

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: P591199

Luminaire Tested: **CTN-CA10-210-727-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591199  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-210-727-U-T3-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20471 lumens  
Efficiency: N/A  
Efficacy: 96.2 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

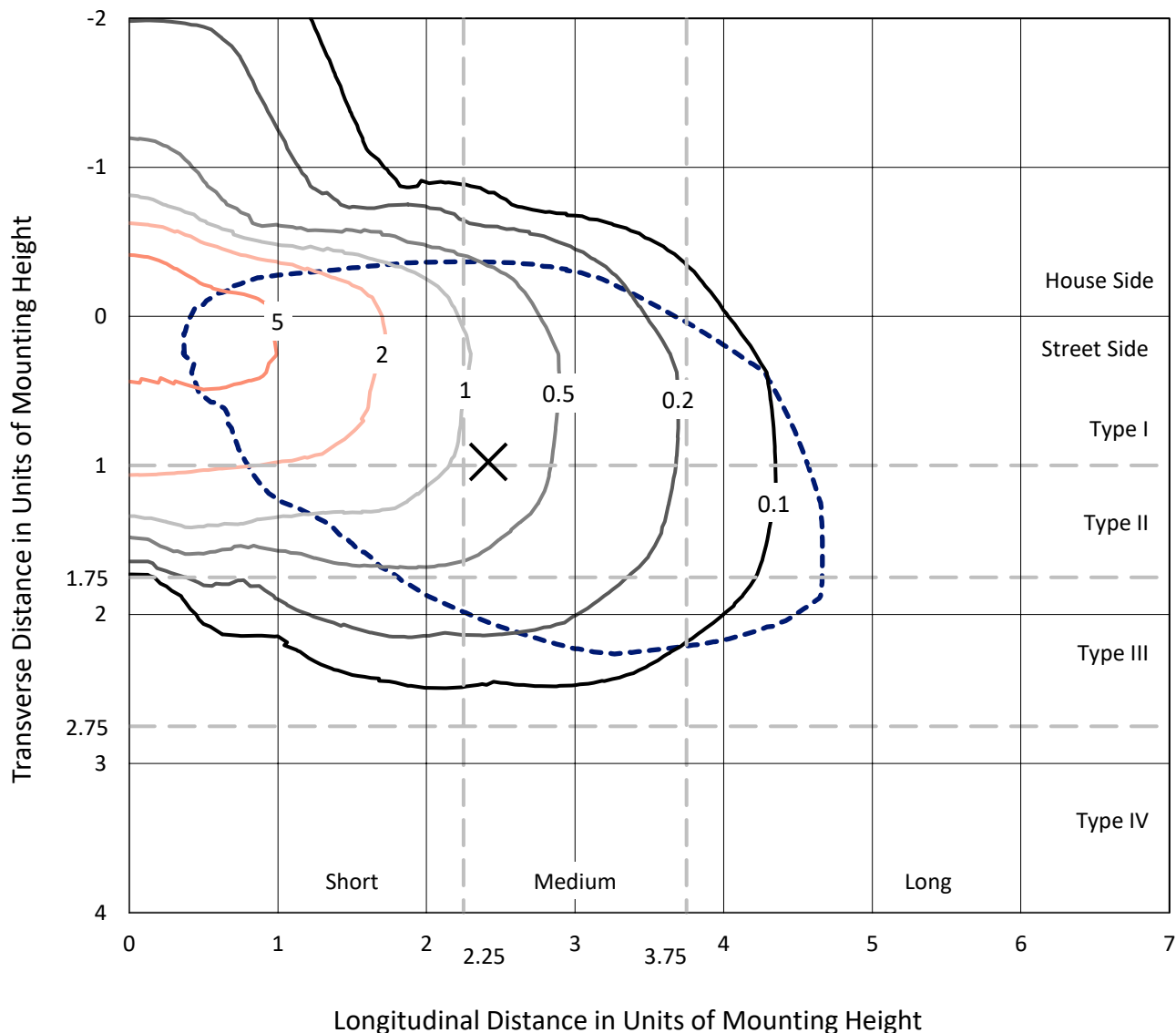
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

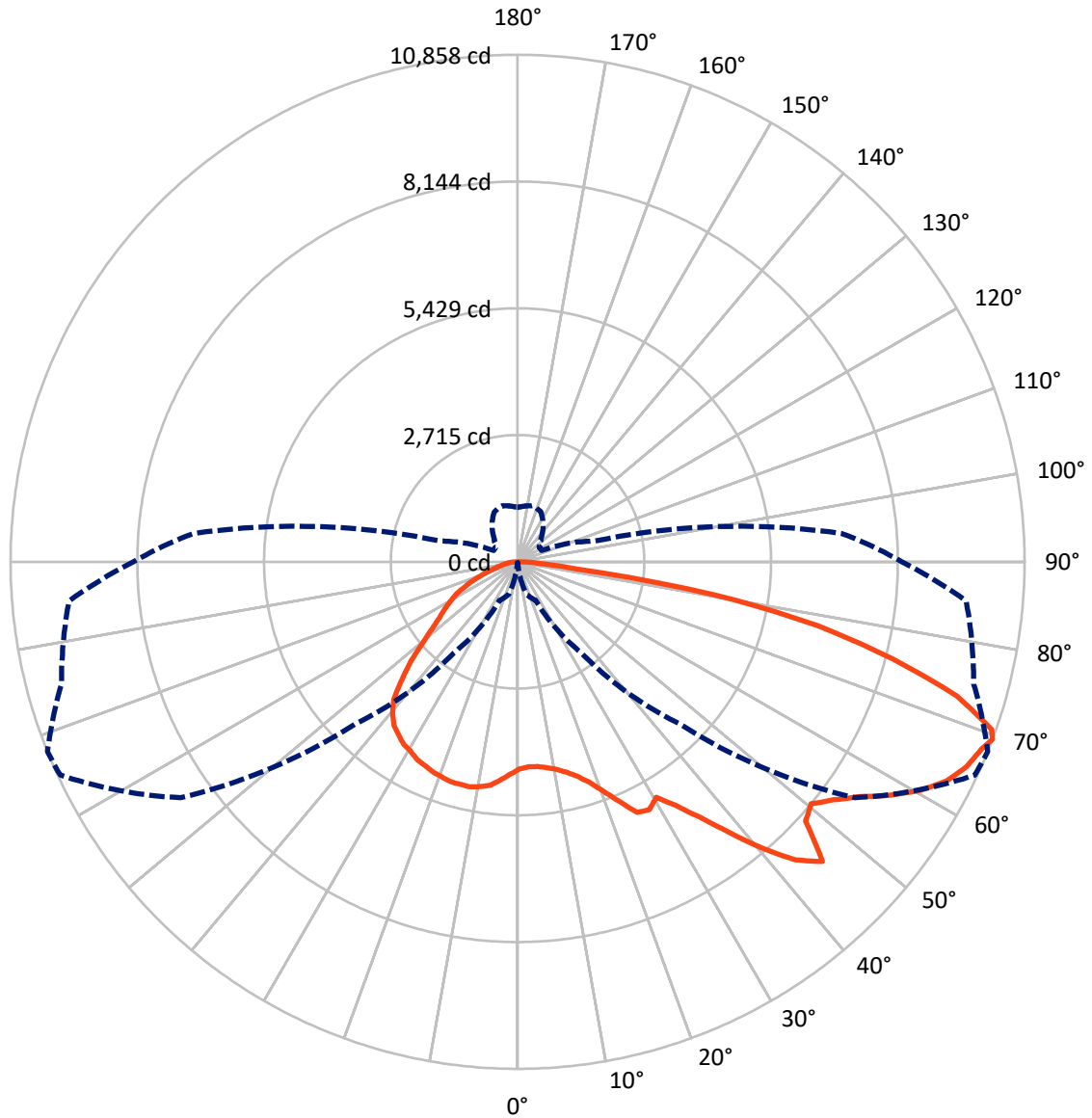
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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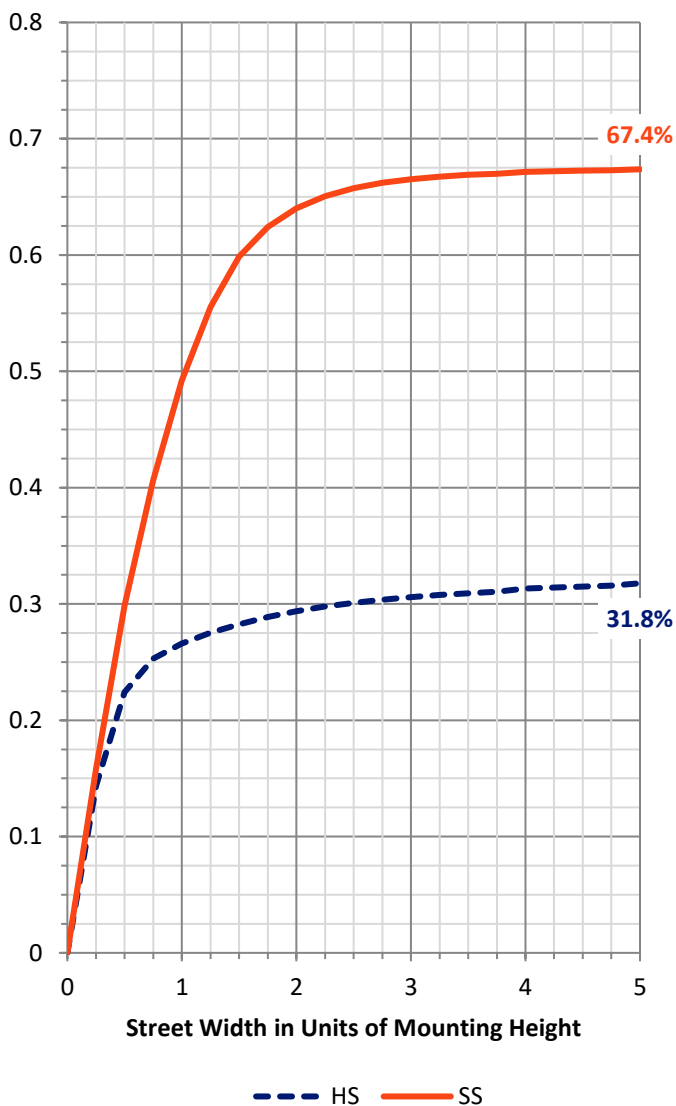
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6677.3	0.0	6677.3
	% Fixture	32.6	0.0	32.6
<b>Street Side</b>	Lumens	13793.7	0.0	13793.7
	% Fixture	67.4	0.0	67.4
<b>Total</b>	Lumens	20471.0	0.0	20471.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	443.2	2.2
10°-20°	1371.3	6.7
20°-30°	2108.4	10.3
30°-40°	2738.4	13.4
40°-50°	3380.1	16.5
50°-60°	3796.2	18.5
60°-70°	3710.0	18.1
70°-80°	2491.4	12.2
80°-90°	432.1	2.1
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°	20471.0	100.0
0°-180°	20471.0	100.0

**Coefficient of Utilization**

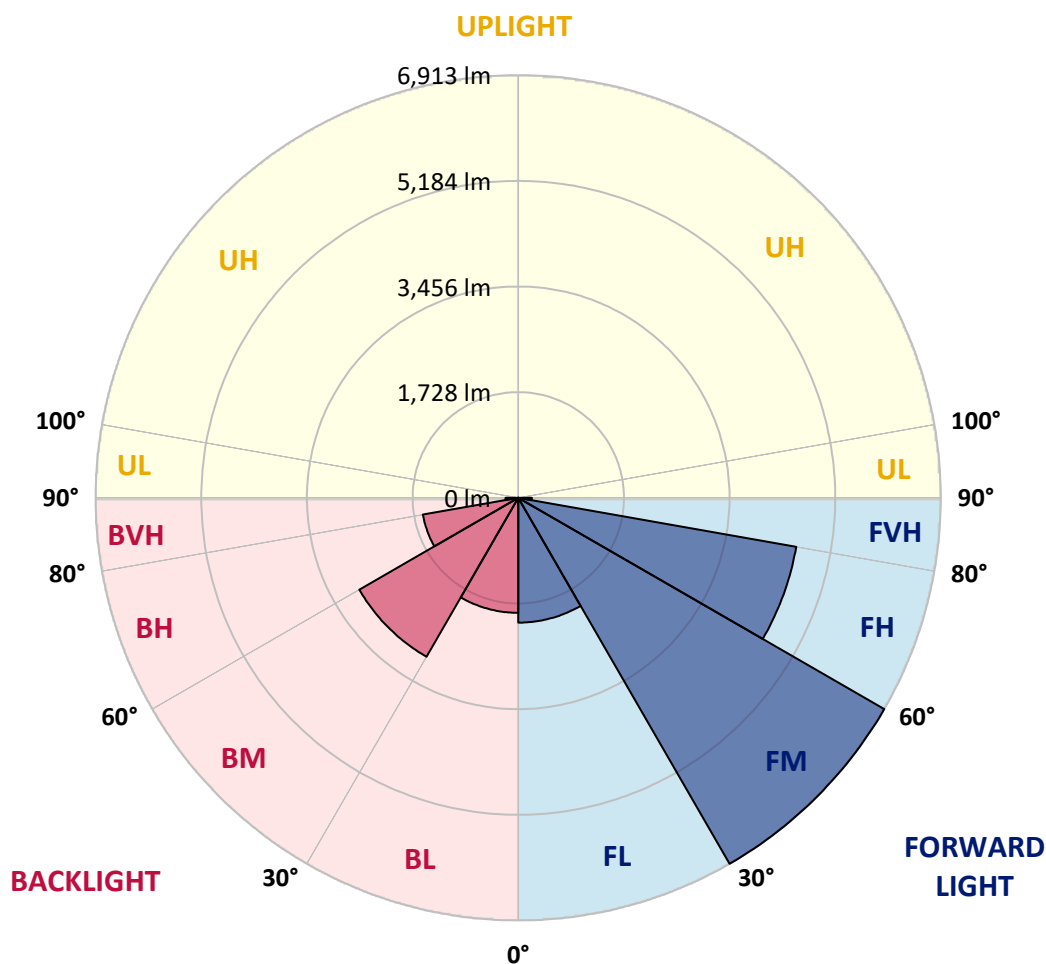


