

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: P232792

Luminaire Tested: **CST-8-3-D-U-T2**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P232792  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-7)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-8-3-D-U-T2  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 4000K LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31220 lumens  
Efficiency: N/A  
Efficacy: 138.1 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G4

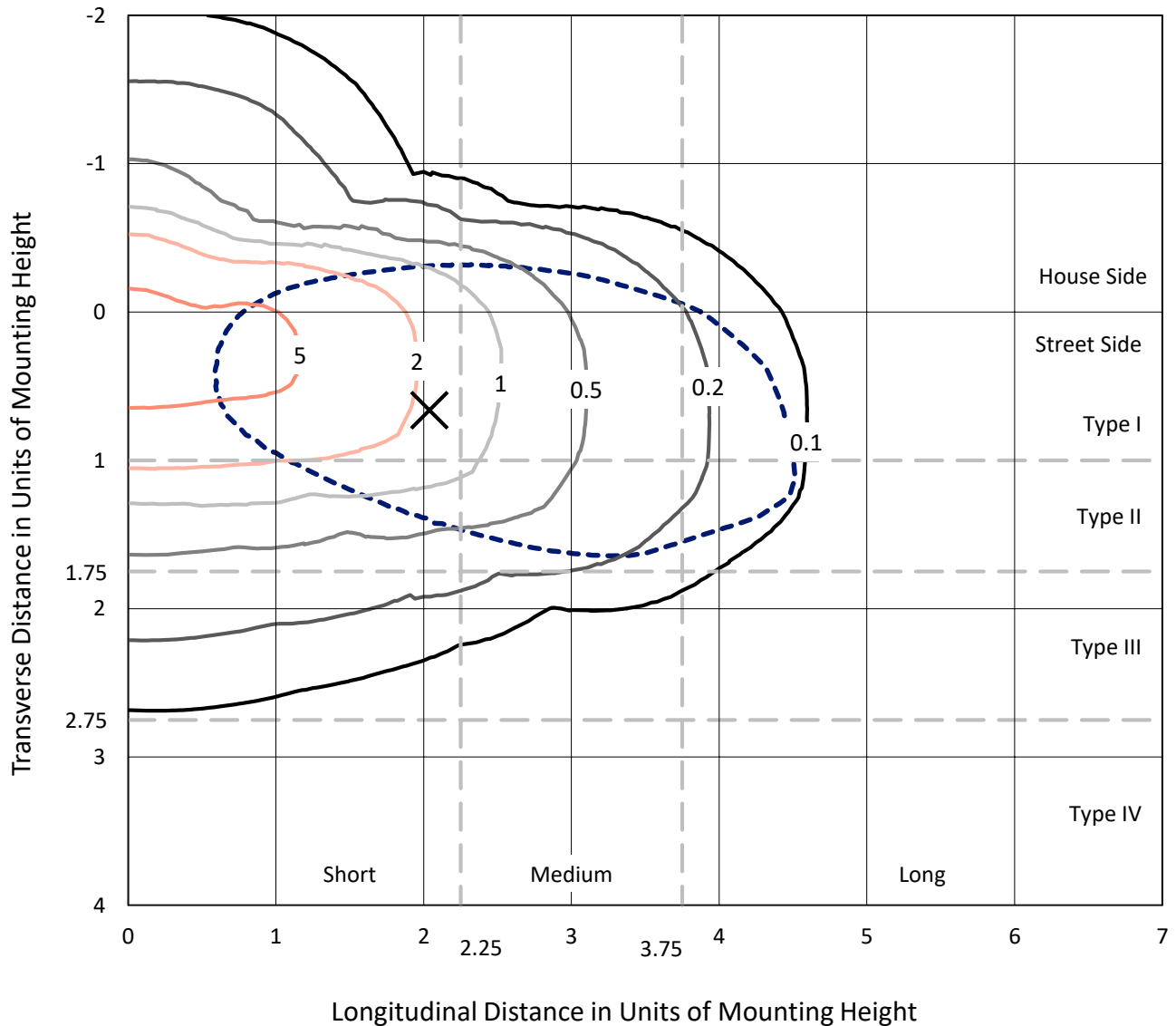
Input Watts (W): 226  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

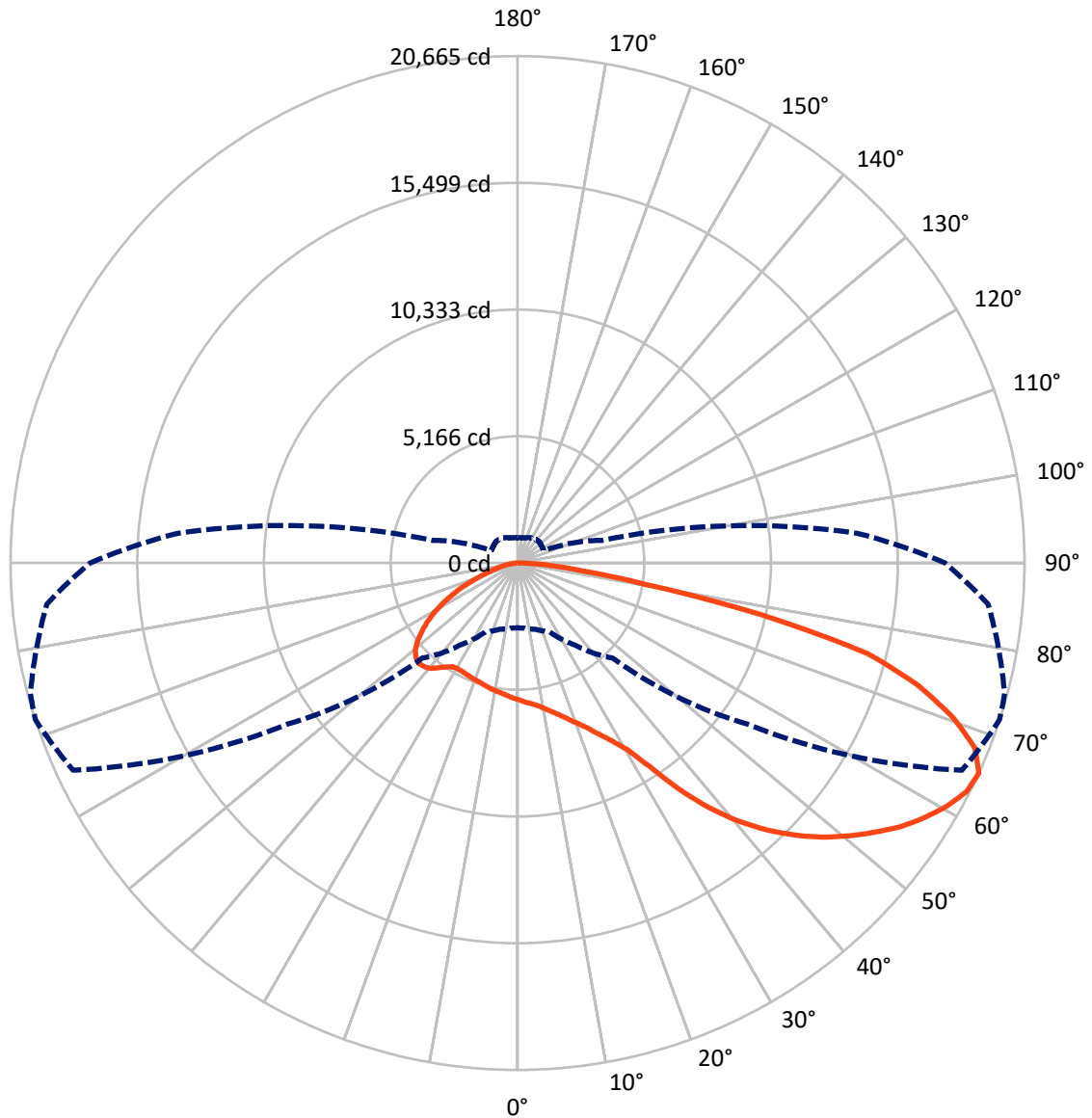
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.2 fc  
 Type II - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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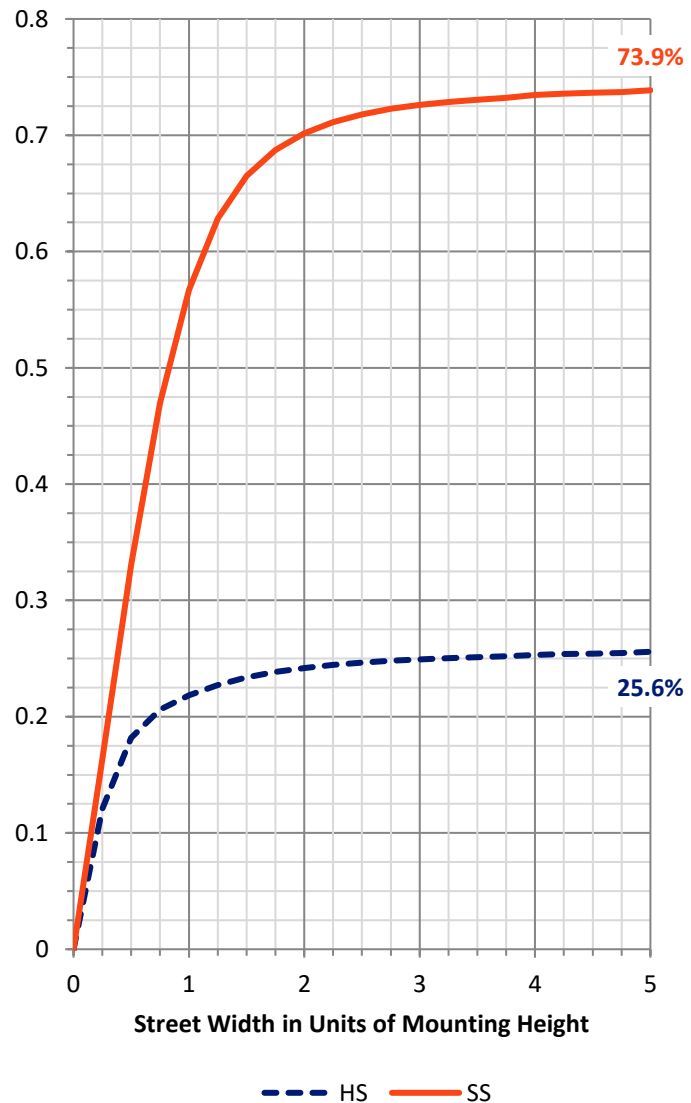
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8132.5	0.0	8132.5
	% Fixture	26.0	0.0	26.0
<b>Street Side</b>	Lumens	23087.5	0.0	23087.5
	% Fixture	74.0	0.0	74.0
<b>Total</b>	Lumens	31220.0	0.0	31220.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	535.8	1.7
10°-20°	1633.2	5.2
20°-30°	2735.7	8.8
30°-40°	3970.8	12.7
40°-50°	5369.4	17.2
50°-60°	6267.5	20.1
60°-70°	6240.4	20.0
70°-80°	3784.1	12.1
80°-90°	683.1	2.2
