

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: P510738

Luminaire Tested: **CST-CA8-230-750-U-T3-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510738
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-CA8-230-750-U-T3-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34044 lumens
Efficiency: N/A
Efficacy: 149.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

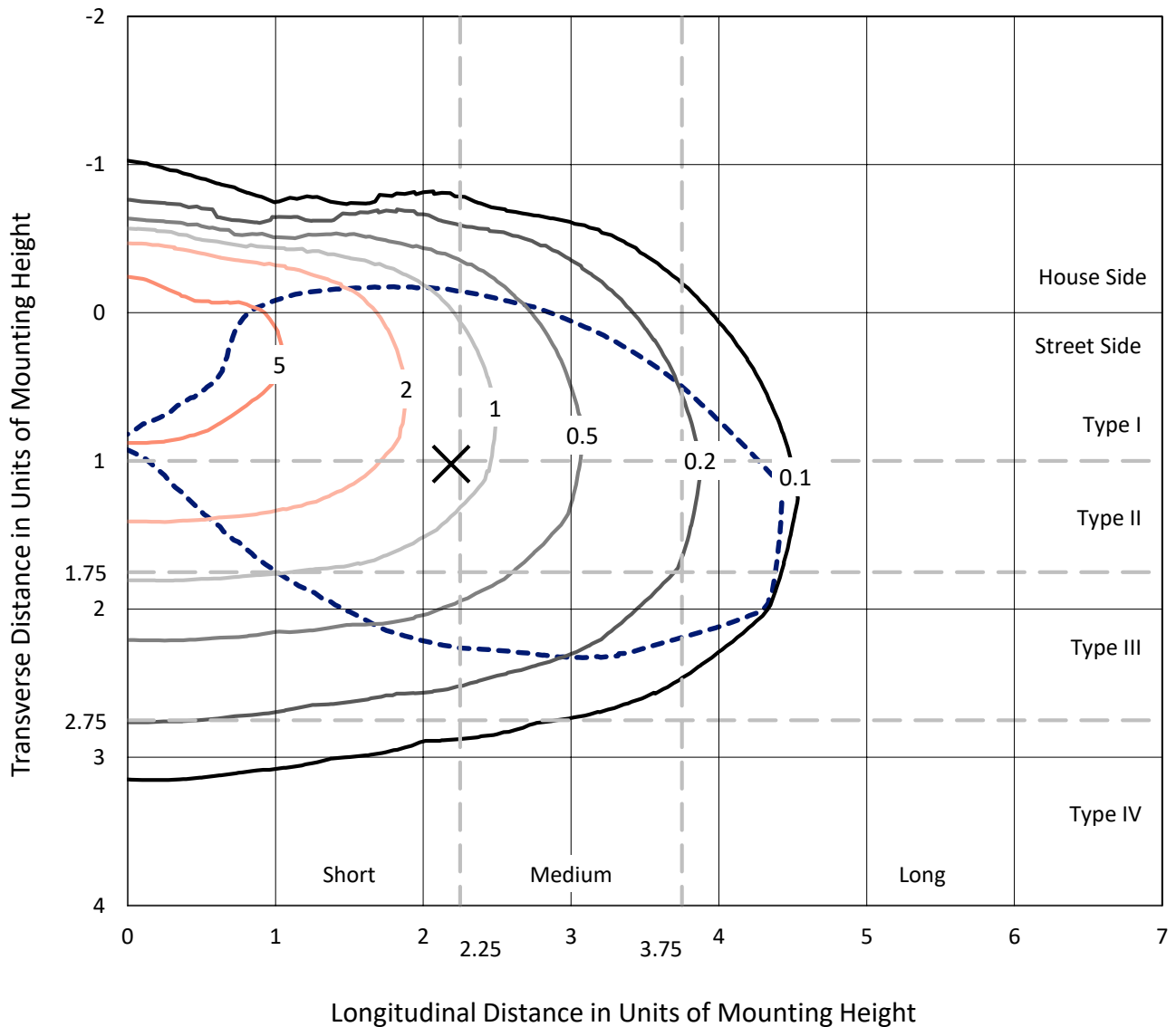
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

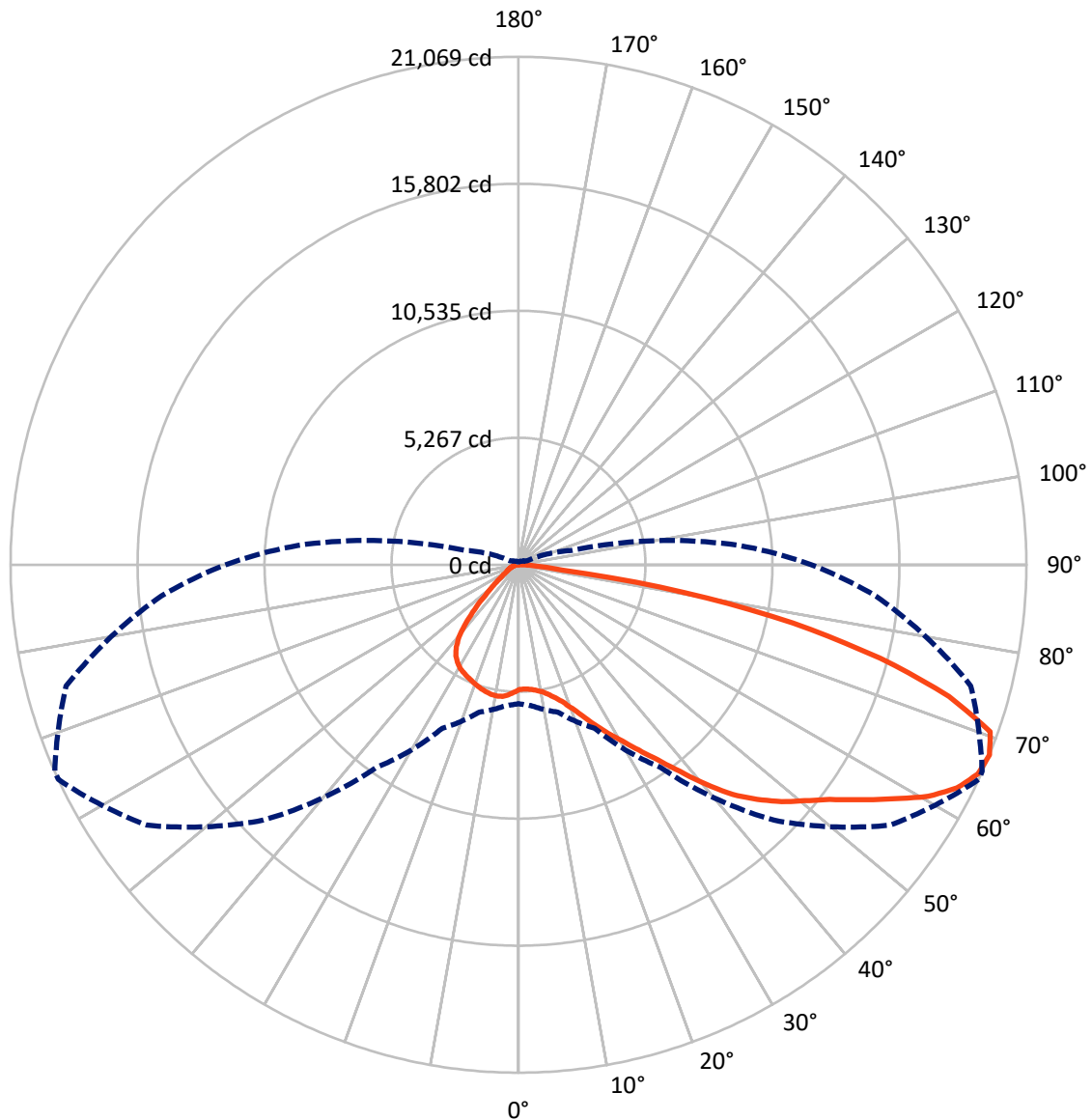
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.8 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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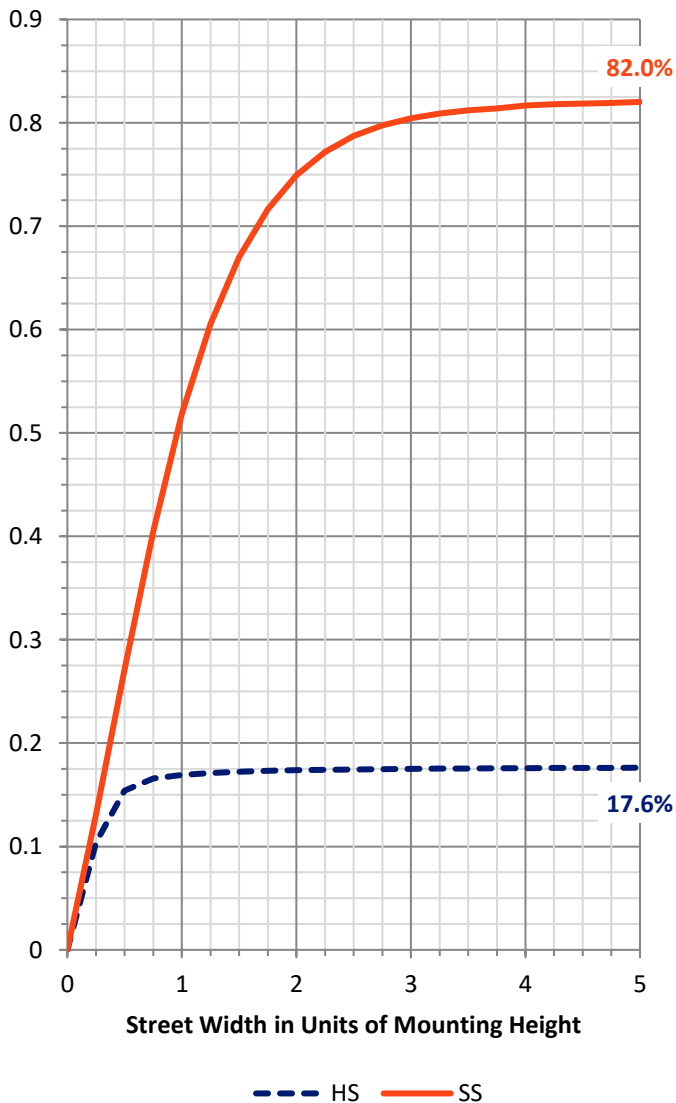
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6084.5	0.0	6084.5
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	27959.5	0.0	27959.5
	% Fixture	82.1	0.0	82.1
Total	Lumens	34044.0	0.0	34044.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	511.8	1.5
10°-20°	1580.1	4.6
20°-30°	2741.2	8.1
30°-40°	4135.0	12.1
40°-50°	5733.5	16.8
50°-60°	7077.3	20.8
60°-70°	7540.7	22.1
70°-80°	4314.9	12.7
80°-90°	409.4	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°	34044.0	100.0
0°-180°	34044.0	100.0

