

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: P510490

Luminaire Tested: **CST-CA10-310-740-U-T4-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510490
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-CA10-310-740-U-T4-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42876 lumens
Efficiency: N/A
Efficacy: 137.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

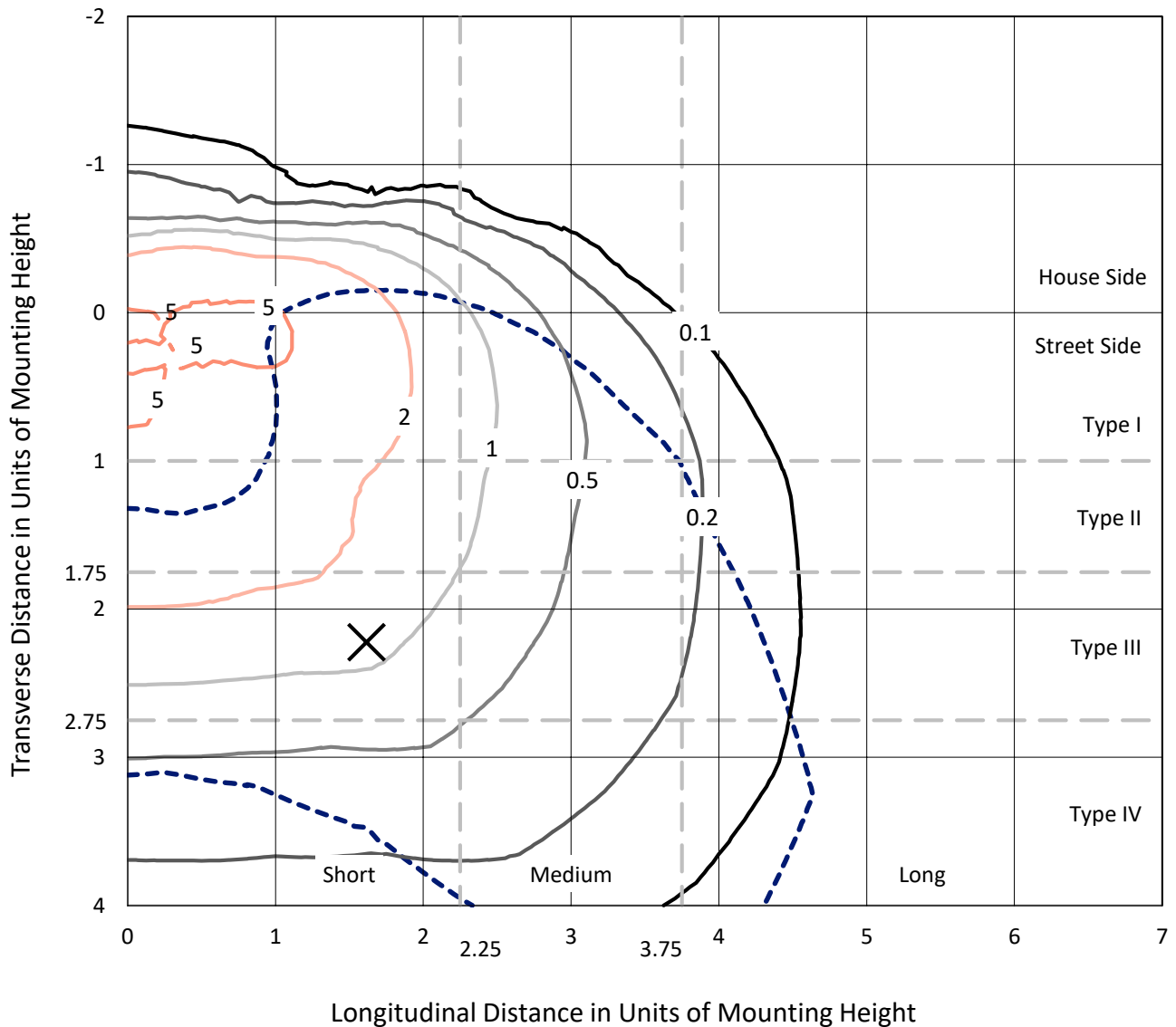
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

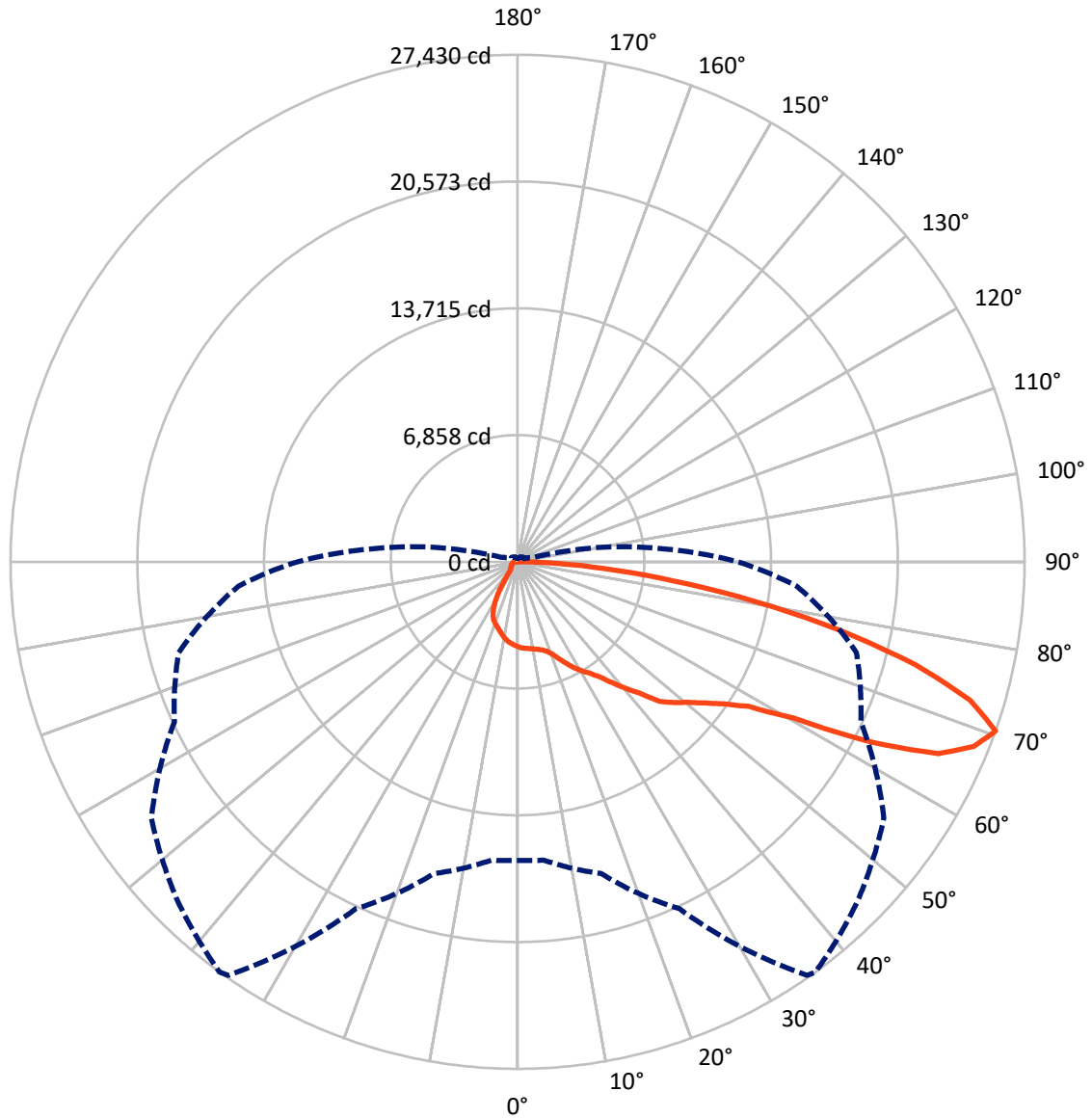
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.8 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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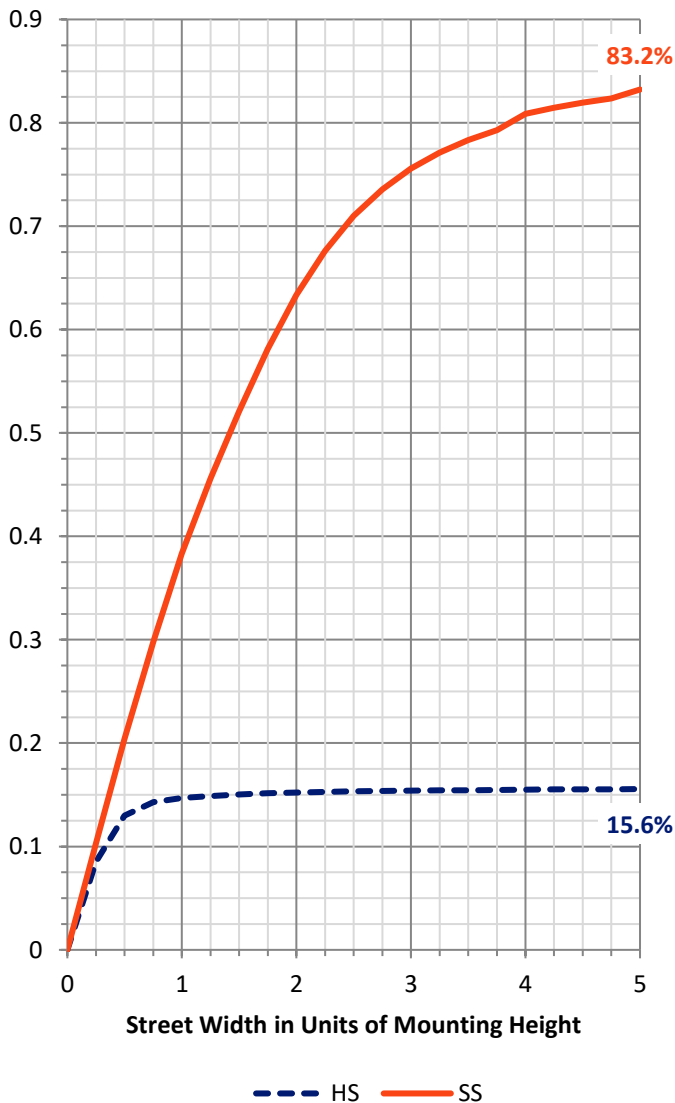
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6766.1	0.0	6766.1
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	36109.8	0.0	36109.8
	% Fixture	84.2	0.0	84.2
Total	Lumens	42876.0	0.0	42876.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	435.7	1.0
10°-20°	1295.7	3.0
20°-30°	2330.0	5.4
30°-40°	3687.2	8.6
40°-50°	5762.4	13.4
50°-60°	8274.7	19.3
60°-70°	11223.8	26.2
70°-80°	8306.8	19.4
80°-90°	1559.8	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°	42876.0	100.0
0°-180°	42876.0	100.0

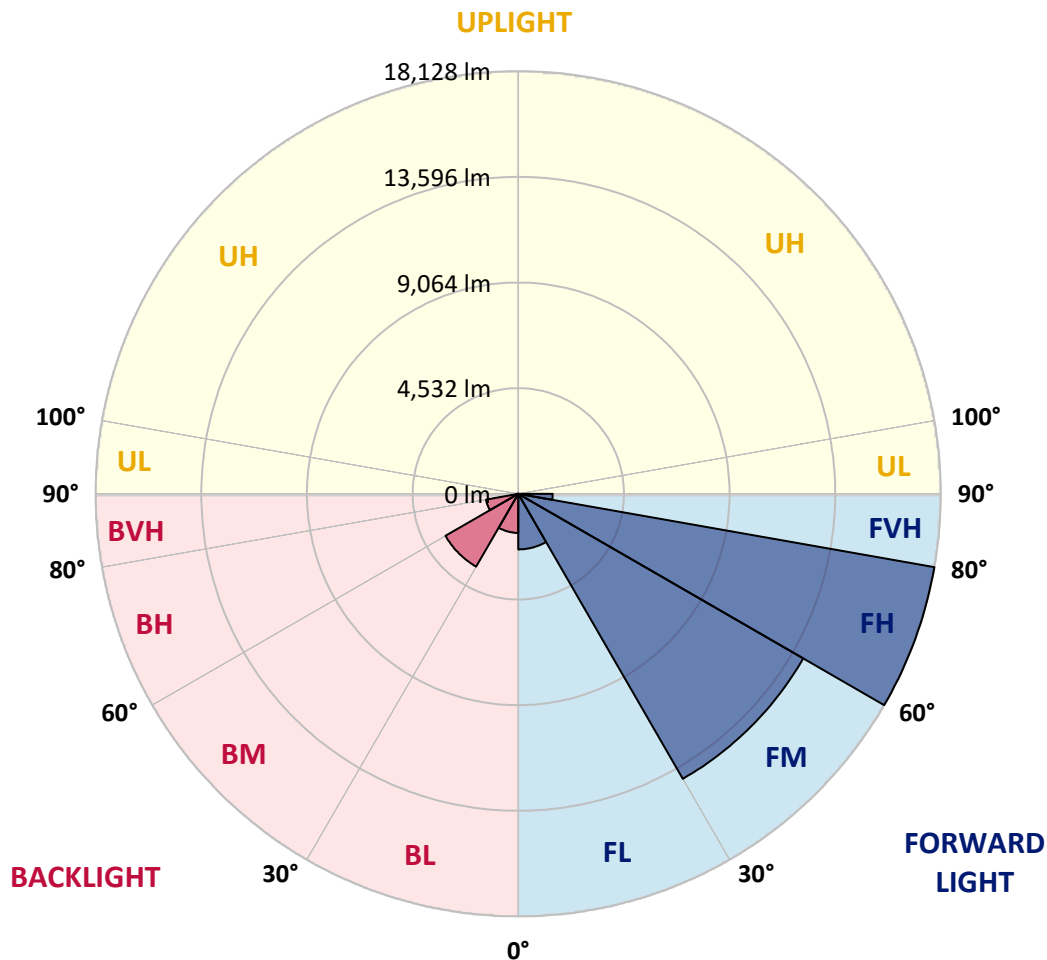


