

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: P591170

Luminaire Tested: **CTN-CA8-330-722-U-T2-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591170  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-5)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-330-722-U-T2-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D 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: 24433 lumens  
Efficiency: N/A  
Efficacy: 73.7 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

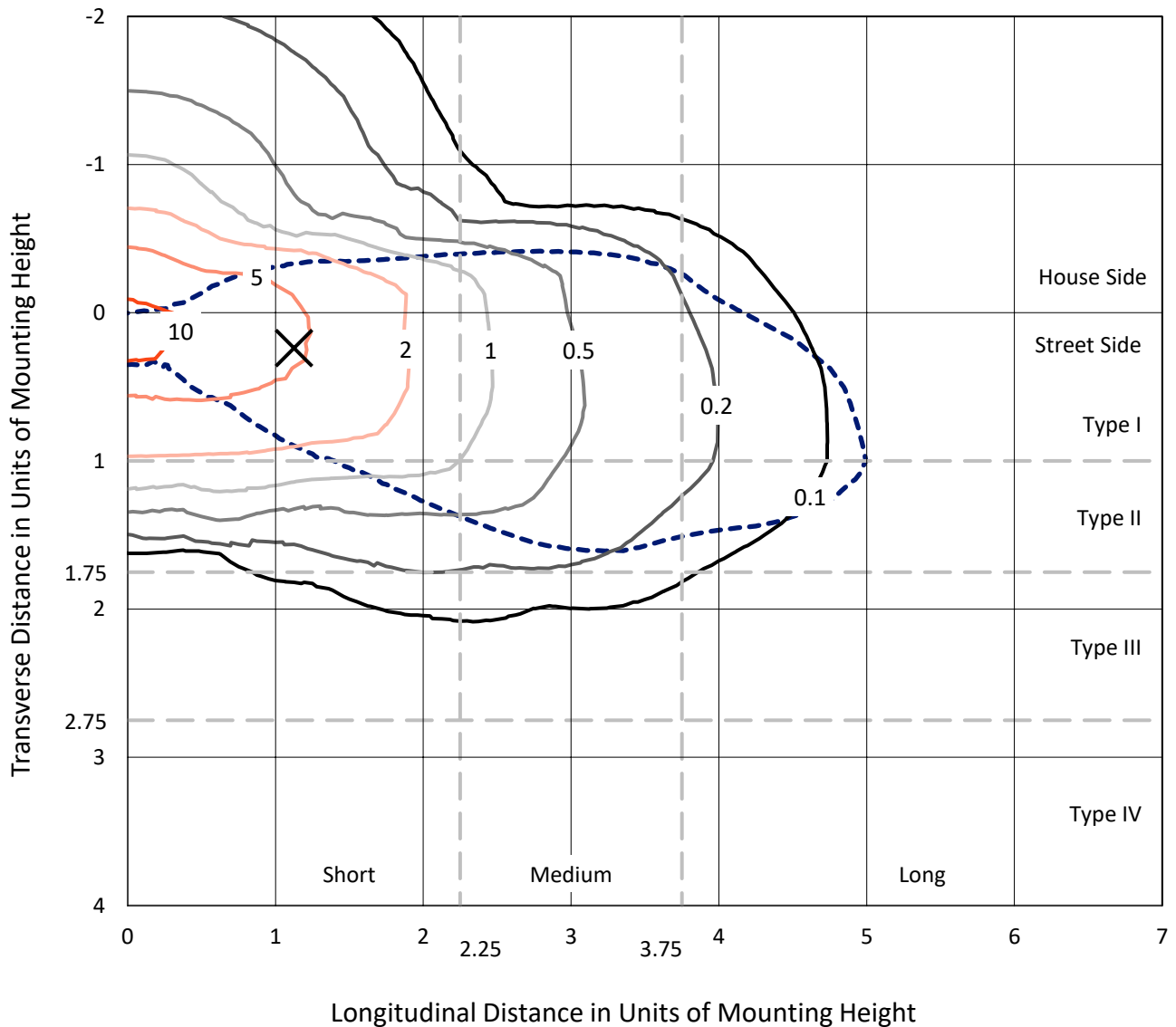
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

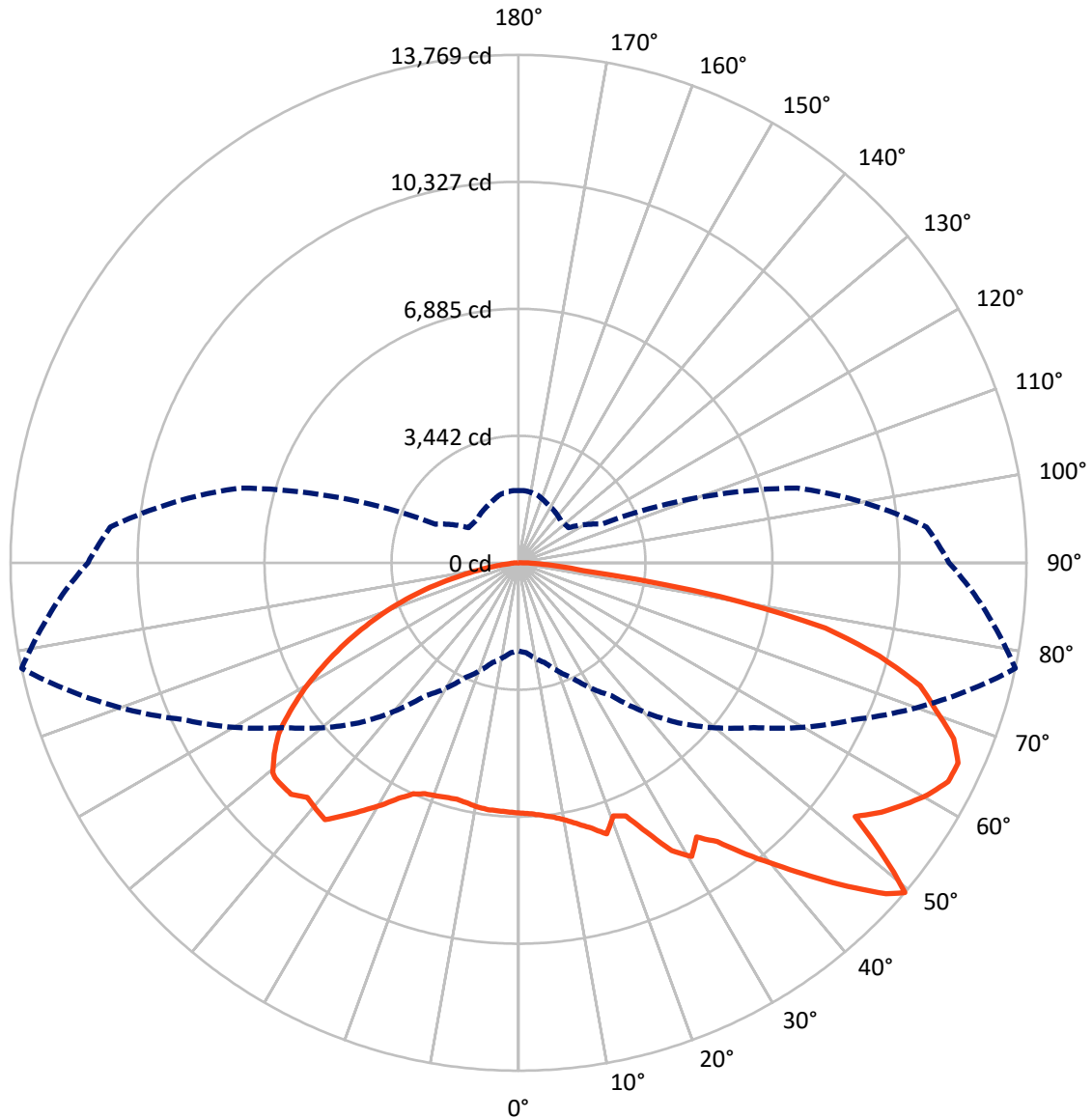
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.4 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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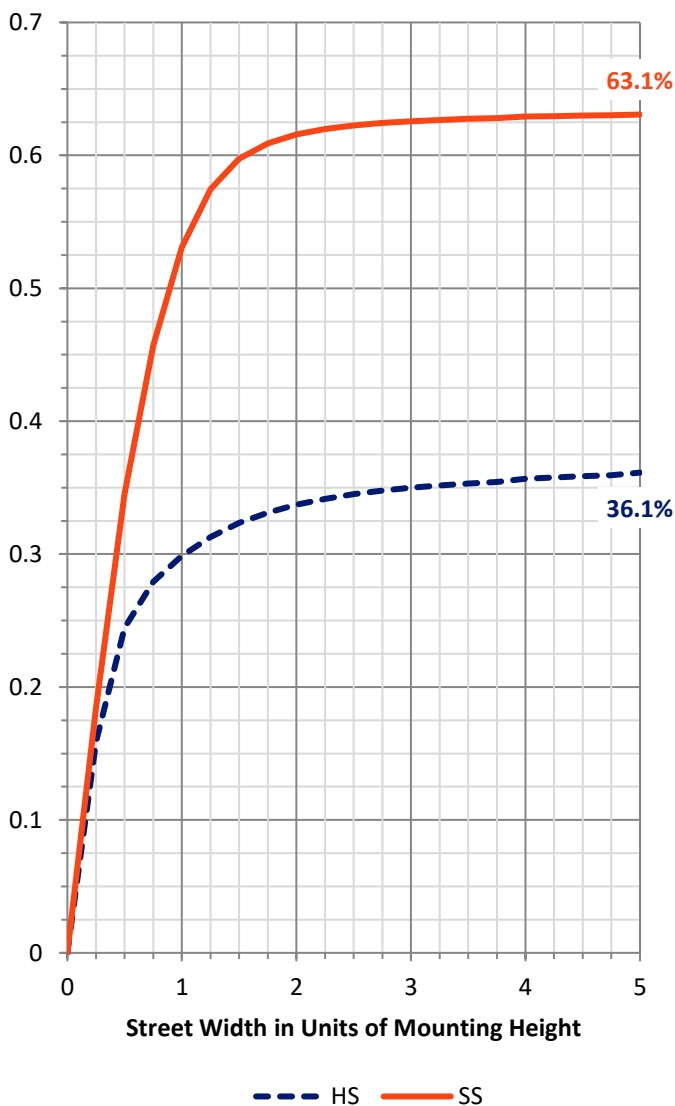
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9046.6	0.0	9046.6
	% Fixture	37.0	0.0	37.0
<b>Street Side</b>	Lumens	15386.4	0.0	15386.4
	% Fixture	63.0	0.0	63.0
