

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: P510471

Luminaire Tested: **CST-CA10-310-727-U-T4**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510471  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA10-310-727-U-T4  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40483 lumens  
Efficiency: N/A  
Efficacy: 129.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

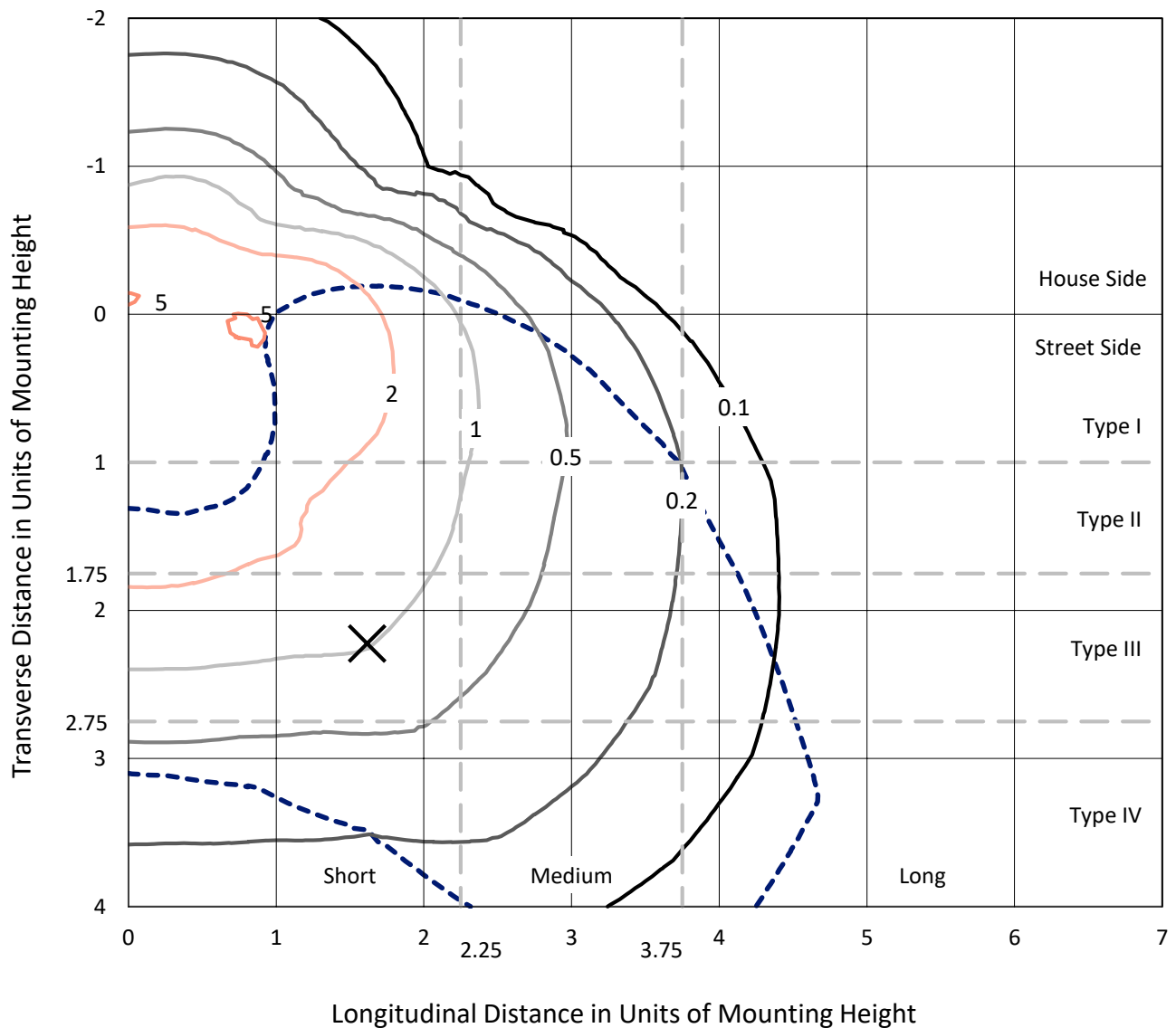
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

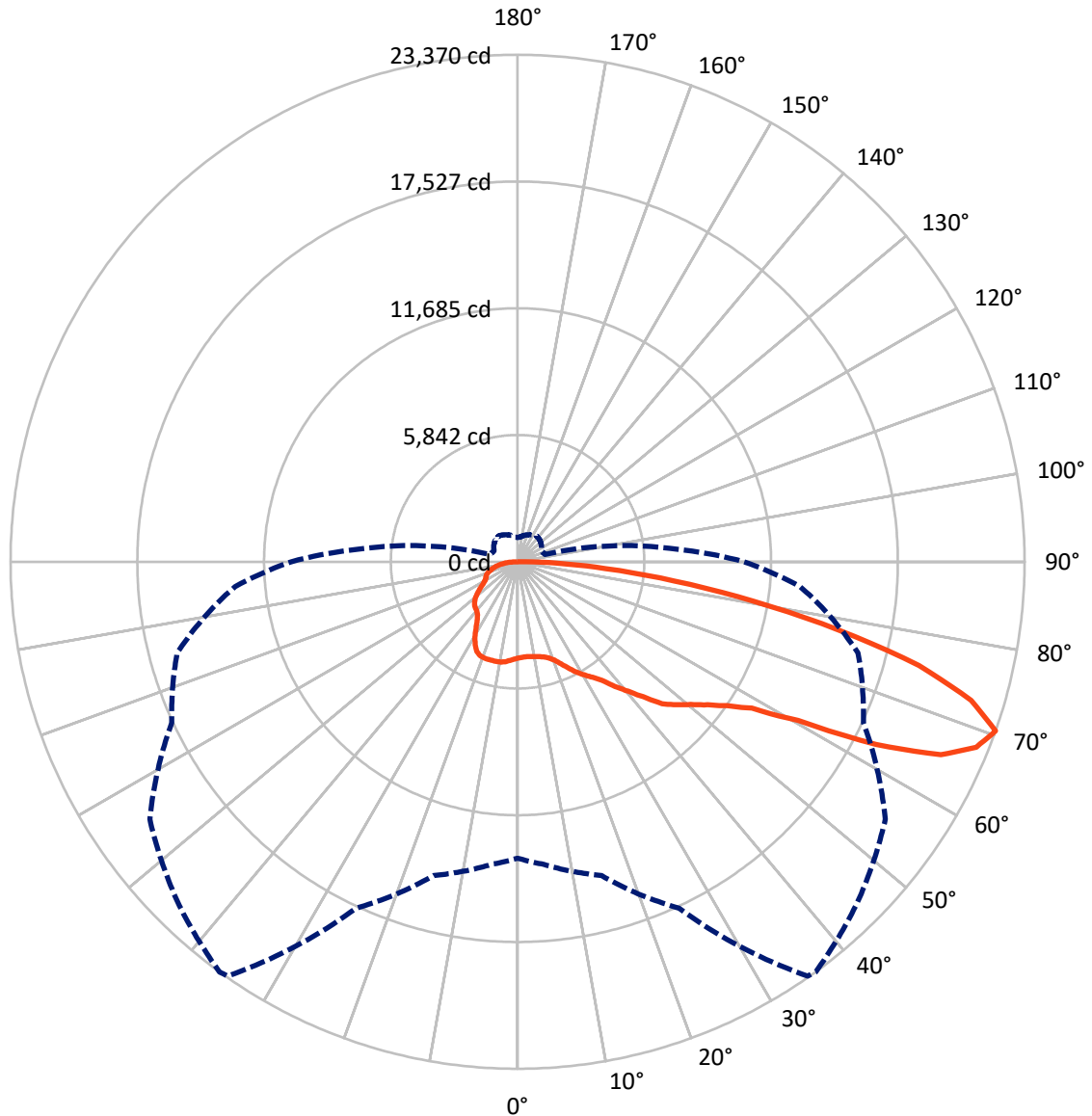
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.1 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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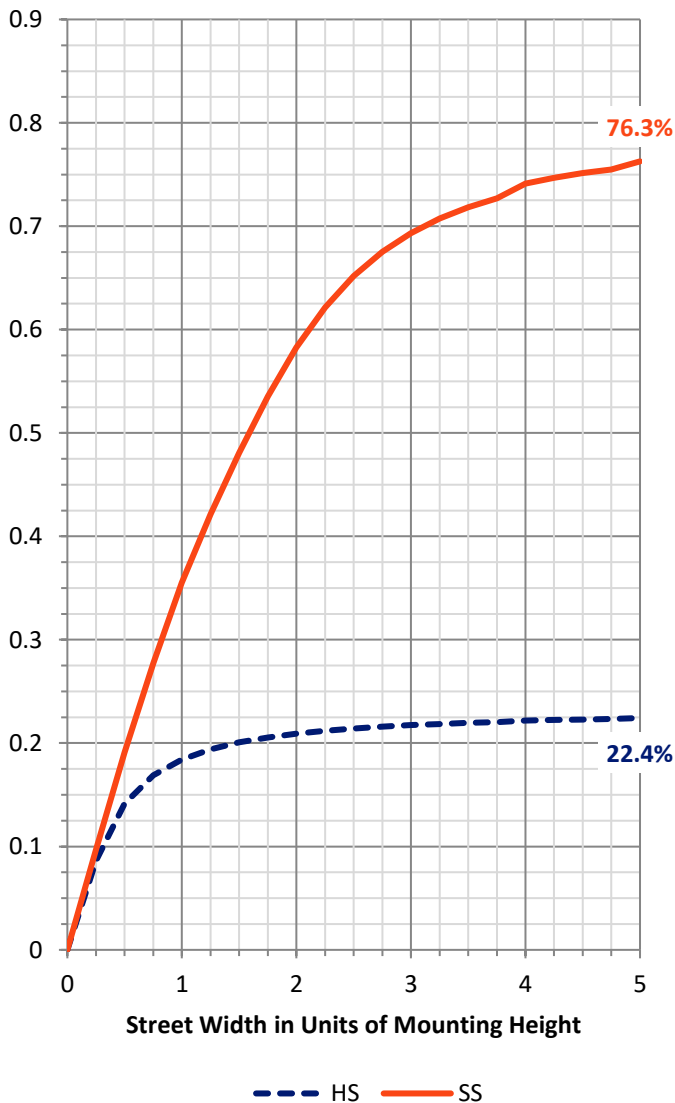
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9223.8	0.0	9223.8
	% Fixture	22.8	0.0	22.8
<b>Street Side</b>	Lumens	31259.2	0.0	31259.2
	% Fixture	77.2	0.0	77.2
<b>Total</b>	Lumens	40483.0	0.0	40483.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	429.6	1.1
10°-20°	1328.0	3.3
20°-30°	2395.5	5.9
30°-40°	3710.2	9.2
40°-50°	5635.8	13.9
50°-60°	7811.6	19.3
60°-70°	10157.8	25.1
70°-80°	7501.4	18.5
80°-90°	1512.9	3.7
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°	40483.0	100.0
0°-180°	40483.0	100.0

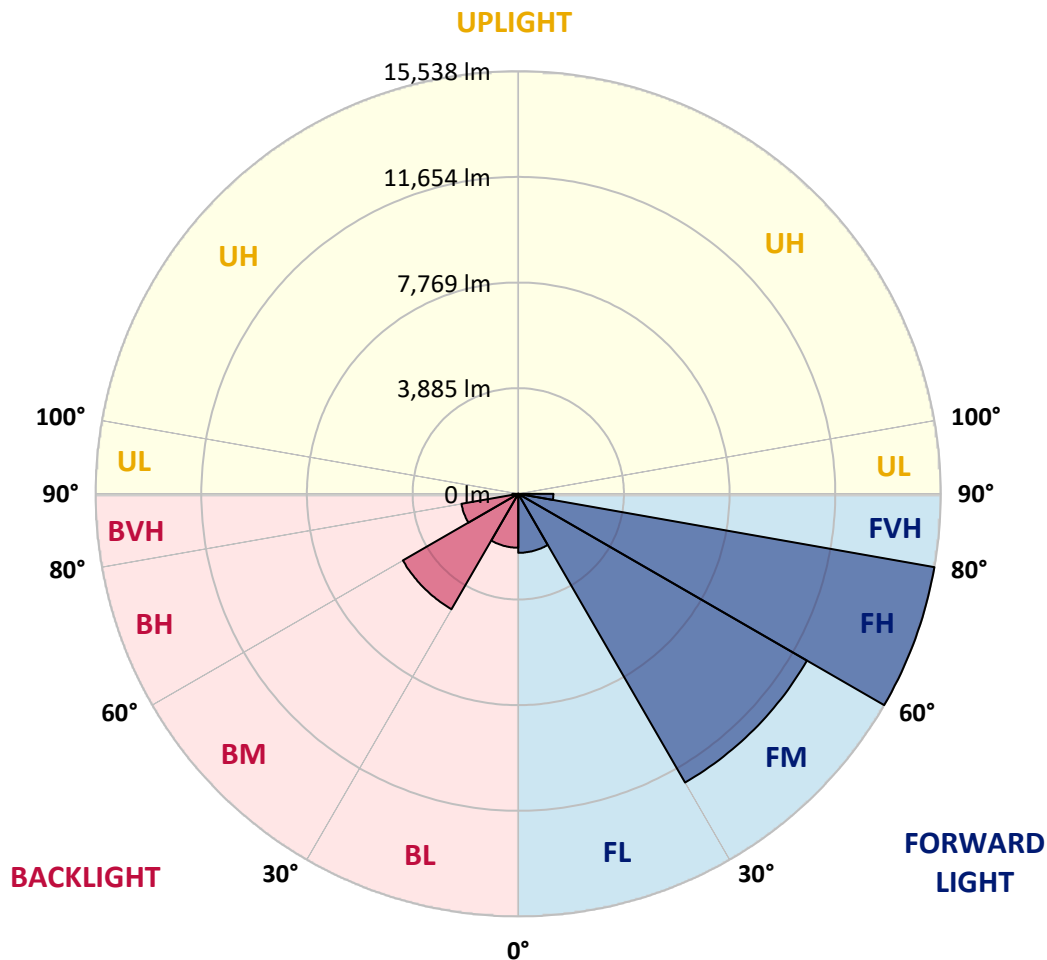


