

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: P591387

Luminaire Tested: **CTN-CA10-210-740-U-T2-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591387  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-210-740-U-T2-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19155 lumens  
Efficiency: N/A  
Efficacy: 90.0 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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

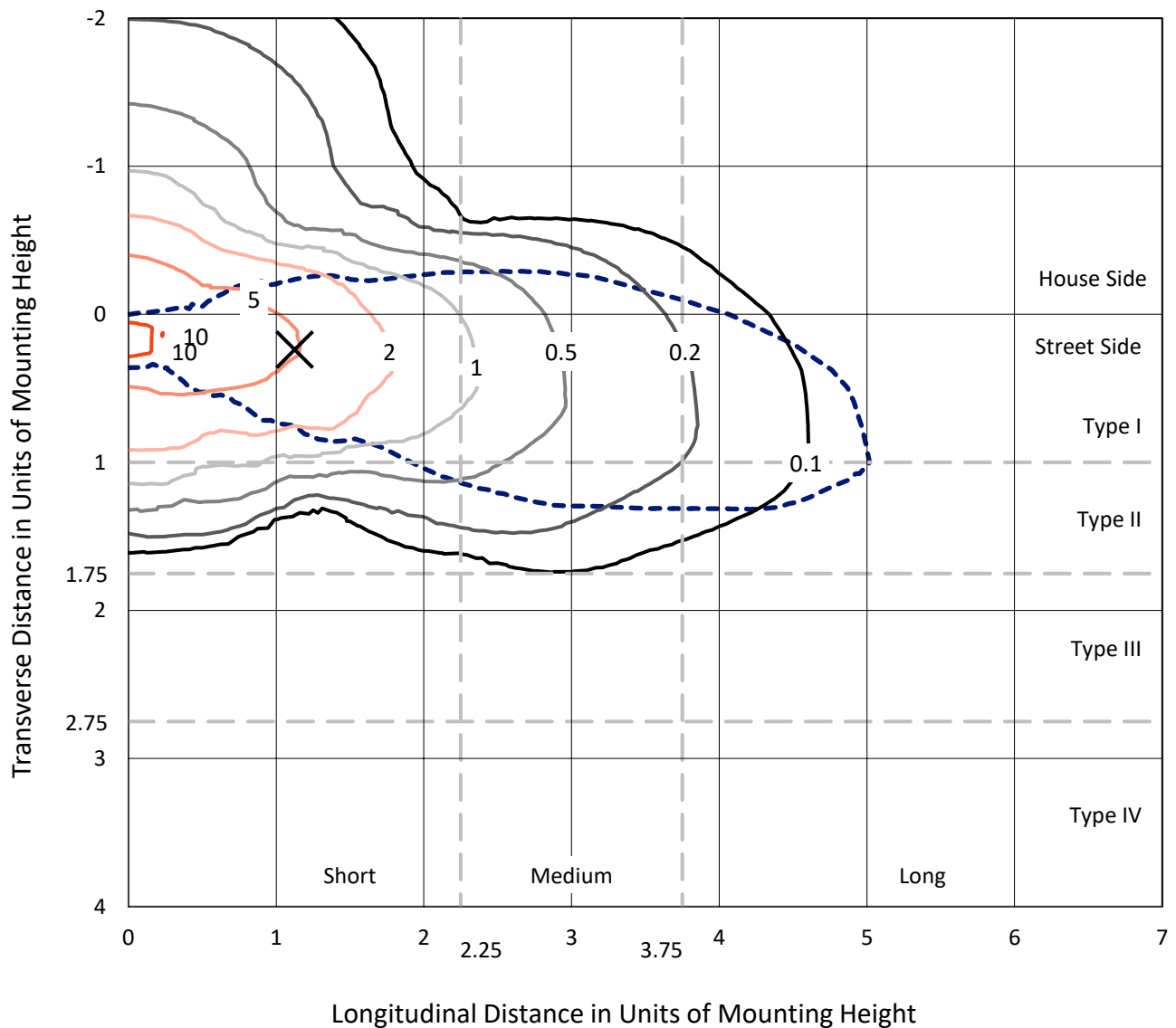




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### Iso-Footcandle Lines of Horizontal Illumination

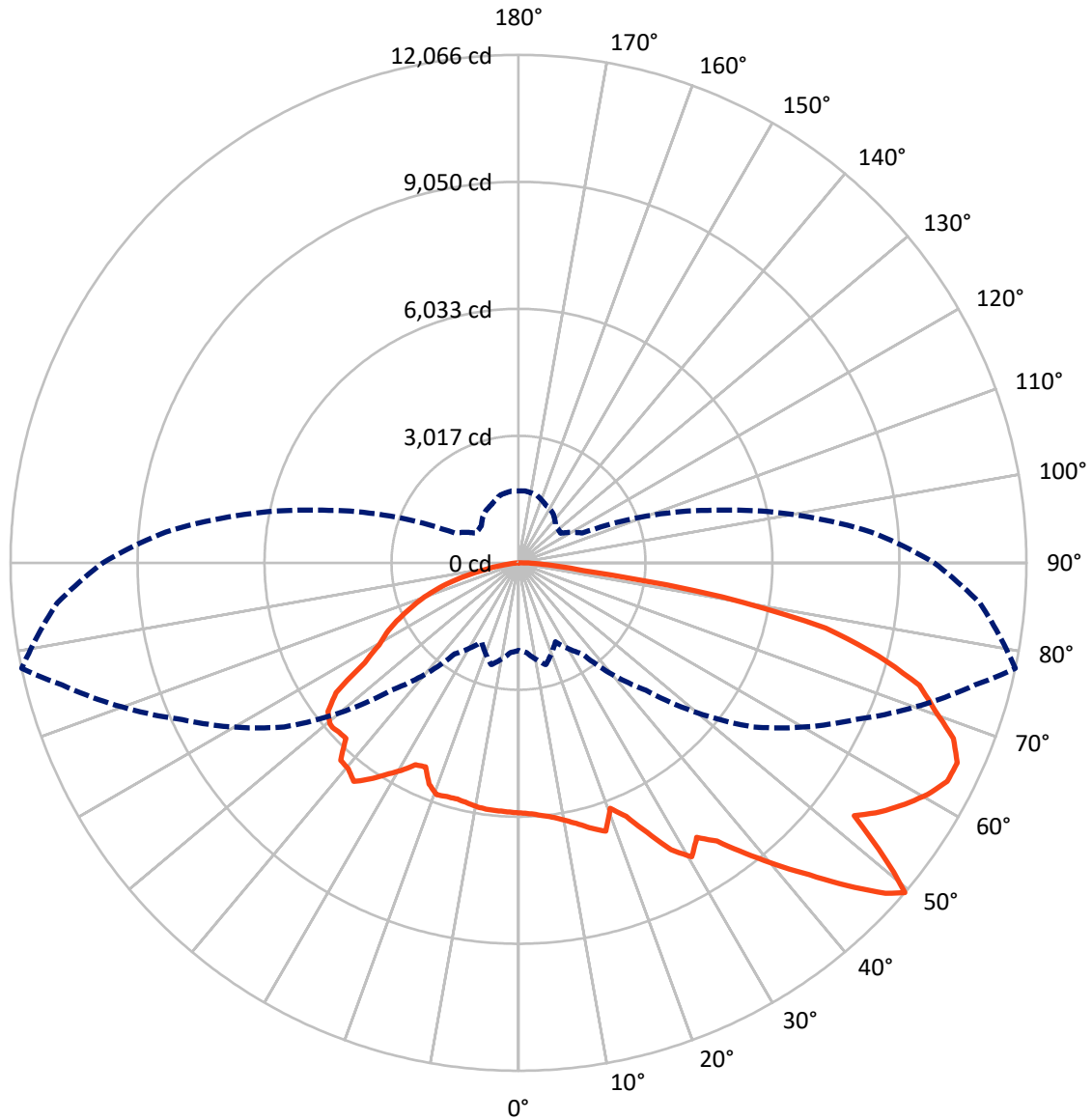
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.9 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral      - - - Horizontal Cone Through 49-Deg Vertical

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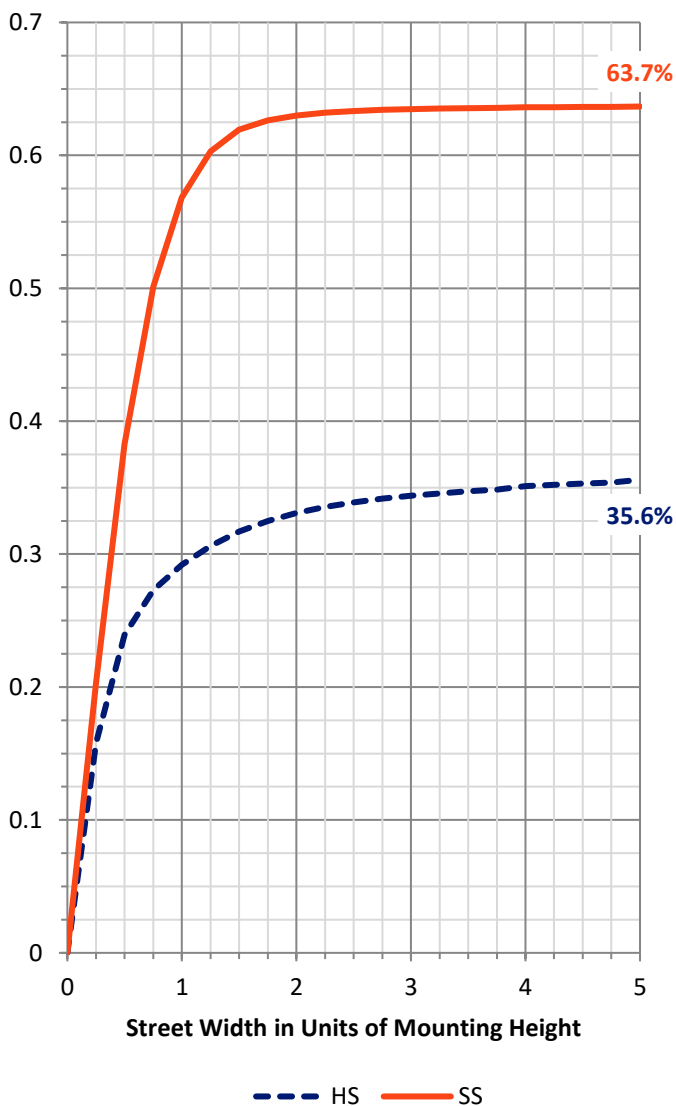
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6997.6	0.0	6997.6
	% Fixture	36.5	0.0	36.5
<b>Street Side</b>	Lumens	12157.4	0.0	12157.4
	% Fixture	63.5	0.0	63.5
<b>Total</b>	Lumens	19155.0	0.0	19155.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	575.7	3.0
10°-20°	1693.1	8.8
20°-30°	2383.8	12.4
30°-40°	2988.2	15.6
40°-50°	3372.9	17.6
50°-60°	3240.9	16.9
60°-70°	2647.6	13.8
70°-80°	1857.4	9.7
