

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: P510409

Luminaire Tested: **CST-CA10-210-727-U-T3**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510409
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-CA10-210-727-U-T3
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: 29615 lumens
Efficiency: N/A
Efficacy: 139.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

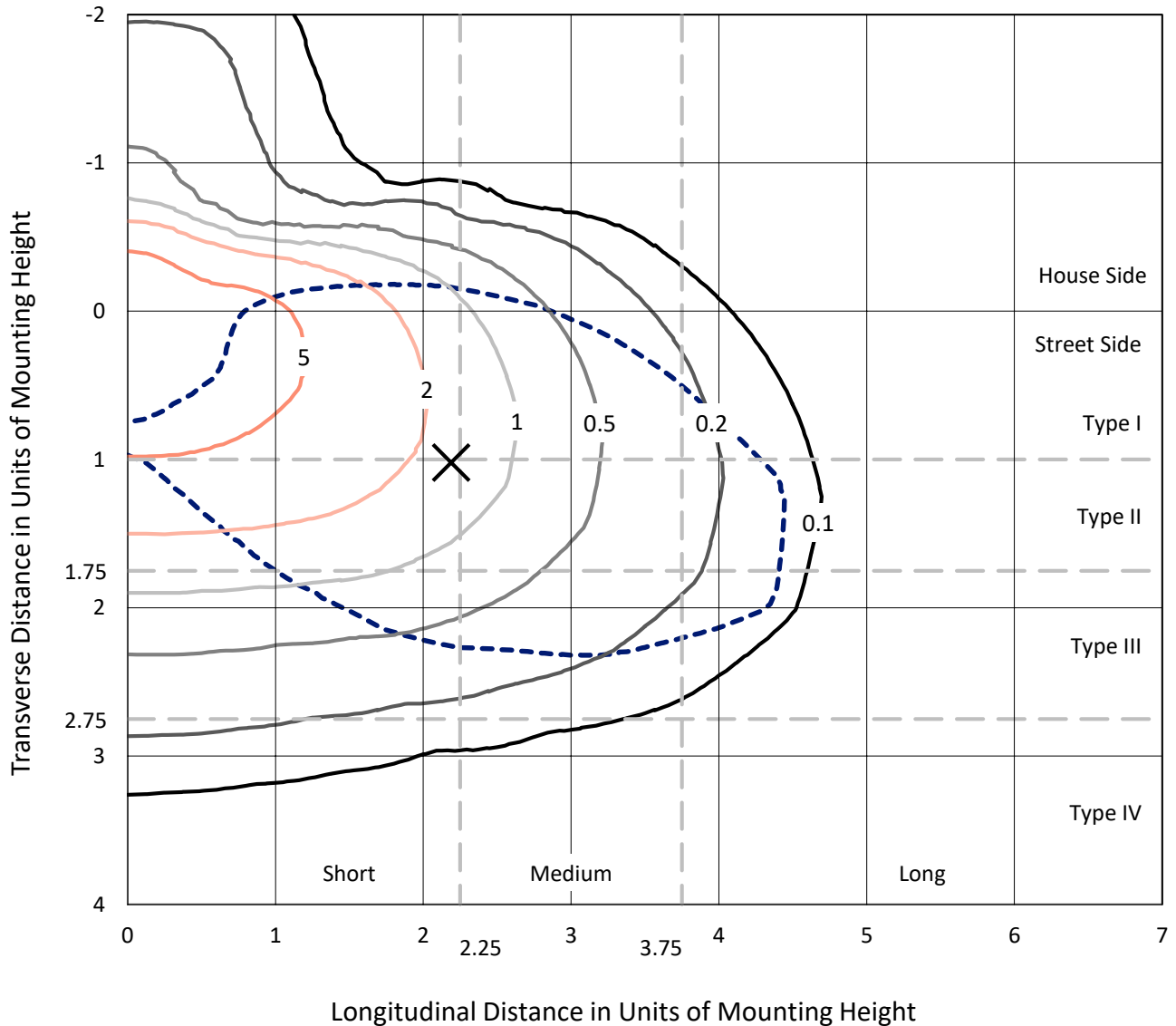
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

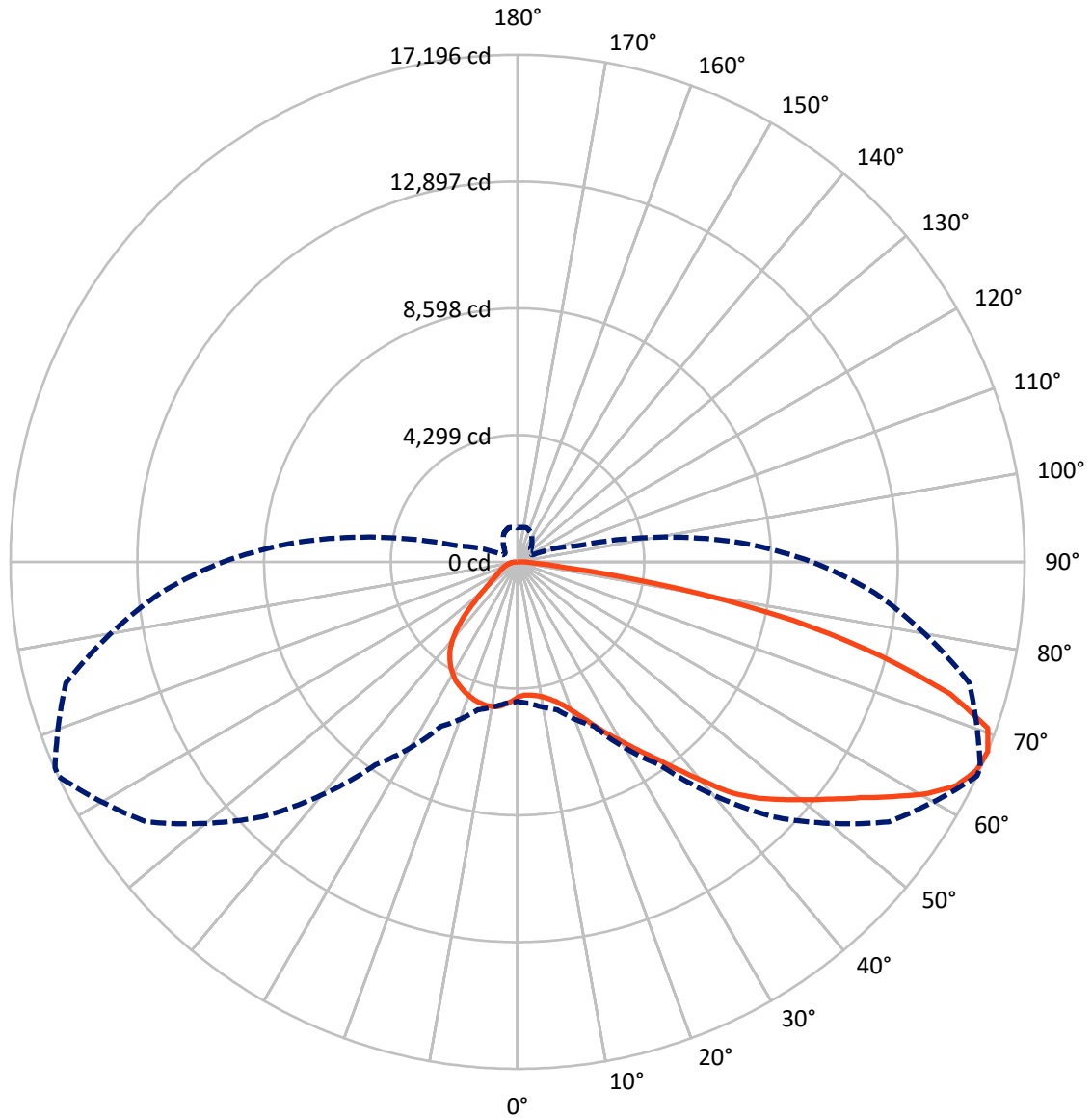
✕ Max cd
 - - - 1/2 Max cd



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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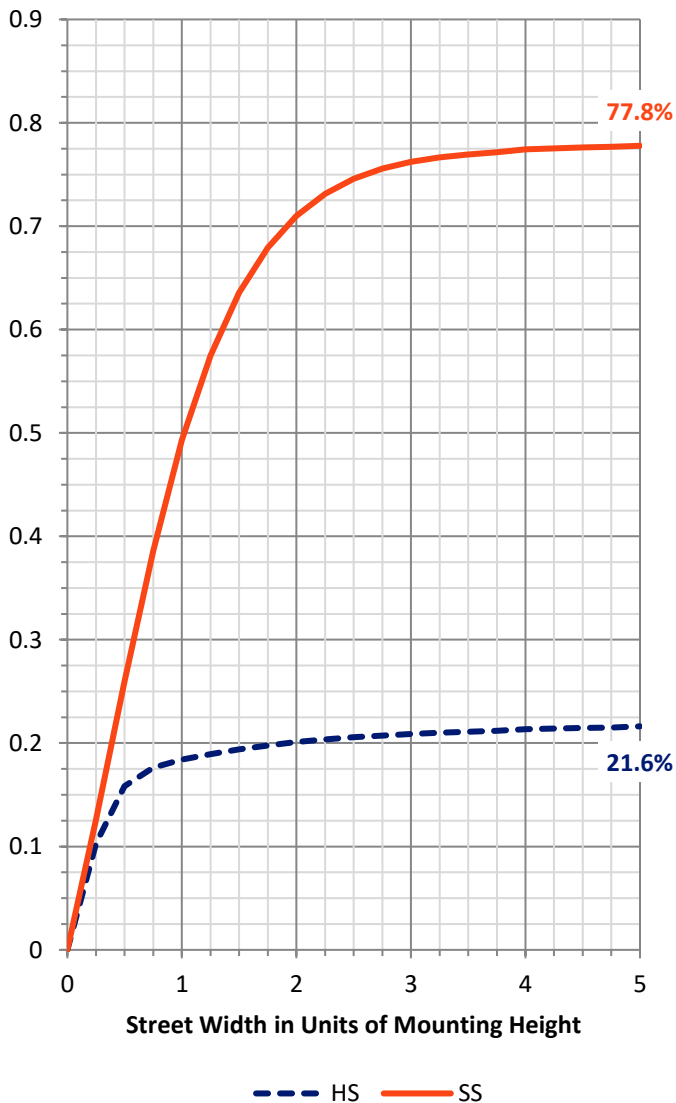
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6541.6	0.0	6541.6
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	23073.4	0.0	23073.4
	% Fixture	77.9	0.0	77.9
Total	Lumens	29615.0	0.0	29615.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	455.8	1.5
10°-20°	1424.0	4.8
20°-30°	2465.1	8.3
30°-40°	3622.2	12.2
40°-50°	4895.8	16.5
50°-60°	6020.4	20.3
60°-70°	6451.3	21.8
70°-80°	3804.9	12.8
80°-90°	475.6	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°	29615.0	100.0
0°-180°	29615.0	100.0

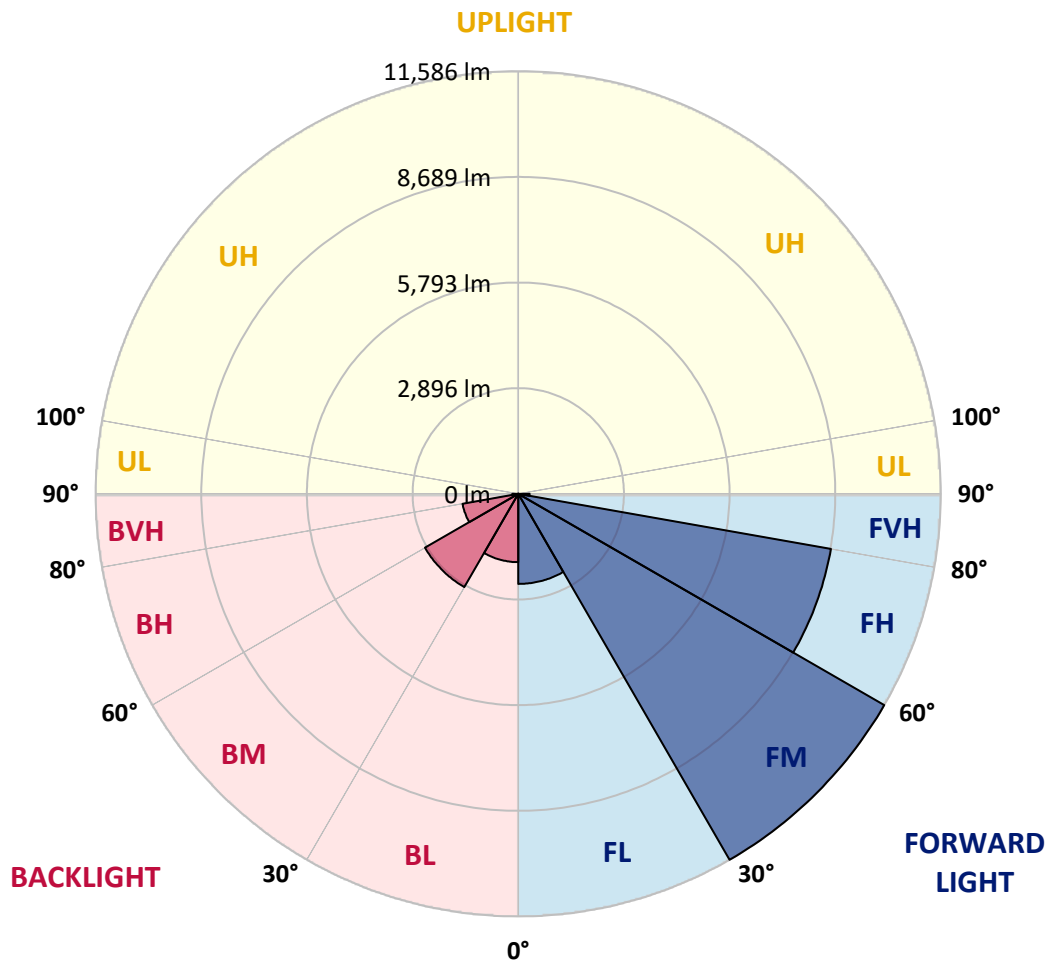


