

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: P510831

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

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510831  
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-CA8-480-727-U-T4  
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: 59379 lumens  
Efficiency: N/A  
Efficacy: 123.5 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U0 - G5

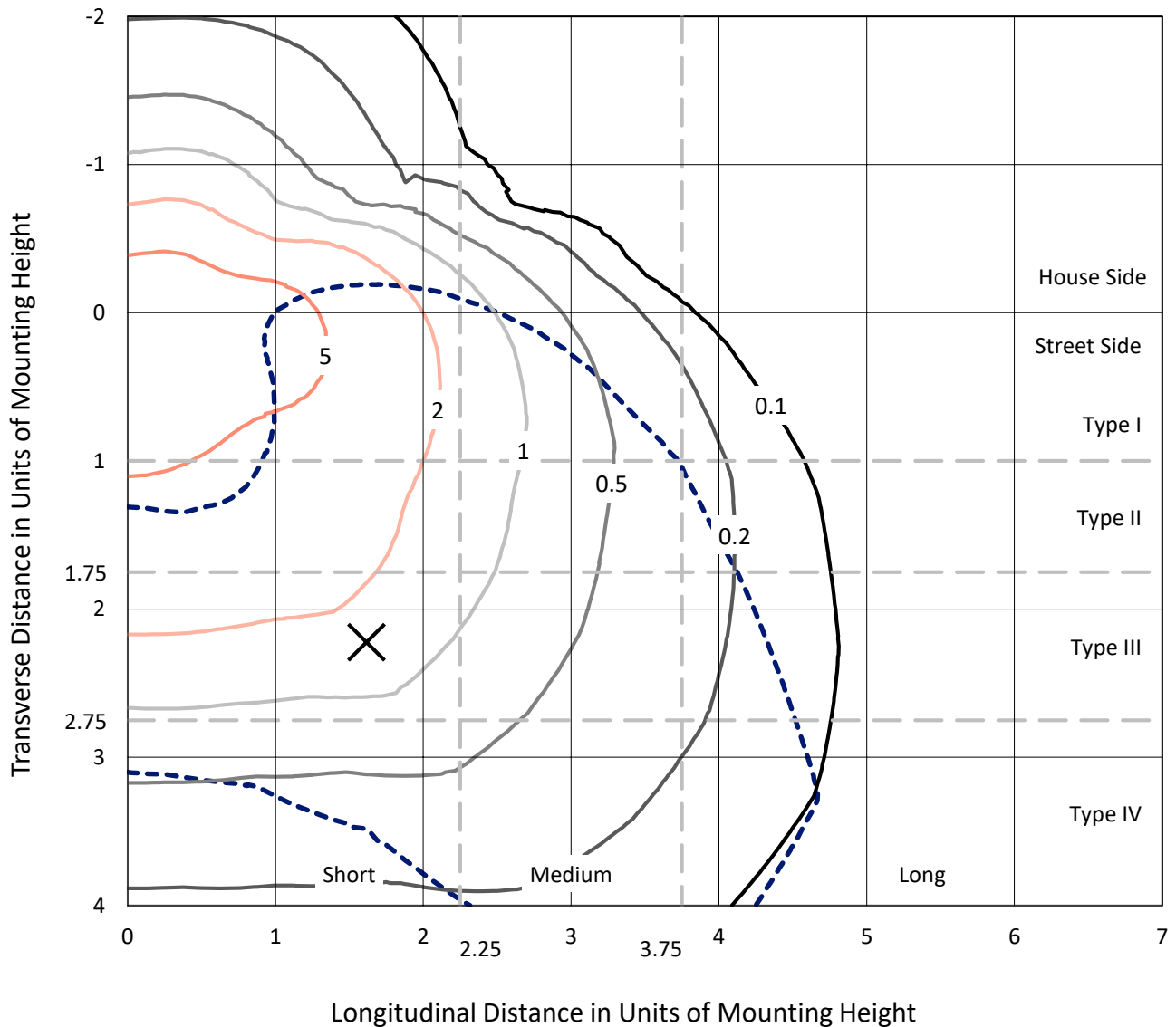
Input Watts (W): 480.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

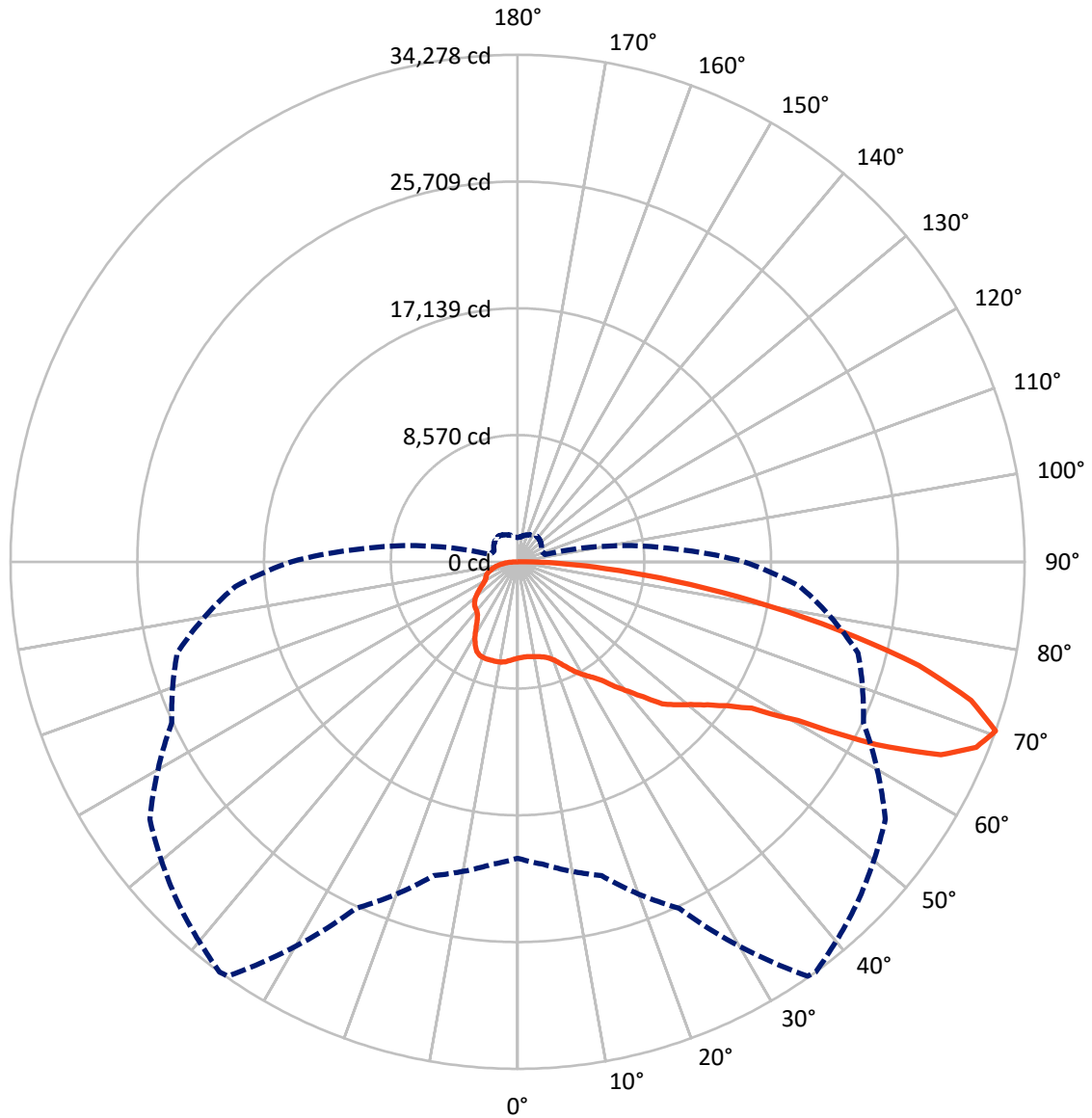
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.5 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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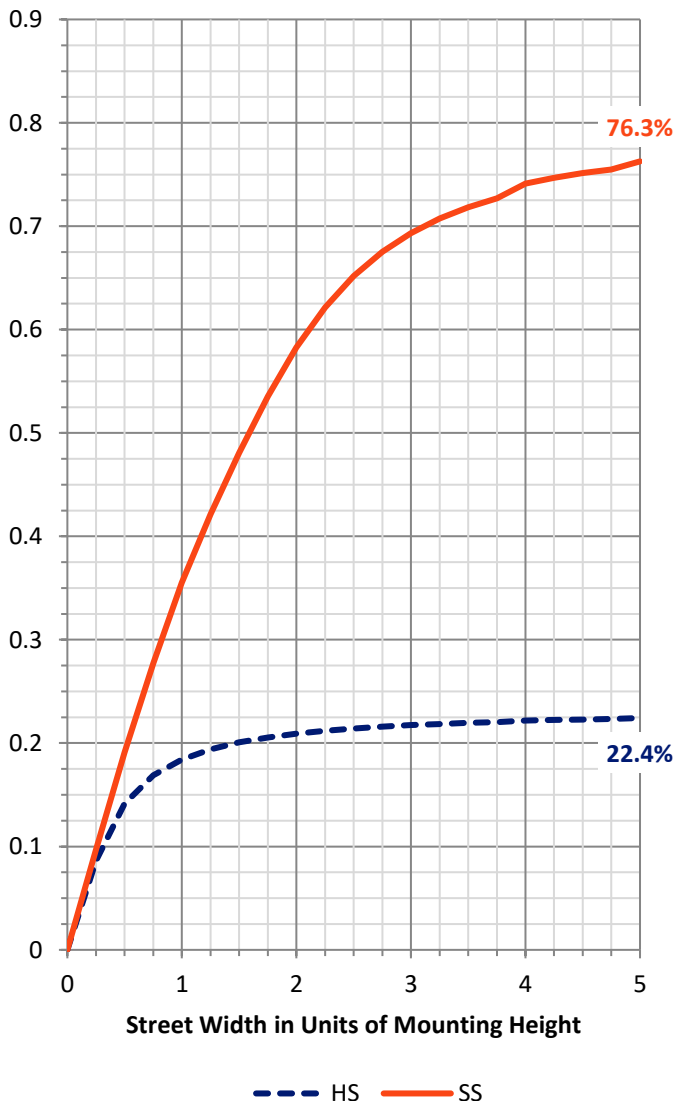
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	13529.1	0.0	13529.1
	% Fixture	22.8	0.0	22.8
<b>Street Side</b>	Lumens	45849.9	0.0	45849.9
	% Fixture	77.2	0.0	77.2
<b>Total</b>	Lumens	59379.0	0.0	59379.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	630.1	1.1
10°-20°	1947.9	3.3
20°-30°	3513.7	5.9
30°-40°	5442.0	9.2
40°-50°	8266.5	13.9
50°-60°	11457.8	19.3
60°-70°	14899.1	25.1
70°-80°	11002.8	18.5
80°-90°	2219.0	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°	59379.0	100.0
0°-180°	59379.0	100.0

