

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: P510466

Luminaire Tested: **CST-CA10-310-727-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510466
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA10-310-727-U-T2-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37342 lumens
Efficiency: N/A
Efficacy: 119.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

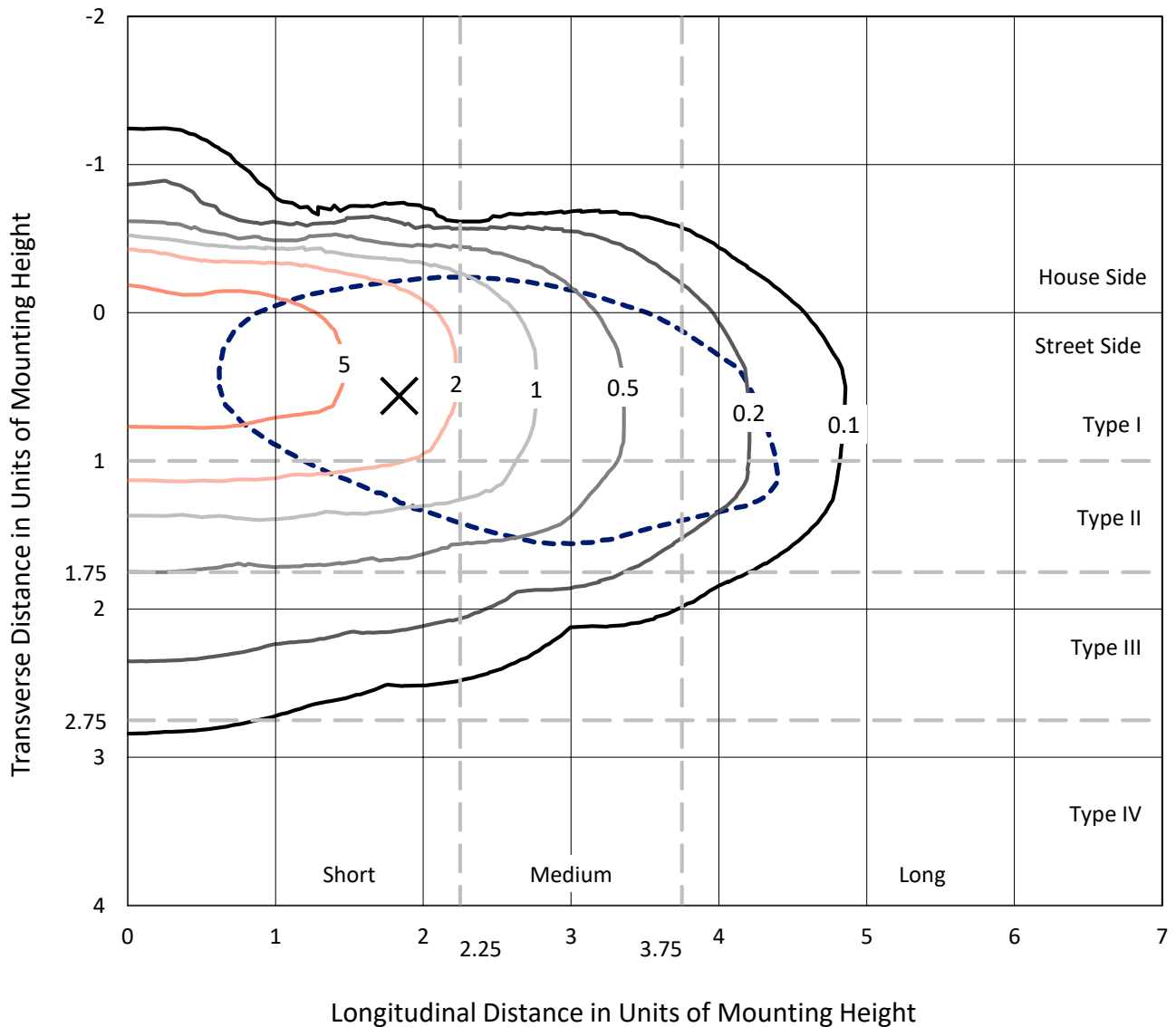
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

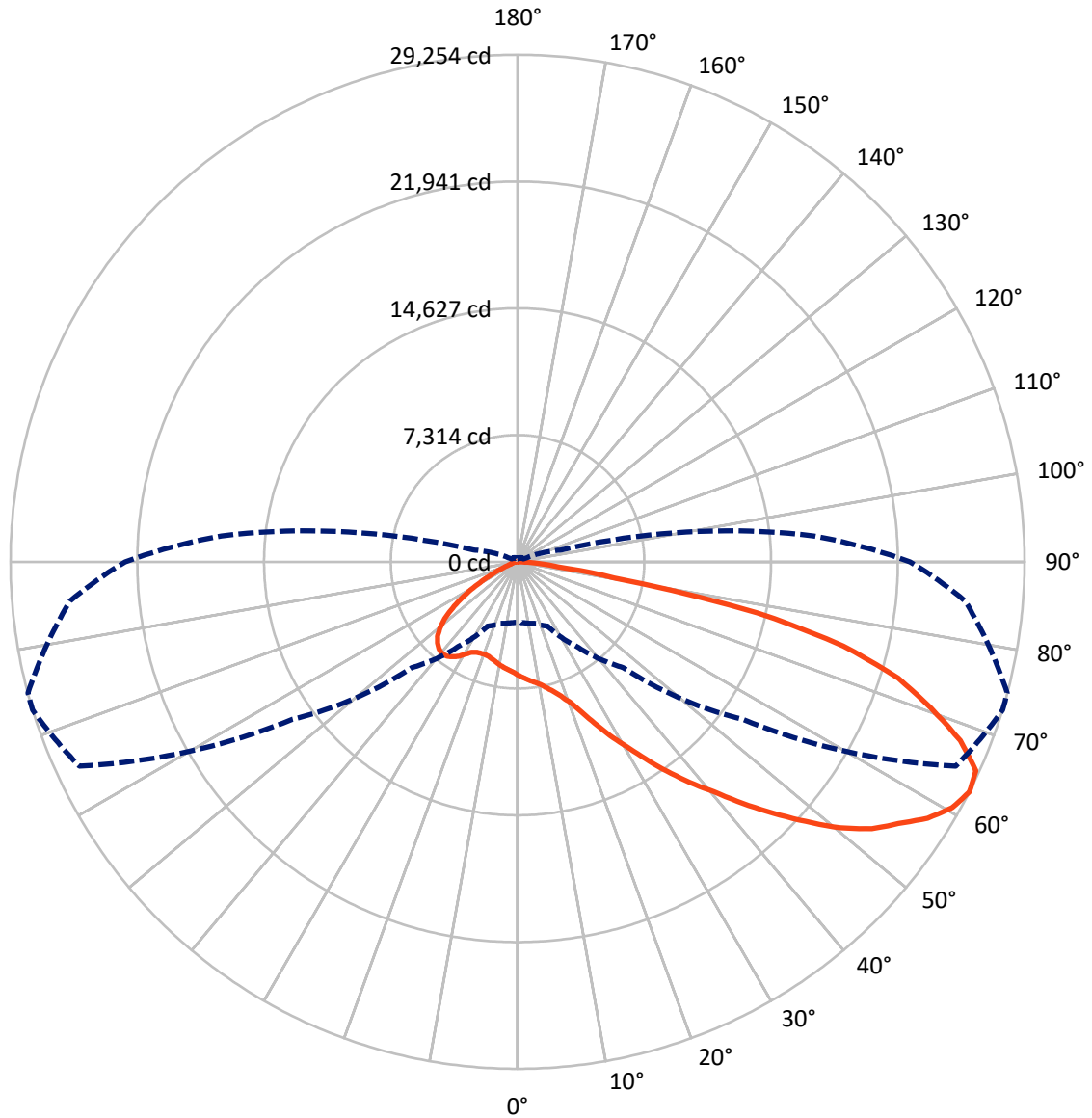
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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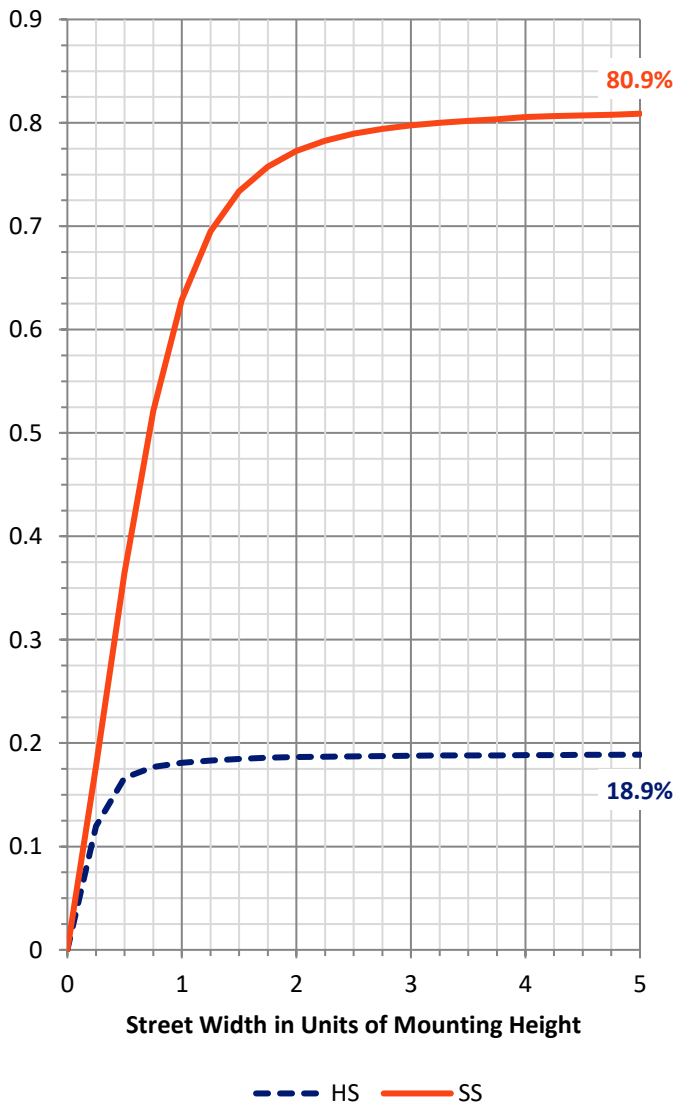
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7143.3	0.0	7143.3
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	30198.7	0.0	30198.7
	% Fixture	80.9	0.0	80.9
Total	Lumens	37342.0	0.0	37342.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	625.5	1.7
10°-20°	1881.4	5.0
20°-30°	3250.6	8.7
30°-40°	4888.2	13.1
40°-50°	6517.9	17.5
50°-60°	7676.1	20.6
60°-70°	7631.4	20.4
70°-80°	4381.4	11.7
80°-90°	489.4	1.3
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°	37342.0	100.0
0°-180°	37342.0	100.0

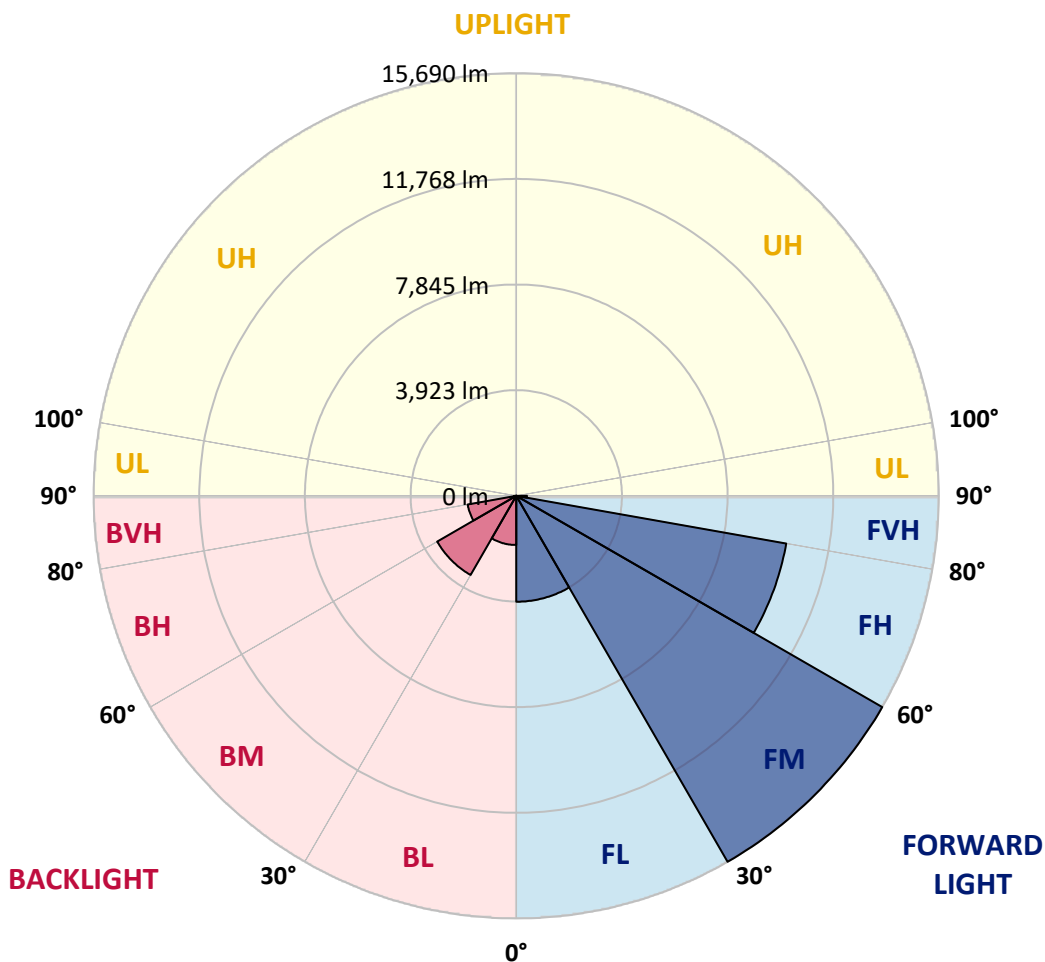