80°-90°	395.4	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°	19155.0	100.0
0°-180°	19155.0	100.0

**Coefficient of Utilization**

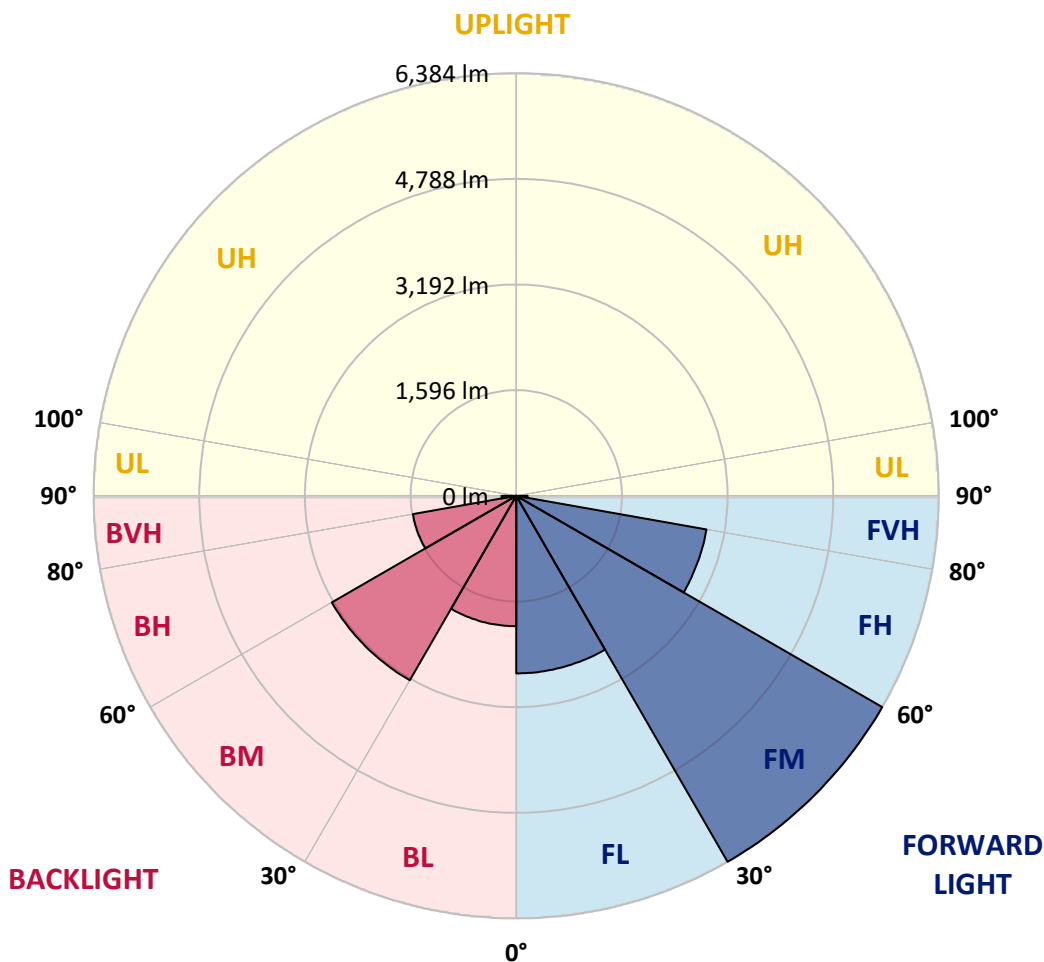


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2682.2	14.0			
FM (30°-60°)	6384.1	33.3			
FH (60°-80°)	2918.8	15.2			G2/5000
FVH (80°-90°)	172.2	0.9			G2/225
BL (0°-30°)	1970.4	10.3	B3/2500		
BM (30°-60°)	3217.9	16.8	B3/5000		
BH (60°-80°)	1586.1	8.3	B3/2500		G3/2500
BVH (80°-90°)	223.2	1.2			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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	5941.4	5941.4	5941.4	5941.4	5941.4	5941.4	5941.4	5941.4	5941.4	5941.4	5941.4
2.5°	6186.3	6129.1	6142.1	6172.3	6055.8	6088.1	6036.4	6059.0	5997.5	5971.6	5982.4
5°	6627.5	6560.6	6575.7	6590.8	6419.3	6345.9	6201.4	6168.0	6074.1	6031.0	6025.6
7.5°	6837.8	6768.8	6785.0	6785.0	6654.4	6666.3	6519.6	6364.3	6176.6	6108.6	6078.4
10°	7175.5	7097.8	7085.9	7065.4	6895.0	6819.5	6697.6	6607.0	6322.2	6225.1	6142.1
12.5°	7422.5	7362.1	7363.1	7340.5	7148.5	7093.5	6878.8	6772.0	6490.5	6372.9	6239.1
15°	7524.9	7481.8	7509.8	7441.9	7313.5	7231.5	7130.1	6958.6	6667.4	6546.6	6381.5
17.5°	7047.1	6969.4	6763.4	6799.0	6790.4	6815.2	6715.9	6817.3	6770.9	6705.1	6596.2
20°	5967.3	6049.3	6193.8	6065.5	6055.8	6378.3	6609.1	6577.9	6319.0	6223.0	6331.9