<b>Total</b>	Lumens	24433.0	0.0	24433.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	657.7	2.7
10°-20°	1935.4	7.9
20°-30°	2762.8	11.3
30°-40°	3556.7	14.6
40°-50°	4172.0	17.1
50°-60°	4304.0	17.6
60°-70°	3907.9	16.0
70°-80°	2595.4	10.6
80°-90°	541.2	2.2
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°	24433.0	100.0
0°-180°	24433.0	100.0

**Coefficient of Utilization**



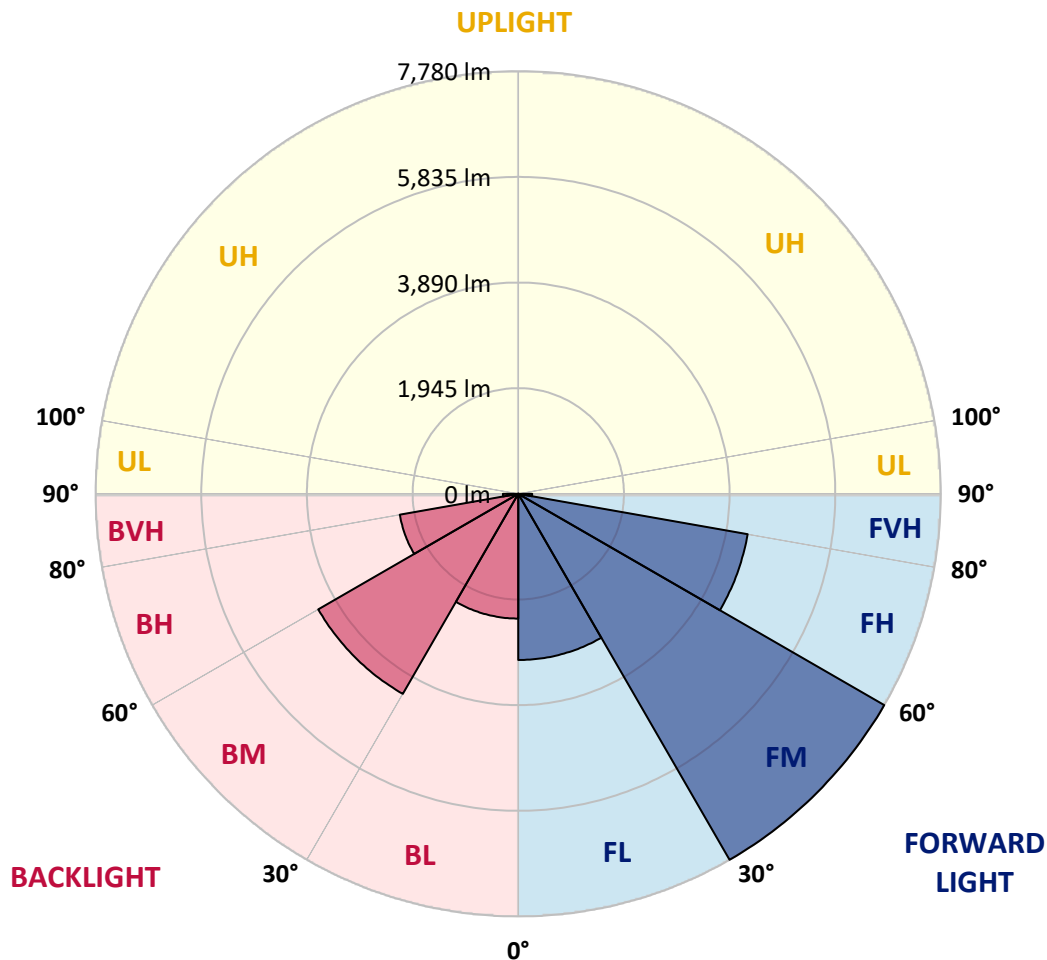
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3059.3	12.5			
FM (30°-60°)	7780.2	31.8			
FH (60°-80°)	4288.9	17.6			G2/5000
FVH (80°-90°)	257.9	1.1			G3/500
BL (0°-30°)	2296.6	9.4	B3/2500		
BM (30°-60°)	4252.4	17.4	B3/5000		
BH (60°-80°)	2214.4	9.1	B3/2500		G3/2500
BVH (80°-90°)	283.2	1.2			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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	6784.8	6784.8	6784.8	6784.8	6784.8	6784.8	6784.8	6784.8	6784.8	6784.8	6784.8
2.5°	7062.2	7008.0	7025.2	7054.8	6920.4	6950.0	6892.1	6915.5	6844.0	6816.9	6829.2
5°	7561.5	7503.6	7524.6	7534.4	7339.6	7260.7	7079.5	7041.2	6929.0	6879.7	6874.8