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3932.1	10.5			
FM (30°-60°)	15690.2	42.0			
FH (60°-80°)	10178.9	27.3			G4/12000
FVH (80°-90°)	397.5	1.1			G3/500
BL (0°-30°)	1825.5	4.9	B3/2500		
BM (30°-60°)	3392.0	9.1	B3/5000		
BH (60°-80°)	1834.0	4.9	B3/2500		G3/2500
BVH (80°-90°)	91.9	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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	6548.9	6548.9	6548.9	6548.9	6548.9	6548.9	6548.9	6548.9	6548.9	6548.9	6548.9
2.5°	7006.6	7024.2	7003.2	6994.0	6984.0	6918.6	6842.3	6764.4	6701.5	6691.4	6609.3
5°	7498.6	7507.8	7473.5	7434.1	7366.2	7258.1	7121.4	6986.5	6860.8	6827.2	6677.2
7.5°	7876.7	7859.1	7850.7	7817.1	7757.6	7638.6	7431.6	7210.3	7015.8	6968.9	6740.9
10°	8231.2	8223.7	8160.0	8118.1	8023.3	7913.5	7743.4	7462.6	7188.5	7113.1	6796.2
12.5°	8615.1	8598.4	8572.4	8481.8	8404.7	8219.5	8014.1	7758.5	7453.4	7352.8	6890.9
15°	8960.5	8915.2	8901.0	8806.2	8728.3	8586.6	8380.4	8083.7	7757.6	7671.3	7071.1
17.5°	9289.0	9268.1	9236.2	9171.7	9084.5	8975.6	8810.4	8492.7	8155.8	8030.1	7377.1
20°	9568.2	9542.2	9514.5	9532.1	9512.8	9443.3	9339.3	9068.6	8657.0	8535.5	7749.3
22.5°	9762.6	9761.8	9872.4	9937.0	9973.9	9971.3	9946.2	9792.8	9378.7	9255.5	8305.8
25°	9924.4	9937.0	10077.0	10322.6	10542.2	10562.3	10740.0	10667.1	10315.0	10186.8	9143.2
