

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: P510708

Luminaire Tested: **CST-CA8-230-727-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510708
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-CA8-230-727-U-T3-HSS
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: 28309 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

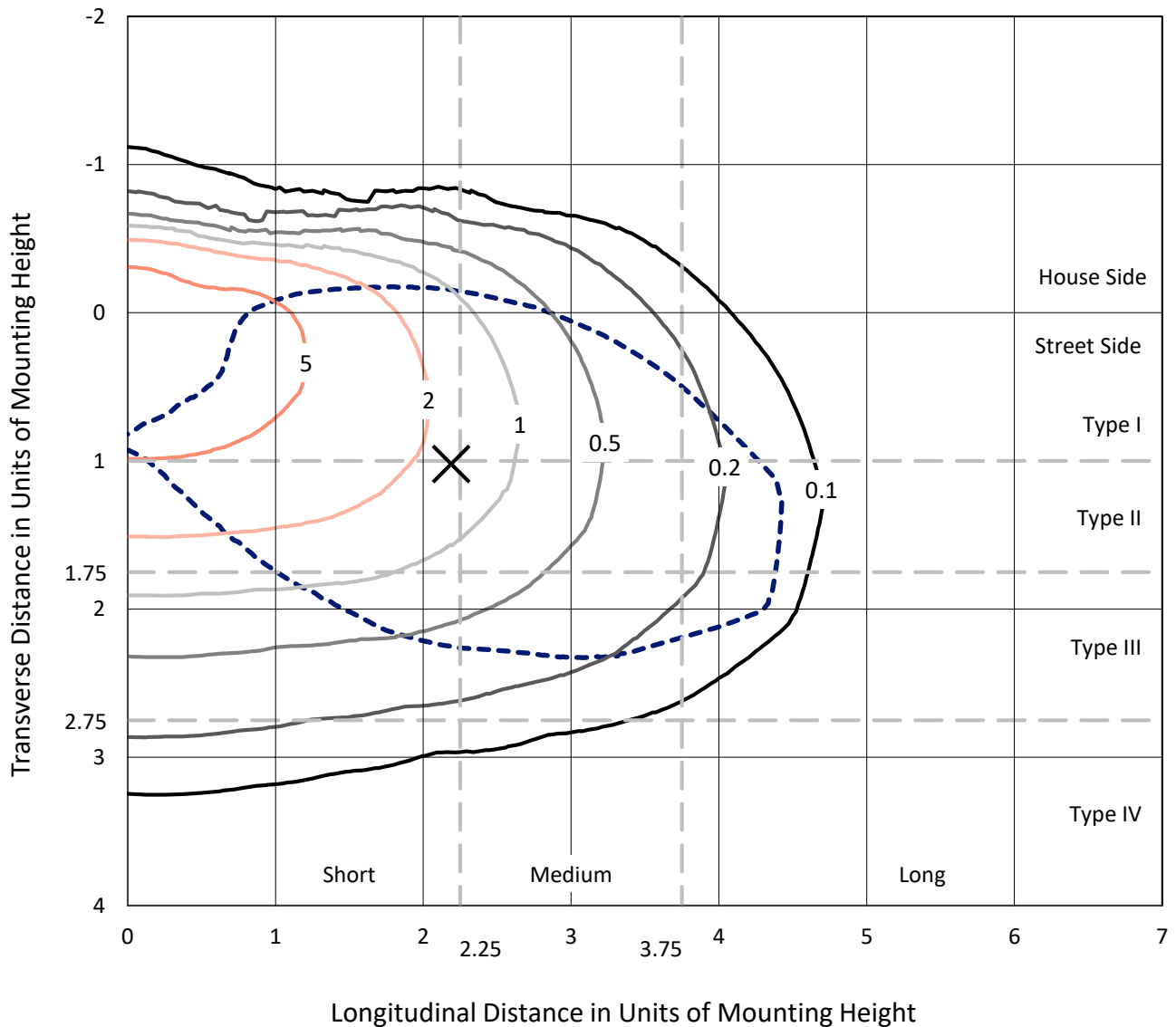
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

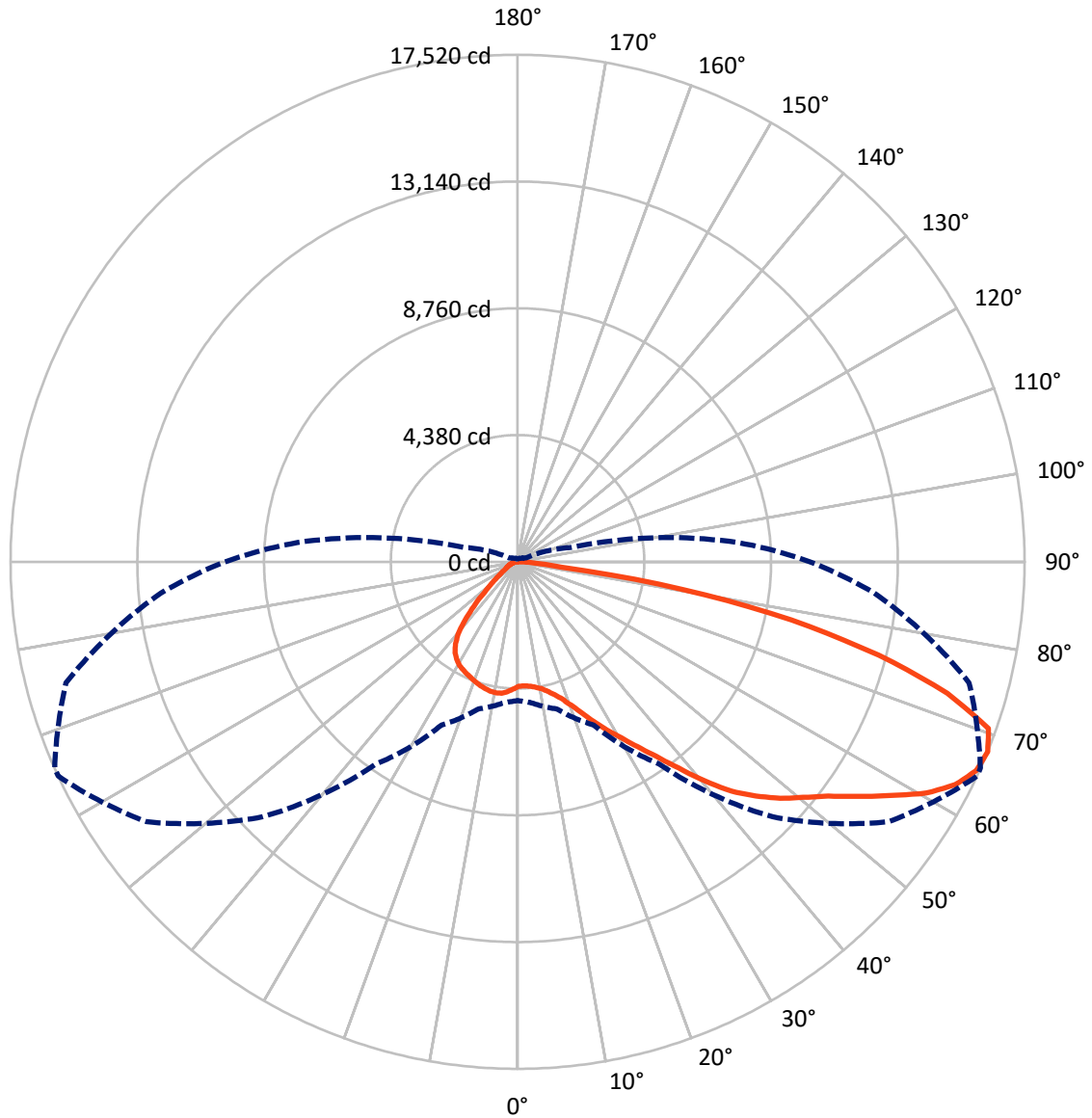
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.1 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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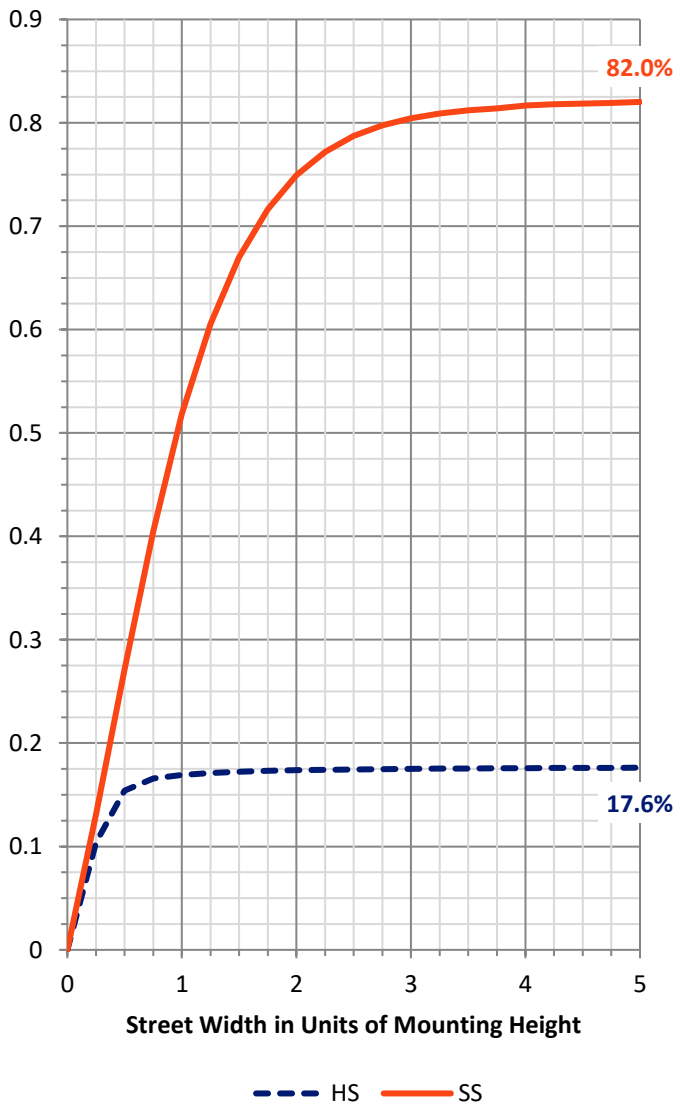
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5059.5	0.0	5059.5
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	23249.5	0.0	23249.5
	% Fixture	82.1	0.0	82.1
Total	Lumens	28309.0	0.0	28309.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	425.6	1.5
10°-20°	1313.9	4.6
20°-30°	2279.4	8.1
30°-40°	3438.5	12.1
40°-50°	4767.7	16.8
50°-60°	5885.1	20.8
60°-70°	6270.4	22.1
70°-80°	3588.0	12.7
80°-90°	340.4	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°	28309.0	100.0
0°-180°	28309.0	100.0



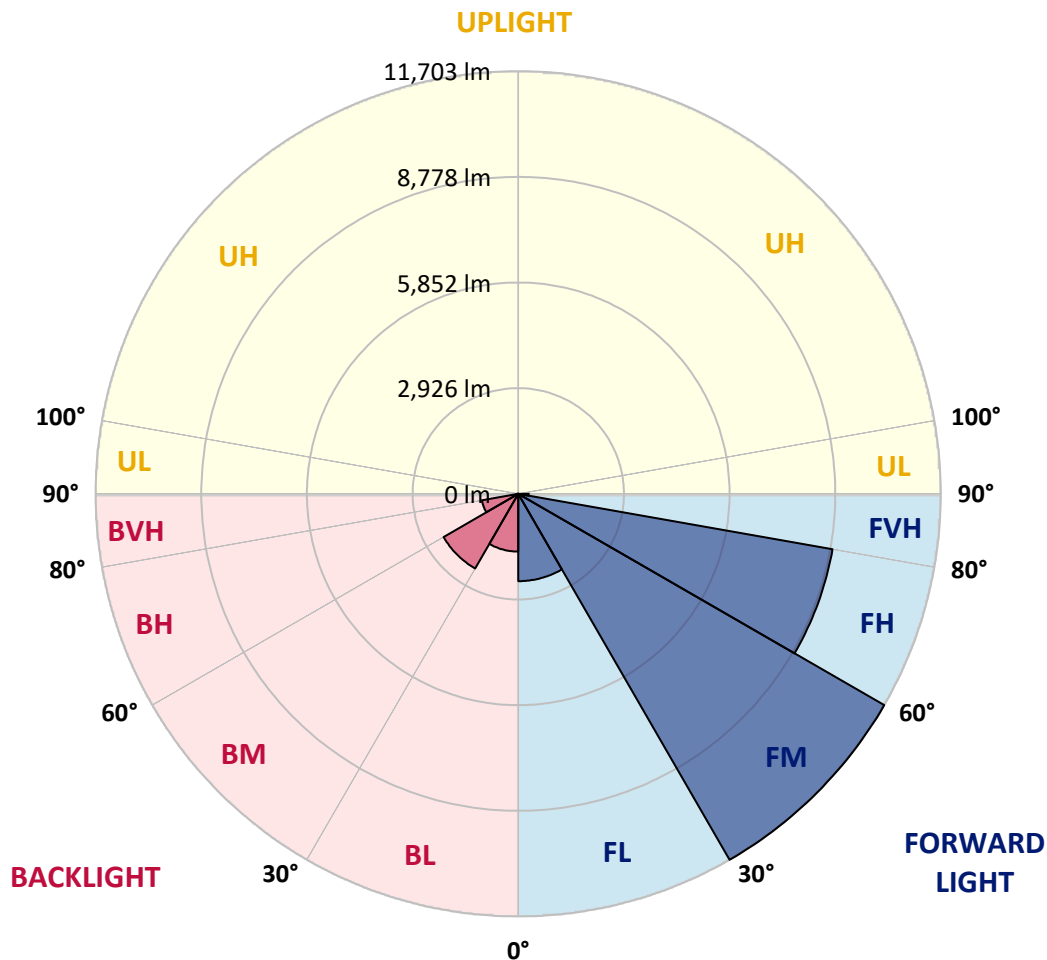
