

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: P591186

Luminaire Tested: **CTN-CA8-480-722-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591186  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-9)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-480-722-U-T3-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (8) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29911 lumens  
Efficiency: N/A  
Efficacy: 62.2 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B4 - U0 - G3

Input Watts (W): 480.8  
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

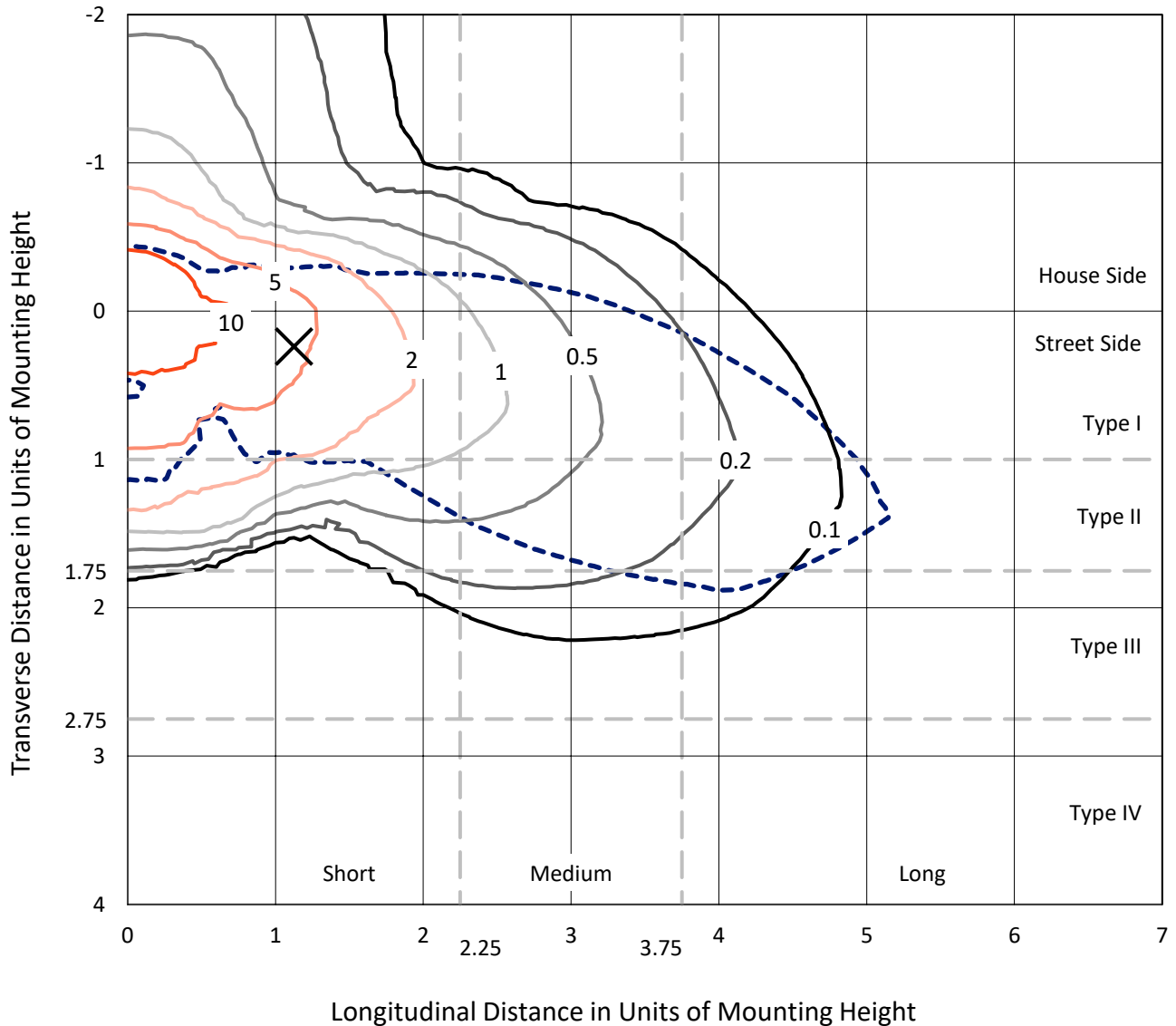




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### Iso-Footcandle Lines of Horizontal Illumination

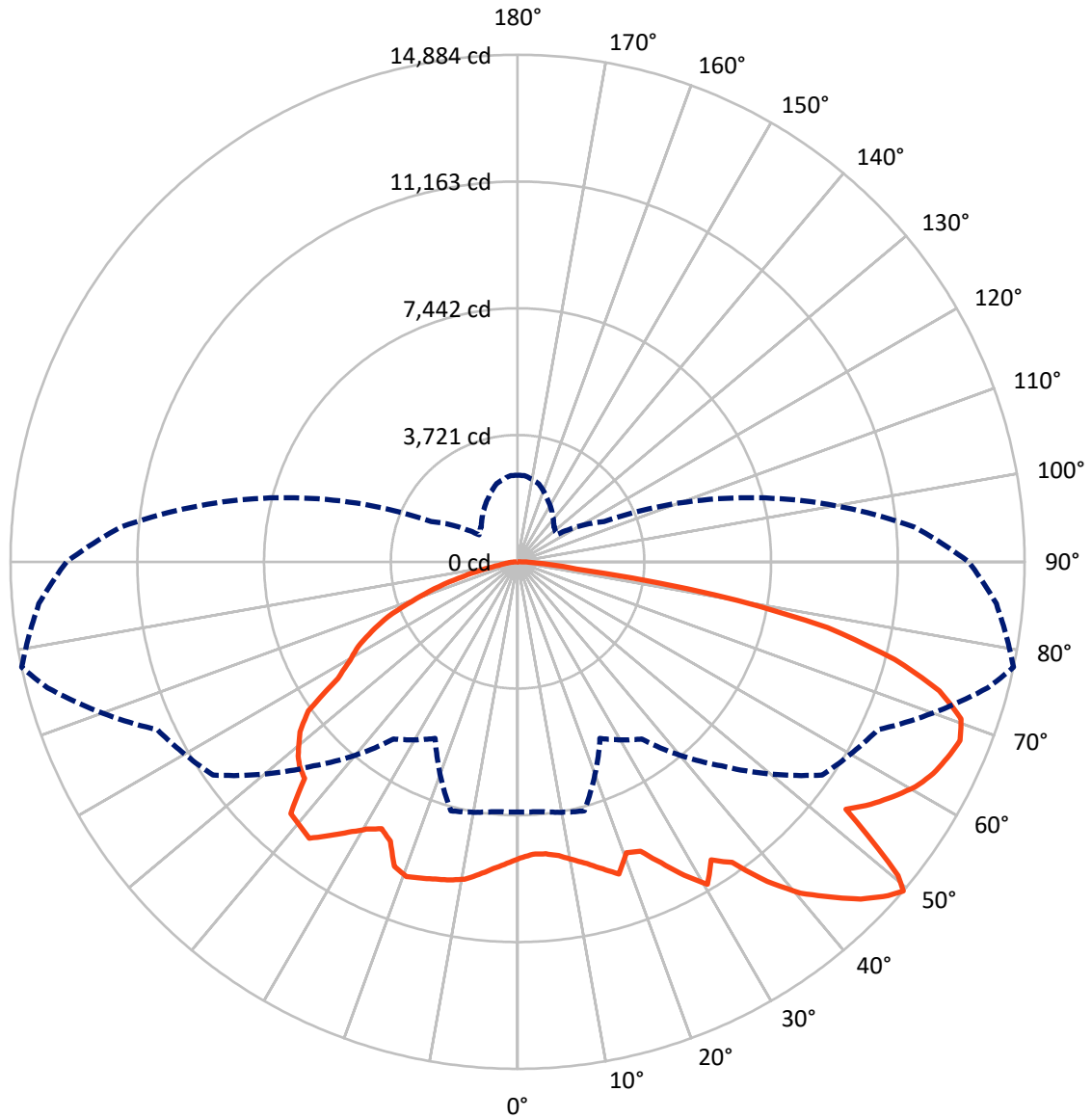
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.6 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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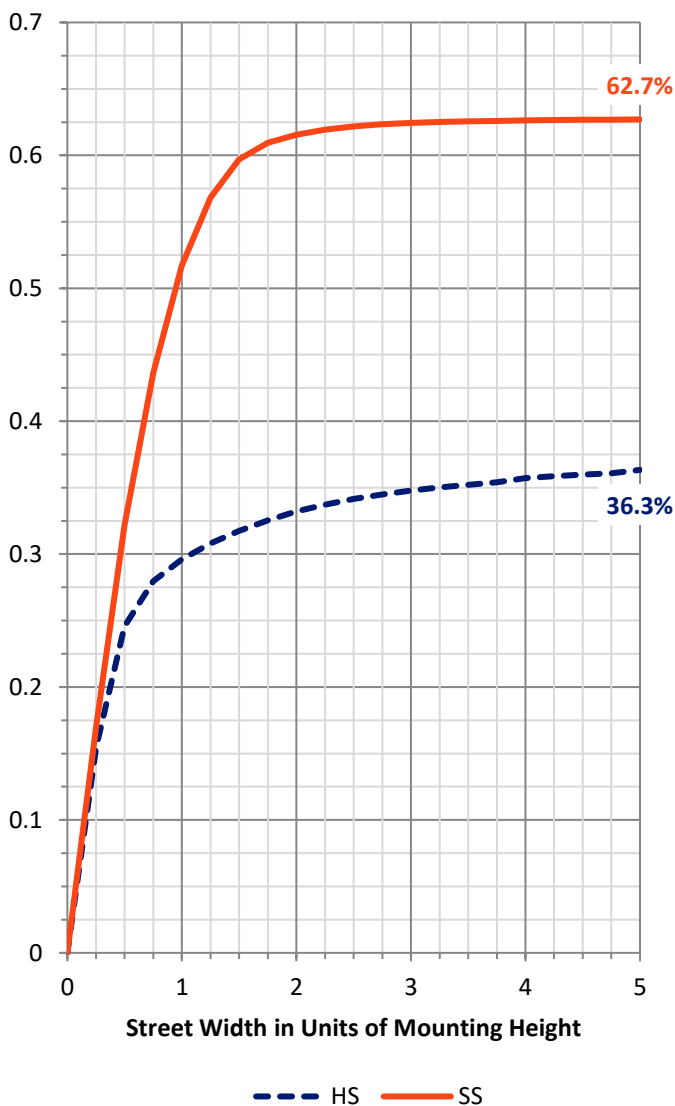
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11187.4	0.0	11187.4
	% Fixture	37.4	0.0	37.4
<b>Street Side</b>	Lumens	18723.6	0.0	18723.6
	% Fixture	62.6	0.0	62.6
<b>Total</b>	Lumens	29911.0	0.0	29911.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	870.6	2.9
10°-20°	2672.5	8.9
20°-30°	3872.8	12.9
30°-40°	4758.8	15.9
40°-50°	5371.1	18.0
