

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: P510508

Luminaire Tested: **CST-CA10-310-760-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510508
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-CA10-310-760-U-T3-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 5700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 45041 lumens
Efficiency: N/A
Efficacy: 144.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

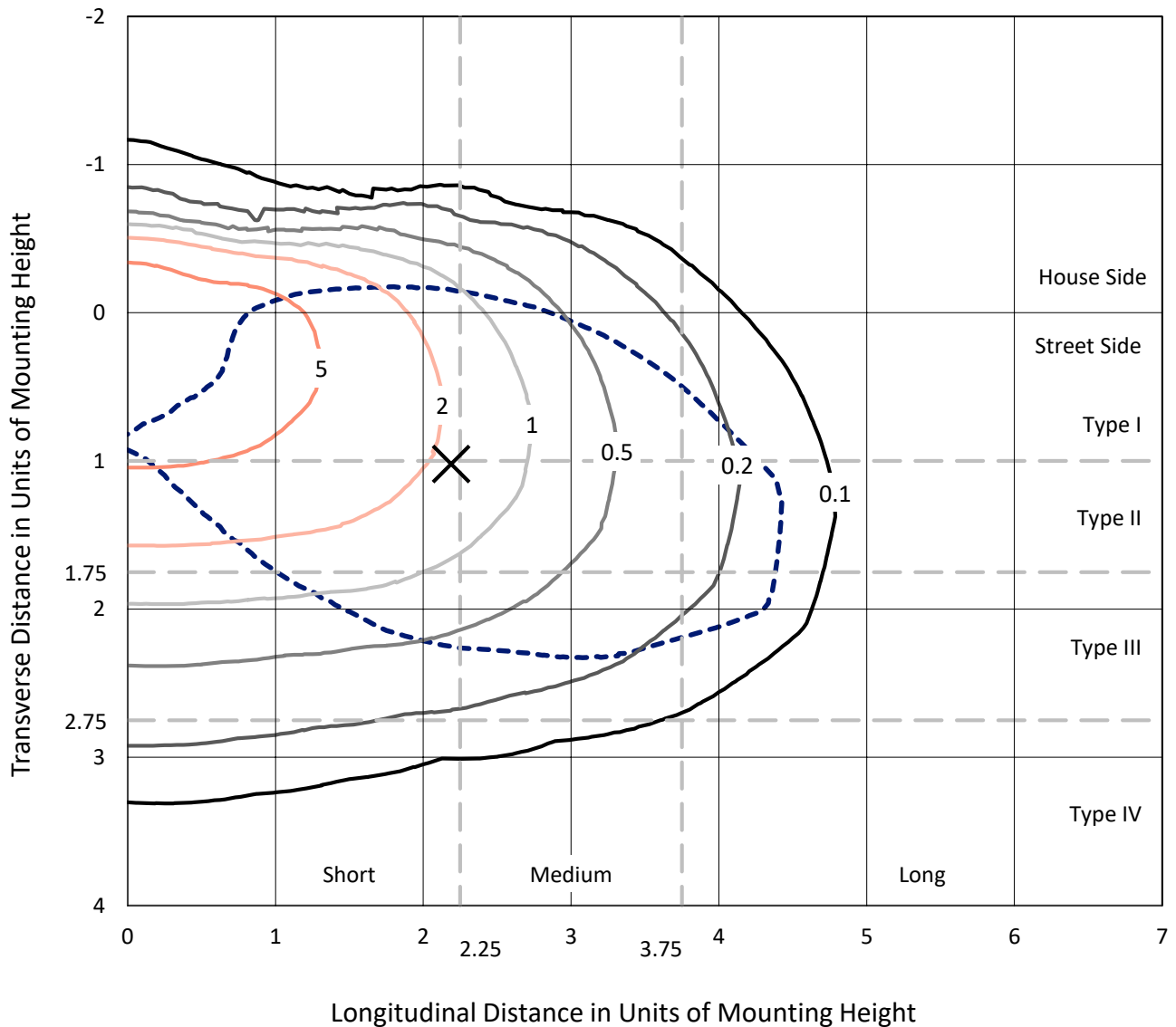
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

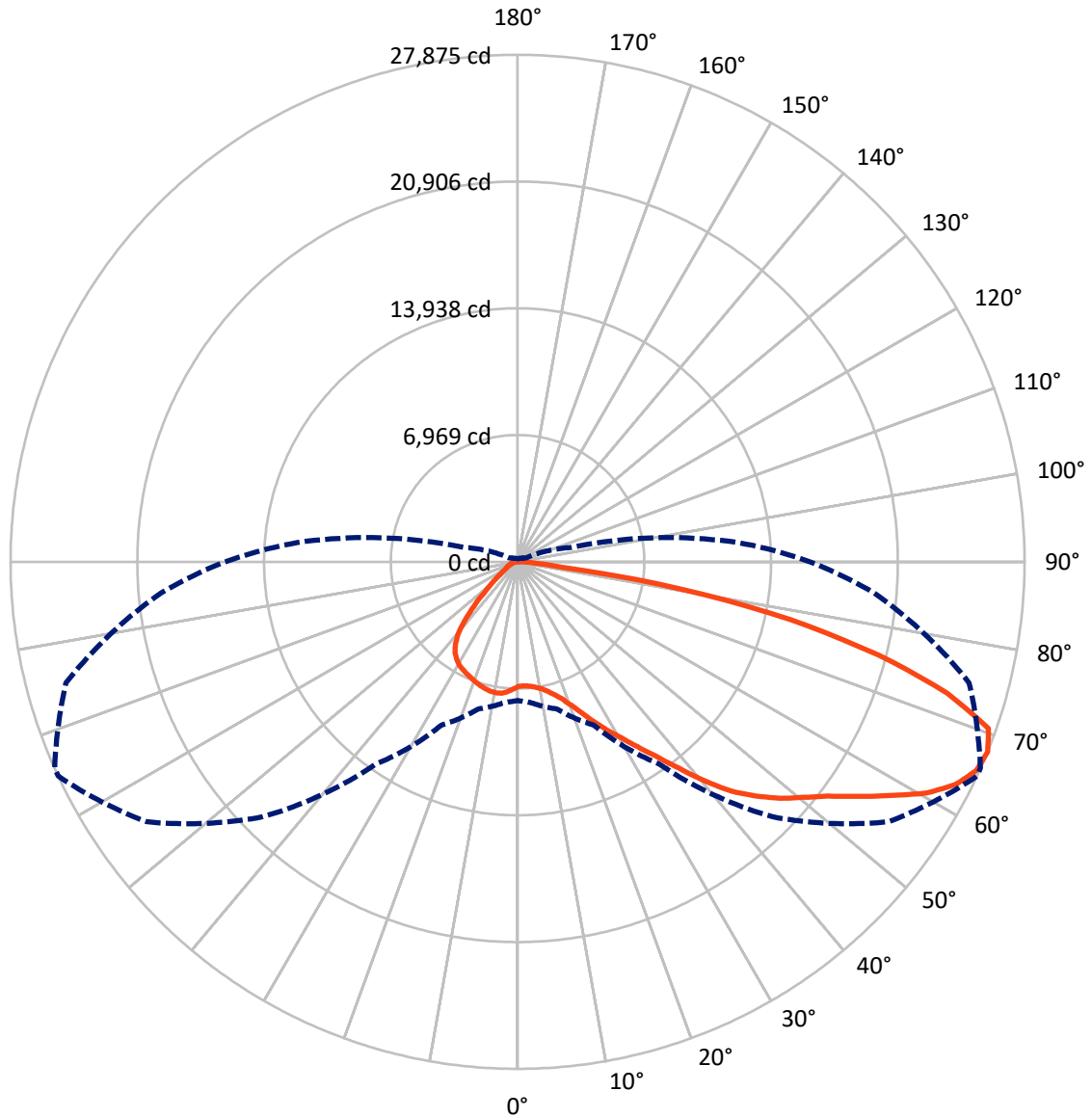
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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

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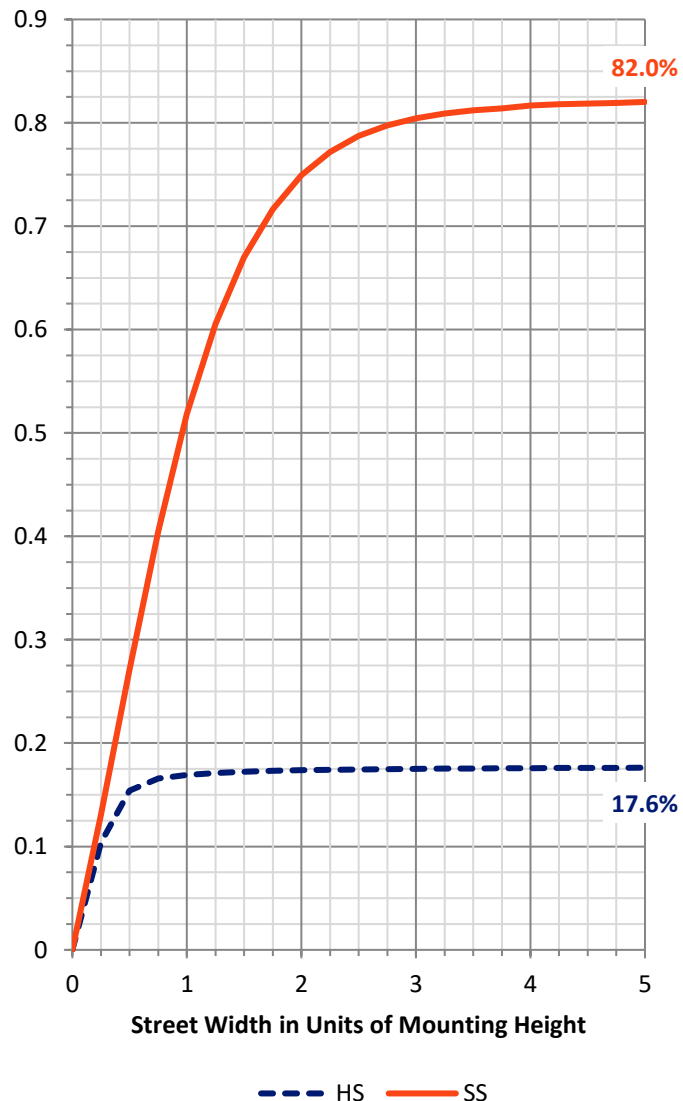
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8049.9	0.0	8049.9
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	36991.1	0.0	36991.1
	% Fixture	82.1	0.0	82.1
Total	Lumens	45041.0	0.0	45041.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	677.1	1.5
10°-20°	2090.5	4.6
20°-30°	3626.7	8.1
30°-40°	5470.8	12.1
40°-50°	7585.6	16.8
50°-60°	9363.4	20.8
60°-70°	9976.6	22.1
70°-80°	5708.7	12.7
80°-90°	541.6	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°	45041.0	100.0
0°-180°	45041.0	100.0