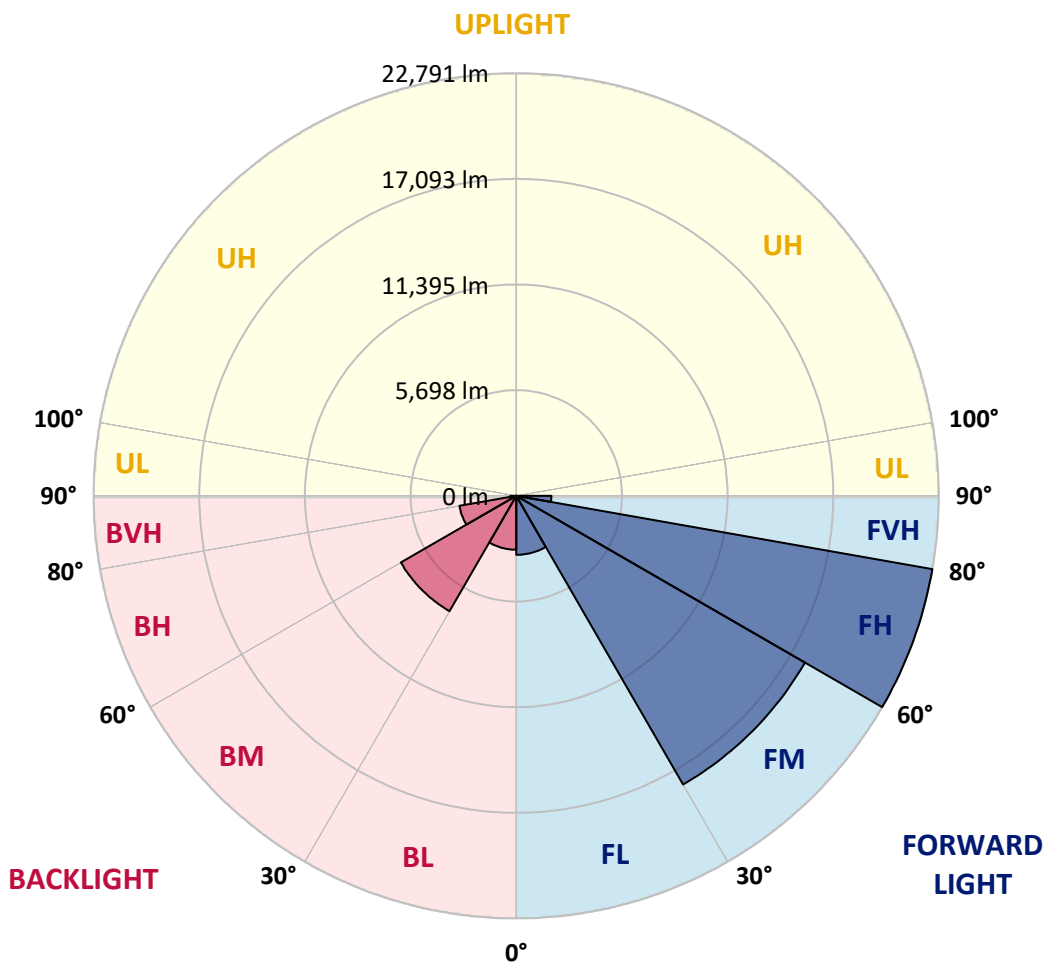


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3183.3	5.4			
FM (30°-60°)	17979.8	30.3			
FH (60°-80°)	22791.0	38.4			G5
FVH (80°-90°)	1895.8	3.2			G5
BL (0°-30°)	2908.4	4.9	B4/5000		
BM (30°-60°)	7186.5	12.1	B4/8500		
BH (60°-80°)	3111.0	5.2	B4/5000		G4/5000
BVH (80°-90°)	323.3	0.5			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	6503.8	6503.8	6503.8	6503.8	6503.8	6503.8	6503.8	6503.8	6503.8	6503.8	6503.8
2.5°	6464.4	6455.8	6450.9	6460.7	6464.4	6465.7	6468.1	6465.7	6459.5	6481.6	6508.7
5°	6465.7	6460.7	6450.9	6442.3	6442.3	6442.3	6443.5	6471.8	6484.1	6481.6	6514.8
7.5°	6475.5	6471.8	6453.4	6447.2	6462.0	6466.9	6491.5	6482.9	6496.4	6518.5	6546.8
10°	6476.7	6471.8	6455.8	6469.3	6511.1	6518.5	6529.6	6554.2	6559.1	6586.1	6614.4
12.5°	6489.0	6489.0	6495.2	6524.7	6568.9	6577.5	6619.3	6639.0	6668.5	6682.0	6716.5
15°	6554.2	6552.9	6567.7	6600.9	6672.2	6677.1	6728.8	6787.8	6809.9	6843.1	6898.4
17.5°	6709.1	6716.5	6717.7	6742.3	6827.1	6829.6	6914.4	6969.7	7020.1	7079.2	7205.8
20°	7076.7	7063.2	7048.4	7048.4	7081.6	7098.8	7164.0	7252.5	7355.8	7460.3	7609.0
22.5°	7539.0	7566.0	7511.9	7483.6	7499.6	7480.0	7529.1	7600.4	7720.9	7877.1	8065.2
25°	8091.0	8093.4	8089.8	7975.4	7939.8	7952.1	7992.6	8059.0	8218.8	8343.0	8616.0
27.5°	8629.5	8618.4	8579.1	8458.6	8424.2	8441.4	8440.1	8623.3	8786.9	8945.5	9266.3
