

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: P510830

Luminaire Tested: **CST-CA8-480-727-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510830
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-CA8-480-727-U-T4-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 53253 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

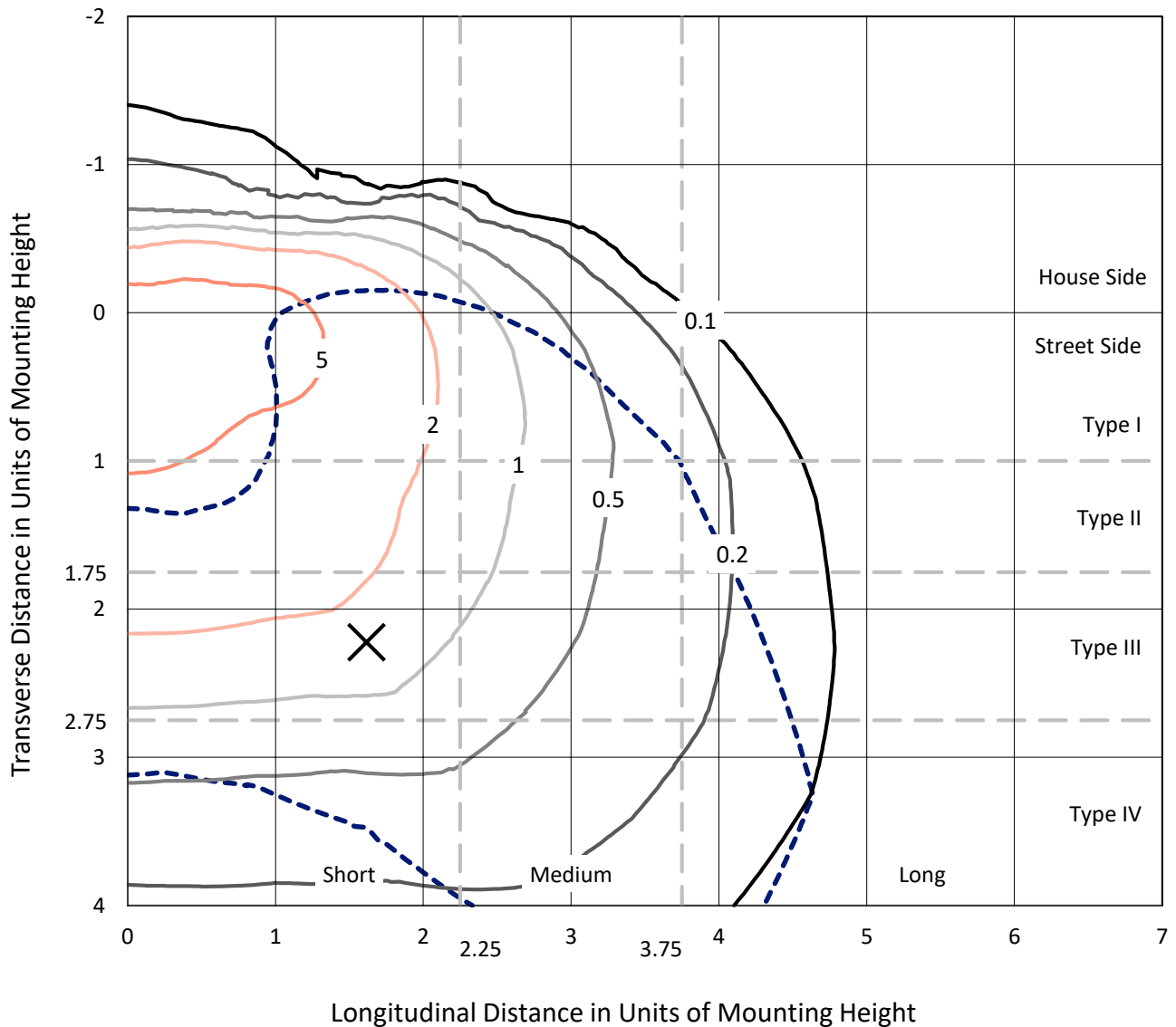
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

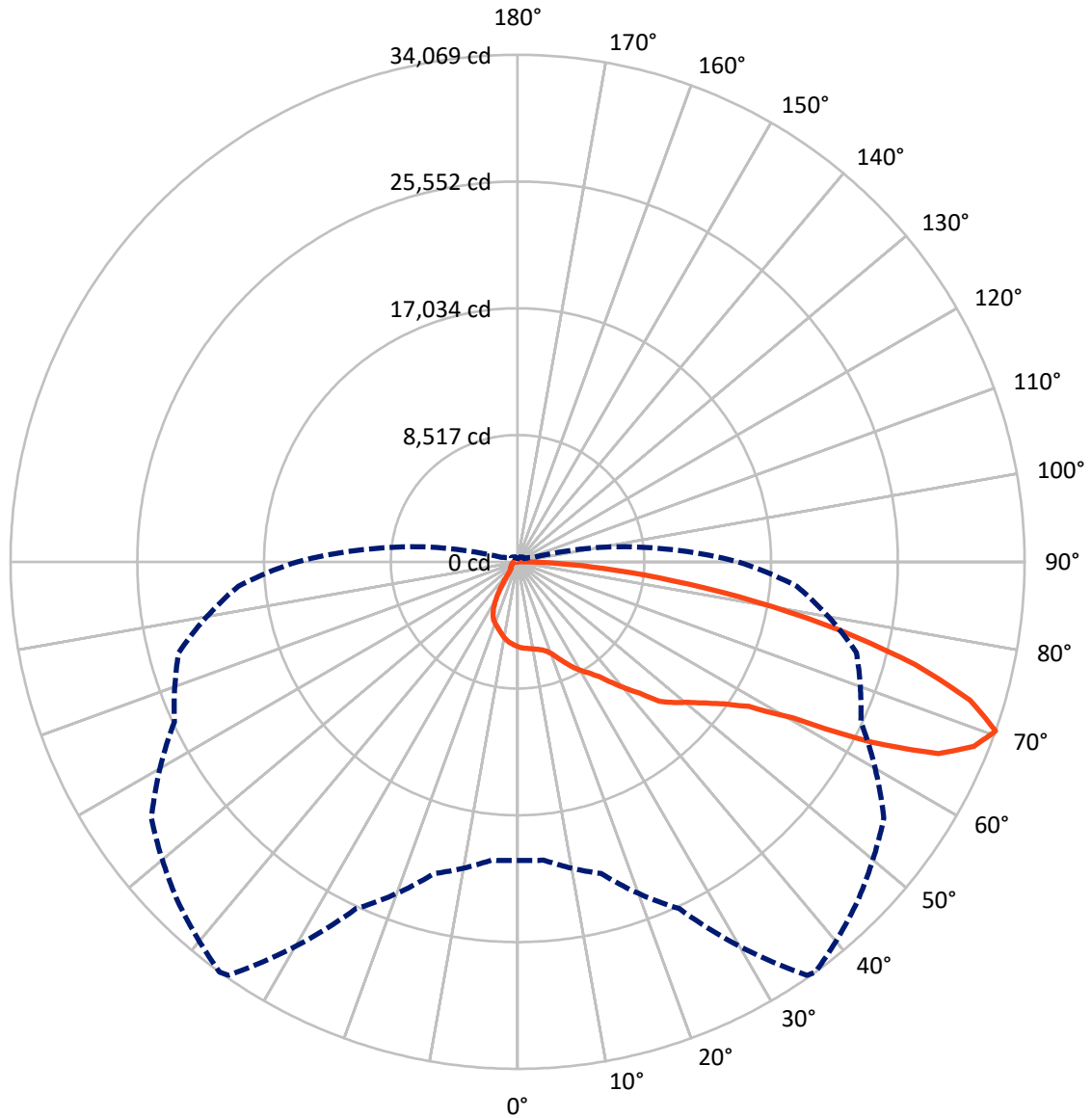
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.2 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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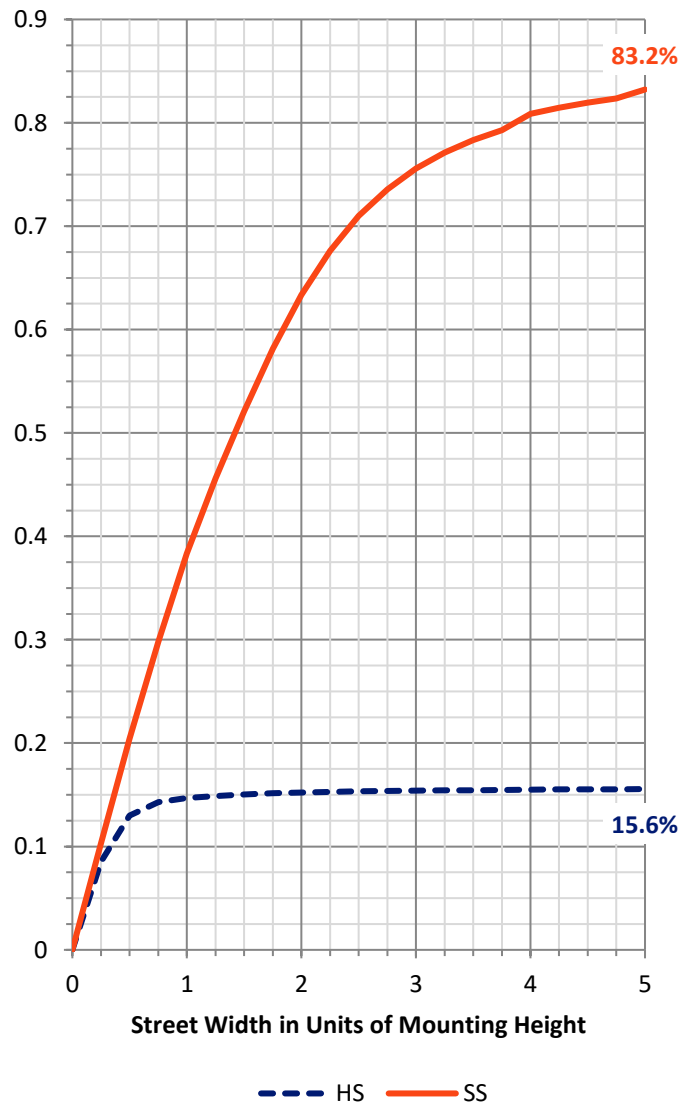
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8403.7	0.0	8403.7
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	44849.3	0.0	44849.3
	% Fixture	84.2	0.0	84.2
Total	Lumens	53253.0	0.0	53253.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	541.1	1.0
10°-20°	1609.3	3.0
20°-30°	2893.9	5.4
30°-40°	4579.5	8.6
40°-50°	7157.0	13.4
50°-60°	10277.3	19.3
60°-70°	13940.3	26.2
70°-80°	10317.3	19.4
80°-90°	1937.3	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°	53253.0	100.0
0°-180°	53253.0	100.0

Coefficient of Utilization

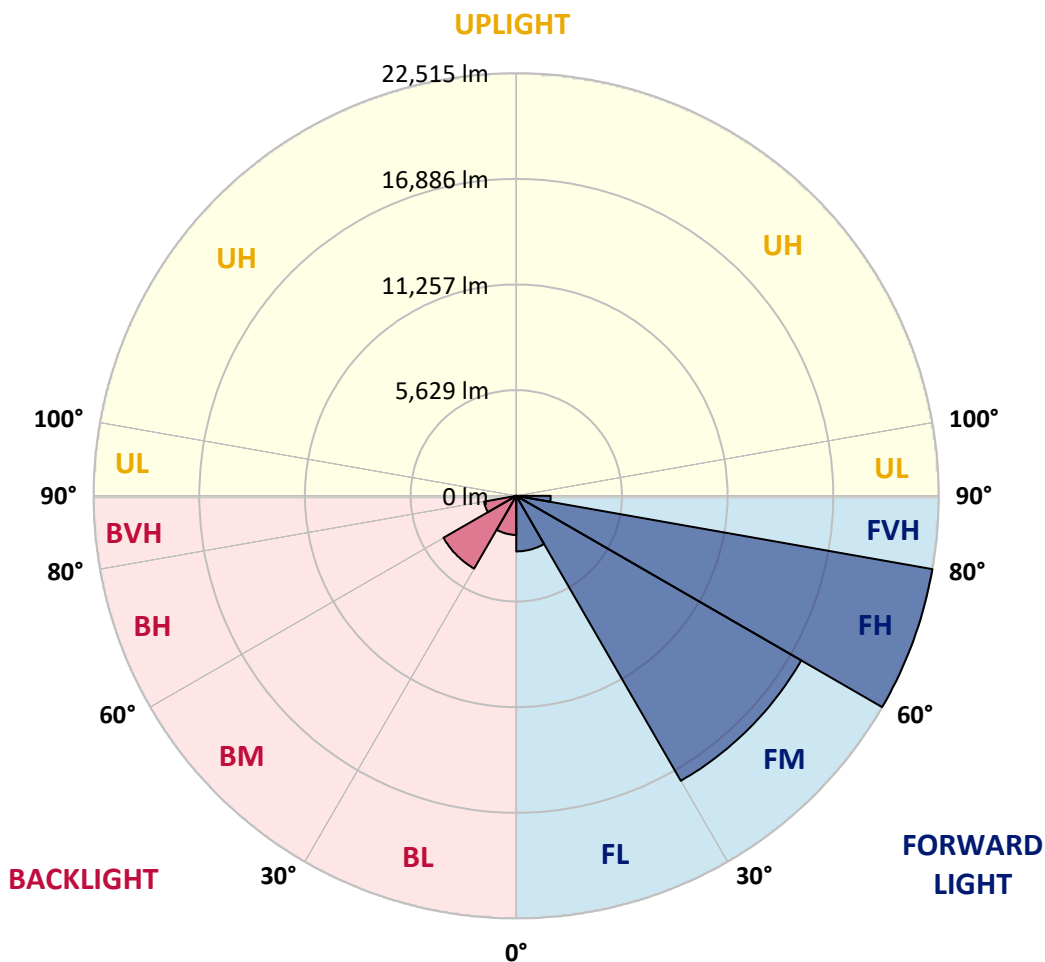


