

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: P510698

Luminaire Tested: **CST-CA8-230-722-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510698
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-CA8-230-722-U-T3-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27246 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

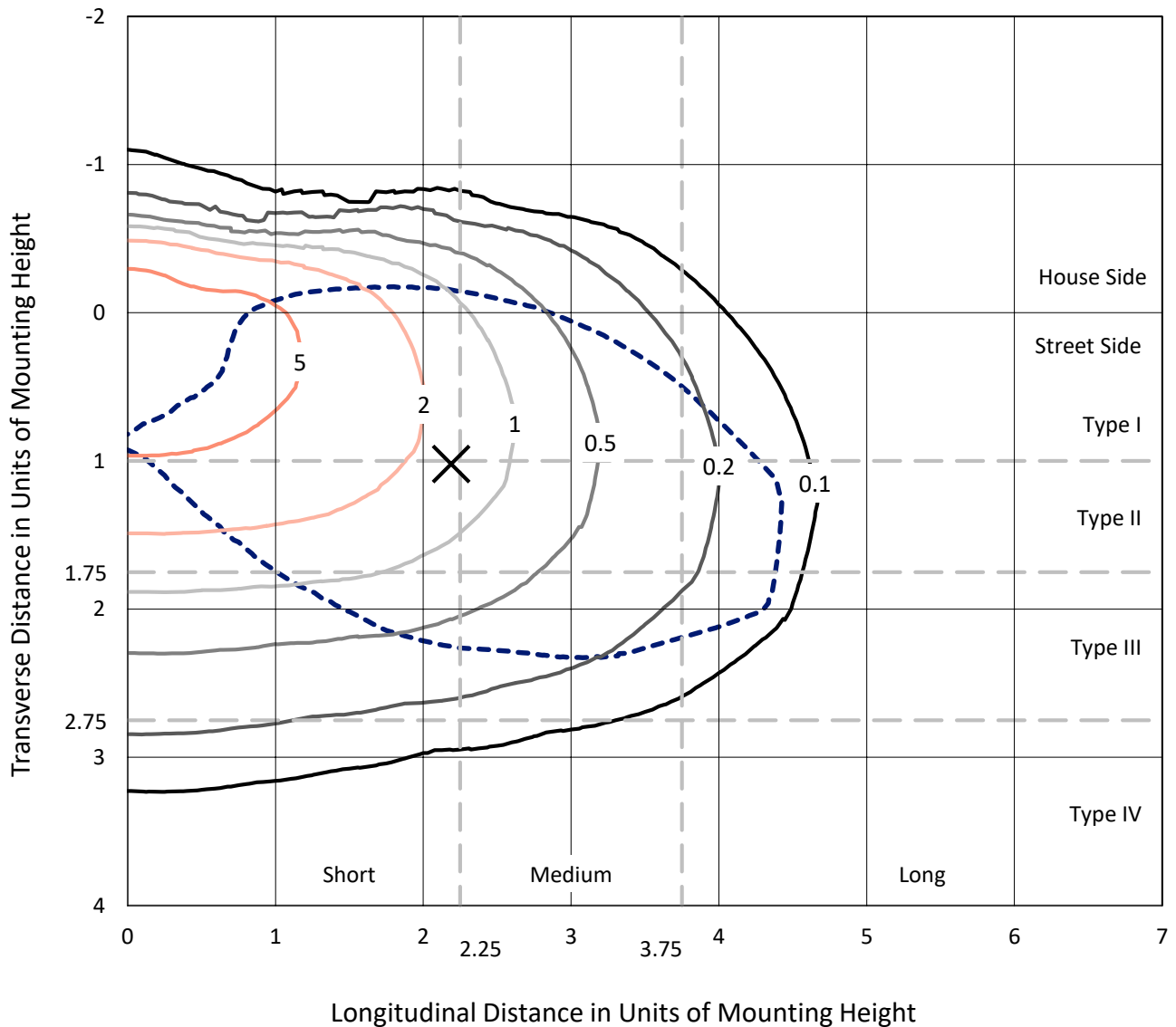
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

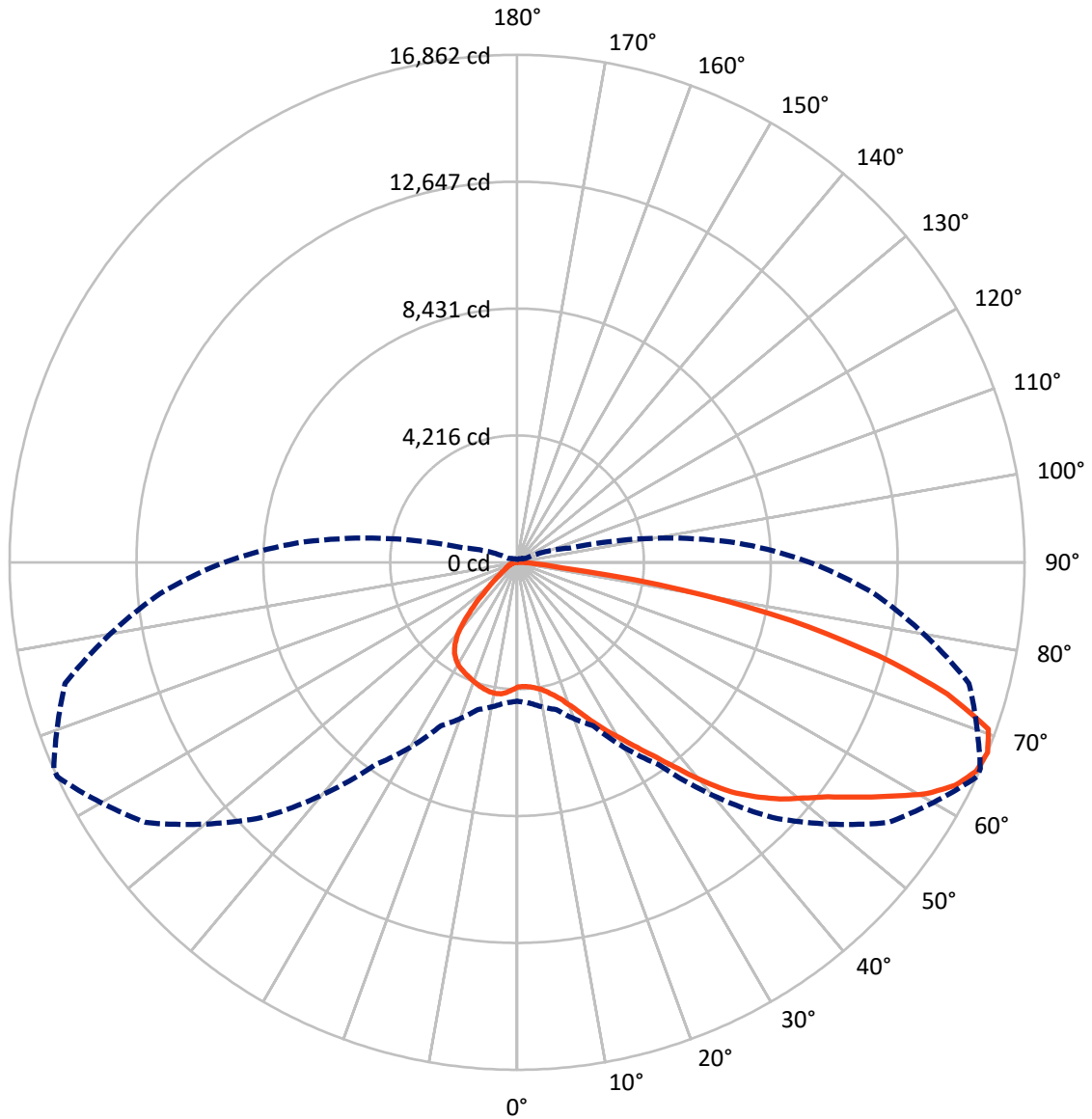
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 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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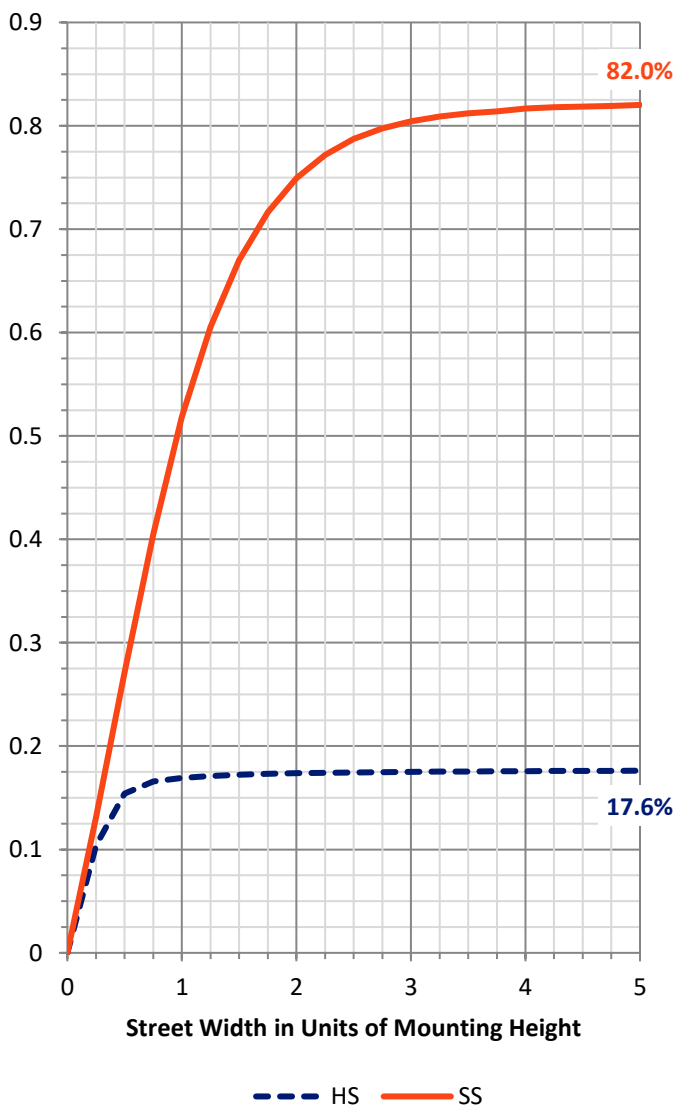
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4869.5	0.0	4869.5
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	22376.5	0.0	22376.5
	% Fixture	82.1	0.0	82.1
Total	Lumens	27246.0	0.0	27246.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	409.6	1.5
10°-20°	1264.6	4.6
20°-30°	2193.8	8.1
30°-40°	3309.3	12.1
40°-50°	4588.6	16.8
50°-60°	5664.1	20.8
60°-70°	6035.0	22.1
70°-80°	3453.3	12.7
80°-90°	327.7	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°	27246.0	100.0
0°-180°	27246.0	100.0

Coefficient of Utilization