Coefficient of Utilization



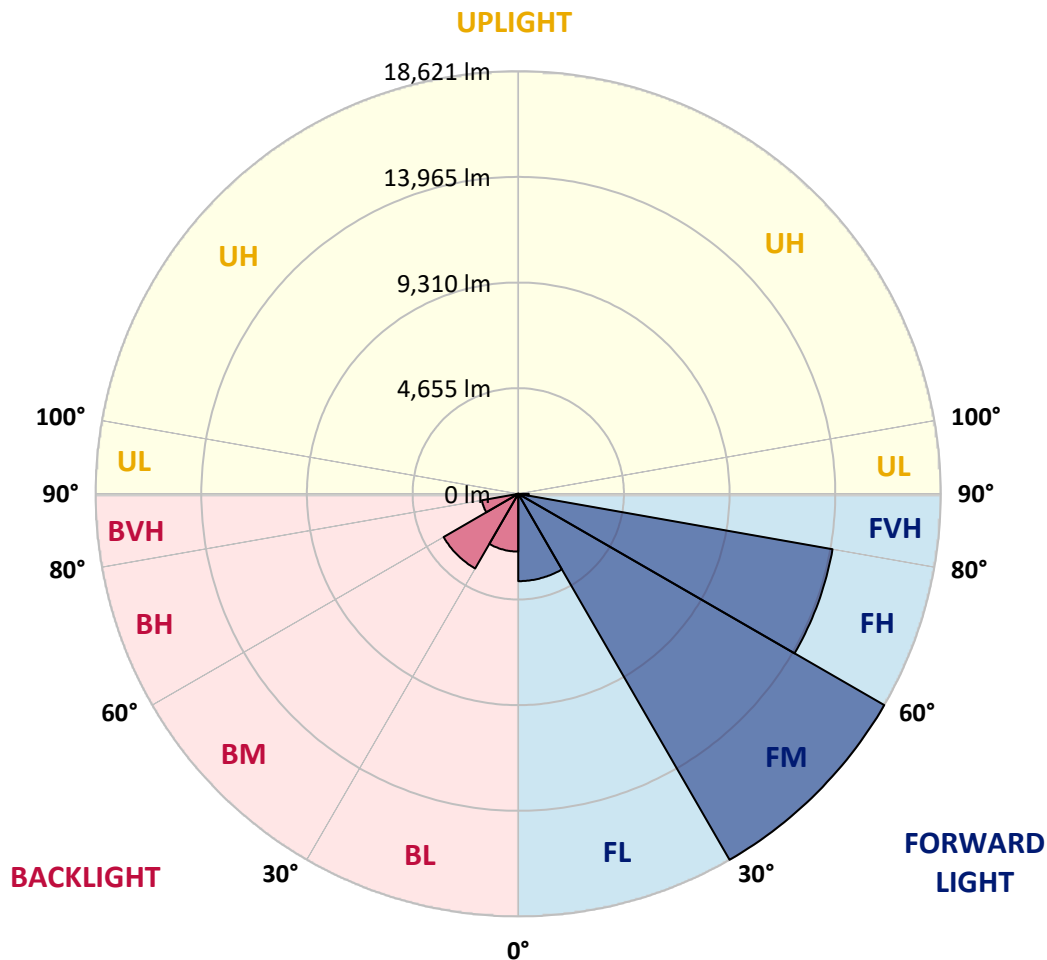
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3847.1	8.5			
FM (30°-60°)	18620.6	41.3			
FH (60°-80°)	14060.6	31.2			G5
FVH (80°-90°)	462.8	1.0			G3/500
BL (0°-30°)	2547.2	5.7	B4/5000		
BM (30°-60°)	3799.1	8.4	B3/5000		
BH (60°-80°)	1624.7	3.6	B3/2500		G3/2500
BVH (80°-90°)	78.8	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	6844.3	6844.3	6844.3	6844.3	6844.3	6844.3	6844.3	6844.3	6844.3	6844.3	6844.3
2.5°	6778.2	6769.3	6761.4	6775.2	6783.1	6795.9	6814.7	6827.5	6831.4	6843.3	6858.1
5°	6886.7	6885.7	6874.9	6868.9	6852.2	6846.2	6850.2	6866.0	6867.0	6881.8	6928.1
7.5°	7099.8	7097.8	7071.2	7059.4	7023.8	6984.4	6954.8	6957.7	6956.8	6971.5	7033.7
10°	7421.5	7405.7	7368.2	7331.7	7262.6	7188.6	7134.3	7085.0	7085.0	7106.7	7175.8
12.5°	7784.5	7806.2	7754.9	7699.7	7584.2	7451.1	7356.3	7301.1	7295.2	7306.0	7355.3
15°	8235.4	8235.4	8200.9	8122.0	8020.3	7834.9	7639.5	7569.4	7559.6	7582.3	7579.3
17.5°	8743.5	8758.3	8693.2	8653.8	8497.9	8292.7	8048.0	7926.6	7926.6	7911.8	7843.7
20°	9391.8	9310.9	9317.8	9252.6	9138.2	8840.2	8591.6	8415.0	8413.0	8383.4	8192.0
22.5°	10096.2	10051.8	10013.3	9956.1	9798.3	9531.9	9186.5	9011.9	9008.0	8934.9	8650.8
25°	10790.8	10824.4	10781.9	10677.3	10561.9	10271.8	9891.0	9719.3	9718.3	9597.0	9194.4