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2961.9	5.6			
FM (30°-60°)	17535.7	32.9			
FH (60°-80°)	22514.8	42.3			G5
FVH (80°-90°)	1836.8	3.4			G5
BL (0°-30°)	2082.4	3.9	B3/2500		
BM (30°-60°)	4478.2	8.4	B3/5000		
BH (60°-80°)	1742.7	3.3	B3/2500		G3/2500
BVH (80°-90°)	100.5	0.2			G2/225
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°	5705.8	5705.8	5705.8	5705.8	5705.8	5705.8	5705.8	5705.8	5705.8	5705.8	5705.8
2.5°	5821.4	5809.1	5799.2	5802.9	5795.5	5800.5	5789.4	5775.9	5743.9	5730.4	5724.2
5°	5873.0	5869.3	5859.5	5852.1	5838.6	5833.7	5821.4	5832.4	5815.2	5771.0	5745.1
7.5°	5903.7	5902.5	5891.4	5875.5	5882.8	5889.0	5901.3	5884.1	5861.9	5841.0	5788.2
10°	5917.3	5917.3	5903.7	5912.3	5950.5	5954.1	5960.3	5971.4	5950.5	5919.7	5866.8
12.5°	5951.7	5949.2	5954.1	5982.4	6021.8	6030.4	6061.1	6061.1	6063.6	6045.1	5983.6
15°	6037.7	6037.7	6048.8	6074.6	6142.2	6147.2	6192.6	6233.2	6238.1	6211.1	6164.4
17.5°	6236.9	6232.0	6225.8	6241.8	6314.4	6316.8	6395.5	6447.1	6460.7	6490.2	6482.8
20°	6615.6	6610.7	6609.4	6610.7	6605.7	6598.4	6675.8	6731.1	6800.0	6851.6	6877.4
22.5°	7157.8	7146.7	7146.7	7086.4	7039.7	7047.1	7059.4	7090.1	7181.1	7272.1	7369.2
25°	7741.7	7734.4	7740.5	7586.8	7524.1	7548.7	7532.7	7580.7	7699.9	7778.6	7881.9