22.5°	5070.9	4970.6	5275.9	5732.2	5860.5	6189.5	6582.2	6955.4	6663.1	6540.1	6210.0
25°	4266.2	4367.6	4842.2	5532.6	5936.0	6033.1	6482.9	7185.2	7231.5	7097.8	6669.5
27.5°	4138.9	4137.9	4458.2	5127.0	6045.0	6349.2	6487.2	7070.8	7806.5	7714.8	7222.9
30°	4109.8	4094.7	4216.6	4894.0	5748.3	6632.9	6901.5	7106.4	7802.2	8108.5	7855.0
32.5°	3984.7	3972.8	4097.9	4416.2	5344.9	6903.6	7298.4	7568.1	7608.0	7775.2	8496.8
35°	3784.0	3812.1	3976.1	4327.7	5013.8	6370.7	7700.8	8122.5	8218.5	8120.4	8125.8
37.5°	3592.0	3613.6	3781.9	4170.2	4772.1	5182.0	7976.9	8655.4	8869.0	8756.8	8232.6
40°	3342.9	3373.1	3572.6	4003.0	4613.6	4472.3	7576.7	9281.1	9577.7	9434.2	8839.9
42.5°	3062.4	3076.4	3312.7	3728.0	3308.3	4496.0	7010.4	9854.9	10270.2	10127.8	9410.5
45°	2822.9	2831.6	3024.6	3288.9	2982.6	4458.2	6618.8	9583.1	11079.2	10936.8	10014.6
47.5°	2486.4	2547.9	2757.1	2273.9	2770.1	4365.5	6750.4	8497.9	11837.6	11731.8	10601.4
49°	2083.0	2138.0	2505.8	2071.1	2638.5	4282.4	6795.8	8815.1	11222.7	12066.2	11003.7
50°	1914.7	1954.6	1920.1	1998.8	2542.5	4198.3	6723.5	9070.7	10314.4	11556.0	11262.6
52.5°	1664.4	1549.0	1319.2	1794.9	2321.3	3870.3	5540.2	9757.8	10219.5	9986.5	10552.8
55°	703.3	1002.1	1167.1	1472.4	2098.1	2349.4	5130.3	10506.4	10678.0	10442.8	9482.8
57.5°	550.1	560.9	641.8	1095.9	1160.7	1819.8	4963.1	10827.9	11024.2	10820.3	9850.6
