

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: P510648

Luminaire Tested: **CST-CA6-230-727-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510648
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA6-230-727-U-T3-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (6) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27211 lumens
Efficiency: N/A
Efficacy: 119.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

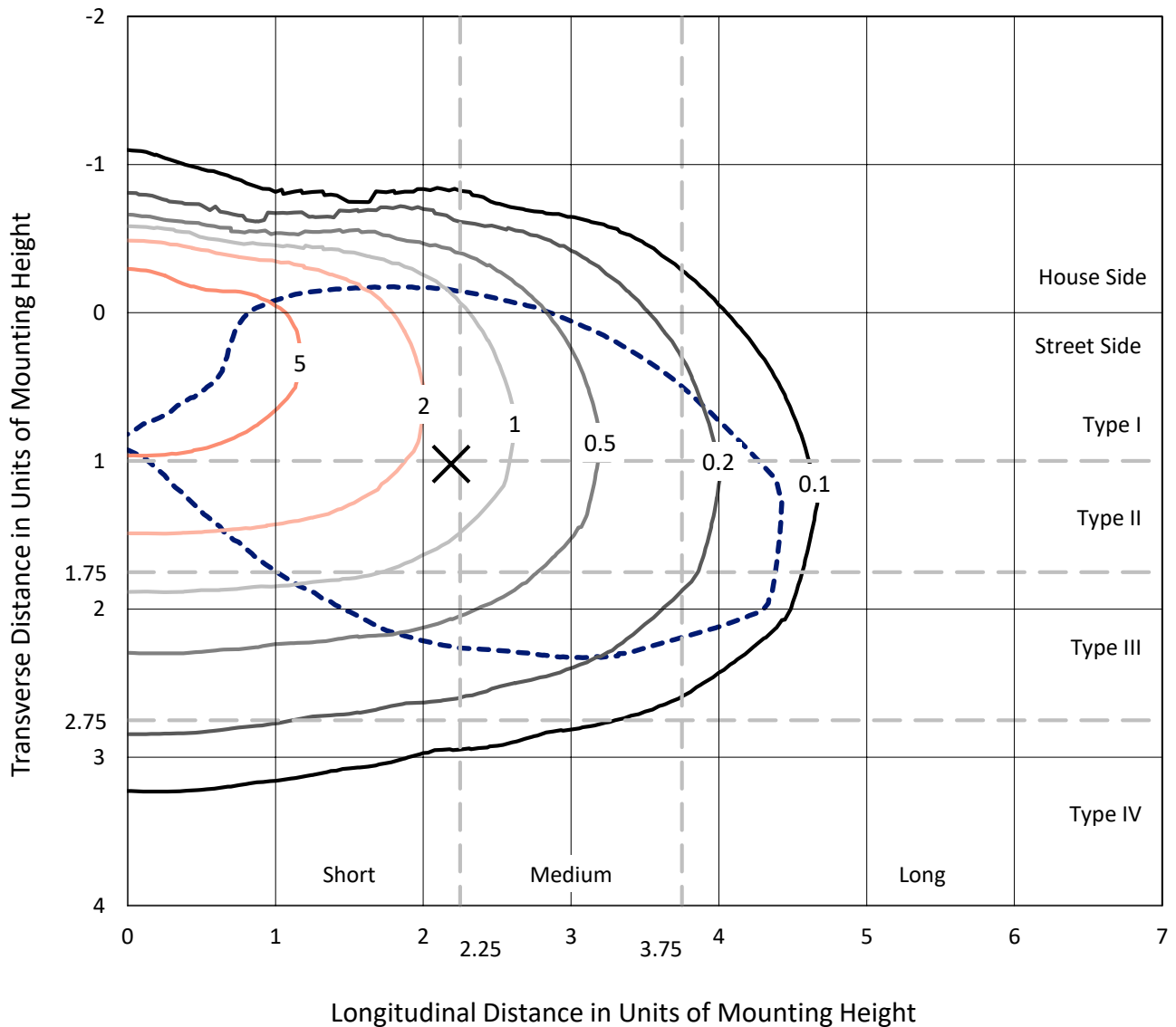
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P510648
 CATALOG NUMBER: CST-CA6-230-727-U-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