27.5°	11505.1	11541.6	11527.8	11433.1	11279.2	11052.3	10692.1	10468.2	10454.4	10375.4	9869.3
30°	12294.4	12261.9	12304.3	12263.8	12186.9	11816.9	11491.3	11230.8	11264.4	11240.7	10635.9
32.5°	12868.7	12889.4	13028.5	13032.4	12951.5	12677.2	12279.6	12119.8	12173.1	12141.5	11578.1
35°	13387.6	13421.2	13600.7	13777.3	13836.5	13536.6	13132.1	13122.2	13191.3	13383.7	12876.5
37.5°	13833.6	13857.3	14108.9	14338.7	14530.1	14324.9	14030.9	14381.2	14482.8	14876.5	14216.4
40°	14101.0	14131.5	14457.1	14780.8	15122.1	15049.1	15021.5	15850.3	15946.0	16292.3	15194.1
42.5°	13950.0	14010.2	14552.8	15144.8	15647.0	15793.0	16170.9	17236.5	17346.0	17375.6	16155.1
45°	13680.7	13755.6	14362.4	15320.4	16139.3	16608.0	17327.3	18366.2	18426.4	18342.5	16951.3
47.5°	13390.6	13470.5	14148.3	15268.1	16535.0	17556.1	18360.3	19429.8	19472.2	19214.7	17753.5
50°	13061.0	13135.0	13864.2	15145.8	16832.9	18451.0	19421.9	20349.3	20508.2	19999.1	18377.0
52.5°	12660.5	12739.4	13512.9	14954.4	17094.4	19115.0	20358.2	21388.2	21399.1	20979.8	19079.5
55°	12141.5	12278.6	13071.9	14622.9	17231.5	19685.3	21174.1	22762.6	22832.7	22427.2	19667.5
57.5°	11564.3	11683.7	12541.1	14180.9	17108.2	20118.4	22486.4	24236.6	24227.8	23413.8	20181.6