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2384.7	5.6			
FM (30°-60°)	14118.7	32.9			
FH (60°-80°)	18127.6	42.3			G5
FVH (80°-90°)	1478.9	3.4			G5
BL (0°-30°)	1676.6	3.9	B3/2500		
BM (30°-60°)	3605.5	8.4	B3/5000		
BH (60°-80°)	1403.1	3.3	B3/2500		G3/2500
BVH (80°-90°)	80.9	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°	4593.9	4593.9	4593.9	4593.9	4593.9	4593.9	4593.9	4593.9	4593.9	4593.9	4593.9
2.5°	4687.0	4677.1	4669.2	4672.1	4666.2	4670.2	4661.3	4650.4	4624.6	4613.7	4608.8
5°	4728.6	4725.6	4717.7	4711.7	4700.9	4696.9	4687.0	4695.9	4682.0	4646.4	4625.6
7.5°	4753.3	4752.3	4743.4	4730.6	4736.5	4741.4	4751.3	4737.5	4719.7	4702.8	4660.3
10°	4764.2	4764.2	4753.3	4760.2	4790.9	4793.9	4798.9	4807.8	4790.9	4766.2	4723.6
12.5°	4791.9	4789.9	4793.9	4816.7	4848.3	4855.3	4880.0	4880.0	4882.0	4867.2	4817.7
15°	4861.2	4861.2	4870.1	4890.9	4945.4	4949.3	4985.9	5018.6	5022.6	5000.8	4963.2
17.5°	5021.6	5017.6	5012.7	5025.5	5083.9	5085.9	5149.3	5190.8	5201.7	5225.5	5219.5
20°	5326.4	5322.5	5321.5	5322.5	5318.5	5312.6	5375.0	5419.5	5474.9	5516.5	5537.3
22.5°	5763.0	5754.1	5754.1	5705.6	5668.0	5673.9	5683.8	5708.5	5781.8	5855.0	5933.2
25°	6233.2	6227.2	6232.2	6108.4	6058.0	6077.8	6064.9	6103.5	6199.5	6262.9	6346.0
