

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: McGRAW-EDISON

Report Number: P232704

Luminaire Tested: **CTN-8-3-D-E1-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232704
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-19)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-3-D-E1-T3-7050
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 5000K LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31660 lumens
Efficiency: N/A
Efficacy: 140.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Semi-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: 25 FT

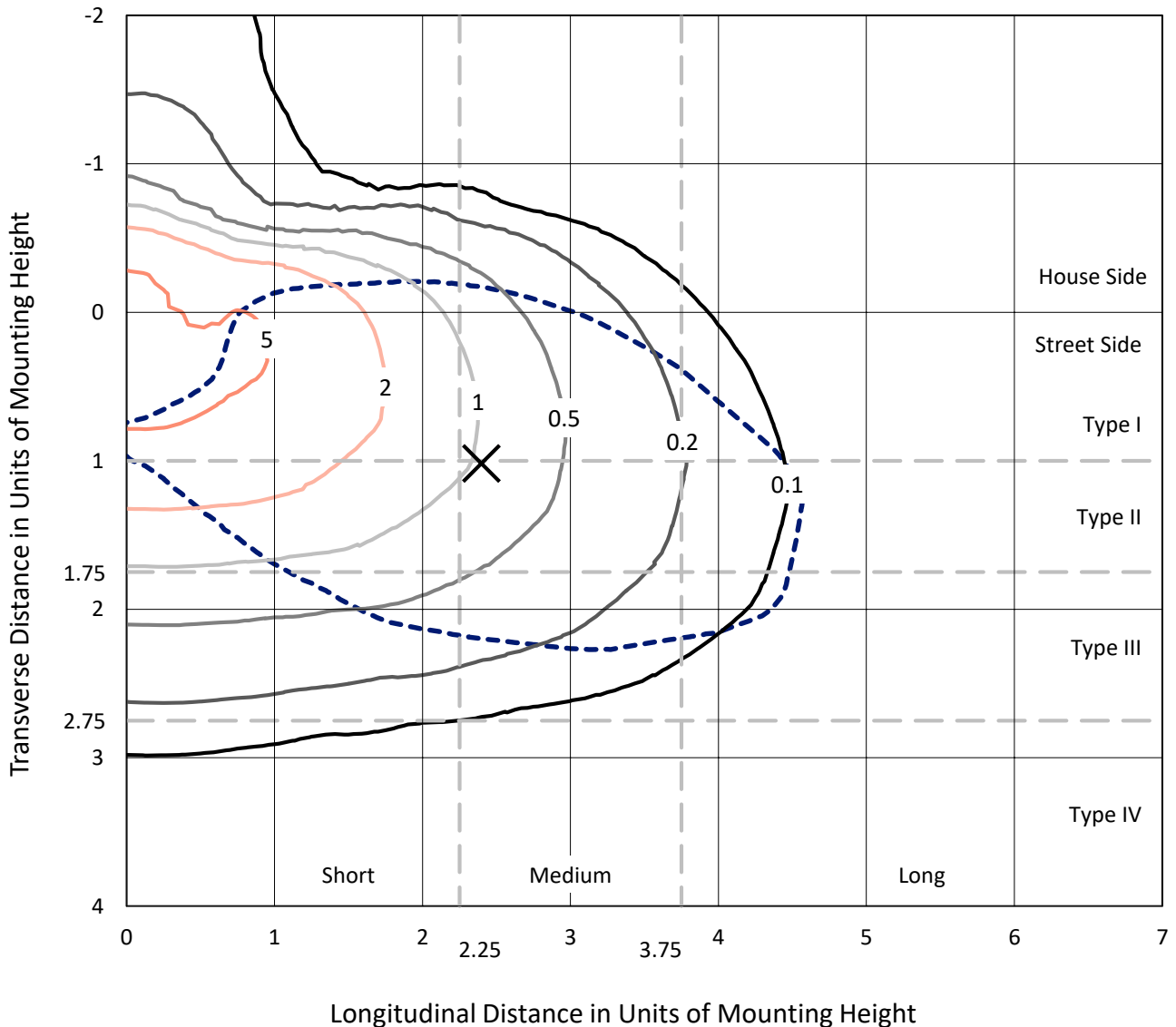


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Iso-Footcandle Lines of Horizontal Illumination

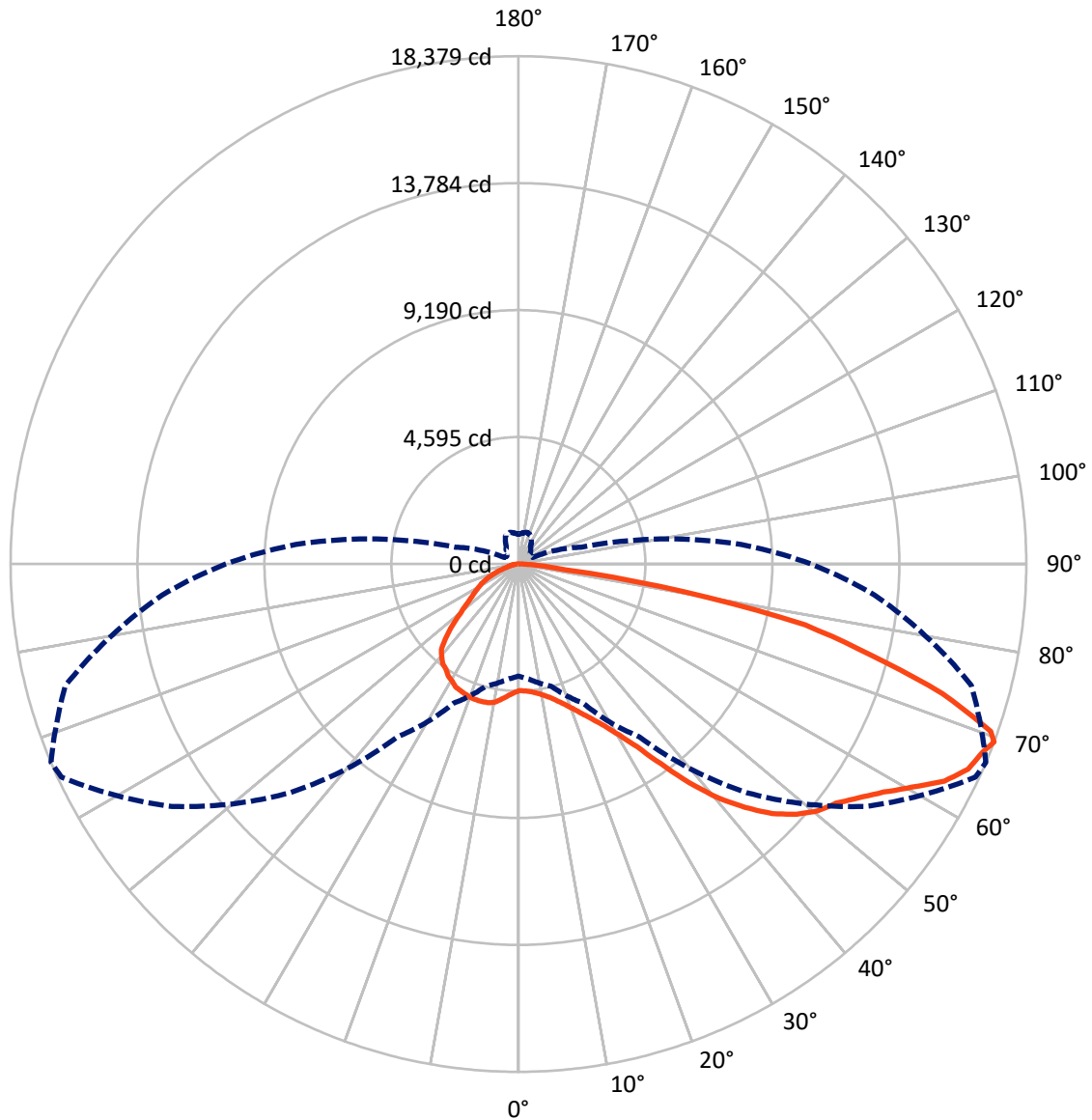
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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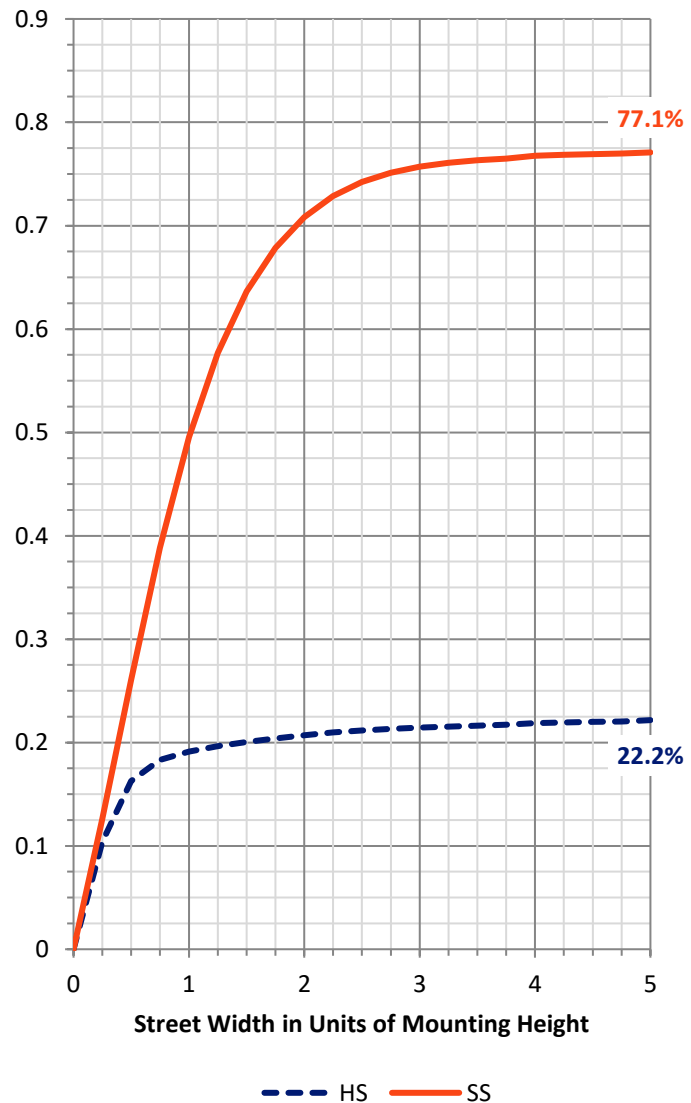
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7202.0	0.0	7202.0
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	24458.0	0.0	24458.0
	% Fixture	77.3	0.0	77.3
Total	Lumens	31660.0	0.0	31660.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	465.1	1.5
10°-20°	1493.7	4.7
20°-30°	2597.6	8.2
30°-40°	3913.0	12.4
40°-50°	5404.2	17.1
50°-60°	6450.0	20.4
60°-70°	6793.0	21.5
70°-80°	3984.8	12.6