27.5°	8218.8	8229.8	8195.4	8076.1	8035.6	8054.0	8017.1	8154.8	8286.4	8424.1	8580.2
30°	8812.6	8753.6	8668.7	8523.7	8508.9	8511.4	8508.9	8730.2	9003.1	9199.8	9416.2
32.5°	9588.3	9598.2	9407.6	9065.8	8940.4	8923.2	8972.4	9297.0	9665.8	10102.2	10387.5
35°	10372.7	10388.7	10249.8	9893.2	9535.5	9481.4	9408.8	9830.5	10362.9	11238.2	11668.5
37.5°	11205.0	11261.6	11096.9	10778.4	10354.3	10303.9	9960.9	10375.2	11162.0	12583.2	13147.5
40°	12318.9	12258.7	12059.5	11655.0	11260.4	11179.2	10780.9	10998.5	12189.8	14267.6	14677.0
42.5°	13140.2	13123.0	12954.5	12555.0	12157.9	12092.7	11771.8	12007.9	13484.4	15975.2	16158.4
45°	13791.8	13897.5	13893.8	13643.0	13419.2	13382.4	13193.0	13541.0	15049.5	17587.0	17497.3
47.5°	14370.8	14436.0	14331.5	14222.1	14117.6	14129.9	14270.0	14985.5	16649.0	18994.7	18597.6
50°	15318.7	15235.1	14766.7	14683.1	14830.6	14836.8	15263.4	16365.0	18410.7	20211.9	19529.5
52.5°	16582.6	16491.6	15529.0	15386.3	15735.5	15761.3	16470.7	17739.5	20227.8	21374.9	20456.5
55°	18463.6	18252.1	17220.7	16581.3	16741.2	16845.7	17705.0	19061.1	21650.3	22400.2	21158.5
57.5°	20773.7	20927.4	20398.7	18954.2	18289.0	18328.4	19117.7	20326.2	22905.5	23297.7	21569.2
60°	23215.4	23178.5	23399.8	22791.2	21517.5	21306.1	20904.0	21617.1	23878.0	24053.8	21992.1
62.5°	24553.0	24768.1	25505.8	25627.5	26777.0	26665.1	23924.7	23217.8	25001.7	24528.4	22107.6