30°	9118.8	9148.3	9078.2	8875.4	8879.1	8876.6	8933.2	9169.2	9468.0	9763.0	10092.5
32.5°	9981.9	9892.1	9797.5	9396.7	9322.9	9314.3	9347.5	9699.1	10141.7	10639.6	11035.5
35°	10794.5	10772.4	10679.0	10272.0	9845.4	9838.0	9792.5	10220.4	10842.5	11764.6	12258.8
37.5°	11625.6	11593.7	11501.5	11154.8	10730.6	10690.0	10307.7	10776.1	11617.0	13080.1	13784.6
40°	12616.6	12596.9	12454.3	12010.5	11575.2	11513.8	11116.7	11360.1	12594.4	14832.0	15328.7
42.5°	13485.8	13482.1	13318.6	12906.7	12536.7	12475.2	12137.1	12390.4	13953.0	16548.3	16841.0
45°	14123.9	14221.0	14228.4	13993.6	13737.8	13683.7	13594.0	13943.2	15524.2	18106.1	18063.0
47.5°	14662.4	14746.0	14658.7	14538.2	14450.9	14454.6	14593.5	15286.9	17075.8	19463.4	19129.0
50°	15562.3	15510.7	15057.0	14985.7	15096.4	15161.5	15564.8	16737.7	18852.3	20737.1	20085.5
52.5°	16860.6	16662.7	15772.6	15627.5	16046.7	16071.3	16713.1	18034.7	20627.6	21830.0	20960.8
55°	18637.2	18473.7	17468.0	16797.9	17009.4	17175.4	18079.0	19363.8	22077.2	22857.9	21634.6
57.5°	21263.3	21275.6	20455.5	19206.4	18487.2	18664.2	19369.9	20655.9	23274.6	23718.5	22055.0
60°	23368.1	23757.8	23513.2	22942.7	21910.0	21789.5	21252.2	22002.2	24297.5	24450.0	22457.1
62.5°	24827.4	25004.5	25845.4	25965.9	27146.2	27196.6	24623.4	23579.6	25421.3	24929.5	22541.9
