

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: P591295

Luminaire Tested: **CTN-CA10-210-730-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591295  
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-CA10-210-730-U-T3-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23736 lumens  
Efficiency: N/A  
Efficacy: 111.5 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

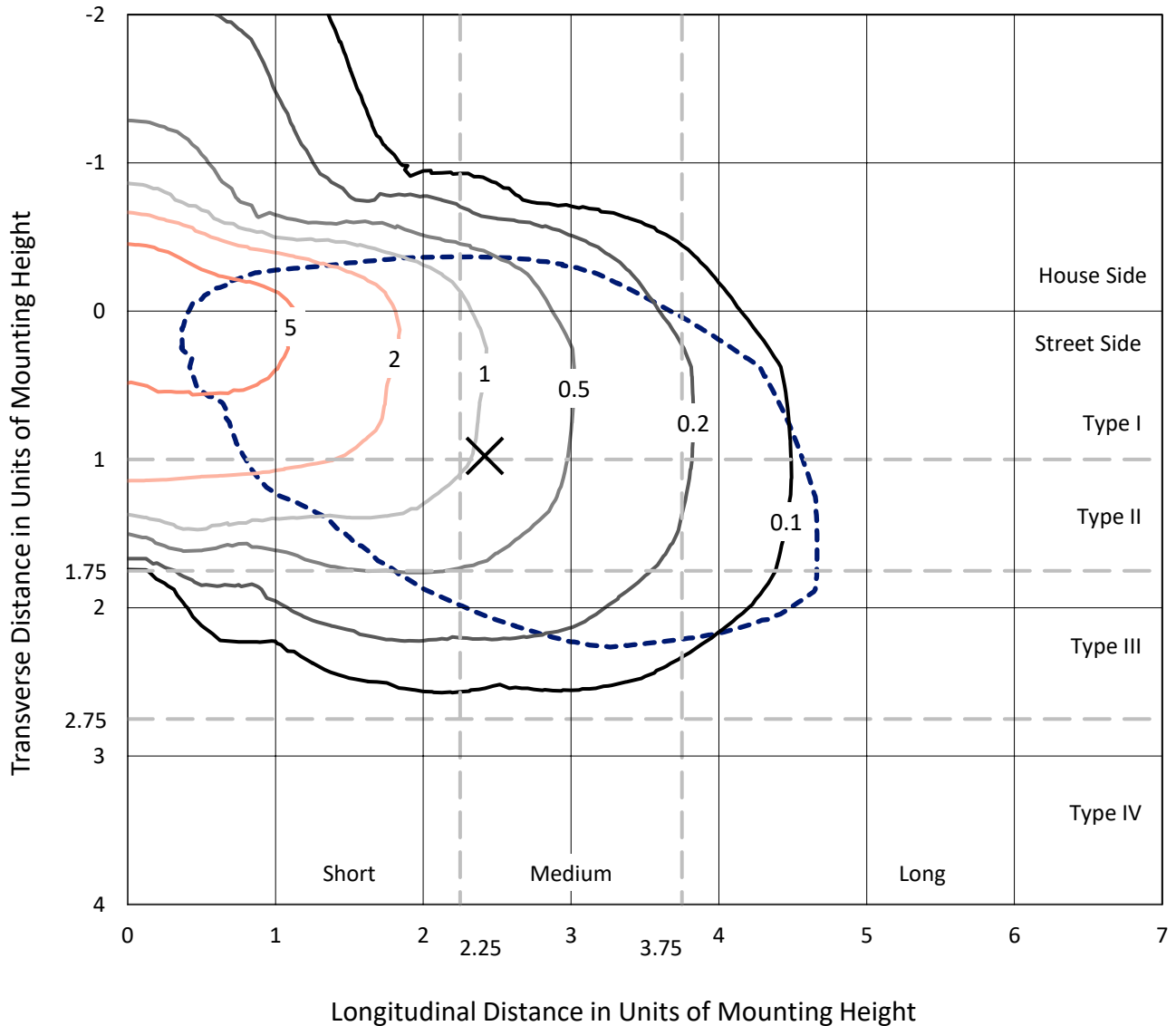
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

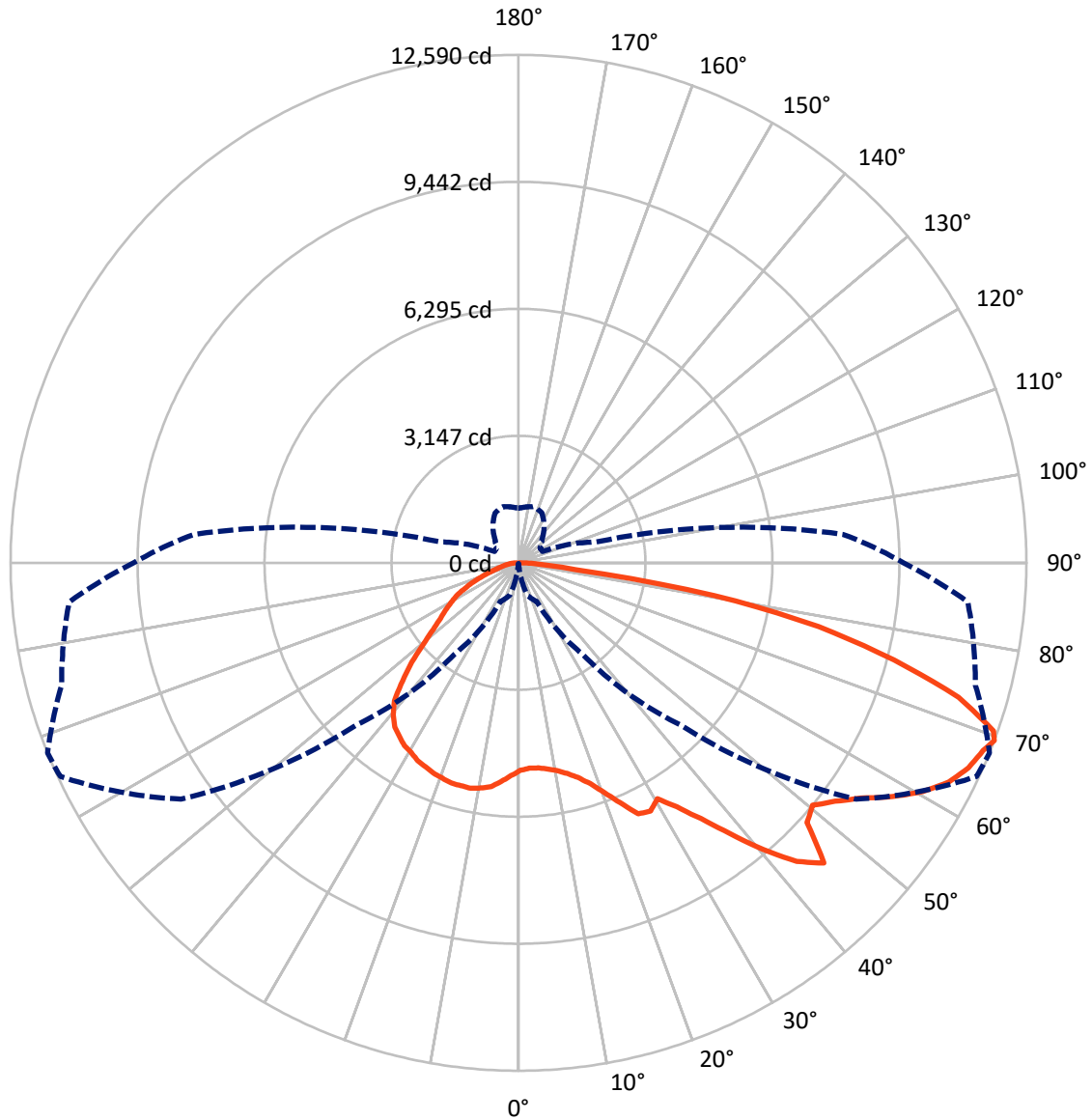
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 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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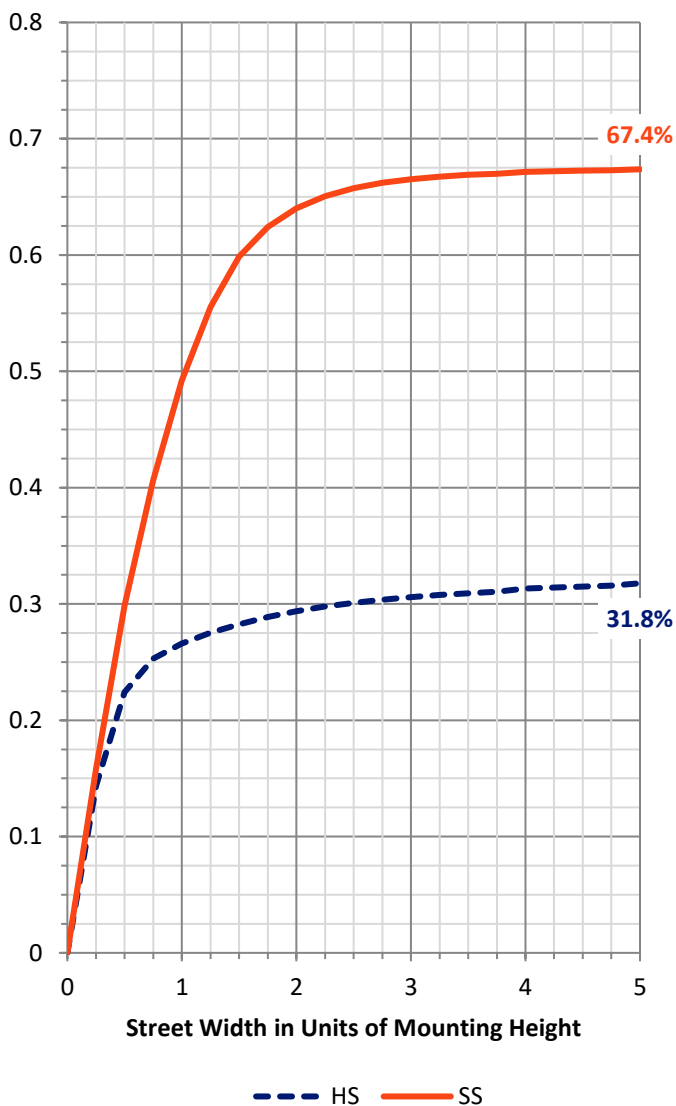
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7742.3	0.0	7742.3
	% Fixture	32.6	0.0	32.6
<b>Street Side</b>	Lumens	15993.7	0.0	15993.7
	% Fixture	67.4	0.0	67.4
<b>Total</b>	Lumens	23736.0	0.0	23736.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	513.9	2.2
10°-20°	1590.0	6.7
20°-30°	2444.6	10.3
30°-40°	3175.1	13.4
40°-50°	3919.2	16.5
50°-60°	4401.6	18.5
60°-70°	4301.7	18.1
70°-80°	2888.7	12.2
80°-90°	501.0	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°	23736.0	100.0
0°-180°	23736.0	100.0

**Coefficient of Utilization**

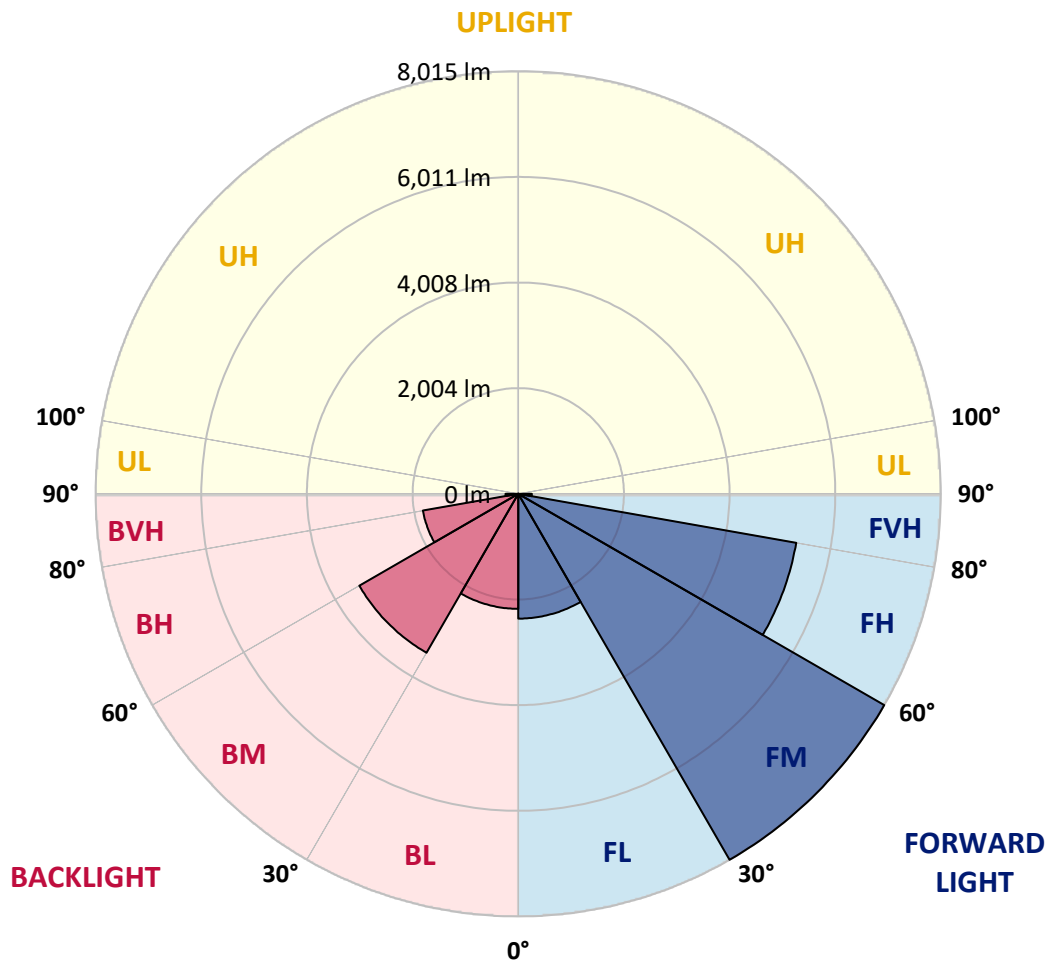


