

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: P510709

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

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510709  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-11)  
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  
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: 30416 lumens  
Efficiency: N/A  
Efficacy: 133.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4

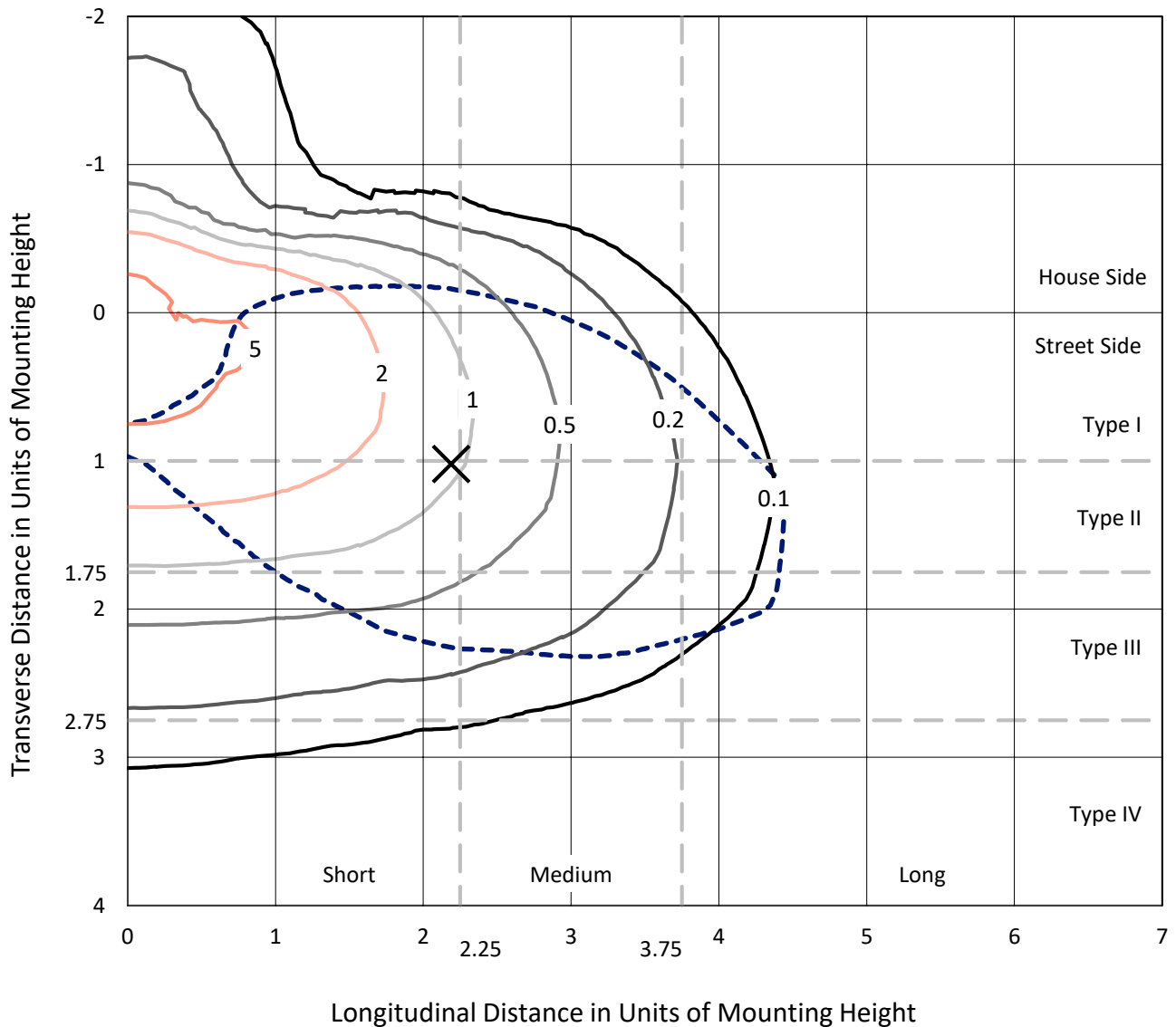
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

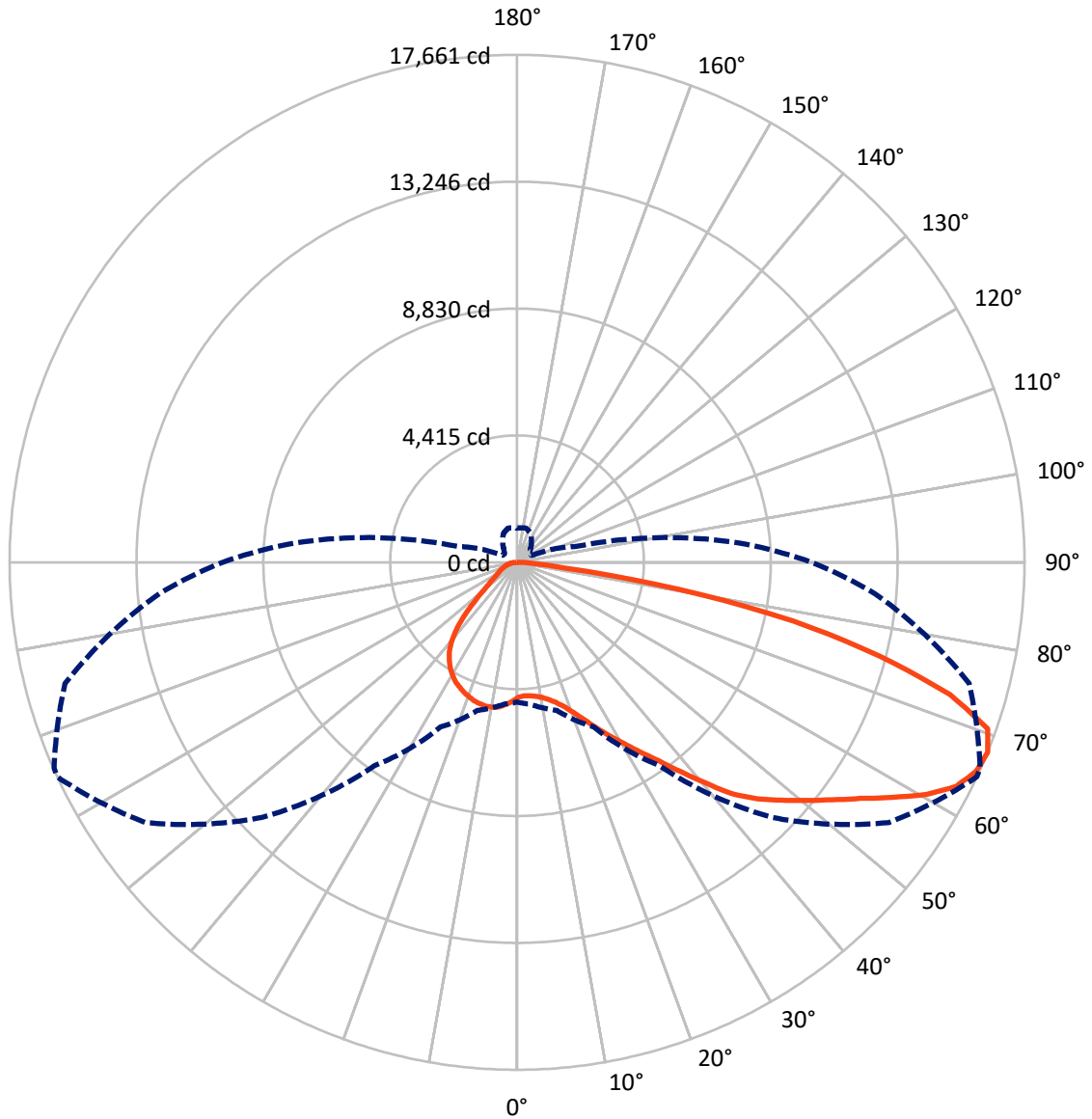
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.8 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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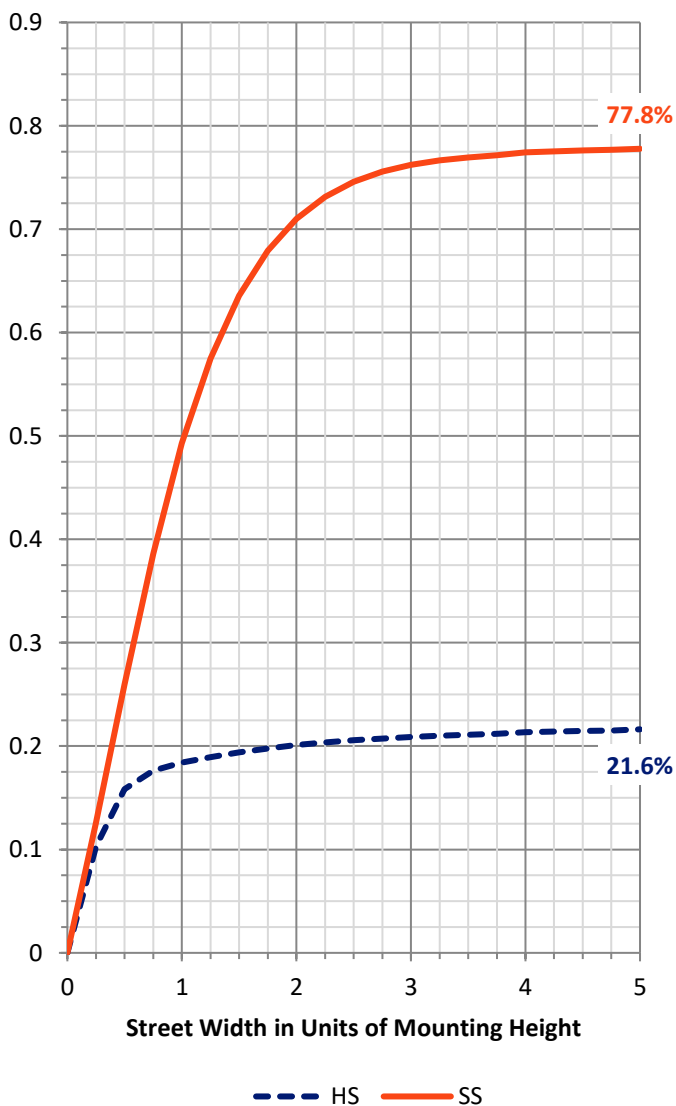
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6718.5	0.0	6718.5
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	23697.5	0.0	23697.5
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	30416.0	0.0	30416.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	468.1	1.5
10°-20°	1462.5	4.8
20°-30°	2531.8	8.3
30°-40°	3720.2	12.2
40°-50°	5028.3	16.5
50°-60°	6183.3	20.3
60°-70°	6625.7	21.8
70°-80°	3907.8	12.8
80°-90°	488.5	1.6
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°	30416.0	100.0