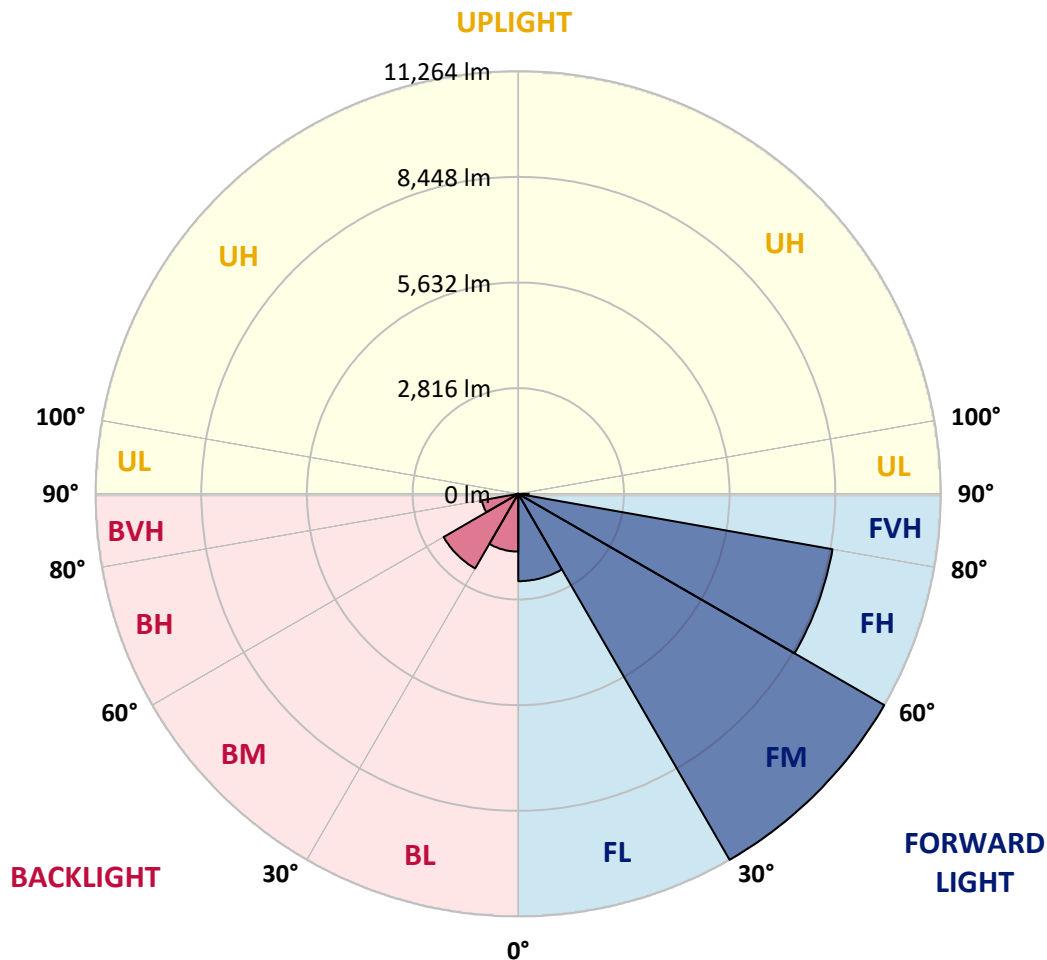
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2327.2	8.5			
FM (30°-60°)	11263.9	41.3			
FH (60°-80°)	8505.5	31.2			G4/12000
FVH (80°-90°)	280.0	1.0			G3/500
BL (0°-30°)	1540.8	5.7	B3/2500		
BM (30°-60°)	2298.2	8.4	B2/2500		
BH (60°-80°)	982.8	3.6	B2/1000		G2/1000
BVH (80°-90°)	47.7	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°	4140.2	4140.2	4140.2	4140.2	4140.2	4140.2	4140.2	4140.2	4140.2	4140.2	4140.2
2.5°	4100.2	4094.8	4090.1	4098.4	4103.2	4111.0	4122.3	4130.1	4132.4	4139.6	4148.6
5°	4165.9	4165.3	4158.7	4155.1	4145.0	4141.4	4143.8	4153.3	4153.9	4162.9	4190.9
7.5°	4294.8	4293.6	4277.5	4270.3	4248.8	4225.0	4207.1	4208.8	4208.2	4217.2	4254.8
10°	4489.4	4479.8	4457.1	4435.0	4393.3	4348.5	4315.7	4285.8	4285.8	4299.0	4340.7
12.5°	4709.0	4722.1	4691.1	4657.7	4587.8	4507.3	4450.0	4416.5	4413.0	4419.5	4449.4
15°	4981.7	4981.7	4960.8	4913.1	4851.6	4739.4	4621.3	4578.9	4572.9	4586.6	4584.8
17.5°	5289.1	5298.1	5258.7	5234.8	5140.5	5016.4	4868.3	4794.9	4794.9	4786.0	4744.8
20°	5681.2	5632.3	5636.5	5597.1	5527.8	5347.6	5197.2	5090.4	5089.2	5071.3	4955.5
22.5°	6107.4	6080.5	6057.2	6022.6	5927.1	5766.0	5557.1	5451.4	5449.1	5404.9	5233.0
25°	6527.5	6547.8	6522.2	6458.9	6389.1	6213.6	5983.2	5879.4	5878.8	5805.4	5561.9