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2366.7	10.0			
FM (30°-60°)	8015.0	33.8			
FH (60°-80°)	5353.7	22.6			G3/7500
FVH (80°-90°)	258.2	1.1			G3/500
BL (0°-30°)	2181.8	9.2	B3/2500		
BM (30°-60°)	3480.9	14.7	B3/5000		
BH (60°-80°)	1836.8	7.7	B3/2500		G3/2500
BVH (80°-90°)	242.8	1.0			G3/500
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°	5145.3	5145.3	5145.3	5145.3	5145.3	5145.3	5145.3	5145.3	5145.3	5145.3	5145.3
2.5°	5041.5	5010.7	5022.4	5064.8	4979.0	5035.1	5008.6	5065.8	5095.5	5082.8	5163.3
5°	5089.1	5055.2	5057.3	5087.0	4994.9	5042.5	5012.9	5074.3	5107.1	5089.1	5197.2
7.5°	5234.2	5197.2	5186.6	5184.4	5097.6	5133.6	5074.3	5124.1	5158.0	5148.4	5270.2
10°	5456.6	5412.2	5392.0	5380.4	5276.6	5266.0	5191.9	5214.1	5239.5	5250.1	5381.4
12.5°	5701.3	5640.9	5628.2	5593.3	5459.8	5436.5	5346.5	5357.1	5357.1	5381.4	5511.7
15°	5908.9	5859.1	5859.1	5823.1	5692.8	5660.0	5536.1	5523.4	5521.2	5540.3	5656.8
17.5°	5775.4	5747.9	5723.5	5705.5	5504.3	5451.3	5787.1	5764.8	5754.3	5773.3	5841.1
20°	5327.4	5401.6	5244.8	5023.5	5055.2	5692.8	6110.1	6069.9	6076.2	6095.3	6076.2
22.5°	4688.8	4505.5	4793.6	4873.1	5005.5	5476.8	6404.6	6446.9	6459.6	6460.7	6361.1
25°	4018.3	4120.0	4510.8	5116.7	5099.7	5492.7	6225.6	6828.2	6891.8	6885.4	6712.8