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°	31220.0	100.0
0°-180°	31220.0	100.0



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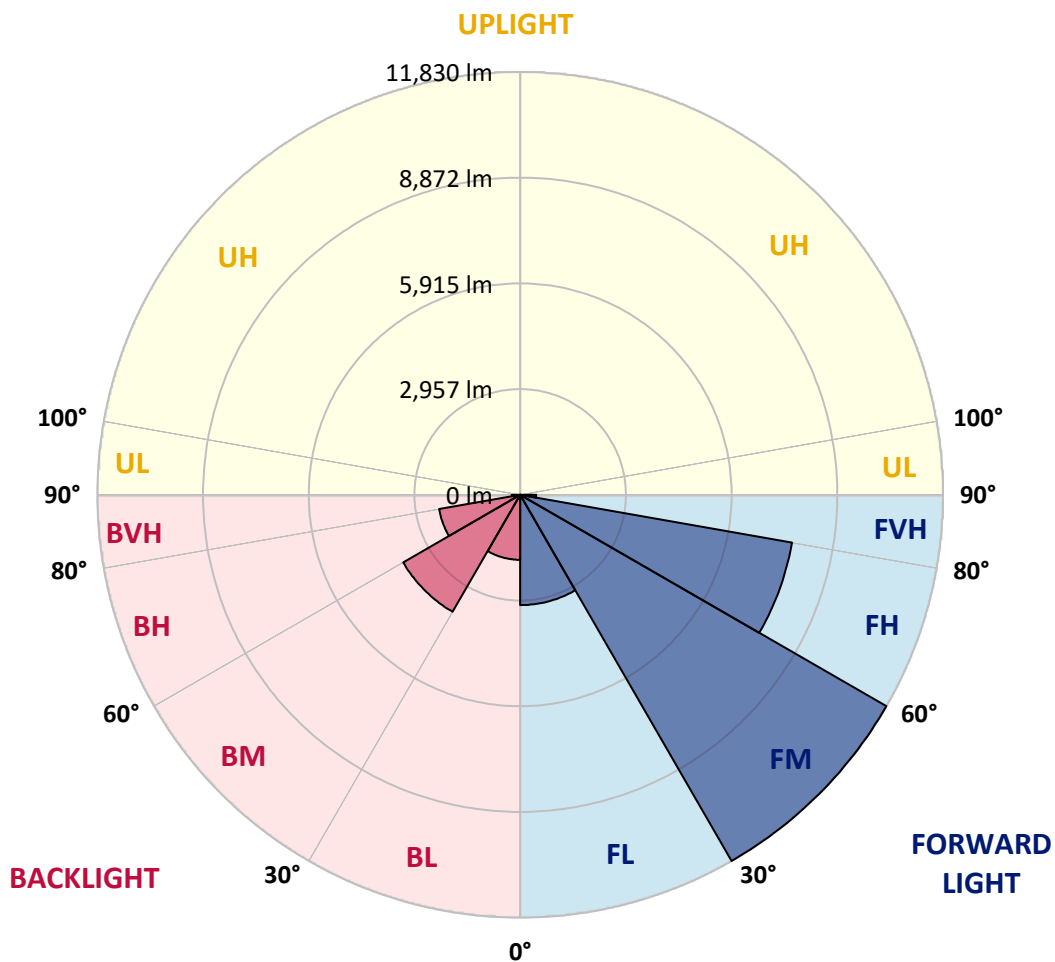
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3085.6	9.9			
FM	(30°-60°)	11830.0	37.9			
FH	(60°-80°)	7722.5	24.7			G4/12000
FVH	(80°-90°)	449.3	1.4			G3/500
BL	(0°-30°)	1819.1	5.8	B3/2500		
BM	(30°-60°)	3777.7	12.1	B3/5000		
BH	(60°-80°)	2302.0	7.4	B3/2500		G3/2500
BVH	(80°-90°)	233.7	0.7			G3/500
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°	72°	75°	85°
0°	5572.5	5572.5	5572.5	5572.5	5572.5	5572.5	5572.5	5572.5	5572.5	5572.5	5572.5
2.5°	5862.5	5851.3	5855.0	5860.4	5793.9	5782.7	5727.6	5699.6	5668.8	5647.2	5598.6
5°	6164.2	6163.2	6139.2	6139.5	6035.1	5994.9	5893.2	5818.2	5753.0	5719.2	5617.8
7.5°	6437.9	6409.5	6407.1	6400.4	6282.5	6218.3	6083.4	5969.6	5869.9	5817.9	5660.7
10°	6695.0	6675.1	6675.4	6667.3	6546.4	6466.3	6304.1	6160.8	6027.7	5960.4	5731.7
12.5°	6969.4	6946.8	6943.0	6914.7	6803.5	6726.5	6549.1	6373.0	6211.8	6135.8	5839.1
15°	7250.9	7229.2	7218.4	7185.7	7061.6	6979.5	6830.9	6613.3	6429.8	6335.2	5980.4
17.5°	7510.4	7497.2	7478.9	7453.6	7345.1	7255.3	7106.6	6899.8	6680.5	6559.5	6142.9
20°	7670.5	7659.0	7671.2	7671.2	7608.7	7543.5	7393.8	7216.4	6979.5	6829.8	6329.8