0°-180°	30416.0	100.0

**Coefficient of Utilization**

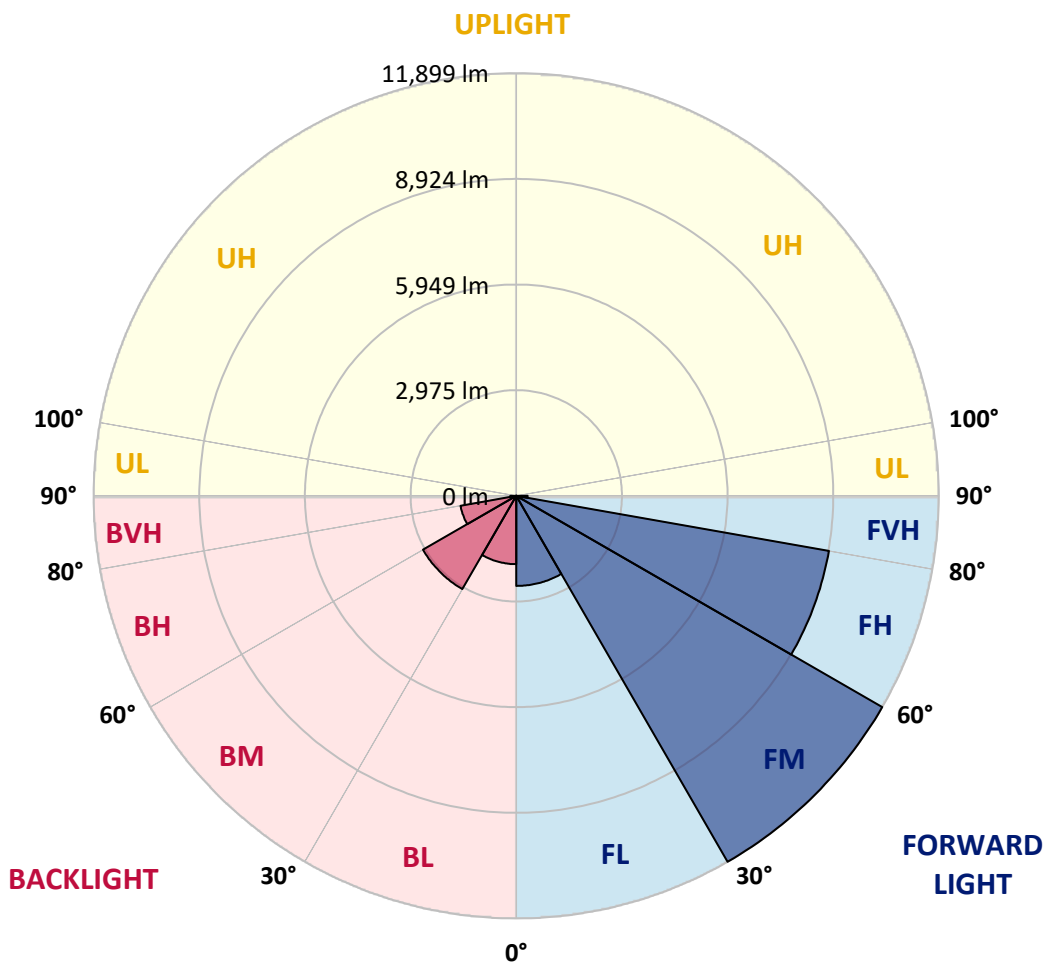


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2538.0	8.3			
FM (30°-60°)	11898.9	39.1			
FH (60°-80°)	8940.3	29.4			G4/12000
FVH (80°-90°)	320.3	1.1			G3/500
BL (0°-30°)	1924.4	6.3	B3/2500		
BM (30°-60°)	3032.7	10.0	B3/5000		
BH (60°-80°)	1593.3	5.2	B3/2500		G3/2500
BVH (80°-90°)	168.2	0.6			G2/225
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°	4698.1	4698.1	4698.1	4698.1	4698.1	4698.1	4698.1	4698.1	4698.1	4698.1	4698.1
2.5°	4609.4	4600.8	4597.0	4608.8	4617.5	4627.4	4641.7	4655.3	4657.2	4675.2	4698.7
5°	4665.3	4657.8	4649.7	4647.9	4644.8	4644.2	4647.9	4663.4	4667.1	4684.5	4735.3
7.5°	4789.3	4781.8	4767.0	4761.4	4744.6	4714.9	4700.6	4708.7	4710.5	4731.6	4794.9
10°	4991.4	4968.5	4950.5	4931.9	4879.2	4832.1	4797.3	4782.5	4779.4	4799.8	4873.0
12.5°	5232.7	5213.4	5193.6	5144.6	5077.6	4992.7	4931.3	4897.2	4894.7	4912.1	4967.3
15°	5487.5	5487.5	5473.9	5415.6	5349.9	5209.1	5114.2	5057.2	5060.9	5074.5	5100.0
17.5°	5816.8	5789.6	5783.3	5717.0	5643.8	5515.5	5364.8	5273.6	5277.9	5284.1	5264.9
20°	6151.7	6143.6	6134.3	6090.3	6024.0	5859.0	5689.7	5570.0	5570.6	5548.3	5462.7
22.5°	6594.5	6567.8	6574.6	6525.0	6435.1	6265.8	6071.1	5929.1	5938.4	5906.1	5751.1