27.5°	4211.1	4192.0	4493.9	4892.1	5395.2	5829.5	6335.7	6603.7	6968.0	7371.5	7137.5
30°	4379.5	4363.6	4395.4	4952.5	5590.1	6166.3	6747.7	6704.3	6781.6	7512.4	7638.4
32.5°	4529.9	4518.3	4555.3	4616.7	5266.0	6529.5	7189.4	7180.9	7207.4	7264.6	8229.4
35°	4671.8	4672.9	4718.4	4819.0	5307.3	6604.7	7625.7	7715.8	7785.7	7911.7	8127.8
37.5°	4769.3	4771.4	4807.4	4929.2	5133.6	6233.0	8067.4	8388.3	8513.3	8739.9	8433.9
40°	4768.2	4784.1	4870.9	5029.8	5303.1	5987.3	8204.0	9150.9	9352.1	9517.3	9002.6
42.5°	4668.6	4677.1	4839.2	5126.2	5453.5	6173.7	7779.3	9894.4	10117.9	10072.3	9472.9
45°	4577.6	4575.4	4759.7	5113.5	5588.0	6430.0	7836.5	9873.2	10615.7	10560.6	9905.0
47.5°	4455.8	4458.9	4653.8	5058.4	5710.8	6704.3	8260.2	8978.2	9621.1	10980.0	10256.6
50°	4303.2	4322.3	4520.4	4974.7	5772.3	6960.6	8626.6	9371.2	9447.4	9861.6	10600.8
52.5°	4050.1	4016.2	4377.4	4878.4	5815.7	7147.0	8976.1	9748.2	9820.3	9669.9	10951.4
55°	2299.4	2853.3	4198.4	4766.1	5828.4	7259.3	9247.3	10177.2	10289.5	10147.5	11236.3
57.5°	1444.7	1489.1	3637.1	4468.5	5721.4	7329.2	9579.8	10766.1	10932.3	10594.5	11452.4
60°	511.6	551.8	1768.7	2051.5	4689.8	7136.4	10086.1	11459.8	11514.9	11015.0	11611.2
62.5°	54.0	71.0	1198.9	1506.1	3641.3	6585.7	10435.6	12018.0	11968.2	11326.3	11697.0
