9	8465.0	5924.6	3920.1	2185.5	1010.5	687.5	662.6	663.8	665.0
40°	13424.1	12291.7	8878.0	5575.5	3322.6	1582.0	727.7	617.7	616.5	628.3	631.9
42.5°	14709.1	13457.2	9386.8	5110.5	2696.6	1046.0	630.7	589.3	573.9	578.6	582.2
45°	15903.0	14457.1	9819.9	4657.3	2025.7	746.6	618.8	556.1	532.5	530.1	532.5
47.5°	16865.0	15258.1	10083.7	4124.8	1443.6	620.0	594.0	525.4	492.2	485.1	481.6
50°	17597.4	15853.3	10179.6	3521.4	976.2	591.6	560.9	489.9	449.6	450.8	450.8
52.5°	18312.1	16394.0	10068.3	2913.2	718.2	566.8	538.4	461.5	418.9	441.4	447.3
55°	18826.8	16621.2	9744.1	2255.3	598.7	536.0	513.5	428.3	398.8	435.4	447.3
57.5°	19127.4	16799.9	9149.0	1628.2	549.0	506.4	481.6	397.6	370.4	379.8	385.7
60°	19314.3	16550.2	8362.1	1113.4	523.0	482.8	449.6	377.5	340.8	318.3	314.7
62.5°	19211.4	15925.5	7325.6	765.6	495.8	456.7	422.4	358.5	310.0	280.4	278.1
65°	18372.5	14769.4	5624.0	620.0	479.2	444.9	405.9	340.8	288.7	260.3	256.8
67.5°	16816.5	12691.6	3284.7	551.4	472.1	433.1	392.8	324.2	276.9	246.1	241.4
70°	14259.5	9546.5	1100.4	492.2	470.9	431.9	382.2	312.4	263.9	231.9	227.2
72.5°	10287.3	5760.1	536.0	433.1	440.2	414.1	373.9	302.9	255.6	215.4	207.1
75°	5846.5	1875.5	484.0	373.9	409.4	395.2	369.2	304.1	259.1	195.2	185.8
77.5°	1663.7	547.8	467.4	318.3	386.9	408.2	345.5	274.5	265.0	181.0	169.2
80°	562.0	487.5	450.8	247.3	312.4	337.2	299.4	241.4	267.4	164.5	152.6
82.5°	450.8	489.9	378.6	197.6	237.8	255.6	237.8	216.5	216.5	146.7	137.3
85°	360.9	454.4	240.2	157.4	177.5	196.4	168.0	162.1	151.5	123.1	119.5
87.5°	209.4	142.0	99.4	80.5	74.5	75.7	65.1	78.1	95.8	84.0	82.8
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)