

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: P510718

Luminaire Tested: **CST-CA8-230-730-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510718
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-CA8-230-730-U-T3-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32826 lumens
Efficiency: N/A
Efficacy: 143.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

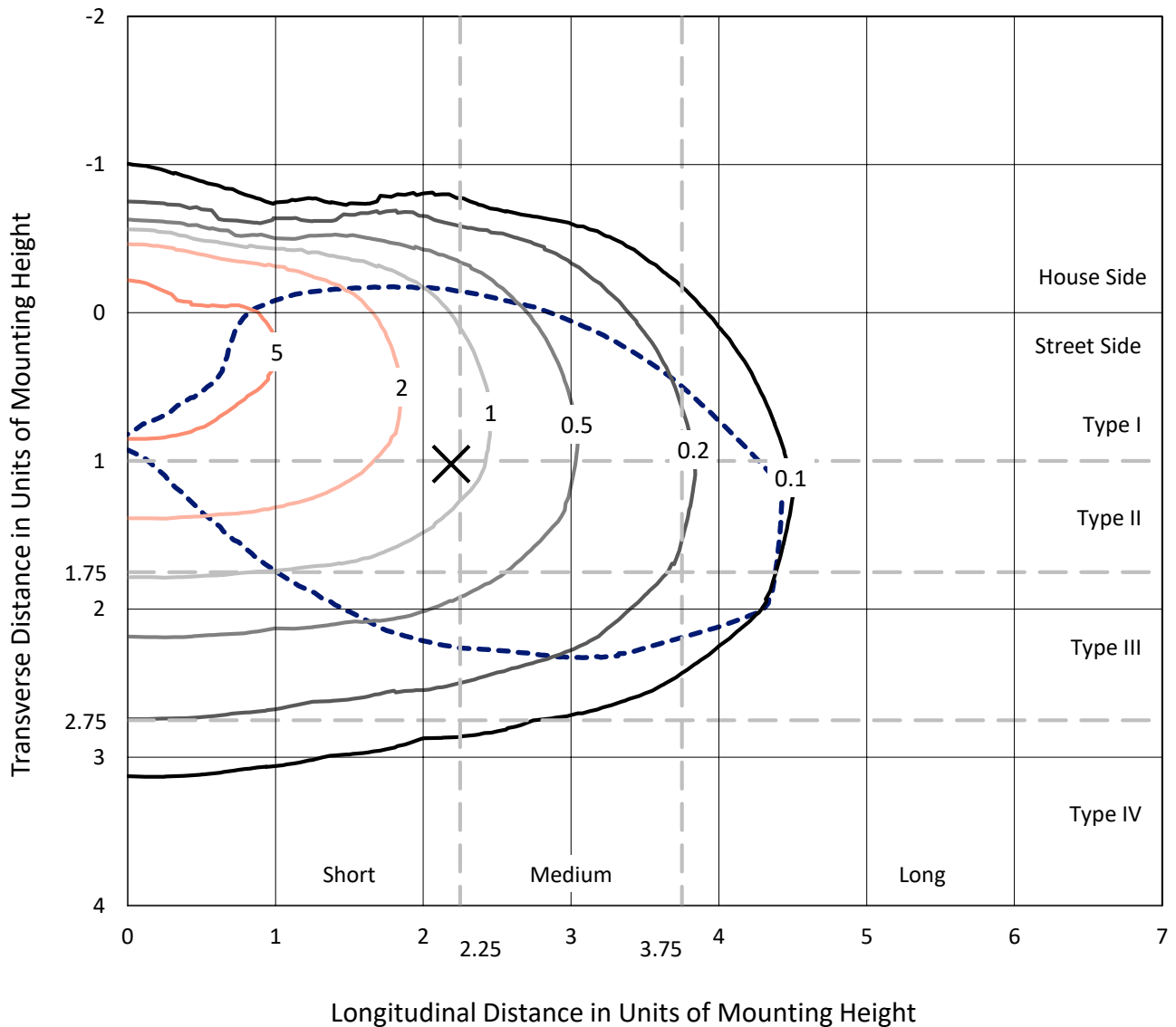
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

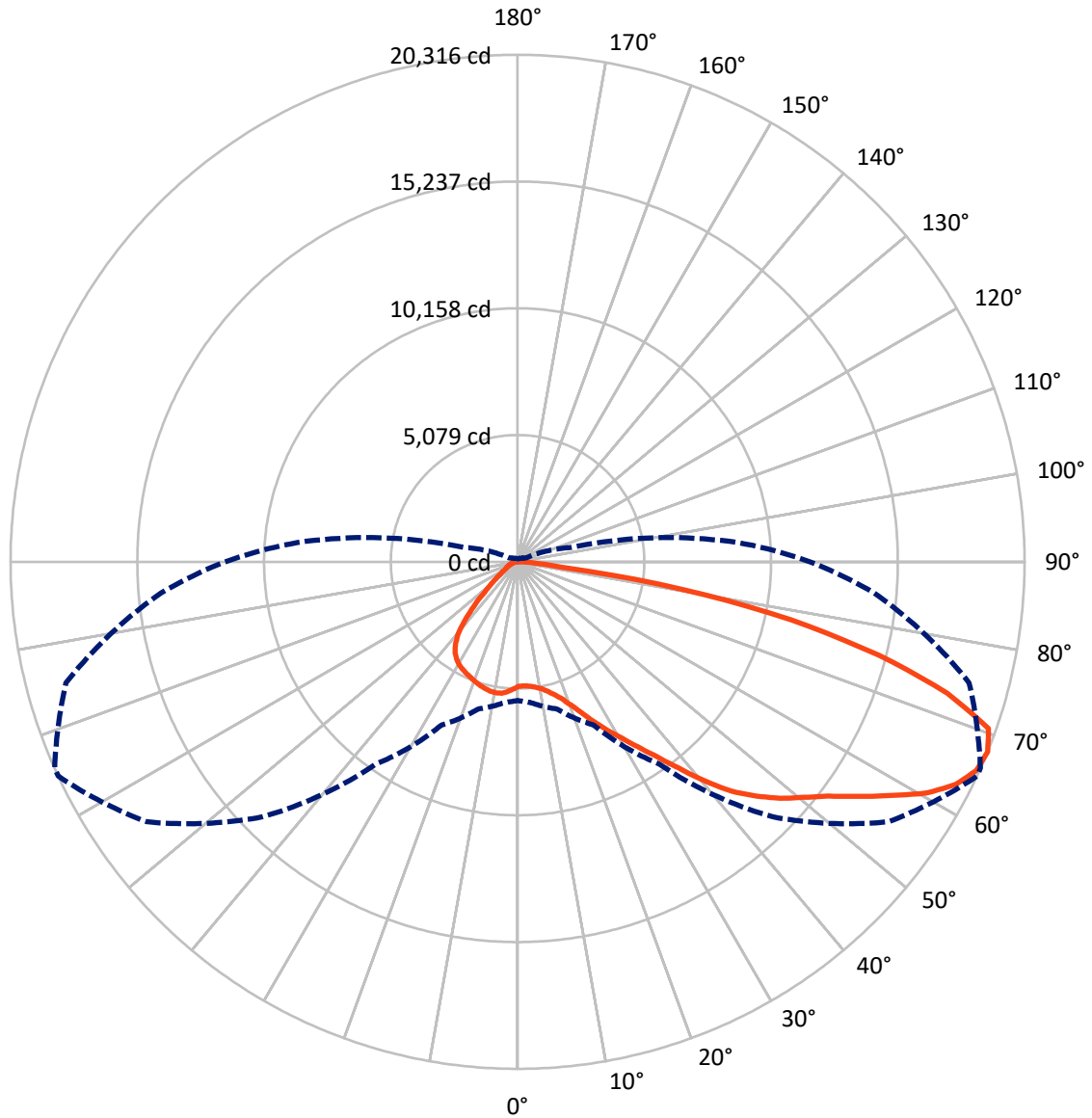
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.5 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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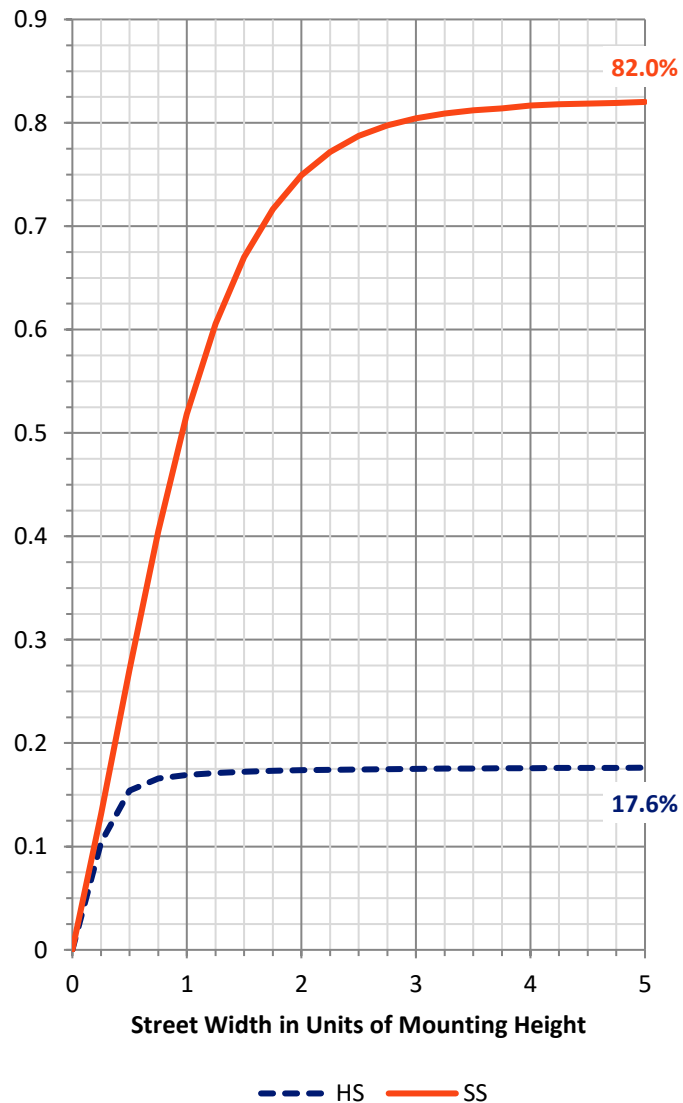
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5866.8	0.0	5866.8
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	26959.2	0.0	26959.2
	% Fixture	82.1	0.0	82.1
Total	Lumens	32826.0	0.0	32826.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	493.5	1.5
10°-20°	1523.6	4.6
20°-30°	2643.1	8.1
30°-40°	3987.1	12.1
40°-50°	5528.4	16.8
50°-60°	6824.1	20.8
60°-70°	7270.9	22.1
70°-80°	4160.5	12.7
80°-90°	394.8	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°	32826.0	100.0
0°-180°	32826.0	100.0

Coefficient of Utilization