50°-60°	5103.9	17.1
60°-70°	3811.8	12.7
70°-80°	2830.9	9.5
80°-90°	618.6	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°	29911.0	100.0
0°-180°	29911.0	100.0

**Coefficient of Utilization**

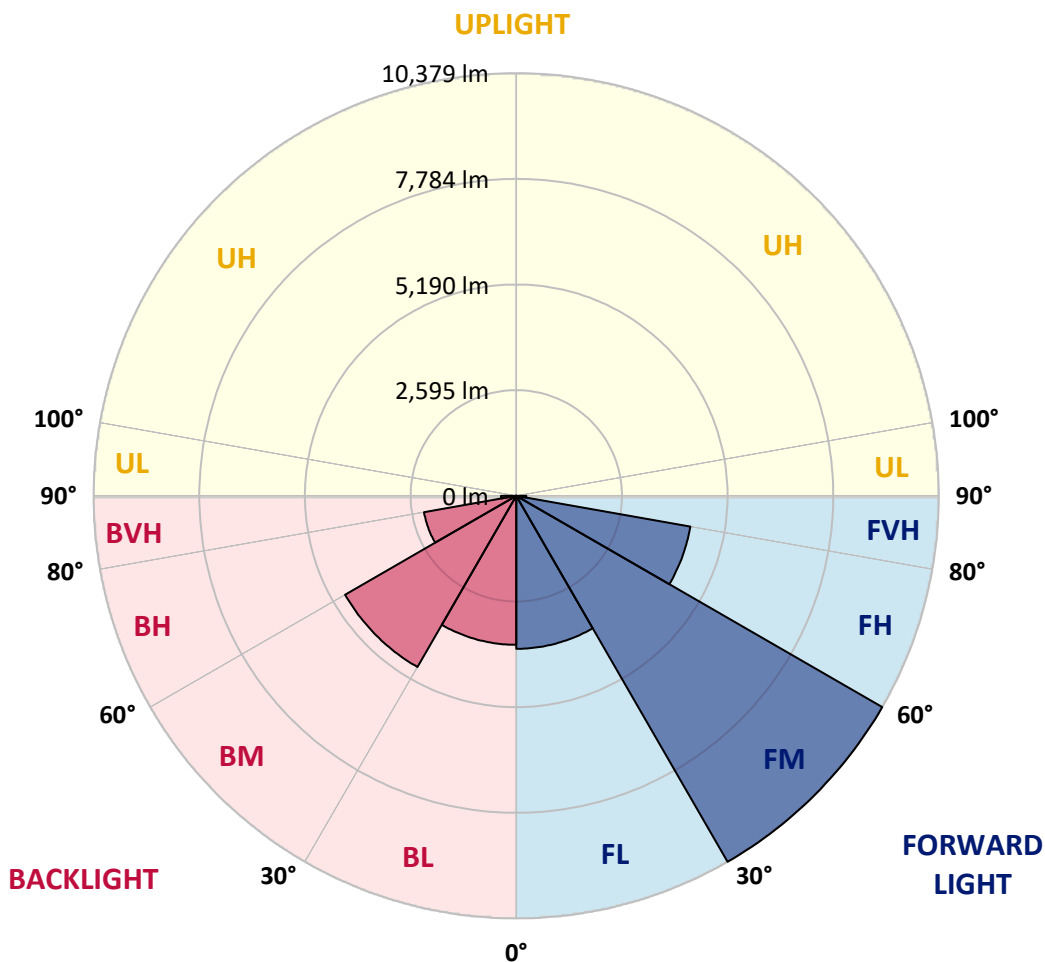


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3757.0	12.6			
FM (30°-60°)	10379.2	34.7			
FH (60°-80°)	4342.9	14.5			G2/5000
FVH (80°-90°)	244.5	0.8			G3/500
BL (0°-30°)	3658.9	12.2	B4/5000		
BM (30°-60°)	4854.5	16.2	B3/5000		
BH (60°-80°)	2299.9	7.7	B3/2500		G3/2500
BVH (80°-90°)	374.1	1.3			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G3**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	8698.0	8698.0	8698.0	8698.0	8698.0	8698.0	8698.0	8698.0	8698.0	8698.0	8698.0
2.5°	8510.0	8463.5	8476.0	8547.6	8409.8	8510.0	8468.8	8565.5	8597.7	8594.1	8733.8
5°	8579.8	8519.0	8536.9	8585.2	8434.8	8511.8	8479.6	8583.4	8610.2	8612.0	8801.8
7.5°	8835.8	8766.0	8748.1	8751.7	8610.2	8667.5	8585.2	8665.7	8714.1	8708.7	8919.9
10°	9208.1	9131.2	9091.8	9079.2	8907.4	8882.3	8782.1	8810.7	8882.3	8891.3	9106.1
12.5°	9591.2	9530.3	9473.1	9444.4	9208.1	9152.6	9005.9	9030.9	9084.6	9095.4	9319.1
15°	9929.5	9872.2	9863.3	9831.1	9591.2	9483.8	9306.6	9279.7	9320.9	9354.9	9550.0
17.5°	9598.4	9525.0	9478.4	9489.2	9367.4	9095.4	8986.2	9170.5	9514.2	9634.2	9818.5
20°	8663.9	8753.5	8715.9	8570.9	8440.2	8880.5	8787.5	8748.1	8961.1	9115.0	9560.8