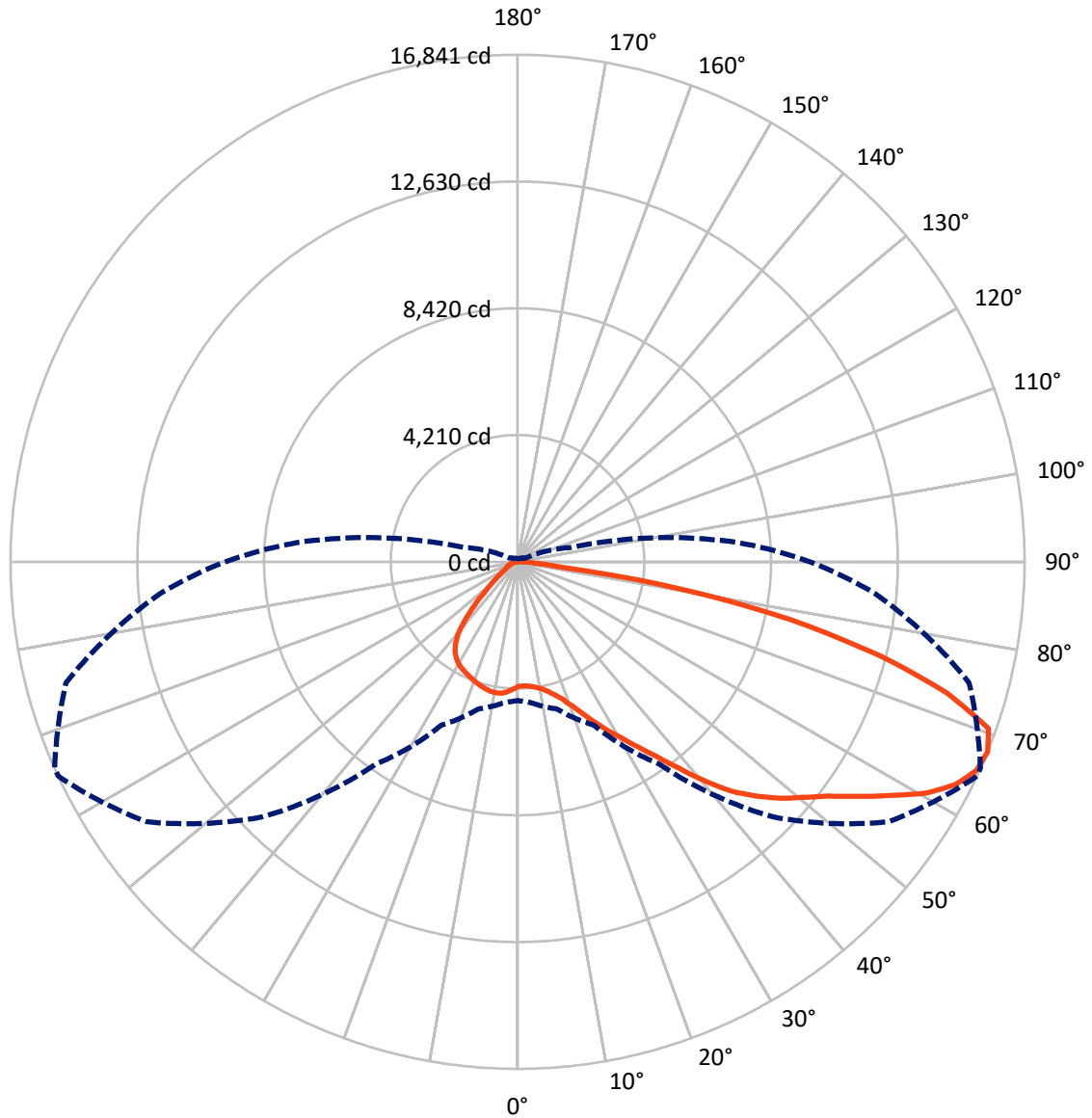
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
 Type III - Short - N/A

REPORT NUMBER: P510648
CATALOG NUMBER: CST-CA6-230-727-U-T3-HSS

Luminous Intensity Polar Plot



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

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 CATALOG NUMBER: CST-CA6-230-727-U-T3-HSS