22.5°	7793.2	7781.4	7835.4	7862.8	7869.2	7854.7	7707.7	7552.9	7306.3	7151.9	6560.9
25°	7823.3	7824.6	7916.2	8039.2	8130.4	8173.0	8059.8	7945.9	7733.0	7539.8	6876.8
27.5°	7814.5	7823.3	7940.5	8160.1	8378.8	8482.2	8441.3	8375.0	8206.4	8041.9	7298.8
30°	7801.6	7824.6	7979.4	8249.3	8565.6	8770.4	8811.3	8911.6	8828.8	8716.6	7968.2
32.5°	7642.1	7662.8	7884.4	8282.5	8724.8	9096.4	9316.4	9741.8	9876.6	9854.7	9004.2
35°	7268.8	7309.3	7638.1	8195.6	8847.4	9428.6	9950.6	10841.3	11308.0	11270.5	10199.3
37.5°	6888.3	6938.0	7332.3	8033.8	8902.8	9782.0	10644.7	12070.6	12634.5	12579.8	11347.8
40°	6543.3	6600.4	6998.5	7791.2	8888.0	10112.5	11373.8	13225.8	13815.8	13718.5	12372.0
42.5°	6144.6	6227.4	6589.9	7467.8	8772.1	10345.3	12095.2	14329.7	14864.0	14715.3	13303.9
45°	5773.3	5839.8	6188.2	7024.8	8595.3	10516.6	12755.2	15352.5	15817.2	15643.8	14162.5
47.5°	5370.8	5455.3	5805.4	6569.0	8244.3	10555.1	13359.3	16261.1	16698.4	16517.9	14963.3
50°	4309.2	4445.3	5236.0	6123.0	7699.3	10415.2	13895.9	17113.3	17490.4	17347.8	15791.8
52.5°	3757.0	3783.7	4183.8	5611.1	7035.6	10049.3	14283.1	17949.3	18235.1	18089.8	16525.0
55°	3510.0	3517.5	3696.6	4749.1	6391.9	9352.2	14470.6	18749.7	18964.6	18763.2	17219.1
57.5°	3256.3	3297.8	3477.9	4007.8	5786.8	8346.3	14340.6	19449.8	19577.9	19351.2	17856.3
60°	3046.5	3080.2	3260.0	3619.9	5122.8	7176.9	13734.4	20007.7	20120.6	19889.1	18454.4