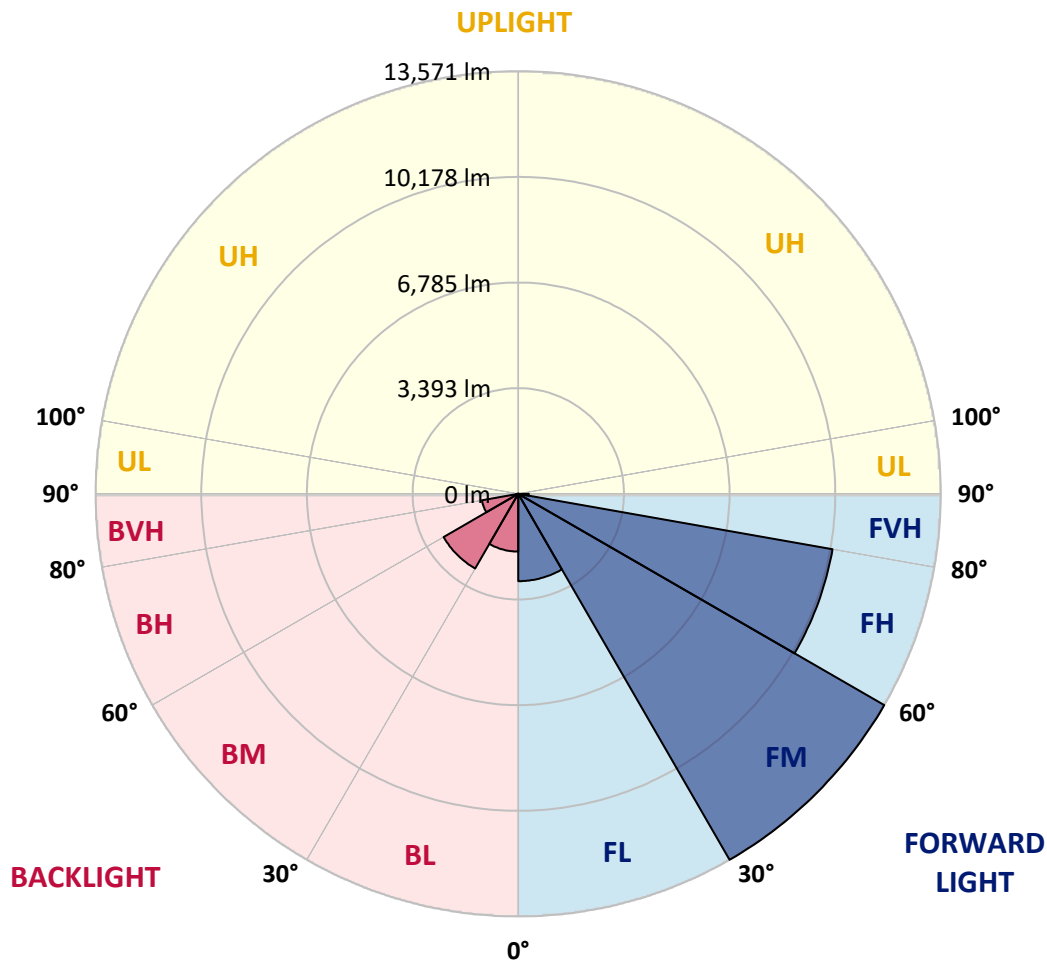
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2803.8	8.5			
FM (30°-60°)	13570.7	41.3			
FH (60°-80°)	10247.4	31.2			G4/12000
FVH (80°-90°)	337.3	1.0			G3/500
BL (0°-30°)	1856.4	5.7	B3/2500		
BM (30°-60°)	2768.8	8.4	B3/5000		
BH (60°-80°)	1184.1	3.6	B3/2500		G3/2500
BVH (80°-90°)	57.5	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4988.1	4988.1	4988.1	4988.1	4988.1	4988.1	4988.1	4988.1	4988.1	4988.1	4988.1
2.5°	4939.9	4933.5	4927.7	4937.8	4943.5	4952.9	4966.6	4975.9	4978.8	4987.4	4998.2
5°	5019.0	5018.3	5010.4	5006.1	4993.9	4989.6	4992.4	5003.9	5004.7	5015.4	5049.2
7.5°	5174.4	5172.9	5153.5	5144.9	5119.0	5090.2	5068.7	5070.8	5070.1	5080.9	5126.2
10°	5408.8	5397.3	5369.9	5343.3	5293.0	5239.1	5199.5	5163.6	5163.6	5179.4	5229.7
12.5°	5673.4	5689.2	5651.8	5611.6	5527.4	5430.3	5361.3	5321.1	5316.7	5324.6	5360.6
15°	6002.0	6002.0	5976.8	5919.3	5845.2	5710.1	5567.7	5516.6	5509.4	5526.0	5523.8
17.5°	6372.3	6383.1	6335.6	6306.9	6193.3	6043.7	5865.4	5776.9	5776.9	5766.1	5716.5
20°	6844.7	6785.8	6790.8	6743.4	6659.9	6442.8	6261.6	6132.9	6131.4	6109.9	5970.4
22.5°	7358.1	7325.8	7297.7	7256.0	7141.0	6946.8	6695.2	6567.9	6565.0	6511.8	6304.7
25°	7864.4	7888.8	7857.9	7781.7	7697.5	7486.1	7208.6	7083.5	7082.7	6994.3	6700.9