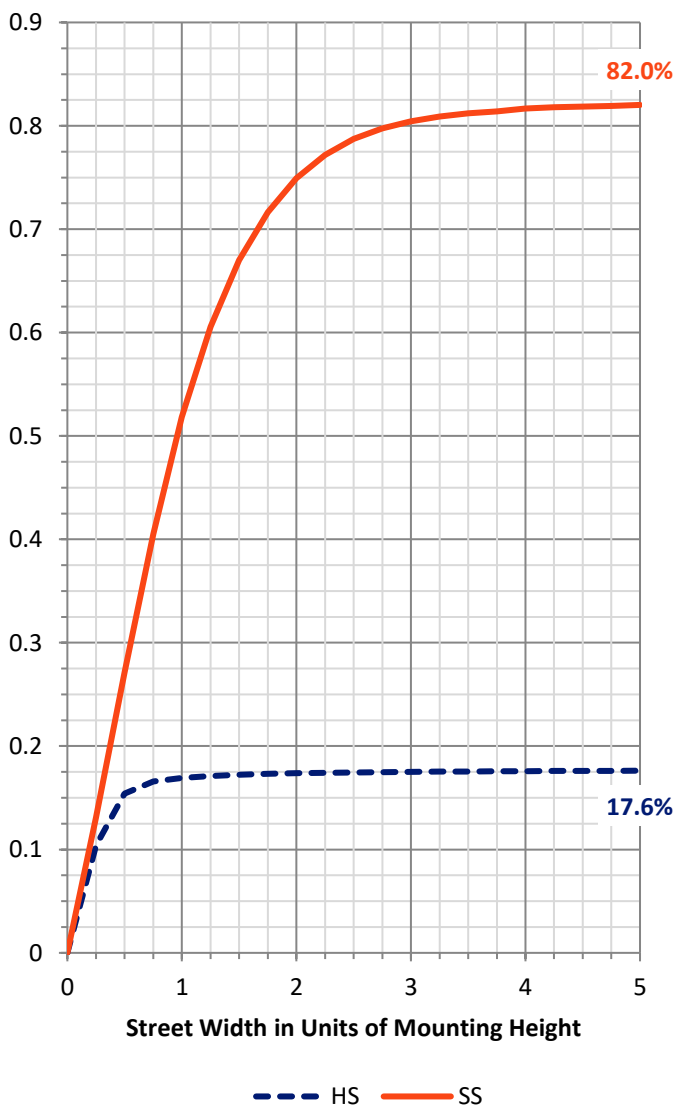
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4863.3	0.0	4863.3
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	22347.7	0.0	22347.7
	% Fixture	82.1	0.0	82.1
Total	Lumens	27211.0	0.0	27211.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	409.1	1.5
10°-20°	1263.0	4.6
20°-30°	2191.0	8.1
30°-40°	3305.1	12.1
40°-50°	4582.7	16.8
50°-60°	5656.8	20.8
60°-70°	6027.2	22.1
70°-80°	3448.9	12.7
80°-90°	327.2	1.2
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°	27211.0	100.0
0°-180°	27211.0	100.0