25°	7034.2	7007.5	6993.2	6959.7	6882.2	6721.6	6490.3	6360.1	6348.9	6290.6	6065.5
27.5°	7473.2	7457.7	7469.5	7429.2	7365.9	7186.7	6974.6	6830.1	6837.6	6797.3	6461.8
30°	7927.8	7910.4	7961.9	7896.8	7857.7	7683.4	7480.0	7310.1	7316.3	7331.2	6954.8
32.5°	8270.7	8291.2	8381.1	8373.6	8366.2	8172.1	7958.2	7863.9	7873.2	7925.3	7540.2
35°	8601.8	8603.7	8730.2	8825.7	8866.0	8703.6	8481.5	8478.4	8539.2	8698.0	8356.3
37.5°	8876.6	8870.4	9039.0	9187.3	9297.6	9171.8	9049.6	9240.0	9295.2	9624.4	9178.0
40°	9026.6	9039.7	9256.7	9441.5	9658.6	9599.0	9612.0	10098.8	10234.7	10523.0	9792.5
42.5°	8921.2	8960.9	9298.9	9675.9	10003.3	10082.7	10344.4	11026.6	11084.2	11136.3	10397.1
45°	8744.5	8786.0	9160.6	9769.6	10288.0	10623.5	11073.1	11740.3	11803.6	11745.3	10900.1
47.5°	8560.3	8603.1	9020.4	9731.7	10523.6	11166.7	11721.1	12371.6	12452.2	12271.8	11383.8
50°	8326.5	8392.9	8849.3	9651.7	10714.6	11752.7	12334.4	13021.5	13058.7	12798.3	11750.3
52.5°	8038.8	8111.9	8605.6	9514.7	10864.1	12162.0	12955.2	13726.6	13722.9	13413.5	12169.5
55°	7736.1	7802.5	8311.0	9298.9	10947.8	12477.1	13451.3	14503.6	14548.3	14289.1	12549.0
57.5°	7348.6	7408.7	7963.1	9008.7	10861.0	12744.3	14255.0	15427.0	15449.3	14898.7	12851.0
60°	6835.1	6923.8	7480.7	8639.7	10611.7	13053.8	15140.5	16398.1	16425.4	15498.3	13045.1