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2418.0	8.5			
FM (30°-60°)	11703.3	41.3			
FH (60°-80°)	8837.3	31.2			G4/12000
FVH (80°-90°)	290.9	1.0			G3/500
BL (0°-30°)	1601.0	5.7	B3/2500		
BM (30°-60°)	2387.8	8.4	B2/2500		
BH (60°-80°)	1021.2	3.6	B3/2500		G3/2500
BVH (80°-90°)	49.6	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°	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7
2.5°	4260.2	4254.6	4249.6	4258.3	4263.3	4271.4	4283.1	4291.2	4293.7	4301.1	4310.4
5°	4328.4	4327.8	4321.0	4317.2	4306.7	4303.0	4305.5	4315.4	4316.0	4325.3	4354.4
7.5°	4462.3	4461.1	4444.4	4436.9	4414.6	4389.8	4371.2	4373.1	4372.4	4381.7	4420.8
10°	4664.5	4654.6	4631.0	4608.1	4564.7	4518.2	4484.1	4453.0	4453.0	4466.7	4510.1
12.5°	4892.7	4906.3	4874.1	4839.4	4766.8	4683.1	4623.6	4588.9	4585.1	4592.0	4623.0
15°	5176.1	5176.1	5154.4	5104.8	5040.9	4924.3	4801.5	4757.5	4751.3	4765.6	4763.7
17.5°	5495.5	5504.8	5463.8	5439.0	5341.0	5212.1	5058.3	4982.0	4982.0	4972.7	4929.9
20°	5902.9	5852.0	5856.4	5815.4	5743.5	5556.2	5400.0	5289.0	5287.7	5269.1	5148.8
22.5°	6345.6	6317.7	6293.5	6257.6	6158.4	5990.9	5773.9	5664.1	5661.6	5615.8	5437.2
25°	6782.2	6803.3	6776.6	6710.9	6638.3	6456.0	6216.7	6108.8	6108.1	6031.9	5778.9