27.5°	9972.2	9997.3	10251.3	10637.7	10971.3	11291.5	11552.2	11685.5	11359.4	11206.0	10043.4
30°	10006.6	10016.6	10265.6	10728.3	11431.5	11938.6	12404.7	12630.2	12349.4	12237.0	11046.8
32.5°	9764.3	9767.7	10149.0	10849.8	11769.3	12648.6	13200.1	13625.1	13551.3	13403.0	12144.0
35°	9430.7	9492.7	9930.3	10732.4	12047.6	13300.7	14051.8	14685.4	14833.0	14726.5	13240.4
37.5°	9018.3	9066.9	9535.5	10558.1	12108.8	13749.2	14713.9	15763.4	16149.0	16131.4	14563.9
40°	8511.2	8570.7	9131.5	10182.6	12078.6	14075.2	15491.0	16957.0	17446.5	17391.2	15876.5
42.5°	7911.9	7999.0	8543.0	9699.8	11858.2	14274.7	16127.2	18172.4	19053.4	19017.3	17038.3
45°	7319.3	7366.2	7862.4	9027.5	11452.5	14339.3	16725.6	19847.1	20701.3	20661.0	18438.1
47.5°	6708.2	6749.3	7267.3	8319.2	10748.4	14209.3	17199.2	21285.5	22380.2	22340.0	19828.7
50°	5286.6	5441.7	6503.7	7696.4	9946.2	13841.4	17646.0	23077.6	24137.1	23966.1	21046.6
52.5°	4523.0	4579.1	5129.8	7068.6	9145.7	13213.5	17944.4	24738.1	25582.2	25335.7	22292.2
55°	4227.9	4265.7	4535.6	5911.1	8393.8	12263.9	18295.6	26402.8	26666.0	26603.1	23308.1
57.5°	4004.1	4046.0	4238.8	4937.1	7601.7	10932.8	18185.8	27573.8	27903.2	27702.0	24386.9
60°	3687.3	3738.4	3994.1	4432.5	6701.5	9581.6	17219.4	28053.2	28802.6	28576.3	25207.5