27.5°	6959.6	6981.7	6973.4	6916.1	6823.0	6685.7	6467.8	6332.4	6324.0	6276.3	5970.1
30°	7437.1	7417.4	7443.1	7418.6	7372.0	7148.2	6951.3	6793.7	6814.0	6799.7	6433.8
32.5°	7784.4	7797.0	7881.1	7883.5	7834.6	7668.7	7428.1	7331.5	7363.7	7344.6	7003.8
35°	8098.4	8118.7	8227.3	8334.1	8369.9	8188.5	7943.8	7937.8	7979.6	8096.0	7789.2
37.5°	8368.1	8382.5	8534.7	8673.7	8789.5	8665.4	8487.5	8699.4	8760.9	8999.0	8599.7
40°	8529.9	8548.4	8745.3	8941.1	9147.6	9103.4	9086.7	9588.1	9646.0	9855.4	9191.2
42.5°	8438.6	8475.0	8803.2	9161.3	9465.1	9553.5	9782.0	10426.6	10492.9	10510.8	9772.5
45°	8275.6	8321.0	8688.0	9267.6	9762.9	10046.4	10481.5	11110.0	11146.4	11095.7	10254.1
47.5°	8100.2	8148.5	8558.5	9235.9	10002.3	10620.0	11106.4	11753.4	11779.0	11623.3	10739.4
50°	7900.8	7945.6	8386.7	9161.9	10182.5	11161.3	11748.6	12309.6	12405.7	12097.7	11116.5
52.5°	7658.5	7706.3	8174.2	9046.1	10340.7	11563.0	12315.0	12938.1	12944.6	12691.0	11541.5
55°	7344.6	7427.5	7907.4	8845.6	10423.6	11907.9	12808.6	13769.5	13811.8	13566.5	11897.2
57.5°	6995.4	7067.7	7586.3	8578.2	10349.0	12170.0	13602.3	14661.1	14655.7	14163.4	12208.2
60°	6534.1	6585.4	7167.9	8228.5	10108.5	12486.9	14429.0	15616.6	15607.1	14748.3	12408.1