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2471.1	8.3			
FM (30°-60°)	11585.6	39.1			
FH (60°-80°)	8704.8	29.4			G4/12000
FVH (80°-90°)	311.9	1.1			G3/500
BL (0°-30°)	1873.7	6.3	B3/2500		
BM (30°-60°)	2952.9	10.0	B3/5000		
BH (60°-80°)	1551.3	5.2	B3/2500		G3/2500
BVH (80°-90°)	163.7	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°	4574.4	4574.4	4574.4	4574.4	4574.4	4574.4	4574.4	4574.4	4574.4	4574.4	4574.4
2.5°	4488.1	4479.6	4476.0	4487.4	4495.9	4505.6	4519.4	4532.7	4534.5	4552.1	4575.0
5°	4542.4	4535.1	4527.3	4525.5	4522.5	4521.9	4525.5	4540.6	4544.2	4561.1	4610.6
7.5°	4663.2	4655.9	4641.4	4636.0	4619.7	4590.7	4576.8	4584.7	4586.5	4607.0	4668.6
10°	4860.0	4837.7	4820.1	4802.0	4750.7	4704.8	4671.0	4656.5	4653.5	4673.4	4744.7
12.5°	5094.9	5076.2	5056.8	5009.1	4943.9	4861.2	4801.4	4768.2	4765.8	4782.7	4836.4
15°	5343.0	5343.0	5329.7	5273.0	5209.0	5071.9	4979.5	4924.0	4927.6	4940.9	4965.7
17.5°	5663.7	5637.1	5631.0	5566.4	5495.2	5370.2	5223.5	5134.7	5138.9	5145.0	5126.3
20°	5989.7	5981.9	5972.8	5929.9	5865.3	5704.7	5539.9	5423.3	5423.9	5402.2	5318.9
22.5°	6420.8	6394.9	6401.5	6353.2	6265.6	6100.8	5911.2	5772.9	5782.0	5750.6	5599.6
25°	6848.9	6822.9	6809.1	6776.5	6701.0	6544.6	6319.4	6192.6	6181.7	6125.0	5905.8