22.5°	7611.4	7611.4	7969.4	8220.0	8270.1	8517.2	9025.5	9202.8	9226.0	9226.0	9097.1
25°	6779.0	7015.3	7622.1	8574.4	8579.8	8529.7	8671.1	9643.1	9804.2	9786.3	9569.7
27.5°	7101.2	7061.8	7470.0	8132.3	9068.5	9011.2	8735.6	9174.1	10502.4	10420.0	10142.5
30°	7385.8	7346.5	7419.8	8241.5	9208.1	9533.9	9297.6	9167.0	10539.9	10987.5	10821.0
32.5°	7652.6	7607.8	7691.9	7817.2	8762.4	10053.0	9886.6	9800.6	10002.9	10437.9	11588.9
35°	7867.4	7874.5	7971.2	8155.6	8588.8	9877.6	10477.3	10509.5	10863.9	10837.1	11418.9
37.5°	8026.7	8041.0	8125.1	8343.5	8504.6	8159.1	11039.4	11411.7	11957.7	11904.0	11476.2
40°	8035.6	8067.9	8236.1	8504.6	8694.4	7265.9	10935.6	12407.0	12947.6	12790.1	12258.4
42.5°	7869.2	7885.3	8166.3	8621.0	6598.2	7557.7	10140.8	13398.7	13640.3	13447.0	12856.3
45°	7720.6	7717.0	8017.7	8425.9	6234.8	7899.6	10119.3	13110.5	14277.6	14127.2	13373.6
47.5°	7511.1	7509.4	7802.9	6340.4	6313.6	8268.3	10652.7	11368.7	14805.7	14644.6	13844.4
49°	7342.9	7360.8	7568.4	5719.3	6349.4	8474.2	10912.3	11665.9	14288.4	14884.4	14105.8
50°	7251.6	7269.5	6762.9	5656.6	6360.1	8592.3	11048.3	11884.3	12859.9	14478.1	14274.0
52.5°	6836.3	6678.8	5243.1	5526.0	6363.7	8732.0	9499.9	12347.9	12256.6	12068.7	13515.0
55°	4119.0	4661.3	4747.3	5377.4	6306.4	6342.2	9279.7	12886.7	12847.3	12573.5	11637.3