65°	24753.7	24863.1	26192.1	27810.1	31296.8	31452.9	29946.9	25965.9	26190.9	25143.4	22294.8
67.5°	23030.0	23194.7	24884.0	27908.4	33508.6	33449.5	32494.3	29287.9	26444.2	24800.4	21117.0
70°	20036.3	20544.0	21962.8	25834.4	34199.5	34278.2	32517.6	30348.9	25791.3	23830.4	19153.5
72.5°	16513.9	16673.8	18013.8	22346.4	32179.5	32064.0	31184.9	28948.5	24611.1	22075.9	15717.2
75°	12558.8	12558.8	14181.7	17808.5	27634.3	28040.0	28381.8	26219.2	21803.0	17992.9	10702.3
77.5°	8336.9	8635.6	9942.5	13382.5	21874.3	22174.3	23354.6	22348.9	17851.6	13194.4	4888.3
80°	4422.3	4459.2	5860.8	8892.6	15645.9	16211.5	17834.3	17236.8	12840.3	6181.7	1235.6
82.5°	1546.6	1688.0	2576.9	5153.8	10308.9	10661.8	11831.0	10242.5	4535.4	1368.4	683.6
85°	768.4	795.5	1134.8	2454.0	5804.2	5975.1	6911.9	3989.6	730.3	597.5	464.7
87.5°	370.1	378.7	435.2	877.8	2522.8	2639.6	2794.5	1298.3	270.5	227.4	201.6
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°	6503.8	6503.8	6503.8	6503.8	6503.8	6503.8	6503.8	6503.8	6503.8	6503.8	6503.8
2.5°	6514.8	6525.9	6546.8	6552.9	6538.2	6565.2	6591.1	6614.4	6613.2	6621.8	6652.5
5°	6529.6	6552.9	6575.1	6614.4	6652.5	6674.7	6695.6	6715.2	6721.4	6739.8	6758.3
7.5°	6575.1	6598.4	6648.8	6717.7	6720.2	6775.5	6811.1	6817.3	6822.2	6822.2	6865.2
10°	6645.2	6688.2	6769.3	6817.3	6860.3	6841.9	6878.8	6855.4	6838.2	6845.6	6875.1