27.5°	7276.4	7261.3	7272.8	7233.5	7171.9	6997.4	6790.9	6650.3	6657.5	6618.3	6291.6
30°	7719.0	7702.1	7752.2	7688.8	7650.8	7481.1	7283.0	7117.6	7123.6	7138.1	6771.6
32.5°	8052.9	8072.8	8160.4	8153.1	8145.9	7956.9	7748.6	7656.8	7665.9	7716.6	7341.6
35°	8375.3	8377.1	8500.3	8593.3	8632.5	8474.3	8258.2	8255.2	8314.3	8468.9	8136.2
37.5°	8642.8	8636.8	8801.0	8945.3	9052.8	8930.2	8811.3	8996.6	9050.4	9371.0	8936.3
40°	8788.9	8801.6	9012.9	9192.9	9404.2	9346.2	9358.9	9832.9	9965.1	10245.9	9534.6
42.5°	8686.3	8724.9	9054.0	9421.1	9739.9	9817.2	10072.0	10736.2	10792.3	10843.1	10123.3
45°	8514.2	8554.6	8919.3	9512.3	10017.1	10343.7	10781.5	11431.2	11492.7	11436.0	10613.0
47.5°	8334.9	8376.5	8782.9	9475.4	10246.5	10872.6	11412.4	12045.8	12124.3	11948.6	11084.0
50°	8107.2	8171.8	8616.2	9397.6	10432.5	11443.2	12009.6	12678.6	12714.8	12461.2	11440.8
52.5°	7827.1	7898.3	8378.9	9264.1	10578.0	11841.7	12614.0	13365.1	13361.5	13060.2	11849.0
55°	7532.4	7597.0	8092.1	9054.0	10659.5	12148.5	13097.0	14121.7	14165.2	13912.8	12218.5
57.5°	7155.0	7213.6	7753.4	8771.4	10575.0	12408.7	13879.6	15020.8	15042.5	14506.3	12512.6
60°	6655.1	6741.4	7283.6	8412.2	10332.2	12710.0	14741.8	15966.3	15992.9	15090.2	12701.6
62.5°	6106.2	6140.7	6693.1	7859.1	9979.0	12942.5	15339.6	16706.0	16667.3	15546.7	12758.3