57.5°	2497.2	2472.1	3666.1	4963.9	4222.8	5318.3	9643.1	13599.2	13366.5	13001.3	11836.0
60°	880.7	778.7	785.8	846.7	1571.7	3979.3	7691.9	10241.0	13473.9	13416.6	12016.8
62.5°	69.8	66.2	66.2	69.8	100.2	1494.7	6098.8	10273.2	13846.2	13697.6	12057.9
65°	9.0	9.0	9.0	19.7	51.9	1351.5	6107.7	10439.7	14123.7	13869.5	11948.7
67.5°	0.0	0.0	5.4	14.3	41.2	1195.8	5928.7	10538.2	14372.5	14012.7	11848.5
70°	0.0	0.0	3.6	12.5	35.8	989.9	5710.3	10624.1	14256.1	13810.4	11343.7
72.5°	0.0	0.0	3.6	10.7	30.4	653.4	5062.3	9988.6	13427.3	12944.0	10307.2
75°	0.0	0.0	3.6	9.0	28.6	372.3	4147.6	8825.1	11948.7	11436.8	8685.4
77.5°	0.0	0.0	1.8	7.2	25.1	204.1	2865.9	7305.3	9870.5	9308.4	6506.9
80°	0.0	0.0	1.8	7.2	23.3	139.6	1303.2	4745.5	6578.5	5875.0	3565.8
82.5°	0.0	0.0	1.8	7.2	17.9	94.9	526.3	1330.0	2035.3	1740.0	1134.9
85°	0.0	0.0	1.8	5.4	12.5	60.9	259.6	546.0	821.6	789.4	574.6
87.5°	0.0	0.0	1.8	5.4	9.0	17.9	77.0	179.0	320.4	325.8	245.2
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°	8698.0	8698.0	8698.0	8698.0	8698.0	8698.0	8698.0	8698.0	8698.0	8698.0	8698.0
2.5°	8800.0	8816.1	8869.8	8950.4	8962.9	9072.1	9054.2	9258.3	9277.9	9326.3	9380.0
5°	8893.1	8948.6	9070.3	9254.7	9388.9	9553.6	9537.5	9768.4	9791.7	9779.2	9861.5
7.5°	9029.1	9111.5	9301.2	9550.0	9594.8	9798.9	9772.0	9972.5	9976.1	9949.2	10029.8
10°	9227.8	9324.5	9499.9	9641.3	9748.7	9872.2	9854.3	10033.4	10015.5	9985.0	10069.2