62.5°	5942.0	5993.4	6541.3	7680.0	9755.2	12699.3	14990.0	16332.2	16304.8	15173.8	12469.6
65°	5255.7	5347.6	5823.3	6968.0	9130.3	12559.7	15260.9	16753.6	16709.4	15498.5	12322.7
67.5°	4612.3	4690.5	5067.1	5988.0	8208.2	11993.3	15069.9	16862.2	16849.1	15545.6	11907.9
70°	3701.5	3730.2	4075.2	4863.6	6829.5	10780.5	14409.9	16611.6	16617.5	15111.1	11074.8
72.5°	2533.5	2603.4	2756.8	3379.2	4969.8	8573.5	12420.0	14950.0	14951.2	13549.8	9648.9
75°	1362.6	1470.6	1649.6	1958.2	2778.2	5501.6	9974.2	12405.1	12428.4	11297.4	7669.3
77.5°	675.6	714.4	818.3	1047.4	1273.6	2595.6	6414.7	9311.7	9367.2	8671.9	5230.6
80°	309.2	315.7	323.5	321.7	487.6	1138.8	2753.8	5592.3	5609.0	5157.8	2387.9
82.5°	241.7	240.5	244.1	222.0	223.2	439.3	953.1	1464.6	1561.9	1229.5	757.4
85°	146.2	145.6	157.0	121.8	149.8	237.5	481.0	584.3	591.5	481.0	392.1
87.5°	55.5	53.7	49.5	43.6	50.1	66.8	166.5	214.9	210.1	149.2	135.5
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°	4140.2	4140.2	4140.2	4140.2	4140.2	4140.2	4140.2	4140.2	4140.2	4140.2	4140.2
2.5°	4156.3	4175.4	4210.6	4237.5	4246.4	4275.1	4302.5	4307.3	4327.0	4334.8	4360.4
5°	4208.2	4240.5	4295.4	4331.8	4347.9	4395.7	4426.7	4442.2	4436.8	4439.8	4468.5
7.5°	4284.0	4314.5	4358.6	4402.8	4410.6	4418.9	4415.9	4413.6	4392.7	4374.8	4401.6