80°-90°	558.5	1.8
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°	31660.0	100.0
0°-180°	31660.0	100.0



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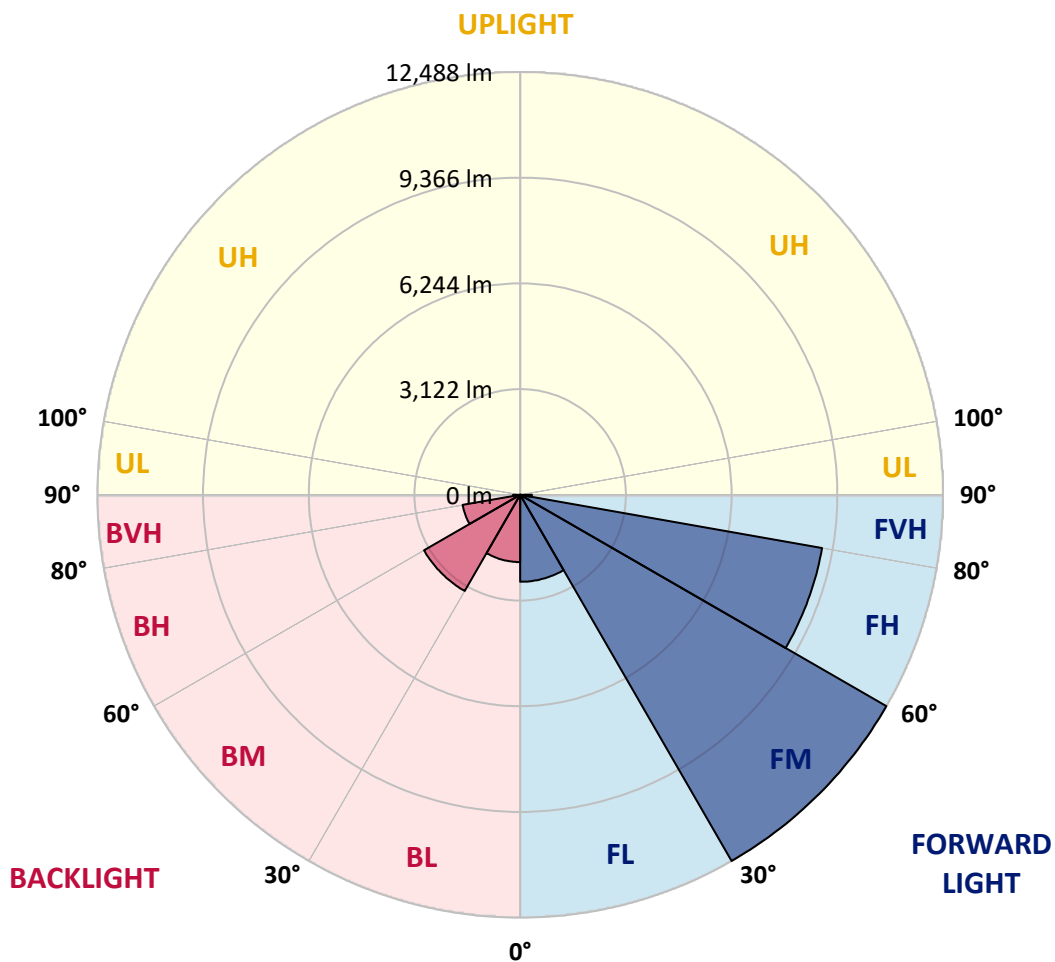
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2569.2	8.1			
FM	(30°-60°)	12488.4	39.4			
FH	(60°-80°)	9053.4	28.6			G4/12000
FVH	(80°-90°)	347.1	1.1			G3/500
BL	(0°-30°)	1987.3	6.3	B3/2500		
BM	(30°-60°)	3278.8	10.4	B3/5000		
BH	(60°-80°)	1724.4	5.4	B3/2500		G3/2500
BVH	(80°-90°)	211.4	0.7			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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7
2.5°	4600.9	4607.0	4600.9	4590.8	4557.3	4572.5	4559.4	4601.9	4598.9	4582.7	4612.1
5°	4708.3	4715.4	4702.3	4694.1	4642.5	4649.6	4621.2	4644.5	4636.4	4609.0	4654.6
7.5°	4883.7	4890.7	4874.5	4863.4	4790.4	4774.2	4722.5	4729.6	4714.4	4670.8	4723.5
10°	5119.8	5125.9	5098.5	5071.1	4977.9	4938.4	4852.2	4838.1	4815.8	4773.2	4826.9
12.5°	5374.1	5383.3	5349.8	5314.4	5205.9	5141.1	5018.4	4974.9	4947.5	4895.8	4954.6
15°	5646.8	5657.9	5623.4	5582.9	5463.3	5363.0	5210.0	5144.1	5117.8	5052.9	5089.4
17.5°	6004.5	6001.5	5973.1	5917.3	5774.4	5627.5	5439.0	5340.7	5322.5	5259.6	5268.8
20°	6419.0	6404.8	6378.4	6301.4	6146.4	5964.0	5717.7	5593.0	5574.8	5522.1	5466.4
22.5°	6868.9	6854.7	6829.4	6731.1	6578.1	6338.9	6044.0	5897.1	5872.7	5806.9	5713.6