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2041.2	10.0			
FM (30°-60°)	6912.5	33.8			
FH (60°-80°)	4617.2	22.6			G2/5000
FVH (80°-90°)	222.7	1.1			G2/225
BL (0°-30°)	1881.7	9.2	B3/2500		
BM (30°-60°)	3002.1	14.7	B3/5000		
BH (60°-80°)	1584.1	7.7	B3/2500		G3/2500
BVH (80°-90°)	209.4	1.0			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5
2.5°	4348.0	4321.5	4331.5	4368.1	4294.1	4342.5	4319.7	4369.0	4394.6	4383.6	4453.0
5°	4389.1	4359.9	4361.7	4387.3	4307.8	4348.9	4323.3	4376.3	4404.6	4389.1	4482.3
7.5°	4514.2	4482.3	4473.1	4471.3	4396.4	4427.5	4376.3	4419.2	4448.5	4440.2	4545.3
10°	4706.1	4667.7	4650.3	4640.3	4550.8	4541.6	4477.7	4496.9	4518.8	4527.9	4641.2
12.5°	4917.1	4865.0	4854.0	4823.9	4708.8	4688.7	4611.1	4620.2	4620.2	4641.2	4753.6
15°	5096.1	5053.2	5053.2	5022.1	4909.8	4881.4	4774.6	4763.6	4761.8	4778.2	4878.7
17.5°	4981.0	4957.2	4936.2	4920.7	4747.2	4701.5	4991.0	4971.9	4962.7	4979.2	5037.6
20°	4594.6	4658.6	4523.4	4332.5	4359.9	4909.8	5269.6	5234.9	5240.4	5256.9	5240.4
22.5°	4043.8	3885.8	4134.2	4202.7	4316.9	4723.4	5523.6	5560.1	5571.1	5572.0	5486.1
25°	3465.6	3553.3	3890.3	4412.8	4398.2	4737.1	5369.2	5889.0	5943.8	5938.3	5789.4
27.5°	3631.8	3615.4	3875.7	4219.2	4653.1	5027.6	5464.2	5695.3	6009.5	6357.6	6155.7