27.5°	6617.2	6626.1	6598.4	6502.4	6469.7	6484.6	6454.9	6565.8	6671.7	6782.5	6908.2
30°	7095.3	7047.8	6979.5	6862.7	6850.8	6852.8	6850.8	7029.0	7248.8	7407.1	7581.4
32.5°	7719.9	7727.9	7574.4	7299.2	7198.3	7184.4	7224.0	7485.3	7782.3	8133.7	8363.3
35°	8351.5	8364.3	8252.5	7965.4	7677.4	7633.8	7575.4	7914.9	8343.5	9048.3	9394.8
37.5°	9021.6	9067.1	8934.5	8678.1	8336.6	8296.0	8019.9	8353.4	8987.0	10131.2	10585.6
40°	9918.4	9869.9	9709.6	9383.9	9066.1	9000.8	8680.1	8855.3	9814.5	11487.3	11817.0
42.5°	10579.6	10565.8	10430.2	10108.5	9788.7	9736.3	9477.9	9668.0	10856.8	12862.3	13009.8
45°	11104.3	11189.4	11186.4	10984.5	10804.3	10774.6	10622.2	10902.3	12116.9	14160.0	14087.7
47.5°	11570.5	11623.0	11538.8	11450.7	11366.6	11376.5	11489.3	12065.4	13404.7	15293.4	14973.6
50°	12333.7	12266.4	11889.2	11821.9	11940.7	11945.7	12289.1	13176.1	14823.2	16273.3	15724.0
52.5°	13351.3	13278.0	12502.9	12388.1	12669.2	12690.0	13261.2	14282.7	16286.2	17209.7	16470.3
55°	14865.7	14695.5	13865.0	13350.3	13479.0	13563.1	14255.0	15346.8	17431.5	18035.3	17035.5
57.5°	16725.7	16849.4	16423.8	15260.7	14725.2	14756.9	15392.4	16365.4	18442.1	18757.9	17366.1
60°	18691.6	18661.9	18840.0	18350.1	17324.6	17154.3	16830.6	17404.7	19225.1	19366.7	17706.7
62.5°	19768.5	19941.8	20535.7	20633.7	21559.2	21469.1	19262.7	18693.5	20129.8	19748.7	17799.7