7.5°	7808.1	7745.2	7750.2	7756.3	7601.0	7612.1	7448.1	7252.1	7043.7	6968.5	6935.2
10°	8213.8	8126.2	8096.6	8084.3	7874.7	7787.2	7644.1	7536.9	7211.4	7098.0	7012.9
12.5°	8464.0	8399.9	8399.9	8387.6	8165.7	8097.9	7842.6	7729.2	7408.7	7274.3	7127.5
15°	8509.7	8466.5	8522.0	8510.9	8365.4	8286.5	8173.1	7936.3	7608.4	7469.1	7296.5
17.5°	7994.3	7879.6	7660.2	7693.5	7694.7	7855.0	7777.3	7940.0	7843.9	7730.4	7544.3
20°	6565.3	6604.8	6956.2	6871.1	6839.0	7179.3	7527.0	7536.9	7345.8	7327.3	7578.8
22.5°	5719.5	5579.0	5969.8	6538.2	6574.0	7028.9	7434.5	7922.8	7617.0	7453.0	7260.7
25°	4871.3	4923.1	5512.4	6248.5	6768.8	6869.9	7335.9	8115.1	8245.8	8094.2	7692.2
27.5°	4724.6	4722.1	4978.6	5794.8	6862.5	7242.2	7396.3	8006.6	8917.8	8832.7	8324.7
30°	4692.5	4672.8	4807.2	5485.3	6427.2	7577.6	7871.0	8089.2	8864.7	9243.3	9032.4
32.5°	4552.0	4534.7	4677.7	5032.8	6078.3	7822.9	8323.5	8649.0	8684.7	8863.5	9779.6
35°	4331.3	4344.8	4543.3	4929.2	5574.1	7233.6	8787.1	9279.0	9408.5	9285.2	9412.2
37.5°	4105.6	4120.4	4315.2	4752.9	5486.5	6987.0	9086.7	9888.1	10156.8	10024.9	9438.1