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2170.3	5.4			
FM (30°-60°)	12258.1	30.3			
FH (60°-80°)	15538.3	38.4			G5
FVH (80°-90°)	1292.5	3.2			G5
BL (0°-30°)	1982.9	4.9	B3/2500		
BM (30°-60°)	4899.6	12.1	B3/5000		
BH (60°-80°)	2121.0	5.2	B3/2500		G3/2500
BVH (80°-90°)	220.4	0.5			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°	4434.1	4434.1	4434.1	4434.1	4434.1	4434.1	4434.1	4434.1	4434.1	4434.1	4434.1
2.5°	4407.3	4401.4	4398.1	4404.8	4407.3	4408.1	4409.8	4408.1	4403.9	4419.0	4437.4
5°	4408.1	4404.8	4398.1	4392.2	4392.2	4392.2	4393.0	4412.3	4420.7	4419.0	4441.6
7.5°	4414.8	4412.3	4399.7	4395.5	4405.6	4408.9	4425.7	4419.8	4429.1	4444.2	4463.4
10°	4415.7	4412.3	4401.4	4410.6	4439.1	4444.2	4451.7	4468.5	4471.8	4490.3	4509.5
12.5°	4424.0	4424.0	4428.2	4448.3	4478.5	4484.4	4512.9	4526.3	4546.4	4555.6	4579.1
15°	4468.5	4467.6	4477.7	4500.3	4548.9	4552.3	4587.5	4627.7	4642.8	4665.4	4703.2
17.5°	4574.1	4579.1	4579.9	4596.7	4654.5	4656.2	4714.1	4751.8	4786.1	4826.4	4912.7
20°	4824.7	4815.5	4805.4	4805.4	4828.1	4839.8	4884.2	4944.6	5015.0	5086.2	5187.6
22.5°	5139.9	5158.3	5121.4	5102.1	5113.0	5099.6	5133.2	5181.8	5263.9	5370.4	5498.6
25°	5516.2	5517.9	5515.4	5437.4	5413.1	5421.5	5449.2	5494.4	5603.4	5688.0	5874.1