10°	4353.3	4381.9	4409.4	4415.9	4376.6	4354.5	4315.1	4284.6	4244.1	4225.6	4247.0
12.5°	4450.6	4456.5	4429.7	4393.9	4309.1	4230.3	4166.5	4111.0	4060.8	4026.2	4054.9
15°	4553.2	4529.9	4451.8	4347.3	4216.0	4103.2	3998.8	3906.3	3823.3	3803.0	3810.8
17.5°	4689.3	4626.0	4468.5	4293.0	4088.9	3913.4	3779.1	3662.1	3553.5	3508.2	3504.0
20°	4855.2	4753.2	4502.5	4224.4	3938.5	3705.1	3497.4	3322.6	3172.7	3049.8	3052.8
22.5°	5071.3	4923.2	4553.8	4152.7	3772.0	3461.0	3159.0	2861.8	2615.3	2509.1	2482.8
25°	5356.5	5135.7	4626.6	4087.7	3585.8	3150.7	2723.9	2304.4	2043.5	1940.3	1929.0
27.5°	5711.7	5421.0	4737.6	4015.5	3386.4	2782.4	2168.9	1757.7	1518.3	1409.7	1373.3
30°	6115.1	5772.5	4851.6	3940.3	3145.3	2309.1	1653.8	1251.0	1005.7	908.4	895.8
32.5°	6637.3	6217.8	5021.1	3822.1	2793.2	1815.0	1153.7	780.7	614.1	572.4	560.4
35°	7379.2	6820.0	5230.6	3672.9	2340.8	1267.7	715.0	457.2	368.2	347.4	343.2
37.5°	8070.9	7410.8	5441.9	3425.2	1777.4	791.4	408.8	293.0	273.3	273.9	275.1
40°	8619.4	7814.9	5612.6	3099.3	1169.2	449.4	284.1	243.5	244.1	242.3	241.1
42.5°	9107.6	8137.2	5689.6	2617.7	677.4	300.8	246.5	224.4	219.0	220.8	219.6
45°	9511.7	8466.0	5540.4	2076.4	399.3	269.8	232.8	208.3	202.3	211.9	213.1