65°	19762.6	19837.8	20943.5	22159.1	25050.4	25024.7	23999.2	20557.5	20803.9	19952.6	17613.6
67.5°	18485.7	18602.5	19895.2	22269.9	26663.9	26633.2	25924.5	23177.6	21015.8	19707.2	16745.5
70°	16157.5	16197.1	17458.2	20708.9	27312.3	27430.1	25990.8	24183.3	20489.2	18977.6	15162.7
72.5°	13329.5	13247.3	14480.7	17684.9	25661.2	25590.9	24892.1	22982.6	19602.2	17561.1	12366.3
75°	9814.5	10043.1	11149.8	14199.6	21971.0	22228.3	22538.2	21145.4	17409.7	14472.8	8551.4
77.5°	6480.6	6771.6	7890.2	10647.0	17393.9	17793.8	18596.5	17984.8	14162.9	10381.7	4072.3
80°	3348.7	3568.5	4575.1	7064.6	12469.3	13046.4	14518.3	13621.5	10041.2	4693.9	911.7
82.5°	1267.0	1238.3	2050.0	4043.6	7995.1	8519.7	9589.8	8168.3	3573.4	824.6	423.7
85°	556.3	589.0	849.3	1844.1	4571.2	4639.5	5432.4	3184.4	523.6	394.0	288.0
87.5°	240.5	276.2	356.4	530.6	1542.2	1780.8	2203.4	1011.6	158.4	136.6	144.5
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°	4593.9	4593.9	4593.9	4593.9	4593.9	4593.9	4593.9	4593.9	4593.9	4593.9	4593.9
2.5°	4599.9	4593.9	4584.1	4559.3	4518.7	4513.8	4509.8	4505.9	4497.9	4501.9	4524.7
5°	4609.8	4598.9	4563.3	4527.6	4492.0	4460.3	4421.7	4406.9	4387.1	4374.2	4398.0
7.5°	4643.4	4620.7	4568.2	4519.7	4422.7	4376.2	4326.7	4268.3	4226.7	4200.0	4223.7