60°	80.9	79.8	105.7	126.2	288.0	837.1	3243.6	7707.2	10640.2	11172.0	10187.2
62.5°	29.1	30.2	30.2	35.6	52.9	366.8	2358.0	7190.6	10896.9	11429.8	10468.7
65°	2.2	3.2	5.4	11.9	28.0	346.3	2091.6	7317.8	10813.9	11454.6	10605.7
67.5°	0.0	1.1	3.2	8.6	22.7	340.9	1944.9	7103.2	10465.5	11139.6	10305.8
70°	0.0	0.0	2.2	7.6	20.5	327.9	1689.2	6375.1	9842.0	10493.5	9760.0
72.5°	0.0	0.0	2.2	7.6	18.3	312.8	1388.3	5612.4	9274.6	9956.3	8968.2
75°	0.0	0.0	2.2	6.5	16.2	284.8	1015.0	4067.7	8308.1	8829.1	7844.2
77.5°	0.0	0.0	2.2	6.5	15.1	245.9	686.0	2331.1	6835.7	7465.6	6590.8
80°	0.0	0.0	2.2	5.4	14.0	186.6	388.3	1163.9	3572.6	4907.0	4710.6
82.5°	0.0	0.0	2.2	5.4	10.8	99.2	181.2	508.1	1317.1	1554.4	1814.4
85°	0.0	0.0	2.2	4.3	8.6	24.8	61.5	241.6	719.5	799.3	779.9
87.5°	0.0	0.0	2.2	4.3	6.5	9.7	20.5	69.0	266.4	297.7	254.6
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°	5941.4	5941.4	5941.4	5941.4	5941.4	5941.4	5941.4	5941.4	5941.4	5941.4	5941.4
2.5°	5980.3	5946.8	5915.5	5919.9	5845.4	5829.2	5759.1	5802.3	5773.2	5736.5	5760.2
5°	5993.2	5950.1	5895.0	5833.6	5670.7	5612.4	5515.3	5543.4	5504.6	5461.4	5484.1
7.5°	6021.3	5970.6	5879.9	5720.3	5530.4	5428.0	5315.8	5411.8	5399.9	5375.1	5399.9
10°	6033.1	5988.9	5834.6	5649.1	5385.9	5315.8	5230.6	5214.4	5217.6	5223.0	5259.7