65°	24545.6	24639.0	26012.3	27522.1	31113.2	31081.3	29807.6	25532.8	25839.0	24781.7	21876.5
67.5°	22959.6	23104.7	24710.4	27659.8	33117.2	33079.1	32198.8	28787.1	26102.1	24476.8	20798.3
70°	20068.0	20117.2	21683.5	25720.9	33922.5	34068.8	32281.2	30036.3	25448.0	23570.7	18832.4
72.5°	16555.5	16453.5	17985.4	21965.0	31871.8	31784.5	30916.5	28545.0	24346.4	21811.4	15359.3
75°	12189.8	12473.8	13848.3	17636.2	27288.5	27608.1	27992.9	26263.1	21623.2	17975.5	10621.1
77.5°	8049.1	8410.5	9799.8	13223.8	21603.6	22100.3	23097.3	22337.5	17590.7	12894.3	5057.9
80°	4159.2	4432.1	5682.4	8774.5	15487.2	16203.9	18032.1	16918.2	12471.4	5830.0	1132.3
82.5°	1573.7	1538.0	2546.2	5022.2	9930.1	10581.7	11910.7	10145.3	4438.2	1024.1	526.2
85°	690.9	731.5	1054.9	2290.4	5677.5	5762.3	6747.1	3955.1	650.4	489.3	357.8
87.5°	298.8	343.0	442.6	659.0	1915.5	2211.7	2736.7	1256.5	196.7	169.7	179.5
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°	5705.8	5705.8	5705.8	5705.8	5705.8	5705.8	5705.8	5705.8	5705.8	5705.8	5705.8
2.5°	5713.2	5705.8	5693.5	5662.8	5612.4	5606.2	5601.3	5596.4	5586.5	5591.5	5619.7
5°	5725.5	5711.9	5667.7	5623.4	5579.2	5539.8	5491.9	5473.4	5448.8	5432.9	5462.4
7.5°	5767.3	5739.0	5673.8	5613.6	5493.1	5435.3	5373.8	5301.3	5249.7	5216.5	5246.0