27.5°	8385.0	8411.6	8401.5	8332.5	8220.3	8054.9	7792.5	7629.2	7619.2	7561.6	7192.8
30°	8960.2	8936.5	8967.4	8937.9	8881.8	8612.2	8374.9	8185.1	8209.5	8192.3	7751.5
32.5°	9378.7	9393.8	9495.2	9498.1	9439.1	9239.2	8949.4	8832.9	8871.8	8848.8	8438.2
35°	9756.9	9781.4	9912.3	10041.0	10084.1	9865.5	9570.7	9563.5	9613.8	9754.1	9384.5
37.5°	10082.0	10099.2	10282.6	10450.1	10589.6	10440.0	10225.8	10481.0	10555.1	10842.0	10360.9
40°	10276.8	10299.1	10536.4	10772.3	11021.0	10967.8	10947.7	11551.7	11621.5	11873.9	11073.5
42.5°	10166.8	10210.7	10606.1	11037.6	11403.6	11510.0	11785.4	12562.0	12641.8	12663.4	11773.9
45°	9970.5	10025.1	10467.4	11165.6	11762.4	12104.0	12628.1	13385.3	13429.2	13368.1	12354.2
47.5°	9759.1	9817.3	10311.3	11127.5	12050.7	12795.0	13381.0	14160.5	14191.4	14003.7	12938.8
50°	9518.9	9572.9	10104.2	11038.3	12267.9	13447.2	14154.7	14830.6	14946.4	14575.4	13393.2
52.5°	9227.0	9284.5	9848.3	10898.8	12458.4	13931.1	14837.1	15587.8	15595.7	15290.1	13905.2
55°	8848.8	8948.7	9526.8	10657.2	12558.4	14346.7	15431.8	16589.5	16640.5	16345.0	14333.8
57.5°	8428.1	8515.1	9140.0	10335.1	12468.5	14662.4	16388.1	17663.7	17657.3	17064.0	14708.4
60°	7872.3	7934.1	8635.9	9913.7	12178.7	15044.2	17384.0	18814.9	18803.4	17768.7	14949.3