62.5°	2856.2	2880.9	3020.1	3357.3	4523.0	6139.9	12603.1	20157.1	20535.8	20351.7	19007.2
65°	2640.3	2662.9	2792.0	3092.7	4084.1	5476.2	11465.1	19989.1	20665.3	20553.7	19255.9
67.5°	2383.8	2414.3	2530.8	2790.0	3632.0	4904.9	10121.6	19563.0	20113.1	19941.8	18719.7
70°	2047.0	2096.6	2228.7	2453.4	3103.9	4168.6	8074.3	18162.5	18816.0	18620.3	17287.7
72.5°	1613.8	1624.6	1720.2	1907.1	2458.2	3316.1	5449.2	15368.4	17075.1	17019.7	15292.4
75°	1203.2	1240.1	1393.5	1537.4	1795.9	2379.1	3312.4	11201.2	14742.0	14742.0	12887.9
77.5°	981.9	1001.2	1103.2	1224.2	1400.6	1669.5	2105.8	6329.1	10161.1	11191.7	9687.1
80°	767.4	760.6	767.7	822.1	988.7	1103.9	1399.9	3252.9	5249.5	5967.2	6345.6
82.5°	420.3	420.7	466.6	439.9	545.4	620.4	849.1	1829.7	2743.0	3045.8	3399.6
85°	212.9	207.8	231.5	215.9	252.4	283.2	385.5	908.9	1399.9	1517.5	1602.0
87.5°	76.0	72.3	83.1	99.7	93.3	99.0	133.1	326.7	541.0	578.8	567.3
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°	5572.5	5572.5	5572.5	5572.5	5572.5	5572.5	5572.5	5572.5	5572.5	5572.5	5572.5
2.5°	5584.7	5552.3	5513.1	5480.3	5411.0	5374.9	5346.2	5354.3	5323.2	5278.2	5277.6
5°	5581.0	5519.2	5435.0	5365.4	5253.9	5196.5	5142.4	5128.2	5081.9	5037.3	5035.0
7.5°	5593.8	5511.7	5375.2	5264.0	5118.8	5029.2	4945.4	4912.6	4858.2	4811.3	4808.9