62.5°	3487.8	3521.3	3668.0	4093.0	5955.5	8631.1	15843.8	27899.0	29254.4	29246.0	25919.1
65°	3217.1	3266.5	3423.3	3767.8	5291.6	7894.3	14546.3	27137.1	29059.9	29067.5	26065.8
67.5°	2933.7	2953.9	3118.1	3394.8	4509.6	7219.5	12867.4	25833.6	27545.3	27717.9	25050.8
70°	2580.0	2570.0	2747.7	2949.7	3685.6	6129.8	10356.9	23515.1	25307.2	25378.5	22998.0
72.5°	2030.1	2039.4	2088.8	2228.8	2797.9	4823.9	7515.4	19867.3	22967.8	23094.4	20374.4
75°	1364.6	1379.7	1610.2	1746.8	2012.5	3466.8	4725.8	13410.5	19416.3	19773.4	16675.4
77.5°	1041.1	1050.3	1117.3	1266.5	1456.0	2471.0	2561.6	7307.5	14135.6	14983.0	13045.1
80°	737.6	741.0	674.8	600.2	775.3	1676.4	1513.0	3112.3	5632.8	6656.2	7662.1
82.5°	330.3	325.2	383.1	318.5	446.8	648.8	714.2	1510.5	2339.4	2514.6	2737.6
85°	153.4	171.8	197.0	165.1	265.7	250.6	278.3	643.7	1096.4	1210.4	1203.7
87.5°	37.7	41.1	52.0	66.2	96.4	85.5	83.8	189.4	244.8	243.9	374.7
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°	6548.9	6548.9	6548.9	6548.9	6548.9	6548.9	6548.9	6548.9	6548.9	6548.9	6548.9
2.5°	6553.1	6509.5	6406.4	6306.7	6212.0	6149.1	6078.7	6004.9	5960.5	5939.6	5984.8
5°	6585.8	6502.8	6305.9	6108.0	5940.4	5797.1	5696.5	5611.0	5564.9	5569.1	5571.6
7.5°	6613.5	6497.0	6221.2	5942.1	5680.6	5502.9	5371.3	5279.0	5226.2	5186.0	5216.2