12.5°	9419.4	9473.1	9580.5	9746.9	9766.6	9816.8	9786.3	9952.8	9934.9	9891.9	9970.7
15°	9591.2	9618.1	9619.8	9702.2	9657.4	9695.0	9614.5	9734.4	9693.2	9677.1	9732.6
17.5°	9811.4	9761.3	9687.9	9682.5	9530.3	9478.4	9349.5	9381.8	9295.8	9288.7	9319.1
20°	9840.0	9943.9	9732.6	9514.2	9258.3	9127.6	8884.1	8885.9	8789.3	8751.7	8769.6
22.5°	9056.0	9312.0	9784.5	9367.4	8932.5	8638.9	8325.6	8230.8	8048.2	7971.2	7940.8
25°	9362.1	9029.1	8993.3	9120.4	8510.0	8062.5	7607.8	7328.6	7112.0	6936.5	6949.1
27.5°	9836.4	9403.2	8527.9	8579.8	7978.4	7350.0	6664.4	6270.6	6050.4	5880.4	5860.7
30°	10464.8	9920.6	8628.1	7436.0	7367.9	6455.0	5613.7	5178.7	4954.9	4894.1	4856.5
32.5°	11245.2	10536.4	8853.7	7174.6	6097.0	5486.6	4543.2	4192.3	4086.7	4081.4	4038.4
35°	12172.5	11350.8	9061.3	6827.3	5257.4	4468.0	3630.3	3399.3	3415.5	3417.2	3453.0
37.5°	11580.0	12120.6	9320.9	6498.0	4439.4	3320.6	2919.6	2774.6	2821.2	2896.3	2932.1
40°	11588.9	11034.0	9623.4	5948.4	3449.5	2533.0	2284.1	2251.9	2450.6	2602.8	2640.4
42.5°	12054.3	10962.4	9512.4	5321.9	2525.8	1926.1	1902.8	2076.5	2362.9	2533.0	2563.4
45°	12553.8	11302.5	7901.4	4434.0	1831.2	1629.0	1808.0	2049.6	2361.1	2541.9	2559.8
47.5°	13028.1	11517.3	7573.8	3465.6	1471.4	1535.9	1779.3	2049.6	2373.6	2558.0	2568.8
49°	13239.4	11691.0	7269.5	2803.3	1380.1	1500.1	1763.2	2053.2	2377.2	2534.7	2540.1