65°	19.1	26.5	1053.8	1347.2	3389.2	6414.1	10551.1	12256.3	12255.2	11525.5	11635.6
67.5°	14.8	20.1	916.1	1170.3	3024.9	6046.6	10359.4	12435.3	12418.3	11722.5	11473.6
69°	14.8	21.2	825.1	1054.9	2761.2	5694.9	10211.1	12529.5	12589.9	11725.6	11180.2
70°	14.8	21.2	766.8	974.4	2546.1	5373.0	9998.2	12457.5	12488.2	11624.0	10876.2
72.5°	14.8	21.2	594.2	754.1	1936.1	4135.9	8759.0	11351.8	11410.0	10731.1	9774.7
75°	14.8	21.2	418.4	548.6	1271.0	2774.9	6974.4	9454.9	9612.7	9069.3	8009.1
77.5°	14.8	21.2	250.0	374.9	797.5	1523.0	4798.9	7246.6	7603.5	7097.2	5724.6
80°	14.8	20.1	117.6	204.4	454.4	807.1	2198.8	4461.1	4926.0	4439.9	2994.2
82.5°	14.8	20.1	96.4	147.2	229.8	401.4	859.0	1461.6	1435.1	1289.0	964.9
85°	13.8	18.0	79.4	108.0	165.2	254.2	478.7	595.2	567.7	502.0	505.2
87.5°	9.5	10.6	27.5	48.7	66.7	126.0	231.9	252.1	257.4	215.0	225.6
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°	5145.3	5145.3	5145.3	5145.3	5145.3	5145.3	5145.3	5145.3	5145.3	5145.3	5145.3
2.5°	5201.4	5207.7	5238.5	5293.5	5292.5	5351.8	5335.9	5473.6	5478.9	5476.8	5487.4
5°	5249.1	5285.1	5352.8	5470.4	5538.2	5627.2	5610.2	5749.0	5757.4	5745.8	5775.4
7.5°	5331.7	5376.1	5487.4	5632.5	5650.5	5762.7	5739.4	5851.7	5846.4	5825.2	5876.1
10°	5448.2	5501.1	5601.7	5684.4	5736.3	5801.9	5776.5	5871.8	5853.8	5830.5	5879.2