10°	6637.8	6472.7	6122.3	5750.1	5466.0	5202.8	5024.2	4912.8	4815.5	4761.0	4803.8
12.5°	6663.8	6463.4	6011.6	5578.3	5210.3	4916.1	4671.3	4560.7	4465.1	4424.1	4450.1
15°	6776.9	6498.6	5908.5	5376.3	4958.0	4577.5	4313.4	4177.6	4102.2	4052.7	4063.6
17.5°	6971.4	6591.7	5842.3	5165.1	4676.4	4274.0	3932.0	3773.6	3648.7	3613.5	3604.3
20°	7248.0	6768.5	5842.3	4986.5	4357.0	3937.1	3543.1	3275.7	3081.3	3008.3	3064.5
22.5°	7712.4	7069.5	5900.2	4824.7	4082.1	3587.5	3118.1	2709.9	2447.6	2341.1	2403.1
25°	8362.0	7534.7	5994.0	4683.1	3831.5	3185.2	2579.2	2109.8	1820.6	1694.0	1692.3
27.5°	9210.3	8246.3	6183.5	4567.4	3531.4	2664.7	2016.7	1564.9	1293.4	1217.1	1228.0
30°	10150.7	9017.5	6541.4	4399.8	3166.8	2082.1	1468.5	1150.0	958.9	858.3	860.0
32.5°	11057.7	9816.3	6966.4	4290.8	2693.2	1570.0	1046.9	820.6	701.6	642.1	651.3
35°	12030.0	10505.3	7282.4	4108.1	2137.4	1134.9	740.1	615.2	565.8	534.8	536.5
37.5°	13080.3	11263.0	7542.2	3863.3	1616.1	779.5	546.5	527.2	506.3	466.9	463.5
40°	14177.5	12140.6	7697.3	3467.7	1123.2	539.8	464.4	486.2	474.4	423.3	419.1
42.5°	15107.9	12817.9	7735.8	2943.8	726.7	437.5	420.8	454.3	456.8	404.9	398.1
45°	16001.4	13421.4	7660.4	2253.9	503.8	411.6	394.0	440.1	443.4	396.5	385.6