27.5°	7231.2	7254.1	7245.4	7185.9	7089.2	6946.5	6720.2	6579.4	6570.7	6521.1	6203.0
30°	7727.3	7706.8	7733.5	7708.0	7659.7	7427.1	7222.5	7058.8	7079.9	7065.0	6684.8
32.5°	8088.2	8101.2	8188.6	8191.1	8140.2	7967.9	7718.0	7617.5	7651.0	7631.1	7277.0
35°	8414.3	8435.4	8548.3	8659.3	8696.5	8508.0	8253.7	8247.5	8290.9	8411.9	8093.1
37.5°	8694.6	8709.5	8867.6	9012.1	9132.4	9003.4	8818.7	9038.8	9102.7	9350.1	8935.2
40°	8862.7	8881.9	9086.5	9289.9	9504.5	9458.6	9441.2	9962.1	10022.3	10240.0	9549.8
42.5°	8767.8	8805.6	9146.7	9518.8	9834.4	9926.2	10163.7	10833.4	10902.2	10920.8	10153.8
45°	8598.5	8645.6	9027.0	9629.1	10143.8	10438.4	10890.5	11543.4	11581.3	11528.6	10654.2
47.5°	8416.2	8466.4	8892.4	9596.3	10392.5	11034.3	11539.7	12211.9	12238.6	12076.7	11158.3
50°	8209.1	8255.6	8713.9	9519.4	10579.8	11596.8	12207.0	12789.9	12889.7	12569.7	11550.3
52.5°	7957.3	8006.9	8493.1	9399.1	10744.1	12014.1	12795.5	13442.9	13449.7	13186.1	11991.8
55°	7631.1	7717.3	8215.9	9190.7	10830.3	12372.5	13308.3	14306.7	14350.7	14095.8	12361.4
57.5°	7268.4	7343.4	7882.3	8912.9	10752.8	12644.8	14133.0	15233.1	15227.5	14715.9	12684.5
60°	6789.0	6842.3	7447.6	8549.5	10502.9	12974.0	14991.9	16225.9	16216.0	15323.7	12892.2