60°	10801.7	10886.5	11849.5	13602.7	16710.6	20642.3	23852.8	25816.2	25800.5	24380.7	20512.1
62.5°	9822.9	9907.8	10813.5	12696.0	16126.5	20993.6	24780.3	26999.2	26953.8	25084.2	20613.7
65°	8688.3	8840.2	9626.6	11518.9	15093.5	20762.7	25228.2	27695.8	27622.8	25620.9	20371.0
67.5°	7624.7	7753.9	8376.5	9898.9	13569.2	19826.4	24912.5	27875.3	27853.6	25698.8	19685.3
70°	6119.1	6166.5	6736.7	8040.1	11290.0	17821.6	23821.3	27461.0	27470.8	24980.6	18308.0
72.5°	4188.3	4303.7	4557.3	5586.3	8215.7	14173.0	20531.8	24714.2	24716.1	22399.5	15950.9
75°	2252.5	2431.1	2727.1	3237.1	4592.8	9094.8	16488.6	20507.2	20545.6	18676.0	12678.2
77.5°	1116.9	1181.0	1352.7	1731.5	2105.5	4290.9	10604.3	15393.4	15485.2	14335.8	8646.9
80°	511.1	521.9	534.8	531.8	806.1	1882.5	4552.3	9244.8	9272.4	8526.5	3947.5
82.5°	399.6	397.6	403.5	367.0	369.0	726.2	1575.7	2421.2	2582.0	2032.5	1252.0
85°	241.7	240.7	259.5	201.3	247.6	392.7	795.2	965.9	977.8	795.2	648.2
87.5°	91.8	88.8	81.9	72.0	82.9	110.5	275.3	355.2	347.3	246.7	224.0
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°	6844.3	6844.3	6844.3	6844.3	6844.3	6844.3	6844.3	6844.3	6844.3	6844.3	6844.3
2.5°	6870.9	6902.5	6960.7	7005.1	7019.9	7067.3	7112.6	7120.5	7153.1	7165.9	7208.3
5°	6956.8	7010.0	7100.8	7161.0	7187.6	7266.6	7317.9	7343.5	7334.6	7339.6	7386.9