47.5°	17001.4	14247.1	7523.8	1503.7	416.6	388.9	384.7	416.6	428.3	389.8	376.4
50°	18216.0	14918.5	7118.9	923.7	393.1	374.7	374.7	394.0	409.9	376.4	369.7
52.5°	19461.6	15503.5	6519.6	633.7	378.9	359.6	370.5	378.9	384.7	354.6	360.4
55°	20354.3	16022.4	5626.1	509.6	370.5	349.5	375.5	358.8	350.4	324.4	318.5
57.5°	21345.0	16639.3	4712.4	451.8	359.6	355.4	358.8	326.9	303.4	276.6	270.7
60°	22036.5	16971.2	3594.2	425.0	347.0	349.5	331.1	288.3	245.6	226.3	222.1
62.5°	22640.1	17160.7	2634.5	390.6	335.3	334.4	300.1	246.4	202.0	181.1	177.7
65°	22548.7	16864.8	1707.4	362.9	326.1	315.2	269.1	211.2	168.5	152.6	150.9
67.5°	21543.7	15555.5	1075.4	334.4	310.1	290.9	241.4	188.6	155.1	136.6	135.0
70°	19433.9	13747.5	658.0	297.6	275.8	257.3	213.7	176.9	146.7	124.9	120.7
72.5°	16517.8	11774.3	465.2	262.4	240.6	218.8	181.1	168.5	140.0	112.3	109.0
75°	13570.6	8673.0	389.8	228.8	205.4	176.0	154.2	156.7	131.6	102.3	99.7
77.5°	9556.4	5407.3	362.9	186.9	161.8	140.0	133.3	143.3	120.7	93.9	91.4
80°	5577.5	3036.8	300.1	147.5	121.5	108.1	111.5	121.5	105.6	84.7	81.3
82.5°	2251.4	1202.0	211.2	114.8	88.9	86.3	91.4	98.9	87.2	71.2	69.6
85°	803.8	375.5	119.9	75.4	57.0	59.5	58.7	70.4	62.9	52.0	51.1
87.5°	211.2	74.6	53.6	30.2	24.3	24.3	22.6	32.7	30.2	23.5	26.0
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)