62.5°	6173.9	6227.2	6796.5	7979.6	10135.8	13194.8	15574.8	16969.4	16940.9	15765.8	12956.1
65°	5460.7	5556.2	6050.5	7239.8	9486.5	13049.7	15856.3	17407.2	17361.4	16103.1	12803.5
67.5°	4792.2	4873.5	5264.8	6221.6	8528.4	12461.2	15657.9	17520.1	17506.5	16152.1	12372.5
70°	3846.0	3875.7	4234.1	5053.3	7096.0	11201.1	14972.1	17259.7	17265.9	15700.7	11506.9
72.5°	2632.4	2704.9	2864.3	3511.1	5163.7	8908.0	12904.6	15533.3	15534.5	14078.5	10025.4
75°	1415.7	1528.0	1714.0	2034.6	2886.6	5716.2	10363.4	12889.1	12913.3	11738.2	7968.5
77.5°	702.0	742.3	850.2	1088.3	1323.3	2696.9	6665.0	9675.0	9732.7	9010.3	5434.7
80°	321.2	328.0	336.1	334.2	506.6	1183.2	2861.2	5810.5	5827.8	5359.0	2481.1
82.5°	251.1	249.9	253.6	230.7	231.9	456.4	990.3	1521.8	1622.8	1277.4	786.9
85°	151.9	151.3	163.1	126.5	155.6	246.8	499.8	607.1	614.5	499.8	407.4
87.5°	57.7	55.8	51.5	45.3	52.1	69.5	173.0	223.2	218.3	155.0	140.8
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°	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7	4301.7
2.5°	4318.5	4338.3	4374.9	4402.8	4412.1	4441.9	4470.4	4475.4	4495.8	4503.9	4530.6
5°	4372.4	4405.9	4463.0	4500.8	4517.5	4567.1	4599.4	4615.5	4609.9	4613.0	4642.8
7.5°	4451.2	4482.8	4528.7	4574.6	4582.6	4591.3	4588.2	4585.7	4564.0	4545.4	4573.3