65°	5437.2	5464.4	5942.6	7147.8	9322.7	12815.1	15553.9	17086.4	17038.7	15833.5	12583.8
67.5°	4736.8	4820.7	5196.3	6161.2	8406.7	12227.0	15372.8	17195.6	17171.5	15855.2	12167.2
70°	3827.5	3857.1	4196.4	5019.4	7014.4	11049.6	14769.0	16915.5	16896.8	15369.7	11316.4
72.5°	2699.0	2670.0	2834.8	3480.3	5066.5	8789.5	12609.8	15341.4	15372.8	13749.1	9854.6
75°	1432.8	1488.4	1745.0	2130.8	2872.3	5650.4	10053.3	12696.7	12685.9	11497.0	7789.6
77.5°	763.2	762.0	938.3	1103.1	1406.3	2596.3	6630.9	9575.1	9628.2	8907.9	5348.5
80°	366.5	380.4	391.3	448.6	701.0	1199.8	2773.9	5552.6	5914.8	5312.8	2540.8
82.5°	293.4	294.7	295.9	283.2	289.8	488.5	1068.7	1606.7	1664.7	1338.0	819.4
85°	217.4	204.1	202.3	171.5	193.8	293.4	539.2	685.9	652.1	634.6	462.5
87.5°	87.6	82.1	79.7	74.9	74.9	110.5	190.2	248.2	247.6	225.8	155.2
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°	4574.4	4574.4	4574.4	4574.4	4574.4	4574.4	4574.4	4574.4	4574.4	4574.4	4574.4
2.5°	4593.1	4614.8	4665.6	4709.0	4725.3	4765.2	4802.6	4824.4	4839.5	4848.5	4889.6
5°	4640.8	4684.3	4765.2	4826.2	4885.4	4959.0	5006.7	5036.9	5053.8	5063.5	5093.1
7.5°	4713.9	4758.0	4843.7	4937.3	4991.6	5052.0	5082.8	5104.5	5115.4	5112.4	5135.9
10°	4779.1	4822.6	4908.3	4980.1	5010.9	5045.4	5061.7	5066.5	5067.1	5069.5	5093.1