40°	3825.8	3849.2	4074.8	4566.8	5385.4	6430.9	8471.4	10579.7	10944.7	10772.1	10118.6
42.5°	3507.7	3517.5	3774.0	4283.2	5257.2	6464.2	7836.5	11218.4	11709.1	11614.2	10789.3
45°	3231.5	3231.5	3464.5	3918.2	4965.0	6401.4	7567.7	10742.5	12647.4	12513.0	11461.3
47.5°	2855.5	2888.7	3162.5	3612.5	4621.0	6255.9	7721.8	9673.5	13521.5	13409.3	12135.7
49°	2391.9	2448.6	2809.8	3444.8	4400.3	6135.0	7783.5	10050.8	12918.6	13769.3	12573.4
50°	2202.0	2231.6	2235.3	3325.2	4236.3	6025.3	7811.8	10340.6	11901.4	13188.6	12880.4
52.5°	1906.1	1719.9	1528.8	2993.5	3907.1	5619.7	7829.1	11127.2	11657.3	11426.8	12641.2
55°	805.1	1054.2	1340.2	2448.6	3552.1	5117.9	7772.4	11991.4	12193.6	11939.7	10838.7
57.5°	609.1	648.5	720.0	1899.9	2544.8	4545.8	7581.3	12538.9	12646.1	12357.6	11278.8
60°	88.8	91.2	128.2	770.6	1457.3	3245.1	6893.3	12522.8	12982.7	12760.8	11658.6
62.5°	37.0	38.2	49.3	631.3	1123.2	2497.9	6292.9	12313.2	13309.4	13071.5	12014.9
65°	6.2	7.4	21.0	558.5	928.4	2333.9	5634.5	12355.2	13193.5	13094.9	12153.0