12.5°	5566.8	5592.2	5648.3	5741.5	5745.8	5760.6	5731.0	5808.3	5788.1	5753.2	5804.0
15°	5680.1	5683.3	5673.8	5716.1	5671.6	5681.2	5616.6	5665.3	5630.3	5614.5	5647.3
17.5°	5827.3	5789.2	5721.4	5703.4	5598.6	5554.1	5458.8	5456.6	5395.2	5373.0	5395.2
20°	6004.2	5921.6	5764.8	5615.5	5434.4	5343.3	5181.3	5137.8	5088.1	5040.4	5066.9
22.5°	6248.9	6088.9	5818.9	5540.3	5240.6	5061.6	4862.5	4739.6	4646.4	4554.3	4581.8
25°	6527.4	6303.9	5895.1	5412.2	5008.6	4691.9	4433.5	4223.8	4090.4	3955.9	4016.2
27.5°	6904.5	6596.3	5941.7	5316.8	4706.8	4282.1	3870.1	3596.8	3458.1	3361.7	3331.0
30°	7344.0	6974.4	6025.4	5129.4	4352.0	3777.9	3254.7	2949.7	2802.5	2756.9	2776.0
32.5°	7879.9	7434.0	6195.9	4972.6	3991.9	3243.1	2633.0	2394.7	2288.8	2281.4	2279.2
35°	8597.0	8020.8	6342.1	4729.0	3515.3	2619.2	2095.0	1898.0	1893.7	1890.5	1898.0
37.5°	9147.7	8618.1	6497.8	4490.7	2949.7	2045.2	1675.5	1555.9	1543.2	1580.2	1589.8
40°	9582.0	9046.0	6730.8	4088.2	2286.7	1527.3	1286.8	1242.4	1332.4	1413.9	1430.9
42.5°	9973.8	9406.1	6781.6	3659.3	1666.0	1172.5	1066.5	1140.7	1279.4	1372.6	1390.6
45°	10341.3	9784.2	6587.8	3021.7	1191.5	993.5	1014.6	1125.9	1281.5	1381.1	1391.7
47.5°	10742.8	10037.4	6378.1	2429.6	979.7	952.2	1004.1	1131.2	1294.3	1394.9	1400.2
50°	11007.5	10218.5	5853.8	1900.1	918.3	926.7	999.8	1142.8	1296.4	1368.4	1372.6