10°	4699.9	4671.2	4605.8	4505.9	4392.0	4264.3	4177.2	4080.2	4001.0	3979.2	4001.0
12.5°	4791.9	4749.4	4673.1	4537.5	4335.6	4168.3	4003.0	3875.3	3747.6	3711.0	3721.9
15°	4941.4	4907.7	4790.9	4603.8	4336.6	4081.2	3835.7	3629.8	3462.5	3404.1	3400.2
17.5°	5180.9	5145.3	5010.7	4735.5	4372.2	4012.9	3671.4	3357.6	3104.2	2975.5	2954.7
20°	5524.4	5474.9	5271.0	4929.5	4449.4	3983.2	3519.0	3097.3	2703.3	2461.8	2425.2
22.5°	5906.5	5854.0	5553.1	5079.0	4504.9	3924.8	3373.4	2809.2	2290.5	1995.6	1954.0
25°	6381.6	6266.8	5823.4	5220.5	4492.0	3802.1	3136.9	2418.2	1856.0	1600.6	1572.9
27.5°	6850.8	6705.3	6098.5	5294.8	4435.6	3607.1	2790.4	1960.9	1453.1	1272.0	1249.2
30°	7432.9	7151.8	6343.0	5329.4	4293.0	3315.0	2326.2	1490.7	1087.9	963.1	941.4
32.5°	8124.8	7699.1	6572.7	5290.8	4055.5	2869.6	1808.5	1091.8	808.7	730.5	729.5
35°	9037.4	8370.3	6825.1	5164.1	3691.2	2389.5	1268.0	746.4	630.5	603.8	608.8
37.5°	10104.5	9279.0	7081.5	4956.2	3279.4	1828.3	845.3	575.1	554.3	555.3	556.3
40°	11230.0	10282.7	7426.9	4664.2	2779.5	1323.4	608.8	516.7	515.7	525.6	528.6
42.5°	12305.0	11257.7	7852.6	4275.2	2255.9	875.0	527.6	493.0	480.1	484.0	487.0
45°	13303.7	12094.1	8214.9	3896.1	1694.6	624.6	517.7	465.2	445.4	443.5	445.4
47.5°	14108.5	12764.3	8435.6	3450.7	1207.6	518.7	496.9	439.5	411.8	405.8	402.9