12.5°	6064.4	5998.6	5761.3	5541.2	5301.8	5162.6	5078.5	5128.1	5025.6	4980.3	4999.7
15°	6141.0	6015.9	5704.1	5391.3	5152.9	5042.9	4835.8	4835.8	4809.9	4765.7	4778.6
17.5°	6295.2	6084.9	5689.0	5292.1	4986.8	4796.9	4607.1	4506.8	4478.7	4492.7	4501.4
20°	6378.3	6212.2	5681.5	5161.5	4800.2	4580.1	4292.1	4220.9	4127.1	4140.0	4155.1
22.5°	5878.9	5662.0	5669.6	5001.9	4569.3	4290.0	3975.0	3850.9	3793.8	3783.0	3812.1
25°	6234.8	5798.0	5123.8	4914.5	4315.8	3959.9	3640.6	3470.1	3382.8	3377.4	3395.7
27.5°	6707.3	6172.3	5048.3	4504.6	4046.2	3559.7	3206.9	3085.1	2998.8	2994.4	2997.7
30°	7257.4	6671.7	5236.0	3999.8	3680.5	3098.0	2817.5	2731.2	2652.5	2618.0	2619.1
32.5°	7869.0	7123.7	5417.2	3902.7	2950.2	2695.6	2477.8	2410.9	2303.0	2253.4	2239.4
35°	8441.8	7603.7	5643.7	3739.8	2559.7	2337.5	2184.3	2094.8	2010.7	1968.6	1954.6
37.5°	7937.0	8046.0	5844.3	3606.1	2262.0	1937.3	1895.3	1835.9	1792.8	1760.4	1755.0
40°	8052.4	7247.7	5963.0	3353.6	1954.6	1692.5	1624.5	1653.6	1697.9	1670.9	1669.8
42.5°	8437.5	7371.8	5855.1	3004.2	1710.8	1459.5	1478.9	1587.8	1680.6	1663.3	1665.5
45°	8988.7	7759.0	5024.5	2586.7	1474.6	1314.9	1441.1	1568.4	1684.9	1690.3	1690.3
47.5°	9559.4	8194.8	4870.3	2030.1	1300.9	1258.8	1434.7	1544.7	1678.4	1713.0	1708.6
49°	9875.4	8406.2	4827.1	1670.9	1223.2	1247.0	1433.6	1522.0	1665.5	1714.0	1708.6