Coefficient of Utilization



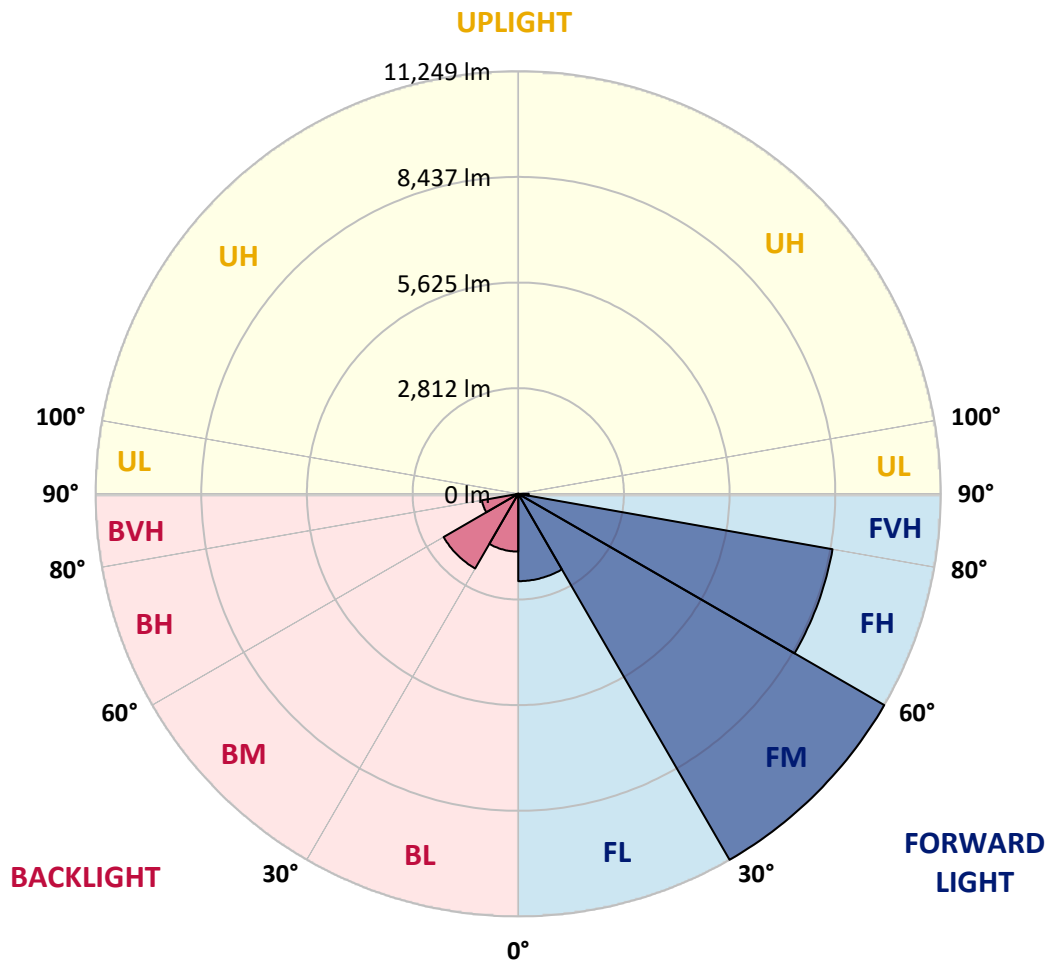
REPORT NUMBER: P510648
 CATALOG NUMBER: CST-CA6-230-727-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2324.2	8.5			
FM (30°-60°)	11249.4	41.3			
FH (60°-80°)	8494.5	31.2			G4/12000
FVH (80°-90°)	279.6	1.0			G3/500
BL (0°-30°)	1538.9	5.7	B3/2500		
BM (30°-60°)	2295.2	8.4	B2/2500		
BH (60°-80°)	981.6	3.6	B2/1000		G2/1000
BVH (80°-90°)	47.6	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-G4