62.5°	6271.4	6306.7	6874.2	8071.6	10248.9	13292.5	15754.4	17157.8	17118.1	15967.2	13103.4
65°	5584.3	5612.2	6103.3	7341.1	9574.8	13161.7	15974.6	17548.5	17499.5	16261.7	12924.2
67.5°	4864.9	4951.1	5336.9	6327.8	8634.1	12557.7	15788.6	17660.7	17635.9	16284.0	12496.3
70°	3931.0	3961.4	4309.9	5155.2	7204.1	11348.4	15168.4	17373.0	17353.8	15785.5	11622.5
72.5°	2772.0	2742.2	2911.5	3574.4	5203.5	9027.3	12950.8	15756.3	15788.6	14121.0	10121.2
75°	1471.6	1528.6	1792.2	2188.4	2950.0	5803.2	10325.2	13040.1	13029.0	11807.9	8000.3
77.5°	783.8	782.6	963.7	1133.0	1444.3	2666.6	6810.3	9834.1	9888.6	9148.8	5493.1
80°	376.4	390.7	401.8	460.8	720.0	1232.2	2848.9	5702.7	6074.8	5456.5	2609.5
82.5°	301.4	302.6	303.9	290.8	297.7	501.7	1097.6	1650.2	1709.7	1374.2	841.5
85°	223.2	209.6	207.7	176.1	199.1	301.4	553.8	704.5	669.7	651.8	475.0
87.5°	89.9	84.3	81.9	76.9	76.9	113.5	195.3	254.9	254.3	231.9	159.4
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°	4698.1	4698.1	4698.1	4698.1	4698.1	4698.1	4698.1	4698.1	4698.1	4698.1	4698.1
2.5°	4717.3	4739.7	4791.8	4836.4	4853.2	4894.1	4932.5	4954.9	4970.4	4979.7	5021.8
5°	4766.3	4811.0	4894.1	4956.7	5017.5	5093.1	5142.1	5173.1	5190.5	5200.4	5230.8
7.5°	4841.4	4886.6	4974.7	5070.8	5126.6	5188.6	5220.3	5242.6	5253.8	5250.7	5274.8