10°	5837.3	5801.7	5720.5	5596.4	5455.0	5296.4	5188.2	5067.7	4969.4	4942.3	4969.4
12.5°	5951.7	5898.8	5804.1	5635.7	5384.9	5177.1	4971.8	4813.2	4654.6	4609.1	4622.7
15°	6137.3	6095.5	5950.5	5718.1	5386.1	5068.9	4764.0	4508.3	4300.6	4228.0	4223.1
17.5°	6434.8	6390.6	6223.4	5881.6	5430.4	4984.1	4560.0	4170.2	3855.5	3695.7	3669.9
20°	6861.5	6800.0	6546.7	6122.6	5526.3	4947.2	4370.6	3846.9	3357.6	3057.6	3012.1
22.5°	7336.0	7270.9	6897.1	6308.2	5595.1	4874.7	4189.9	3489.1	2844.9	2478.5	2426.9
25°	7926.1	7783.5	7232.7	6484.0	5579.2	4722.2	3896.1	3003.5	2305.2	1988.0	1953.6
27.5°	8508.9	8328.2	7574.5	6576.2	5509.1	4480.0	3465.8	2435.5	1804.8	1579.8	1551.5
30°	9231.8	8882.6	7878.2	6619.3	5332.0	4117.4	2889.2	1851.5	1351.1	1196.2	1169.2
32.5°	10091.2	9562.5	8163.4	6571.3	5037.0	3564.1	2246.2	1356.1	1004.4	907.3	906.1
35°	11224.7	10396.1	8476.9	6413.9	4584.6	2967.8	1574.9	927.0	783.1	750.0	756.1
37.5°	12550.0	11524.7	8795.4	6155.8	4073.1	2270.8	1049.9	714.3	688.5	689.7	690.9
40°	13947.9	12771.3	9224.4	5793.1	3452.2	1643.8	756.1	641.8	640.5	652.8	656.5
42.5°	15283.1	13982.3	9753.1	5309.9	2801.9	1086.8	655.3	612.3	596.3	601.2	604.9
45°	16523.6	15021.2	10203.1	4839.0	2104.8	775.8	643.0	577.8	553.2	550.8	553.2
47.5°	17523.1	15853.5	10477.2	4285.8	1499.9	644.2	617.2	545.9	511.4	504.1	500.4