25°	7311.8	7296.6	7282.4	7189.2	7040.2	6768.6	6413.9	6226.4	6215.3	6148.4	5977.1
27.5°	7771.9	7762.8	7766.8	7686.8	7537.8	7256.1	6853.7	6650.0	6630.8	6545.7	6312.6
30°	8245.2	8247.2	8285.7	8200.6	8063.8	7780.0	7380.7	7173.0	7176.0	7100.0	6759.5
32.5°	8668.8	8670.8	8756.9	8714.4	8639.4	8356.6	7989.8	7843.8	7873.2	7867.2	7518.5
35°	8974.8	8988.0	9180.5	9238.3	9209.9	8963.7	8742.7	8778.2	8871.4	9134.9	8769.1
37.5°	9262.6	9267.7	9514.0	9647.7	9753.1	9605.2	9560.6	9897.0	10044.0	10408.8	9867.6
40°	9345.7	9415.7	9726.8	9913.2	10158.5	10231.5	10457.4	10955.0	11128.3	11348.2	10607.4
42.5°	9269.7	9369.0	9759.2	10202.1	10542.6	10904.4	11318.8	11882.3	12039.4	12175.2	11315.8
45°	9110.6	9186.6	9592.0	10254.8	10871.9	11589.4	12067.8	12742.7	12884.6	12796.4	11869.1
47.5°	8898.8	8956.6	9408.6	10170.6	11135.4	12203.6	12753.8	13432.8	13536.2	13330.5	12245.1
50°	8604.9	8673.8	9178.5	10055.1	11329.0	12717.4	13305.1	13951.7	14038.9	13662.9	12614.0
52.5°	8242.1	8328.3	8915.0	9858.5	11473.9	13100.4	13690.2	14297.3	14385.4	14141.2	12905.9
55°	7830.7	7950.3	8554.2	9619.3	11484.0	13304.1	13930.4	14804.0	14929.7	14666.2	13161.2
57.5°	7413.1	7490.2	8129.6	9253.5	11293.5	13372.0	14218.2	15393.8	15577.2	15174.9	13439.9
60°	6903.4	6977.4	7610.8	8764.0	10913.5	13476.4	14793.9	16238.0	16383.9	15767.7	13677.1