10°	4908.3	4953.0	5041.1	5114.8	5146.5	5181.8	5198.6	5203.5	5204.1	5206.6	5230.8
12.5°	4999.5	5026.8	5073.9	5122.3	5115.5	5116.7	5131.0	5124.8	5110.5	5108.0	5124.1
15°	5097.5	5098.1	5101.8	5091.3	5048.5	5029.9	5010.0	4993.3	4954.2	4951.8	4977.2
17.5°	5220.3	5191.1	5123.5	5051.6	4949.9	4879.8	4809.1	4780.0	4732.2	4722.9	4735.3
20°	5378.4	5317.6	5153.3	4974.7	4784.3	4659.1	4573.5	4487.3	4420.9	4404.8	4416.6
22.5°	5605.4	5485.7	5191.1	4892.8	4598.3	4384.3	4218.1	4114.6	4003.0	3945.9	3951.5
25°	5879.5	5692.2	5256.9	4789.3	4379.4	4070.5	3800.8	3593.0	3467.2	3383.4	3405.8
27.5°	6238.5	5981.2	5335.6	4687.0	4107.1	3669.3	3278.0	2996.5	2868.1	2828.4	2802.4
30°	6654.6	6330.3	5418.7	4535.6	3813.2	3172.6	2671.5	2437.1	2290.1	2266.6	2246.7
32.5°	7211.5	6770.0	5574.4	4371.3	3462.2	2675.9	2132.0	1862.3	1828.8	1809.5	1805.2
35°	7929.6	7346.1	5737.5	4158.0	3004.5	2093.6	1613.0	1467.2	1451.1	1472.2	1474.1
37.5°	8691.8	7971.2	5932.8	3917.4	2478.0	1562.1	1234.1	1133.0	1151.0	1216.7	1231.6
40°	9207.7	8382.9	6110.2	3590.6	1827.5	1134.8	898.0	876.2	975.5	1059.8	1077.2
42.5°	9702.6	8694.9	6182.1	3158.3	1303.5	808.0	724.9	799.3	938.3	1030.7	1043.1
45°	10124.9	9057.6	6001.0	2639.9	883.7	675.3	694.5	797.5	951.9	1054.2	1063.5
47.5°	10526.7	9354.1	5753.6	2079.9	697.0	649.9	693.9	814.2	982.3	1079.0	1084.6