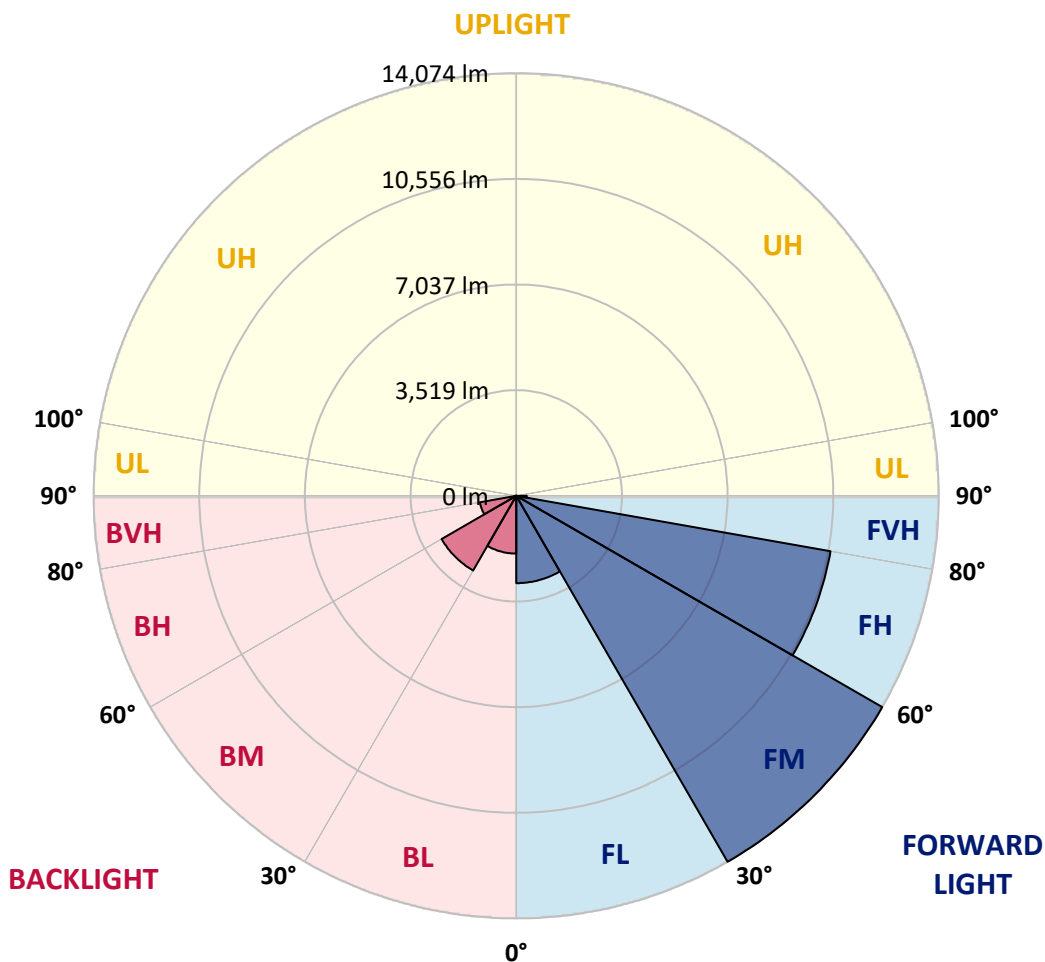


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2907.8	8.5			
FM (30°-60°)	14074.3	41.3			
FH (60°-80°)	10627.6	31.2			G4/12000
FVH (80°-90°)	349.8	1.0			G3/500
BL (0°-30°)	1925.3	5.7	B3/2500		
BM (30°-60°)	2871.6	8.4	B3/5000		
BH (60°-80°)	1228.1	3.6	B3/2500		G3/2500
BVH (80°-90°)	59.6	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°	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2
2.5°	5123.2	5116.5	5110.6	5121.0	5127.0	5136.7	5150.8	5160.5	5163.5	5172.5	5183.6
5°	5205.3	5204.5	5196.3	5191.9	5179.2	5174.7	5177.7	5189.6	5190.4	5201.5	5236.6
7.5°	5366.4	5364.9	5344.7	5335.8	5308.9	5279.1	5256.7	5259.0	5258.2	5269.4	5316.4
10°	5609.5	5597.5	5569.2	5541.6	5489.4	5433.5	5392.5	5355.2	5355.2	5371.6	5423.8
12.5°	5883.9	5900.3	5861.5	5819.8	5732.5	5631.8	5560.2	5518.5	5514.0	5522.2	5559.5
15°	6224.7	6224.7	6198.6	6138.9	6062.1	5921.9	5774.3	5721.3	5713.9	5731.0	5728.8
17.5°	6608.8	6619.9	6570.7	6540.9	6423.1	6268.0	6083.0	5991.3	5991.3	5980.1	5928.6
20°	7098.7	7037.6	7042.8	6993.6	6907.1	6681.8	6493.9	6360.4	6358.9	6336.6	6191.9
22.5°	7631.2	7597.6	7568.5	7525.3	7406.0	7204.6	6943.6	6811.6	6808.6	6753.4	6538.7
25°	8156.2	8181.5	8149.5	8070.4	7983.2	7763.9	7476.1	7346.3	7345.6	7253.8	6949.6