12.5°	6765.6	6803.8	6920.6	6973.4	6934.1	6926.7	6889.8	6837.0	6776.7	6770.6	6797.6
15°	6955.0	7026.3	7130.8	7181.2	7082.8	6995.5	6871.4	6763.2	6646.4	6603.4	6620.6
17.5°	7259.9	7345.9	7460.3	7425.9	7246.4	7074.2	6868.9	6640.2	6414.0	6256.7	6297.2
20°	7706.2	7770.1	7863.5	7724.6	7462.7	7178.7	6841.9	6480.4	6098.1	5811.6	5778.4
22.5°	8174.6	8271.7	8215.2	7958.2	7615.2	7219.3	6785.3	6248.0	5656.7	5297.7	5243.6
25°	8738.9	8770.9	8575.4	8188.1	7658.2	7155.4	6602.1	5908.7	5205.5	4867.4	4851.4
27.5°	9337.6	9265.1	8901.2	8293.8	7610.3	6966.0	6234.5	5372.7	4797.3	4498.5	4451.8
30°	10013.8	9845.4	9170.4	8304.9	7429.5	6597.2	5769.8	4953.4	4465.3	4165.4	4117.4
32.5°	10884.3	10487.2	9420.0	8190.6	7048.4	6056.3	5211.6	4595.7	4166.6	3865.4	3822.3
35°	11996.9	11326.9	9684.3	7984.0	6578.8	5515.3	4749.4	4292.0	3924.4	3561.7	3503.9
37.5°	13279.2	12498.6	10000.3	7723.4	6063.6	5039.5	4437.1	4099.0	3744.9	3334.3	3265.4
40°	14769.3	13671.4	10487.2	7412.3	5601.4	4696.5	4285.8	4032.6	3645.3	3217.5	3138.8
42.5°	16060.3	14912.0	11066.2	7077.9	5164.9	4411.3	4218.2	3988.3	3582.6	3130.2	3040.4
45°	17254.0	15936.1	11631.8	6672.2	4705.1	4215.8	4137.1	3877.7	3472.0	3022.0	2928.5
47.5°	18224.1	16763.5	12123.6	6299.7	4337.5	4036.3	3960.0	3667.4	3286.3	2891.7	2822.8