62.5°	7159.0	7220.8	7880.9	9252.9	11753.0	15300.2	18059.9	19677.1	19644.0	18281.4	15023.3
65°	6332.0	6442.8	7015.9	8395.0	11000.2	15131.9	18386.4	20184.8	20131.5	18672.6	14846.4
67.5°	5556.9	5651.1	6104.8	7214.3	9889.2	14449.5	18156.3	20315.6	20299.8	18729.4	14346.7
70°	4459.6	4494.1	4909.7	5859.6	8228.2	12988.4	17361.0	20013.6	20020.8	18205.9	13342.9
72.5°	3052.4	3136.5	3321.3	4071.3	5987.6	10329.3	14963.7	18011.8	18013.2	16324.8	11625.1
75°	1641.6	1771.8	1987.5	2359.2	3347.2	6628.3	12016.9	14945.7	14973.7	13611.1	9239.9
77.5°	814.0	860.7	985.8	1262.0	1534.5	3127.2	7728.5	11218.8	11285.7	10448.0	6301.8
80°	372.5	380.4	389.7	387.6	587.5	1372.0	3317.7	6737.6	6757.7	6214.1	2877.0
82.5°	291.2	289.8	294.1	267.5	268.9	529.2	1148.3	1764.6	1881.8	1481.3	912.5
85°	176.2	175.5	189.1	146.7	180.5	286.2	579.6	704.0	712.6	579.6	472.4
87.5°	66.9	64.7	59.7	52.5	60.4	80.5	200.6	258.9	253.1	179.8	163.2
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°	4988.1	4988.1	4988.1	4988.1	4988.1	4988.1	4988.1	4988.1	4988.1	4988.1	4988.1
2.5°	5007.5	5030.5	5073.0	5105.3	5116.1	5150.6	5183.7	5189.5	5213.2	5222.5	5253.5
5°	5070.1	5108.9	5175.1	5218.9	5238.4	5295.9	5333.3	5352.0	5345.5	5349.1	5383.6
7.5°	5161.4	5198.1	5251.3	5304.5	5313.9	5323.9	5320.3	5317.5	5292.3	5270.7	5303.1