50°	18284.1	16471.9	10576.8	3658.8	1014.3	614.7	582.8	509.0	467.2	468.4	468.4
52.5°	19026.7	17033.8	10461.2	3026.9	746.3	588.9	559.4	479.5	435.2	458.6	464.7
55°	19561.5	17269.8	10124.4	2343.3	622.1	556.9	533.6	445.1	414.3	452.4	464.7
57.5°	19873.8	17455.5	9506.0	1691.7	570.5	526.2	500.4	413.1	384.8	394.6	400.8
60°	20068.0	17196.1	8688.4	1156.9	543.4	501.6	467.2	392.2	354.1	330.7	327.0
62.5°	19961.1	16546.9	7611.4	795.4	515.1	474.6	438.9	372.5	322.1	291.4	288.9
65°	19089.4	15345.8	5843.5	644.2	497.9	462.3	421.7	354.1	300.0	270.5	266.8
67.5°	17472.7	13186.9	3412.9	572.9	490.5	450.0	408.2	336.9	287.7	255.7	250.8
70°	14815.9	9919.1	1143.4	511.4	489.3	448.7	397.1	324.6	274.2	241.0	236.1
72.5°	10688.7	5984.9	556.9	450.0	457.3	430.3	388.5	314.7	265.6	223.8	215.2
75°	6074.6	1948.6	502.8	388.5	425.4	410.6	383.6	316.0	269.2	202.9	193.0
77.5°	1728.6	569.2	485.6	330.7	402.0	424.2	359.0	285.2	275.4	188.1	175.8
80°	584.0	506.5	468.4	257.0	324.6	350.4	311.0	250.8	277.9	170.9	158.6
82.5°	468.4	509.0	393.4	205.3	247.1	265.6	247.1	225.0	225.0	152.4	142.6
85°	375.0	472.1	249.6	163.5	184.4	204.1	174.6	168.4	157.4	127.9	124.2
87.5°	217.6	147.5	103.3	83.6	77.5	78.7	67.6	81.1	99.6	87.3	86.1
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)