47.5°	9936.6	8778.2	5311.8	1564.3	324.1	256.6	220.2	196.4	193.4	205.3	206.5
50°	10294.1	9004.4	4922.1	1178.7	309.2	242.3	208.9	184.4	183.8	194.6	194.6
52.5°	10593.1	9141.0	4459.5	910.2	299.0	229.8	197.6	173.1	173.1	176.7	177.3
55°	10803.8	9113.6	4183.8	716.2	288.3	217.8	185.6	162.3	155.2	152.8	154.0
57.5°	10842.0	9040.8	3863.9	558.6	275.7	206.5	174.9	149.8	136.7	134.9	134.3
60°	10817.5	8880.8	3498.6	466.7	261.4	195.8	164.1	136.7	123.5	119.4	120.6
62.5°	10715.5	8597.3	3076.7	409.4	247.1	187.4	152.2	127.7	115.8	110.4	110.4
65°	10407.5	8191.5	2450.0	358.7	229.2	178.5	142.6	124.1	111.0	105.0	103.8
67.5°	9730.7	7349.4	1841.2	314.5	211.9	168.9	141.4	123.5	108.6	100.3	99.1
70°	8822.9	6313.3	1256.9	276.3	192.8	160.0	140.9	124.1	106.2	95.5	94.3
72.5°	7365.5	4977.0	724.0	240.5	173.7	151.6	138.5	124.7	102.1	88.9	87.1
75°	5534.4	3490.9	424.9	206.5	155.2	139.1	131.9	121.2	95.5	81.2	79.4
77.5°	3328.5	1629.9	319.9	171.3	133.1	122.4	117.6	111.0	87.1	75.2	73.4
80°	1221.1	618.9	251.3	137.3	105.6	106.2	101.5	97.3	79.4	69.2	68.0
82.5°	532.4	378.4	185.6	104.4	83.0	94.9	83.6	80.0	68.0	62.1	59.7
85°	322.9	225.6	119.4	71.0	57.3	64.5	58.5	61.5	52.5	48.9	47.1
87.5°	106.8	67.4	53.1	34.6	28.6	26.9	26.3	31.6	29.8	27.5	27.5
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)