62.5°	6300.4	6384.5	6959.1	8094.2	10351.0	13519.0	15380.6	17135.9	17303.1	16306.9	13813.9
65°	5534.3	5627.5	6151.4	7283.4	9547.4	13217.0	15634.0	17799.6	17885.8	16720.4	13755.1
67.5°	4697.2	4774.2	5191.7	6275.1	8435.7	12429.6	15501.2	18044.9	18132.0	17001.1	13403.4
69°	4056.7	4175.3	4576.6	5556.6	7636.1	11709.0	15298.5	18246.6	18379.3	16969.7	12941.3
70°	3543.9	3676.7	4039.5	4923.2	6957.1	10961.1	14921.5	18093.5	18131.0	16666.6	12524.8
72.5°	2239.7	2283.2	2448.4	3036.2	4894.8	8520.8	13057.9	16062.7	16052.5	14869.9	10933.8
75°	1106.7	1163.4	1476.5	1704.6	2411.9	5480.6	10278.1	13192.7	13194.7	12550.1	8989.0
77.5°	664.8	689.1	769.2	1098.5	1378.2	2459.6	6976.4	10444.3	10604.4	10214.2	6468.6
80°	458.1	445.9	469.2	540.2	741.8	1293.1	2868.0	5904.2	6077.5	5605.2	2755.5
82.5°	360.8	350.6	357.7	376.0	353.7	598.9	1213.1	1765.4	1713.7	1511.0	1059.0
85°	252.3	232.1	245.2	238.2	210.8	351.7	589.8	733.7	728.6	753.0	576.6
87.5°	80.1	70.9	73.0	70.9	58.8	124.7	211.8	285.8	263.5	267.5	202.7
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°	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7	4581.7
2.5°	4619.2	4611.0	4620.2	4667.8	4656.6	4698.2	4708.3	4776.2	4779.3	4773.2	4803.6
5°	4675.9	4684.0	4718.5	4794.5	4819.8	4909.0	4949.5	5032.6	5040.7	5043.8	5073.2
7.5°	4758.0	4772.2	4846.2	4945.5	4993.1	5109.6	5170.5	5272.8	5279.9	5291.0	5324.5