50°	14721.2	13262.2	8515.8	2945.8	816.6	494.9	469.2	409.8	376.1	377.1	377.1
52.5°	15319.1	13714.5	8422.7	2437.0	600.8	474.1	450.4	386.0	350.4	369.2	374.2
55°	15749.7	13904.6	8151.5	1886.7	500.9	448.4	429.6	358.3	333.6	364.3	374.2
57.5°	16001.1	14054.1	7653.6	1362.1	459.3	423.7	402.9	332.6	309.8	317.7	322.7
60°	16157.5	13845.2	6995.4	931.5	437.5	403.9	376.1	315.8	285.1	266.3	263.3
62.5°	16071.4	13322.6	6128.2	640.4	414.8	382.1	353.4	299.9	259.3	234.6	232.6
65°	15369.6	12355.5	4704.8	518.7	400.9	372.2	339.5	285.1	241.5	217.8	214.8
67.5°	14067.9	10617.3	2747.9	461.3	395.0	362.3	328.6	271.2	231.6	205.9	201.9
70°	11928.8	7986.2	920.6	411.8	394.0	361.3	319.7	261.3	220.7	194.0	190.1
72.5°	8605.9	4818.6	448.4	362.3	368.2	346.5	312.8	253.4	213.8	180.2	173.2
75°	4890.9	1568.9	404.9	312.8	342.5	330.6	308.8	254.4	216.8	163.3	155.4
77.5°	1391.7	458.3	391.0	266.3	323.7	341.5	289.0	229.6	221.7	151.4	141.6
80°	470.2	407.8	377.1	206.9	261.3	282.1	250.4	201.9	223.7	137.6	127.7
82.5°	377.1	409.8	316.8	165.3	199.0	213.8	199.0	181.1	181.1	122.7	114.8
85°	301.9	380.1	200.9	131.7	148.5	164.3	140.6	135.6	126.7	102.9	100.0
87.5°	175.2	118.8	83.1	67.3	62.4	63.4	54.4	65.3	80.2	70.3	69.3
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)