52.5°	11115.6	10363.6	5379.3	1520.9	887.6	907.7	1005.1	1162.9	1291.1	1331.3	1329.2
55°	11183.4	10430.3	4971.6	1265.7	860.0	892.8	1014.6	1177.8	1302.7	1344.0	1344.0
57.5°	11139.9	10281.0	4668.6	1078.2	832.5	882.3	1026.3	1200.0	1412.9	1486.0	1478.5
60°	11108.2	10001.4	4238.6	952.2	799.6	870.6	1041.1	1277.3	1648.0	1722.1	1697.8
62.5°	10944.0	9765.2	3772.6	871.7	762.6	864.3	1053.8	1381.1	1680.8	1676.6	1628.9
65°	10525.6	9284.3	3037.6	790.1	724.4	855.8	1058.1	1426.6	1546.3	1479.6	1465.8
67.5°	9932.5	8590.6	2396.8	708.6	682.1	837.8	1093.0	1372.6	1471.1	1413.9	1392.8
69°	9544.9	8076.9	1991.2	657.7	654.5	822.9	1106.8	1367.3	1443.6	1379.0	1351.5
70°	9232.4	7632.1	1719.0	624.9	633.4	811.3	1093.0	1366.3	1431.9	1351.5	1320.7
72.5°	7891.6	6183.2	1110.0	546.5	570.9	780.6	1041.1	1331.3	1407.6	1354.6	1312.3
75°	6115.4	4501.3	718.1	472.4	505.2	728.7	989.2	1309.1	1429.8	1333.4	1242.4
77.5°	3924.1	2408.5	556.0	397.2	434.2	655.6	896.0	1219.1	1388.5	1301.7	1184.1
80°	1709.4	893.9	428.9	322.0	351.6	532.7	768.9	1083.5	1316.5	1307.0	1227.5
82.5°	725.5	576.2	330.4	246.8	279.6	394.0	602.6	928.9	1162.9	1208.5	1295.3
85°	410.9	345.3	220.3	169.5	207.6	290.2	428.9	712.8	946.9	1049.6	1122.7
87.5°	176.9	144.0	101.7	91.1	117.6	150.4	184.3	334.7	505.2	616.4	663.0
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)