10°	4879.6	4899.9	4958.6	5094.4	5109.6	5201.9	5257.6	5345.8	5339.7	5354.9	5385.3
12.5°	5002.2	5013.4	5058.0	5151.2	5141.1	5231.3	5255.6	5313.3	5309.3	5308.3	5330.6
15°	5134.0	5114.7	5120.8	5156.3	5118.8	5174.5	5157.3	5199.8	5144.1	5121.8	5137.0
17.5°	5273.8	5227.2	5167.4	5141.1	5070.1	5061.0	5002.2	4982.0	4943.4	4931.3	4943.4
20°	5440.0	5340.7	5195.8	5119.8	4964.7	4884.7	4772.2	4706.3	4617.1	4624.2	4641.4
22.5°	5609.3	5469.4	5250.5	5046.8	4827.9	4665.8	4441.8	4382.0	4265.5	4231.0	4265.5
25°	5817.0	5629.5	5277.9	4982.0	4621.2	4332.4	4105.4	3893.5	3805.4	3719.2	3751.7
27.5°	6089.6	5836.3	5377.2	4901.9	4387.1	4002.0	3641.2	3367.6	3258.1	3165.9	3172.0
30°	6443.3	6112.9	5414.7	4733.7	4105.4	3549.0	3095.0	2790.9	2654.1	2616.6	2600.4
32.5°	7097.0	6558.8	5481.6	4611.0	3754.7	3056.5	2499.1	2172.8	2086.6	2102.8	2155.5
35°	8255.3	7492.2	5684.3	4354.7	3367.6	2519.4	1941.7	1689.4	1703.6	1732.9	1726.9
37.5°	9254.5	8334.3	6021.7	4174.3	2894.3	1908.3	1466.4	1332.6	1417.8	1475.5	1473.5
40°	9933.5	8948.5	6463.6	3836.8	2296.4	1360.0	1079.3	1005.3	1113.7	1237.4	1258.7
42.5°	10607.4	9506.9	6677.4	3537.8	1612.3	959.7	781.3	800.6	939.4	1056.0	1077.3
45°	11091.8	9912.2	6771.6	3004.8	1029.6	734.7	682.0	753.0	903.0	995.2	1005.3
47.5°	11447.6	10217.3	6669.3	2431.2	758.0	671.9	672.9	763.1	914.1	1018.5	1022.5