7.5°	7082.1	7132.4	7205.4	7278.4	7291.2	7305.0	7300.1	7296.2	7261.6	7232.0	7276.4
10°	7196.5	7243.9	7289.2	7300.1	7235.0	7198.5	7133.4	7083.0	7015.9	6985.4	7020.9
12.5°	7357.3	7367.2	7322.8	7263.6	7123.5	6993.3	6887.7	6795.9	6713.1	6655.8	6703.2
15°	7527.0	7488.5	7359.3	7186.6	6969.6	6783.1	6610.4	6457.5	6320.4	6286.8	6299.7
17.5°	7752.0	7647.4	7386.9	7096.9	6759.4	6469.4	6247.4	6054.0	5874.4	5799.4	5792.5
20°	8026.3	7857.5	7443.2	6983.4	6510.8	6125.0	5781.7	5492.6	5244.9	5041.7	5046.6
22.5°	8383.4	8138.7	7528.0	6865.0	6235.5	5721.5	5222.2	4730.9	4323.4	4147.8	4104.4
25°	8855.0	8490.0	7648.4	6757.5	5927.7	5208.4	4503.0	3809.4	3378.2	3207.5	3188.8
27.5°	9442.1	8961.6	7831.9	6638.1	5598.2	4599.7	3585.4	2905.6	2510.0	2330.4	2270.2
30°	10109.0	9542.7	8020.3	6513.8	5199.6	3817.3	2734.0	2068.0	1662.5	1501.7	1480.9
32.5°	10972.3	10278.7	8300.5	6318.4	4617.4	3000.4	1907.2	1290.5	1015.2	946.2	926.4
35°	12198.7	11274.3	8646.9	6071.7	3869.6	2095.6	1182.0	755.8	608.8	574.2	567.3
37.5°	13342.2	12251.0	8996.1	5662.3	2938.2	1308.3	675.8	484.4	451.9	452.9	454.8
40°	14249.0	12919.0	9278.3	5123.6	1932.8	742.9	469.6	402.5	403.5	400.6	398.6
42.5°	15056.0	13451.8	9405.6	4327.4	1119.8	497.3	407.5	371.0	362.1	365.1	363.1
45°	15724.0	13995.4	9158.9	3432.5	660.1	446.0	384.8	344.3	334.5	350.3	352.2