12.5°	4867.8	4894.4	4940.3	4987.4	4980.8	4982.0	4995.8	4989.8	4975.9	4973.5	4989.2
15°	4963.2	4963.8	4967.5	4957.2	4915.5	4897.4	4878.1	4861.8	4823.8	4821.3	4846.1
17.5°	5082.8	5054.4	4988.6	4918.6	4819.5	4751.3	4682.5	4654.1	4607.6	4598.5	4610.6
20°	5236.8	5177.6	5017.6	4843.7	4658.3	4536.4	4453.0	4369.1	4304.5	4288.8	4300.3
22.5°	5457.8	5341.2	5054.4	4764.0	4477.2	4268.9	4107.1	4006.2	3897.5	3842.0	3847.4
25°	5724.6	5542.3	5118.4	4663.2	4264.0	3963.3	3700.7	3498.4	3375.9	3294.3	3316.1
27.5°	6074.2	5823.7	5195.1	4563.5	3999.0	3572.7	3191.7	2917.6	2792.6	2753.9	2728.6
30°	6479.4	6163.6	5276.0	4416.2	3712.8	3089.0	2601.2	2372.9	2229.8	2206.9	2187.6
32.5°	7021.6	6591.7	5427.6	4256.2	3371.0	2605.4	2075.9	1813.2	1780.6	1761.9	1757.7
35°	7720.8	7152.6	5586.4	4048.5	2925.4	2038.4	1570.5	1428.6	1412.9	1433.4	1435.2
37.5°	8462.9	7761.3	5776.6	3814.2	2412.8	1521.0	1201.6	1103.1	1120.7	1184.7	1199.1
40°	8965.2	8162.2	5949.2	3496.0	1779.4	1105.0	874.3	853.2	949.8	1031.9	1048.8
42.5°	9447.1	8465.9	6019.3	3075.2	1269.2	786.8	705.8	778.3	913.6	1003.5	1015.6
45°	9858.3	8819.1	5843.0	2570.4	860.4	657.5	676.3	776.5	926.8	1026.5	1035.5
47.5°	10249.5	9107.7	5602.1	2025.1	678.7	632.8	675.7	792.8	956.4	1050.6	1056.0