50°	11761.7	10432.1	6256.8	1896.1	682.0	650.6	686.1	792.5	946.5	1051.9	1048.9
52.5°	11976.6	10494.9	5756.2	1553.6	660.7	638.5	697.2	819.9	956.7	1027.6	1021.5
55°	12119.4	10400.7	5371.1	1278.9	642.5	637.4	715.5	854.3	966.8	995.2	981.0
57.5°	12207.6	10210.2	5045.8	1099.6	627.3	637.4	735.7	867.5	1004.3	1056.0	1039.8
60°	12181.3	10125.0	4605.0	952.6	606.0	639.5	746.9	886.7	1155.3	1276.9	1279.9
62.5°	12128.6	9958.8	4174.3	836.1	580.7	651.6	761.1	998.2	1418.8	1419.8	1369.1
65°	11878.3	9458.2	3548.0	730.7	554.3	654.7	764.1	1181.6	1591.1	1457.3	1391.4
67.5°	11189.1	8725.5	2815.3	632.4	524.9	636.4	761.1	1156.3	1285.0	1150.2	1116.8
69°	10588.2	8090.1	2352.1	573.6	503.7	618.2	764.1	1108.7	1189.8	1109.7	1079.3
70°	10150.4	7575.3	1998.5	538.1	484.4	609.1	764.1	1091.4	1176.6	1100.6	1071.2
72.5°	8712.3	5950.8	1197.9	448.9	428.7	573.6	757.0	1065.1	1186.7	1121.9	1083.3
75°	6674.4	4328.3	697.2	368.9	360.8	514.8	719.5	1048.9	1221.2	1122.9	1038.8
77.5°	4276.6	1997.4	519.9	300.0	292.9	445.9	671.9	996.2	1254.6	1177.6	1071.2
80°	1485.7	906.0	388.1	237.1	227.0	364.8	588.8	897.9	1194.8	1202.9	1122.9
82.5°	814.8	596.9	274.6	176.3	167.2	229.0	458.1	774.3	1105.6	1190.8	1196.8
85°	447.9	336.5	180.4	113.5	127.7	196.6	317.2	602.0	889.8	1034.7	1080.3
87.5°	181.4	121.6	70.9	44.6	52.7	78.0	107.4	308.1	537.1	693.2	763.1
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)