27.5°	5883.3	5875.8	5849.0	5766.8	5743.4	5755.1	5754.3	5879.2	5990.6	6098.8	6317.5
30°	6217.0	6237.1	6189.3	6051.0	6053.5	6051.8	6090.4	6251.3	6455.0	6656.2	6880.8
32.5°	6805.4	6744.2	6679.6	6406.4	6356.1	6350.2	6372.9	6612.6	6914.3	7253.8	7523.7
35°	7359.4	7344.3	7280.6	7003.2	6712.3	6707.3	6676.3	6968.0	7392.1	8020.8	8357.7
37.5°	7926.1	7904.3	7841.4	7605.0	7315.8	7288.2	7027.5	7346.9	7920.2	8917.6	9397.9
40°	8601.6	8588.2	8491.0	8188.4	7891.7	7849.8	7579.0	7745.0	8586.6	10112.1	10450.7
42.5°	9194.3	9191.7	9080.3	8799.5	8547.2	8505.2	8274.7	8447.4	9512.8	11282.2	11481.7
45°	9629.3	9695.5	9700.5	9540.4	9366.1	9329.2	9268.0	9506.1	10584.0	12344.2	12314.9
47.5°	9996.4	10053.4	9993.9	9911.8	9852.2	9854.8	9949.5	10422.2	11641.8	13269.6	13041.6
50°	10610.0	10574.8	10265.5	10216.9	10292.3	10336.7	10611.7	11411.3	12853.0	14138.0	13693.7
52.5°	11495.1	11360.2	10753.3	10654.4	10940.2	10957.0	11394.5	12295.6	14063.4	14883.1	14290.5
55°	12706.3	12594.8	11909.2	11452.4	11596.5	11709.7	12325.8	13201.7	15051.6	15583.9	14749.9
57.5°	14496.7	14505.1	13946.0	13094.4	12604.1	12724.8	13205.9	14082.7	15868.0	16170.6	15036.5
60°	15931.7	16197.4	16030.6	15641.7	14937.6	14855.5	14489.2	15000.5	16565.4	16669.3	15310.6
62.5°	16926.7	17047.4	17620.7	17702.9	18507.5	18541.9	16787.5	16075.9	17331.5	16996.2	15368.5