50°	10059.9	8550.8	4746.2	1527.4	1177.9	1244.8	1434.7	1508.0	1652.6	1706.5	1704.3
52.5°	10447.1	8734.2	4463.6	1257.8	1067.9	1237.3	1451.9	1495.1	1612.6	1669.8	1691.4
55°	8632.8	8424.6	3989.0	1129.4	1018.3	1222.2	1451.9	1502.6	1578.1	1611.6	1632.1
57.5°	8739.6	7203.5	3136.8	1065.7	984.8	1206.0	1429.3	1501.5	1559.8	1565.2	1558.7
60°	9065.3	7370.7	2338.6	1001.0	946.0	1185.5	1380.7	1467.0	1511.2	1511.2	1491.8
62.5°	9260.6	7449.4	1870.4	929.8	905.0	1143.4	1308.5	1400.1	1433.6	1415.2	1412.0
65°	9309.1	7513.1	1357.0	853.2	858.6	1098.1	1234.0	1313.8	1360.2	1328.9	1335.4
67.5°	9141.9	7059.0	991.3	774.5	805.8	1036.6	1160.7	1231.9	1265.3	1249.1	1252.4
70°	8523.8	6564.9	697.9	639.7	720.6	941.7	1067.9	1149.9	1167.1	1139.1	1143.4
72.5°	7530.3	5802.3	440.1	500.5	634.3	854.3	959.0	1010.7	1014.0	1048.5	1066.8
75°	6558.4	4655.6	318.2	394.8	503.7	730.3	875.9	924.4	960.0	1132.6	1160.7
77.5°	5256.5	2945.9	270.8	311.7	395.9	606.2	781.0	855.4	1175.8	1261.0	1239.4
80°	3185.4	1829.5	203.9	245.9	330.1	466.0	668.8	881.3	1189.8	1110.0	1064.7
82.5°	1470.3	795.0	138.1	200.6	262.1	347.3	527.5	1029.1	1019.4	850.0	841.4
85°	528.6	235.2	75.5	143.5	183.4	239.5	405.6	1019.4	799.3	714.1	668.8
87.5°	134.8	42.1	31.3	70.1	92.8	127.3	221.1	539.3	415.3	365.7	352.7
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)