27.5°	8696.1	8723.7	8713.2	8641.7	8525.3	8353.8	8081.6	7912.3	7901.9	7842.2	7459.7
30°	9292.7	9268.1	9300.1	9269.6	9211.4	8931.7	8685.6	8488.8	8514.1	8496.2	8039.1
32.5°	9726.7	9742.4	9847.5	9850.5	9789.3	9582.0	9281.5	9160.7	9201.0	9177.1	8751.3
35°	10119.0	10144.3	10280.0	10413.5	10458.3	10231.6	9925.8	9918.4	9970.6	10116.0	9732.7
37.5°	10456.0	10473.9	10664.1	10837.9	10982.5	10827.4	10605.2	10869.9	10946.7	11244.3	10745.4
40°	10658.1	10681.3	10927.3	11172.0	11430.0	11374.8	11353.9	11980.3	12052.7	12314.4	11484.4
42.5°	10544.0	10589.5	10999.7	11447.1	11826.7	11937.1	12222.7	13028.1	13110.9	13133.3	12210.8
45°	10340.4	10397.1	10855.8	11579.9	12198.8	12553.1	13096.7	13882.0	13927.5	13864.1	12812.6
47.5°	10121.2	10181.6	10693.9	11540.3	12497.9	13269.7	13877.5	14685.9	14718.0	14523.3	13418.9
50°	9872.1	9928.1	10479.2	11447.9	12723.1	13946.1	14679.9	15380.9	15501.0	15116.2	13890.2
52.5°	9569.4	9629.0	10213.7	11303.2	12920.7	14448.0	15387.6	16166.2	16174.4	15857.4	14421.1
55°	9177.1	9280.8	9880.3	11052.6	13024.4	14879.0	16004.4	17205.0	17257.9	16951.4	14865.6
57.5°	8740.8	8831.1	9479.1	10718.5	12931.2	15206.4	16996.2	18319.1	18312.4	17697.2	15254.1
60°	8164.4	8228.5	8956.4	10281.5	12630.6	15602.4	18029.0	19513.1	19501.1	18428.0	15504.0