65°	16876.4	16951.0	17857.1	18960.2	21337.3	21443.8	20417.0	17702.9	17856.2	17142.1	15200.0
67.5°	15701.2	15813.5	16965.2	19027.2	22845.2	22805.0	22153.7	19967.7	18028.9	16908.2	14397.0
70°	13660.2	14006.4	14973.7	17613.2	23316.3	23369.9	22169.6	20691.0	17583.8	16246.9	13058.4
72.5°	11258.7	11367.7	12281.4	15235.2	21939.1	21860.3	21261.0	19736.3	16779.2	15050.8	10715.6
75°	8562.2	8562.2	9668.7	12141.4	18840.3	19116.9	19349.9	17875.5	14864.7	12267.1	7296.6
77.5°	5683.9	5887.5	6778.6	9123.8	14913.3	15117.8	15922.5	15236.9	12170.7	8995.6	3332.7
80°	3015.0	3040.2	3995.7	6062.7	10667.0	11052.5	12159.0	11751.6	8754.2	4214.5	842.4
82.5°	1054.5	1150.9	1756.9	3513.7	7028.3	7268.9	8066.0	6983.1	3092.1	932.9	466.0
85°	523.9	542.3	773.7	1673.1	3957.2	4073.7	4712.4	2720.0	497.9	407.4	316.8
87.5°	252.3	258.2	296.7	598.5	1720.0	1799.6	1905.2	885.1	184.4	155.1	137.5
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°	4434.1	4434.1	4434.1	4434.1	4434.1	4434.1	4434.1	4434.1	4434.1	4434.1	4434.1
2.5°	4441.6	4449.2	4463.4	4467.6	4457.6	4476.0	4493.6	4509.5	4508.7	4514.6	4535.5
5°	4451.7	4467.6	4482.7	4509.5	4535.5	4550.6	4564.9	4578.3	4582.5	4595.0	4607.6
7.5°	4482.7	4498.6	4533.0	4579.9	4581.6	4619.3	4643.6	4647.8	4651.2	4651.2	4680.5
10°	4530.5	4559.8	4615.1	4647.8	4677.2	4664.6	4689.7	4673.8	4662.1	4667.1	4687.2