30°	3777.1	3763.4	3790.8	4271.3	4821.1	5318.1	5819.5	5782.1	5848.8	6479.0	6587.7
32.5°	3906.8	3896.7	3928.7	3981.7	4541.6	5631.4	6200.4	6193.1	6216.0	6265.3	7097.4
35°	4029.2	4030.1	4069.4	4156.2	4577.3	5696.2	6576.8	6654.4	6714.7	6823.4	7009.8
37.5°	4113.2	4115.1	4146.1	4251.2	4427.5	5375.6	6957.7	7234.5	7342.2	7537.7	7273.7
40°	4112.3	4126.0	4200.9	4337.9	4573.6	5163.7	7075.5	7892.1	8065.7	8208.2	7764.3
42.5°	4026.5	4033.8	4173.5	4421.1	4703.3	5324.5	6709.2	8533.4	8726.1	8686.8	8169.8
45°	3947.9	3946.1	4105.0	4410.1	4819.3	5545.5	6758.6	8515.1	9155.4	9107.9	8542.5
47.5°	3842.9	3845.6	4013.7	4362.6	4925.3	5782.1	7123.9	7743.2	8297.7	9469.7	8845.8
50°	3711.3	3727.8	3898.6	4290.4	4978.3	6003.1	7440.0	8082.1	8147.9	8505.1	9142.6
52.5°	3493.0	3463.8	3775.3	4207.3	5015.7	6163.9	7741.4	8407.3	8469.4	8339.7	9445.0
55°	1983.1	2460.8	3620.9	4110.5	5026.7	6260.7	7975.3	8777.3	8874.1	8751.7	9690.7
57.5°	1245.9	1284.3	3136.8	3853.8	4934.4	6321.0	8262.1	9285.1	9428.5	9137.2	9877.0
60°	441.2	475.9	1525.4	1769.3	4044.7	6154.8	8698.7	9883.4	9930.9	9499.8	10014.1
62.5°	46.6	61.2	1034.0	1298.9	3140.4	5679.8	9000.1	10364.8	10321.9	9768.3	10088.1
65°	16.4	22.8	908.9	1161.9	2923.0	5531.8	9099.7	10570.4	10569.4	9940.1	10035.1