62.5°	7424.6	7488.7	8173.3	9596.2	12189.1	15867.9	18730.0	20407.2	20372.9	18959.7	15580.8
65°	6567.0	6681.8	7276.2	8706.5	11408.4	15693.4	19068.6	20933.7	20878.5	19365.4	15397.3
67.5°	5763.1	5860.8	6331.3	7482.0	10256.2	14985.7	18830.0	21069.4	21053.0	19424.3	14879.0
70°	4625.1	4660.9	5091.9	6077.0	8533.5	13470.3	18005.2	20756.2	20763.7	18881.4	13838.0
72.5°	3165.7	3252.9	3444.6	4222.4	6209.8	10712.6	15518.9	18680.1	18681.6	16930.6	12056.4
75°	1702.5	1837.5	2061.2	2446.8	3471.4	6874.2	12462.8	15500.2	15529.3	14116.1	9582.8
77.5°	844.2	892.7	1022.4	1308.8	1591.4	3243.2	8015.2	11635.1	11704.4	10835.6	6535.7
80°	386.3	394.5	404.2	402.0	609.3	1422.9	3440.9	6987.6	7008.5	6444.7	2983.7
82.5°	302.0	300.5	305.0	277.4	278.9	548.9	1190.9	1830.0	1951.6	1536.2	946.3
85°	182.7	182.0	196.1	152.1	187.2	296.8	601.1	730.1	739.0	601.1	490.0
87.5°	69.4	67.1	61.9	54.4	62.6	83.5	208.1	268.5	262.5	186.4	169.3
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°	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2	5173.2
2.5°	5193.3	5217.2	5261.2	5294.8	5305.9	5341.7	5376.0	5382.0	5406.6	5416.3	5448.4
5°	5258.2	5298.5	5367.1	5412.6	5432.7	5492.4	5531.2	5550.6	5543.8	5547.6	5583.4
7.5°	5352.9	5391.0	5446.1	5501.3	5511.0	5521.5	5517.7	5514.8	5488.7	5466.3	5499.8