50°	13364.7	11789.4	7024.2	2599.2	1335.4	1476.8	1756.1	2058.6	2371.8	2507.9	2513.3
52.5°	13559.8	11948.7	6460.4	2071.1	1251.3	1423.1	1745.3	2080.1	2352.2	2432.7	2429.1
55°	11182.6	11168.3	5989.6	1738.2	1186.8	1374.8	1741.7	2098.0	2361.1	2443.4	2439.9
57.5°	10717.2	9170.5	5046.2	1421.3	1133.1	1333.6	1745.3	2124.8	2522.2	2665.4	2647.5
60°	10751.2	9030.9	4294.4	1233.4	1070.5	1299.6	1756.1	2244.8	2914.2	3059.2	3014.5
62.5°	10633.0	8689.0	3843.3	1108.1	1004.2	1269.2	1763.2	2411.2	2964.4	2976.9	2899.9
65°	10352.0	8259.4	3236.5	970.2	934.4	1240.5	1761.4	2472.1	2735.2	2633.2	2608.1
67.5°	9831.1	7802.9	2561.6	850.3	859.2	1197.6	1802.6	2366.5	2588.4	2506.1	2468.5
70°	9213.5	6829.1	1806.2	739.3	791.2	1149.2	1797.2	2341.4	2511.5	2389.7	2337.8
72.5°	8114.4	5740.8	1215.5	637.3	705.3	1093.7	1705.9	2266.2	2461.3	2380.8	2309.2
75°	6449.6	4296.2	705.3	549.6	621.2	1013.2	1616.4	2219.7	2488.2	2334.3	2185.7
77.5°	4408.9	2447.0	526.3	460.0	535.2	909.4	1466.1	2064.0	2405.9	2273.4	2074.7
80°	1976.2	884.3	402.8	374.1	449.3	737.5	1263.8	1825.9	2278.8	2278.8	2139.1
82.5°	785.8	556.7	279.3	293.6	367.0	562.1	1000.7	1575.3	2008.5	2099.8	2244.8
85°	443.9	325.8	179.0	213.0	281.0	435.0	728.6	1224.4	1636.1	1813.3	1965.5
87.5°	175.4	123.5	71.6	119.9	162.9	223.8	318.6	599.7	880.7	1084.8	1199.3
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)