67.5°	12.8	17.4	790.1	1009.4	2608.8	5214.8	8934.4	10724.7	10710.1	10110.0	9895.3
69°	12.8	18.3	711.6	909.8	2381.3	4911.6	8806.5	10806.0	10858.1	10112.7	9642.3
70°	12.8	18.3	661.3	840.4	2195.9	4633.9	8622.9	10743.9	10770.4	10025.0	9380.1
72.5°	12.8	18.3	512.4	650.4	1669.8	3567.0	7554.2	9790.3	9840.5	9255.0	8430.2
75°	12.8	18.3	360.8	473.2	1096.1	2393.2	6015.0	8154.3	8290.4	7821.8	6907.4
77.5°	12.8	18.3	215.6	323.4	687.8	1313.5	4138.8	6249.8	6557.6	6121.0	4937.2
80°	12.8	17.4	101.4	176.3	391.9	696.0	1896.3	3847.4	4248.4	3829.1	2582.3
82.5°	12.8	17.4	83.1	127.0	198.2	346.2	740.8	1260.5	1237.7	1111.7	832.1
85°	11.9	15.5	68.5	93.2	142.5	219.2	412.9	513.4	489.6	433.0	435.7
87.5°	8.2	9.1	23.7	42.0	57.5	108.7	200.0	217.4	222.0	185.4	194.6
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°	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5
2.5°	4485.9	4491.4	4517.9	4565.4	4564.5	4615.6	4601.9	4720.7	4725.2	4723.4	4732.5
5°	4527.0	4558.1	4616.5	4717.9	4776.4	4853.1	4838.5	4958.2	4965.5	4955.4	4981.0
7.5°	4598.3	4636.6	4732.5	4857.7	4873.2	4970.0	4949.9	5046.8	5042.2	5023.9	5067.8
10°	4698.7	4744.4	4831.2	4902.4	4947.2	5003.8	4981.9	5064.1	5048.6	5028.5	5070.5
12.5°	4801.1	4823.0	4871.4	4951.8	4955.4	4968.2	4942.6	5009.3	4992.0	4961.8	5005.7