50°	10623.3	9327.5	5190.9	1540.9	635.8	621.3	681.1	818.2	972.7	1031.9	1029.5
52.5°	10900.4	9441.0	4753.1	1243.8	618.9	612.3	695.6	850.2	975.7	1011.4	1009.0
55°	11103.9	9419.3	4465.7	1018.6	605.0	608.6	719.1	874.3	1004.7	1058.5	1056.7
57.5°	11122.6	9320.9	4139.1	860.4	588.1	608.0	744.5	908.1	1149.6	1248.7	1218.5
60°	11100.3	9157.8	3813.0	755.4	569.4	611.7	771.1	1009.6	1358.6	1436.4	1415.3
62.5°	10990.4	8854.1	3324.5	685.9	553.1	624.9	791.0	1089.9	1348.3	1357.3	1327.2
65°	10651.0	8447.8	2683.3	615.9	536.8	634.0	807.3	1111.0	1238.4	1209.4	1194.3
67.5°	9979.6	7540.3	2069.8	551.9	515.6	632.2	855.6	1080.8	1196.7	1175.6	1156.3
70°	9025.6	6509.0	1437.0	486.1	480.0	620.7	843.5	1091.1	1176.8	1144.2	1118.2
72.5°	7540.3	5106.3	914.2	432.3	426.9	593.5	813.3	1084.4	1163.5	1149.0	1113.4
75°	5677.5	3564.2	580.9	373.8	379.8	544.0	765.0	1048.8	1156.9	1111.6	1043.4
77.5°	3574.5	1759.5	451.6	317.6	326.7	469.2	661.2	916.0	1110.4	1083.2	995.7
80°	1351.9	714.3	353.2	257.8	265.7	364.7	542.2	753.5	1022.2	1066.9	1029.5
82.5°	622.5	446.8	265.1	207.1	210.1	265.7	404.5	557.9	865.2	979.4	1073.0
85°	363.5	292.8	176.9	138.3	143.7	157.0	227.6	340.5	560.9	746.9	835.7
87.5°	123.8	102.0	68.8	58.6	56.8	64.6	54.9	111.7	166.6	293.4	335.1
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)