50°	18969.1	17385.6	12392.8	6003.4	3949.0	3832.2	3731.4	3430.2	3063.8	2723.2	2664.2
52.5°	19731.4	18008.9	12525.6	6018.1	3587.5	3528.5	3425.2	3167.1	2886.7	2624.9	2560.9
55°	20175.2	18264.7	12385.4	5660.4	3255.6	3186.7	3097.0	2963.0	2795.8	2563.4	2503.2
57.5°	20434.6	18423.3	11958.8	4616.6	2856.0	2790.8	2805.6	2794.5	2656.8	2412.2	2356.8
60°	20621.5	18079.0	11084.7	3393.3	2515.4	2466.3	2588.0	2548.6	2429.4	2238.8	2192.1
62.5°	20470.3	17423.7	9511.0	2551.1	2237.6	2342.1	2449.1	2376.5	2214.2	2040.9	1986.8
65°	19548.2	16137.7	7229.1	2049.5	2147.8	2291.7	2377.7	2261.0	2096.2	1890.9	1866.3
67.5°	17870.0	13806.7	4263.7	1878.6	2080.2	2232.7	2304.0	2149.1	2004.0	1807.3	1777.8
70°	15309.1	10336.0	1904.4	1749.5	1962.2	2113.4	2160.1	2013.8	1856.5	1672.0	1642.5
72.5°	11394.5	6232.1	1283.5	1615.5	1787.6	1921.6	1973.3	1818.4	1706.5	1622.9	1614.3
75°	6328.0	2163.8	1184.0	1463.0	1597.1	1717.5	1781.5	1672.0	1583.5	1469.2	1422.5
77.5°	2015.1	919.6	1124.9	1308.1	1477.8	1577.4	1567.5	1402.8	1374.5	1235.6	1223.3
80°	804.1	801.6	1040.1	1070.8	1261.4	1345.0	1322.9	1115.1	1152.0	1070.8	1038.9
82.5°	630.7	734.0	833.6	817.6	981.1	1079.5	1048.7	818.8	925.8	850.8	778.2
85°	479.5	643.0	534.8	532.4	684.8	801.6	821.3	629.5	630.7	574.2	511.4
87.5°	247.1	237.3	205.3	204.1	228.7	325.8	399.6	357.8	282.8	212.7	204.1
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)