10°	4523.1	4552.9	4581.4	4588.2	4547.3	4524.4	4483.4	4451.8	4409.6	4390.4	4412.7
12.5°	4624.2	4630.4	4602.5	4565.3	4477.2	4395.4	4329.0	4271.4	4219.3	4183.3	4213.1
15°	4730.9	4706.7	4625.4	4516.9	4380.5	4263.3	4154.8	4058.7	3972.5	3951.4	3959.4
17.5°	4872.2	4806.5	4642.8	4460.5	4248.4	4066.1	3926.6	3805.0	3692.2	3645.0	3640.7
20°	5044.6	4938.6	4678.1	4389.2	4092.1	3849.7	3633.9	3452.2	3296.5	3168.8	3171.9
22.5°	5269.1	5115.3	4731.5	4314.8	3919.1	3596.0	3282.3	2973.5	2717.3	2607.0	2579.7
25°	5565.5	5336.1	4807.1	4247.2	3725.7	3273.6	2830.2	2394.3	2123.3	2016.0	2004.2
27.5°	5934.5	5632.5	4922.5	4172.1	3518.5	2891.0	2253.5	1826.2	1577.6	1464.7	1426.9
30°	6353.7	5997.8	5040.9	4094.0	3268.0	2399.2	1718.3	1299.8	1044.9	943.8	930.8
32.5°	6896.3	6460.4	5217.0	3971.2	2902.1	1885.8	1198.7	811.1	638.1	594.7	582.3
35°	7667.1	7086.1	5434.7	3816.2	2432.1	1317.1	742.9	475.0	382.6	360.9	356.6
37.5°	8385.8	7700.0	5654.2	3558.8	1846.7	822.3	424.8	304.5	284.0	284.6	285.9
40°	8955.7	8119.8	5831.6	3220.3	1214.8	466.9	295.2	253.0	253.6	251.8	250.5
42.5°	9463.0	8454.6	5911.6	2719.8	703.8	312.5	256.1	233.2	227.6	229.4	228.2
45°	9882.8	8796.3	5756.5	2157.4	414.9	280.3	241.8	216.4	210.2	220.1	221.4
47.5°	10324.3	9120.7	5519.0	1625.3	336.7	266.6	228.8	204.0	200.9	213.3	214.6