10°	5629.3	5520.8	5334.0	5179.9	4998.1	4875.5	4767.0	4701.1	4638.3	4590.0	4589.3
12.5°	5692.8	5547.9	5297.8	5096.8	4880.9	4718.4	4579.8	4494.7	4406.8	4371.0	4369.0
15°	5782.4	5587.4	5250.9	4986.3	4736.6	4551.4	4380.1	4267.6	4170.3	4135.8	4143.3
17.5°	5897.3	5652.0	5213.0	4864.3	4577.4	4354.1	4176.0	4062.8	3919.6	3887.8	3896.6
20°	6039.9	5751.6	5204.9	4752.8	4403.1	4137.2	3918.6	3838.5	3657.0	3614.5	3608.7
22.5°	6224.3	5869.2	5201.5	4633.5	4198.7	3887.8	3628.6	3526.9	3374.5	3302.9	3286.7
25°	6452.8	6005.4	5195.8	4514.3	3970.9	3603.6	3288.4	3145.5	3050.2	2941.7	2939.3
27.5°	6753.5	6188.2	5209.3	4396.0	3722.6	3272.2	2923.1	2749.8	2695.0	2624.8	2588.3
30°	7271.8	6513.9	5246.1	4253.1	3450.9	2890.7	2523.1	2391.6	2324.4	2253.1	2240.9
32.5°	8141.9	7218.8	5360.0	4098.3	3148.5	2478.1	2195.6	2058.1	1946.6	1909.8	1900.0
35°	9231.6	8055.7	5652.6	3932.7	2821.4	2151.4	1926.0	1744.5	1638.1	1629.3	1628.6
37.5°	10210.5	8948.4	6034.1	3728.7	2460.9	1918.2	1658.4	1501.9	1421.9	1430.0	1451.3
40°	11157.3	9740.5	6438.6	3525.2	2110.8	1671.6	1398.5	1323.5	1287.7	1316.8	1331.0
42.5°	12046.6	10463.9	6729.8	3249.2	1807.7	1406.7	1219.5	1263.7	1276.6	1300.6	1310.4
45°	12877.8	11205.2	6946.4	2916.7	1535.1	1219.8	1193.8	1270.1	1306.6	1325.2	1324.2
47.5°	13682.0	11913.8	7011.3	2477.1	1324.2	1199.2	1217.4	1261.0	1318.1	1352.3	1349.9