50°	10910.6	9579.8	5331.3	1582.6	653.0	638.1	699.5	840.3	999.0	1059.8	1057.3
52.5°	11195.2	9696.4	4881.7	1277.5	635.6	628.8	714.4	873.1	1002.1	1038.7	1036.2
55°	11404.2	9674.1	4586.5	1046.2	621.4	625.1	738.6	898.0	1031.9	1087.1	1085.2
57.5°	11423.4	9573.0	4251.0	883.7	604.0	624.5	764.6	932.7	1180.7	1282.4	1251.4
60°	11400.5	9405.5	3916.1	775.8	584.8	628.2	791.9	1036.9	1395.3	1475.3	1453.6
62.5°	11287.6	9093.6	3414.4	704.5	568.0	641.8	812.4	1119.3	1384.8	1394.1	1363.0
65°	10939.1	8676.3	2755.9	632.5	551.3	651.1	829.1	1141.0	1271.9	1242.1	1226.6
67.5°	10249.5	7744.2	2125.8	566.8	529.6	649.3	878.7	1110.0	1229.1	1207.4	1187.6
70°	9269.7	6685.0	1475.9	499.2	493.0	637.5	866.3	1120.6	1208.6	1175.1	1148.5
72.5°	7744.2	5244.5	938.9	444.0	438.4	609.6	835.3	1113.8	1195.0	1180.1	1143.5
75°	5831.1	3660.6	596.6	383.9	390.1	558.7	785.7	1077.2	1188.2	1141.7	1071.6
77.5°	3671.2	1807.1	463.9	326.2	335.5	481.8	679.0	940.7	1140.4	1112.5	1022.6
80°	1388.5	733.6	362.8	264.8	272.9	374.6	556.9	773.9	1049.9	1095.8	1057.3
82.5°	639.4	458.9	272.2	212.7	215.8	272.9	415.5	573.0	888.6	1005.9	1102.0
85°	373.3	300.8	181.7	142.0	147.6	161.2	233.8	349.8	576.1	767.1	858.3
87.5°	127.1	104.8	70.7	60.2	58.3	66.4	56.4	114.7	171.2	301.4	344.2
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)