12.5°	4612.6	4638.6	4718.2	4754.3	4727.5	4722.4	4697.3	4661.2	4620.2	4616.0	4634.4
15°	4741.7	4790.3	4861.6	4895.9	4828.9	4769.4	4684.7	4611.0	4531.3	4502.0	4513.7
17.5°	4949.6	5008.3	5086.2	5062.7	4940.4	4823.0	4683.0	4527.1	4372.9	4265.6	4293.3
20°	5253.9	5297.4	5361.1	5266.4	5087.9	4894.3	4664.6	4418.2	4157.5	3962.2	3939.6
22.5°	5573.2	5639.4	5600.9	5425.7	5191.8	4921.9	4626.0	4259.7	3856.6	3611.8	3574.9
25°	5957.9	5979.7	5846.5	5582.4	5221.2	4878.3	4501.2	4028.4	3549.0	3318.4	3307.6
27.5°	6366.2	6316.7	6068.6	5654.5	5188.5	4749.3	4250.5	3662.9	3270.7	3067.0	3035.1
30°	6827.2	6712.3	6252.2	5662.1	5065.3	4497.8	3933.7	3377.1	3044.4	2839.8	2807.1
32.5°	7420.6	7149.9	6422.3	5584.1	4805.4	4129.0	3553.1	3133.2	2840.7	2635.3	2606.0
35°	8179.2	7722.4	6602.5	5443.3	4485.2	3760.2	3238.0	2926.2	2675.5	2428.3	2388.9
37.5°	9053.4	8521.2	6817.9	5265.6	4134.0	3435.8	3025.1	2794.6	2553.2	2273.2	2226.3
40°	10069.3	9320.8	7149.9	5053.5	3818.9	3201.9	2922.0	2749.3	2485.3	2193.6	2139.9
42.5°	10949.4	10166.6	7544.7	4825.5	3521.3	3007.5	2875.9	2719.1	2442.5	2134.1	2072.9
45°	11763.3	10864.8	7930.2	4548.9	3207.8	2874.2	2820.6	2643.7	2367.1	2060.3	1996.6
47.5°	12424.7	11428.9	8265.5	4295.0	2957.2	2751.8	2699.9	2500.4	2240.5	1971.5	1924.5