47.5°	16426.5	14511.4	8781.0	2586.0	535.7	424.3	364.1	324.6	319.7	339.4	341.4
50°	17017.4	14885.3	8136.8	1948.6	511.1	400.6	345.3	304.9	303.9	321.6	321.6
52.5°	17511.8	15111.3	7372.1	1504.6	494.3	379.9	326.6	286.1	286.1	292.0	293.0
55°	17860.0	15065.9	6916.3	1184.0	476.5	360.1	306.8	268.4	256.5	252.6	254.6
57.5°	17923.2	14945.5	6387.5	923.5	455.8	341.4	289.1	247.6	225.9	223.0	222.0
60°	17882.7	14681.1	5783.6	771.5	432.1	323.6	271.3	225.9	204.2	197.3	199.3
62.5°	17714.0	14212.4	5086.1	676.8	408.5	309.8	251.6	211.1	191.4	182.5	182.5
65°	17204.9	13541.5	4050.1	593.0	378.9	295.0	235.8	205.2	183.5	173.6	171.7
67.5°	16086.1	12149.4	3043.8	520.0	350.3	279.2	233.8	204.2	179.6	165.8	163.8
70°	14585.4	10436.6	2077.8	456.8	318.7	264.4	232.8	205.2	175.6	157.9	155.9
72.5°	12176.0	8227.5	1196.8	397.6	287.1	250.6	228.9	206.2	168.7	147.0	144.0
75°	9149.0	5770.8	702.5	341.4	256.5	229.9	218.0	200.3	157.9	134.2	131.2
77.5°	5502.5	2694.5	528.8	283.2	220.0	202.3	194.4	183.5	144.0	124.3	121.4
80°	2018.7	1023.1	415.4	226.9	174.6	175.6	167.7	160.8	131.2	114.4	112.5
82.5°	880.1	625.5	306.8	172.7	137.1	156.9	138.1	132.2	112.5	102.6	98.7
85°	533.8	372.9	197.3	117.4	94.7	106.6	96.7	101.6	86.8	80.9	77.9
87.5°	176.6	111.5	87.8	57.2	47.4	44.4	43.4	52.3	49.3	45.4	45.4
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)