10°	5439.4	5475.2	5509.5	5517.7	5468.5	5440.9	5391.7	5353.7	5303.0	5279.8	5306.7
12.5°	5561.0	5568.5	5534.9	5490.1	5384.3	5285.8	5206.0	5136.7	5074.0	5030.8	5066.6
15°	5689.3	5660.2	5562.5	5432.0	5267.9	5127.0	4996.5	4880.9	4777.2	4751.9	4761.6
17.5°	5859.3	5780.2	5583.4	5364.1	5109.1	4889.8	4722.0	4575.9	4440.1	4383.5	4378.2
20°	6066.6	5939.1	5625.9	5278.4	4921.1	4629.6	4370.0	4151.5	3964.4	3810.7	3814.5
22.5°	6336.6	6151.6	5690.0	5188.9	4713.1	4324.6	3947.2	3575.8	3267.8	3135.1	3102.3
25°	6693.0	6417.1	5781.0	5107.6	4480.4	3936.8	3403.6	2879.3	2553.4	2424.4	2410.2
27.5°	7136.7	6773.6	5919.7	5017.3	4231.3	3476.6	2710.0	2196.2	1897.2	1761.4	1716.0
30°	7640.9	7212.8	6062.1	4923.4	3930.1	2885.3	2066.4	1563.1	1256.6	1135.0	1119.4
32.5°	8293.4	7769.1	6273.9	4775.7	3490.1	2267.8	1441.5	975.4	767.4	715.2	700.3
35°	9220.3	8521.6	6535.7	4589.3	2924.8	1584.0	893.4	571.2	460.1	434.0	428.8
37.5°	10084.7	9259.9	6799.7	4279.8	2220.8	988.9	510.8	366.2	341.5	342.3	343.8
40°	10770.0	9764.7	7013.0	3872.6	1460.9	561.5	355.0	304.3	305.0	302.8	301.3
42.5°	11380.0	10167.4	7109.2	3270.8	846.4	375.9	308.0	280.4	273.7	275.9	274.4
45°	11884.9	10578.3	6922.7	2594.4	498.9	337.1	290.8	260.3	252.8	264.7	266.2
47.5°	12415.8	10968.4	6637.1	1954.6	404.9	320.7	275.2	245.3	241.6	256.5	258.0