Type III Short





REPORT NUMBER: P510648

CATALOG NUMBER: CST-CA6-230-727-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4134.9	4134.9	4134.9	4134.9	4134.9	4134.9	4134.9	4134.9	4134.9	4134.9	4134.9
2.5°	4095.0	4089.6	4084.8	4093.2	4097.9	4105.7	4117.0	4124.8	4127.1	4134.3	4143.2
5°	4160.5	4159.9	4153.4	4149.8	4139.7	4136.1	4138.5	4148.0	4148.6	4157.5	4185.6
7.5°	4289.3	4288.1	4272.0	4264.8	4243.4	4219.5	4201.6	4203.4	4202.8	4211.8	4249.3
10°	4483.6	4474.0	4451.4	4429.3	4387.6	4342.9	4310.1	4280.3	4280.3	4293.4	4335.2
12.5°	4702.9	4716.1	4685.1	4651.7	4581.9	4501.5	4444.2	4410.9	4407.3	4413.8	4443.6
15°	4975.3	4975.3	4954.5	4906.8	4845.4	4733.3	4615.3	4573.0	4567.0	4580.7	4579.0
17.5°	5282.3	5291.3	5251.9	5228.1	5133.9	5009.9	4862.1	4788.8	4788.8	4779.8	4738.7
20°	5673.9	5625.0	5629.2	5589.9	5520.7	5340.7	5190.5	5083.8	5082.6	5064.7	4949.1
22.5°	6099.5	6072.7	6049.4	6014.9	5919.5	5758.6	5549.9	5444.4	5442.1	5397.9	5226.3
25°	6519.1	6539.4	6513.8	6450.6	6380.9	6205.6	5975.5	5871.8	5871.2	5797.9	5554.7
27.5°	6950.7	6972.7	6964.4	6907.2	6814.2	6677.1	6459.5	6324.2	6315.9	6268.2	5962.4
30°	7427.5	7407.9	7433.5	7409.1	7362.6	7139.0	6942.3	6785.0	6805.3	6790.9	6425.6
32.5°	7774.4	7787.0	7871.0	7873.4	7824.5	7658.8	7418.6	7322.0	7354.2	7335.2	6994.8
35°	8088.0	8108.2	8216.7	8323.4	8359.2	8178.0	7933.6	7927.6	7969.4	8085.6	7779.2
37.5°	8357.4	8371.7	8523.7	8662.6	8778.2	8654.2	8476.6	8688.2	8749.6	8987.4	8588.7
40°	8518.9	8537.4	8734.1	8929.6	9135.9	9091.7	9075.1	9575.8	9633.6	9842.8	9179.4
42.5°	8427.7	8464.1	8791.9	9149.6	9453.0	9541.2	9769.5	10413.2	10479.4	10497.3	9759.9
45°	8265.0	8310.3	8676.9	9255.7	9750.4	10033.5	10468.1	11095.7	11132.1	11081.4	10241.0
47.5°	8089.8	8138.0	8547.5	9224.1	9989.4	10606.3	11092.1	11738.3	11763.9	11608.3	10725.6
50°	7890.7	7935.4	8375.9	9150.2	10169.4	11147.0	11733.5	12293.8	12389.8	12082.2	11102.3
52.5°	7648.7	7696.4	8163.7	9034.5	10327.4	11548.1	12299.2	12921.5	12928.0	12674.7	11526.7
55°	7335.2	7418.0	7897.2	8834.2	10410.2	11892.6	12792.1	13751.8	13794.1	13549.1	11881.9
57.5°	6986.5	7058.6	7576.6	8567.2	10335.7	12154.3	13584.9	14642.3	14636.9	14145.2	12192.5
60°	6525.7	6577.0	7158.7	8217.9	10095.5	12470.8	14410.4	15596.6	15587.0	14729.3	12392.1
62.5°	5934.4	5985.7	6532.9	7670.1	9742.6	12683.0	14970.7	16311.3	16283.8	15154.3	12453.5
65°	5248.9	5340.7	5815.8	6959.0	9118.6	12543.5	15241.3	16732.1	16688.0	15478.6	12306.9
67.5°	4606.4	4684.5	5060.6	5980.3	8197.7	11977.9	15050.6	16840.6	16827.5	15525.7	11892.6
70°	3696.8	3725.4	4069.9	4857.3	6820.7	10766.7	14391.3	16590.2	16596.2	15091.7	11060.5
72.5°	2530.3	2600.0	2753.2	3374.9	4963.4	8562.4	12404.1	14930.8	14932.0	13532.4	9636.6
75°	1360.8	1468.7	1647.5	1955.7	2774.7	5494.5	9961.4	12389.2	12412.4	11282.9	7659.4
77.5°	674.7	713.5	817.2	1046.1	1272.0	2592.3	6406.5	9299.8	9355.2	8660.8	5223.9
80°	308.8	315.3	323.1	321.3	487.0	1137.3	2750.2	5585.1	5601.8	5151.2	2384.8
82.5°	241.4	240.2	243.8	221.7	222.9	438.7	951.9	1462.7	1559.9	1227.9	756.4
85°	146.0	145.4	156.8	121.6	149.6	237.2	480.4	583.5	590.7	480.4	391.6