50°	10695.7	9355.7	5114.1	1224.7	321.2	251.8	217.0	191.6	191.0	202.2	202.2
52.5°	11006.4	9497.7	4633.5	945.7	310.7	238.7	205.3	179.8	179.8	183.6	184.2
55°	11225.3	9469.2	4347.0	744.1	299.5	226.3	192.9	168.7	161.2	158.7	160.0
57.5°	11265.0	9393.5	4014.6	580.4	286.5	214.6	181.7	155.6	142.0	140.1	139.5
60°	11239.6	9227.3	3635.1	484.9	271.6	203.4	170.5	142.0	128.4	124.0	125.3
62.5°	11133.5	8932.8	3196.7	425.4	256.7	194.7	158.1	132.7	120.3	114.7	114.7
65°	10813.6	8511.1	2545.6	372.7	238.1	185.4	148.2	129.0	115.3	109.1	107.9
67.5°	10110.4	7636.1	1913.1	326.8	220.1	175.5	147.0	128.4	112.9	104.2	102.9
70°	9167.2	6559.6	1306.0	287.1	200.3	166.2	146.3	129.0	110.4	99.2	98.0
72.5°	7652.8	5171.1	752.2	249.9	180.5	157.5	143.9	129.6	106.0	92.4	90.5
75°	5750.3	3627.1	441.5	214.6	161.2	144.5	137.0	125.9	99.2	84.3	82.5
77.5°	3458.4	1693.5	332.4	178.0	138.3	127.1	122.2	115.3	90.5	78.1	76.3
80°	1268.8	643.1	261.1	142.6	109.8	110.4	105.4	101.1	82.5	71.9	70.7
82.5°	553.1	393.2	192.9	108.5	86.2	98.6	86.8	83.1	70.7	64.5	62.0
85°	335.5	234.4	124.0	73.8	59.5	67.0	60.8	63.9	54.6	50.8	49.0
87.5°	111.0	70.1	55.2	36.0	29.8	27.9	27.3	32.9	31.0	28.5	28.5
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)