15°	4898.8	4901.5	4893.3	4929.8	4891.5	4899.7	4844.0	4886.0	4855.9	4842.2	4870.5
17.5°	5025.8	4992.9	4934.4	4918.9	4828.5	4790.1	4707.9	4706.1	4653.1	4633.9	4653.1
20°	5178.3	5107.1	4971.9	4843.1	4686.9	4608.3	4468.6	4431.1	4388.2	4347.1	4369.9
22.5°	5389.3	5251.4	5018.5	4778.2	4519.7	4365.3	4193.6	4087.7	4007.3	3927.8	3951.6
25°	5629.5	5436.8	5084.2	4667.7	4319.7	4046.5	3823.7	3642.8	3527.7	3411.7	3463.8
27.5°	5954.7	5688.9	5124.4	4585.5	4059.3	3693.0	3337.7	3102.0	2982.4	2899.3	2872.8
30°	6333.8	6015.0	5196.6	4423.8	3753.3	3258.2	2807.0	2543.9	2417.0	2377.7	2394.1
32.5°	6796.0	6411.4	5343.6	4288.6	3442.8	2797.0	2270.8	2065.3	1973.9	1967.6	1965.7
35°	7414.4	6917.5	5469.7	4078.5	3031.7	2258.9	1806.8	1636.9	1633.2	1630.5	1636.9
37.5°	7889.4	7432.7	5604.0	3873.0	2543.9	1763.9	1445.1	1341.8	1330.9	1362.9	1371.1
40°	8263.9	7801.7	5804.9	3525.9	1972.1	1317.2	1109.8	1071.5	1149.1	1219.4	1234.1
42.5°	8601.9	8112.3	5848.8	3155.9	1436.8	1011.2	919.8	983.8	1103.4	1183.8	1199.3
45°	8918.8	8438.4	5681.6	2606.1	1027.6	856.8	875.1	971.0	1105.3	1191.1	1200.3
47.5°	9265.0	8656.7	5500.7	2095.4	844.9	821.2	865.9	975.6	1116.2	1203.0	1207.6
50°	9493.4	8812.9	5048.6	1638.7	792.0	799.3	862.3	985.6	1118.1	1180.2	1183.8