50°	12862.5	11251.0	6150.1	1472.8	386.3	302.8	261.0	230.4	229.7	243.1	243.1
52.5°	13236.2	11421.8	5572.2	1137.3	373.6	287.1	246.8	216.3	216.3	220.7	221.5
55°	13499.4	11387.5	5227.6	894.9	360.2	272.2	231.9	202.8	193.9	190.9	192.4
57.5°	13547.1	11296.5	4827.9	698.0	344.5	258.0	218.5	187.2	170.8	168.5	167.8
60°	13516.6	11096.6	4371.5	583.2	326.6	244.6	205.1	170.8	154.4	149.1	150.6
62.5°	13389.0	10742.4	3844.3	511.6	308.7	234.2	190.2	159.6	144.7	138.0	138.0
65°	13004.2	10235.3	3061.3	448.2	286.4	223.0	178.2	155.1	138.7	131.3	129.8
67.5°	12158.6	9183.1	2300.6	393.0	264.7	211.0	176.7	154.4	135.7	125.3	123.8
70°	11024.3	7888.5	1570.5	345.3	240.9	199.9	176.0	155.1	132.7	119.3	117.8
72.5°	9203.2	6218.7	904.6	300.5	217.0	189.4	173.0	155.9	127.5	111.1	108.9
75°	6915.3	4361.8	531.0	258.0	193.9	173.8	164.8	151.4	119.3	101.4	99.2
77.5°	4159.0	2036.6	399.7	214.0	166.3	152.9	146.9	138.7	108.9	94.0	91.7
80°	1525.8	773.3	314.0	171.5	132.0	132.7	126.8	121.6	99.2	86.5	85.0
82.5°	665.2	472.8	231.9	130.5	103.7	118.6	104.4	99.9	85.0	77.6	74.6
85°	403.4	281.9	149.1	88.7	71.6	80.5	73.1	76.8	65.6	61.2	58.9
87.5°	133.5	84.3	66.4	43.3	35.8	33.6	32.8	39.5	37.3	34.3	34.3
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)