50°	12932.6	11853.0	8449.1	4092.9	2692.3	2612.7	2543.9	2338.6	2088.8	1856.6	1816.4
52.5°	13452.3	12278.0	8539.6	4103.0	2445.9	2405.6	2335.2	2159.2	1968.1	1789.6	1746.0
55°	13754.9	12452.3	8444.1	3859.1	2219.6	2172.6	2111.4	2020.1	1906.1	1747.7	1706.6
57.5°	13931.8	12560.5	8153.2	3147.5	1947.1	1902.7	1912.8	1905.2	1811.4	1644.6	1606.8
60°	14059.2	12325.8	7557.2	2313.4	1715.0	1681.4	1764.4	1737.6	1656.3	1526.4	1494.5
62.5°	13956.1	11879.0	6484.3	1739.3	1525.5	1596.8	1669.7	1620.2	1509.6	1391.4	1354.5
65°	13327.4	11002.3	4928.6	1397.3	1464.3	1562.4	1621.1	1541.5	1429.1	1289.2	1272.4
67.5°	12183.3	9413.0	2906.9	1280.8	1418.2	1522.2	1570.8	1465.2	1366.3	1232.2	1212.0
70°	10437.3	7046.8	1298.4	1192.8	1337.8	1440.9	1472.7	1373.0	1265.7	1140.0	1119.8
72.5°	7768.5	4248.9	875.1	1101.4	1218.7	1310.1	1345.3	1239.7	1163.4	1106.4	1100.6
75°	4314.2	1475.2	807.2	997.5	1088.8	1171.0	1214.6	1140.0	1079.6	1001.7	969.8
77.5°	1373.8	627.0	767.0	891.8	1007.5	1075.4	1068.7	956.4	937.1	842.4	834.0
80°	548.2	546.5	709.1	730.1	860.0	917.0	901.9	760.3	785.4	730.1	708.3
82.5°	430.0	500.4	568.3	557.4	668.9	735.9	715.0	558.2	631.2	580.0	530.6
85°	326.9	438.4	364.6	362.9	466.9	546.5	559.9	429.2	430.0	391.4	348.7
87.5°	168.5	161.8	140.0	139.1	155.9	222.1	272.4	243.9	192.8	145.0	139.1
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)