52.5°	9586.6	8938.0	4639.4	1311.7	765.5	782.8	866.9	1003.0	1113.5	1148.2	1146.4
55°	9645.0	8995.6	4287.7	1091.6	741.7	770.0	875.1	1015.7	1123.5	1159.2	1159.2
57.5°	9607.6	8866.8	4026.5	929.9	718.0	760.9	885.1	1034.9	1218.5	1281.6	1275.2
60°	9580.2	8625.6	3655.6	821.2	689.6	750.8	897.9	1101.6	1421.3	1485.3	1464.2
62.5°	9438.6	8421.9	3253.7	751.8	657.7	745.4	908.9	1191.1	1449.6	1446.0	1404.9
65°	9077.8	8007.2	2619.8	681.4	624.8	738.1	912.5	1230.4	1333.6	1276.1	1264.2
67.5°	8566.3	7408.9	2067.1	611.1	588.3	722.5	942.7	1183.8	1268.8	1219.4	1201.2
69°	8231.9	6965.9	1717.3	567.2	564.5	709.7	954.5	1179.3	1245.0	1189.3	1165.6
70°	7962.5	6582.3	1482.5	538.9	546.2	699.7	942.7	1178.3	1235.0	1165.6	1139.1
72.5°	6806.1	5332.7	957.3	471.3	492.3	673.2	897.9	1148.2	1214.0	1168.3	1131.8
75°	5274.2	3882.1	619.3	407.4	435.7	628.4	853.2	1129.0	1233.1	1150.0	1071.5
77.5°	3384.3	2077.2	479.6	342.5	374.5	565.4	772.8	1051.4	1197.5	1122.6	1021.2
80°	1474.3	770.9	369.9	277.7	303.3	459.5	663.2	934.5	1135.4	1127.2	1058.7
82.5°	625.7	496.9	285.0	212.8	241.1	339.8	519.7	801.1	1003.0	1042.2	1117.1
85°	354.4	297.8	190.0	146.2	179.0	250.3	369.9	614.7	816.6	905.2	968.2
87.5°	152.5	124.2	87.7	78.6	101.4	129.7	158.9	288.6	435.7	531.6	571.8
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)