10°	5244.8	5279.3	5312.4	5320.3	5272.9	5246.3	5198.8	5162.1	5113.2	5091.0	5116.8
12.5°	5362.0	5369.2	5336.9	5293.7	5191.6	5096.7	5019.8	4952.9	4892.5	4850.8	4885.3
15°	5485.7	5457.7	5363.5	5237.6	5079.4	4943.5	4817.7	4706.3	4606.3	4581.9	4591.2
17.5°	5649.7	5573.4	5383.6	5172.2	4926.3	4714.9	4553.1	4412.2	4281.3	4226.6	4221.6
20°	5849.6	5726.6	5424.6	5089.5	4745.1	4463.9	4213.7	4003.0	3822.5	3674.4	3678.0
22.5°	6109.9	5931.5	5486.4	5003.2	4544.5	4169.8	3806.0	3447.9	3150.9	3022.9	2991.3
25°	6453.6	6187.5	5574.2	4924.8	4320.1	3795.9	3281.8	2776.3	2462.1	2337.7	2324.0
27.5°	6881.4	6531.2	5707.9	4837.8	4080.0	3352.3	2613.1	2117.6	1829.3	1698.4	1654.6
30°	7367.5	6954.8	5845.2	4747.2	3789.5	2782.0	1992.5	1507.2	1211.6	1094.4	1079.3
32.5°	7996.7	7491.2	6049.5	4604.9	3365.2	2186.7	1389.9	940.5	739.9	689.6	675.2
35°	8890.5	8216.7	6301.8	4425.1	2820.2	1527.3	861.4	550.8	443.7	418.5	413.5
37.5°	9723.9	8928.6	6556.4	4126.7	2141.4	953.5	492.6	353.1	329.3	330.0	331.5
40°	10384.7	9415.4	6762.0	3734.1	1408.6	541.5	342.3	293.4	294.1	291.9	290.5
42.5°	10972.9	9803.7	6854.8	3153.8	816.1	362.4	297.0	270.4	263.9	266.1	264.6
45°	11459.7	10199.9	6675.0	2501.6	481.1	325.0	280.4	251.0	243.8	255.3	256.7