50°	14484.5	12558.5	6956.9	2030.4	1281.6	1239.1	1240.1	1233.0	1299.5	1327.2	1316.8
52.5°	15203.9	13160.6	6649.4	1699.3	1310.0	1281.0	1266.8	1230.9	1249.9	1269.1	1259.7
55°	15850.6	13663.1	6167.2	1536.1	1334.3	1308.0	1326.9	1257.3	1219.8	1203.6	1206.6
57.5°	16452.4	14050.6	5613.1	1434.7	1329.3	1301.6	1350.9	1250.2	1195.5	1127.2	1114.0
60°	17023.1	14305.1	4989.0	1347.2	1305.3	1292.1	1298.9	1250.5	1172.8	1084.3	1062.7
62.5°	17426.5	14318.6	4272.7	1269.1	1259.0	1277.6	1258.0	1240.7	1178.9	1111.7	1098.2
65°	17418.4	13897.9	3564.1	1179.6	1201.2	1238.7	1204.9	1147.8	1054.2	1034.3	1027.5
67.5°	16662.6	12833.2	2876.8	1046.8	1107.6	1186.3	1128.9	1036.0	955.2	931.6	936.0
70°	15019.0	11327.9	2124.7	848.5	967.1	1097.1	1061.3	957.9	869.4	850.8	870.8
72.5°	13071.1	9731.0	1510.4	672.7	803.2	970.8	956.6	867.4	789.7	797.4	815.3
75°	10912.6	7746.2	1108.0	578.8	630.5	827.5	863.3	806.2	756.9	781.5	780.9
77.5°	8133.1	5720.5	843.7	485.6	522.0	644.0	760.9	739.3	873.8	1062.0	1068.1
80°	5344.5	3714.1	569.4	398.7	427.1	483.2	621.0	712.3	894.7	775.5	766.0
82.5°	2961.3	1971.3	353.1	310.2	320.7	350.4	450.1	743.7	657.2	609.9	612.3
85°	1313.1	763.3	208.5	208.1	208.8	212.5	288.9	563.9	462.2	447.7	455.1
87.5°	454.8	201.0	65.6	52.0	58.8	73.7	150.4	344.0	241.3	200.0	200.7
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)