87.5°	55.4	53.6	49.5	43.5	50.1	66.8	166.3	214.6	209.8	149.0	135.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P510648
 CATALOG NUMBER: CST-CA6-230-727-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4134.9	4134.9	4134.9	4134.9	4134.9	4134.9	4134.9	4134.9	4134.9	4134.9	4134.9
2.5°	4151.0	4170.1	4205.2	4232.0	4241.0	4269.6	4297.0	4301.8	4321.5	4329.2	4354.8
5°	4202.8	4235.0	4289.9	4326.2	4342.3	4390.0	4421.0	4436.5	4431.1	4434.1	4462.7
7.5°	4278.5	4308.9	4353.0	4397.2	4404.9	4413.3	4410.3	4407.9	4387.0	4369.1	4396.0
10°	4347.7	4376.3	4403.7	4410.3	4370.9	4348.9	4309.5	4279.1	4238.6	4220.1	4241.6
12.5°	4444.8	4450.8	4424.0	4388.2	4303.6	4224.9	4161.1	4105.7	4055.6	4021.0	4049.7
15°	4547.4	4524.1	4446.0	4341.7	4210.6	4097.9	3993.6	3901.2	3818.4	3798.1	3805.9
17.5°	4683.3	4620.1	4462.7	4287.5	4083.6	3908.4	3774.3	3657.4	3549.0	3503.7	3499.5
20°	4849.0	4747.0	4496.7	4218.9	3933.4	3700.4	3492.9	3318.3	3168.7	3045.9	3048.9
22.5°	5064.7	4916.9	4548.0	4147.4	3767.1	3456.6	3155.0	2858.1	2611.9	2505.8	2479.6
25°	5349.7	5129.1	4620.7	4082.4	3581.1	3146.6	2720.4	2301.4	2040.9	1937.8	1926.5
27.5°	5704.3	5414.0	4731.5	4010.3	3382.1	2778.8	2166.1	1755.4	1516.4	1407.9	1371.5
30°	6107.3	5765.1	4845.4	3935.2	3141.3	2306.2	1651.7	1249.3	1004.4	907.2	894.7
32.5°	6628.8	6209.8	5014.7	3817.2	2789.6	1812.6	1152.2	779.7	613.3	571.6	559.7
35°	7369.7	6811.2	5223.9	3668.2	2337.8	1266.0	714.1	456.6	367.8	346.9	342.7
37.5°	8060.6	7401.3	5434.9	3420.8	1775.1	790.4	408.3	292.7	273.0	273.6	274.8
40°	8608.3	7804.8	5605.4	3095.4	1167.7	448.8	283.7	243.2	243.8	242.0	240.8
42.5°	9095.9	8126.7	5682.3	2614.3	676.5	300.4	246.2	224.1	218.8	220.5	219.4
45°	9499.5	8455.2	5533.3	2073.7	398.8	269.4	232.5	208.0	202.1	211.6	212.8
47.5°	9923.9	8766.9	5305.0	1562.3	323.7	256.3	219.9	196.1	193.1	205.0	206.2
50°	10280.9	8992.8	4915.7	1177.2	308.8	242.0	208.6	184.2	183.6	194.3	194.3
52.5°	10579.5	9129.3	4453.8	909.0	298.6	229.5	197.3	172.9	172.9	176.4	177.0
55°	10789.9	9101.9	4178.4	715.3	287.9	217.6	185.4	162.1	155.0	152.6	153.8
57.5°	10828.1	9029.2	3858.9	557.9	275.4	206.2	174.6	149.6	136.5	134.7	134.1
60°	10803.6	8869.4	3494.1	466.1	261.1	195.5	163.9	136.5	123.4	119.2	120.4
62.5°	10701.7	8586.3	3072.7	408.9	246.8	187.2	152.0	127.6	115.6	110.3	110.3
65°	10394.1	8181.0	2446.8	358.2	228.9	178.2	142.5	124.0	110.9	104.9	103.7
67.5°	9718.2	7339.9	1838.9	314.1	211.6	168.7	141.3	123.4	108.5	100.1	98.9
70°	8811.6	6305.2	1255.3	276.0	192.5	159.7	140.7	124.0	106.1	95.4	94.2
72.5°	7356.0	4970.6	723.0	240.2	173.5	151.4	138.3	124.6	101.9	88.8	87.0
75°	5527.3	3486.4	424.4	206.2	155.0	138.9	131.7	121.0	95.4	81.1	79.3
77.5°	3324.2	1627.8	319.5	171.1	132.9	122.2	117.4	110.9	87.0	75.1	73.3
80°	1219.5	618.1	250.9	137.1	105.5	106.1	101.3	97.2	79.3	69.1	68.0
82.5°	531.7	377.9	185.4	104.3	82.9	94.8	83.4	79.9	68.0	62.0	59.6
85°	322.5	225.3	119.2	70.9	57.2	64.4	58.4	61.4	52.5	48.9	47.1
87.5°	106.7	67.4	53.0	34.6	28.6	26.8	26.2	31.6	29.8	27.4	27.4
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)