47.5°	11971.6	10575.9	6399.6	1884.7	390.5	309.2	265.3	236.6	233.0	247.4	248.8
50°	12402.4	10848.5	5930.1	1420.1	372.5	291.9	251.7	222.2	221.5	234.4	234.4
52.5°	12762.6	11013.1	5372.8	1096.6	360.2	276.8	238.0	208.5	208.5	212.8	213.6
55°	13016.4	10980.1	5040.6	862.9	347.3	262.5	223.6	195.6	187.0	184.1	185.5
57.5°	13062.5	10892.3	4655.2	673.0	332.2	248.8	210.7	180.5	164.7	162.5	161.8
60°	13033.0	10699.6	4215.1	562.3	314.9	235.9	197.7	164.7	148.8	143.8	145.3
62.5°	12910.0	10358.1	3706.8	493.3	297.7	225.8	183.4	153.9	139.5	133.0	133.0
65°	12539.0	9869.1	2951.7	432.2	276.1	215.0	171.9	149.6	133.7	126.6	125.1
67.5°	11723.6	8854.5	2218.3	378.9	255.3	203.5	170.4	148.8	130.9	120.8	119.4
70°	10629.9	7606.2	1514.3	332.9	232.3	192.7	169.7	149.6	128.0	115.0	113.6
72.5°	8873.9	5996.2	872.2	289.8	209.2	182.6	166.8	150.3	123.0	107.1	105.0
75°	6667.9	4205.8	512.0	248.8	187.0	167.5	158.9	146.0	115.0	97.8	95.6
77.5°	4010.2	1963.8	385.4	206.4	160.4	147.4	141.7	133.7	105.0	90.6	88.4
80°	1471.2	745.7	302.7	165.4	127.3	128.0	122.2	117.2	95.6	83.4	82.0
82.5°	641.4	455.9	223.6	125.8	99.9	114.3	100.7	96.4	82.0	74.8	71.9
85°	389.0	271.8	143.8	85.6	69.0	77.7	70.5	74.1	63.3	59.0	56.8
87.5°	128.7	81.3	64.0	41.7	34.5	32.4	31.6	38.1	36.0	33.1	33.1
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)