67.5°	4.9	6.2	19.7	501.8	765.6	2136.7	4984.7	11688.1	12770.7	12727.5	11784.3
70°	4.9	6.2	21.0	453.7	662.1	1882.7	4182.1	10764.7	11995.1	12012.4	11165.4
72.5°	6.2	6.2	21.0	405.6	575.8	1609.0	3309.2	9531.8	11291.1	11386.1	10285.1
75°	6.2	6.2	19.7	352.6	494.4	1341.4	2383.2	7009.2	10126.0	10097.7	9020.1
77.5°	6.2	6.2	19.7	279.9	410.6	1103.5	1552.3	3947.8	8385.1	8504.7	7541.8
80°	6.2	6.2	19.7	204.7	321.8	827.3	940.7	2020.8	4476.8	5542.0	5188.2
82.5°	6.2	6.2	19.7	138.1	220.7	477.1	542.5	1023.3	1607.7	1761.9	2061.5
85°	4.9	4.9	14.8	82.6	113.4	168.9	261.4	545.0	879.1	918.5	896.3
87.5°	2.5	2.5	7.4	29.6	49.3	61.6	117.1	219.5	323.0	330.4	287.3
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°	6784.8	6784.8	6784.8	6784.8	6784.8	6784.8	6784.8	6784.8	6784.8	6784.8	6784.8
2.5°	6829.2	6789.7	6754.0	6760.1	6683.7	6661.5	6576.4	6620.8	6577.7	6539.4	6575.2
5°	6840.3	6792.2	6726.8	6664.0	6488.9	6407.5	6305.2	6331.1	6273.1	6227.5	6267.0
7.5°	6872.3	6813.2	6712.1	6533.3	6324.9	6195.5	6079.6	6193.0	6179.4	6144.9	6185.6
10°	6887.1	6836.6	6662.7	6453.1	6162.2	6080.8	5976.0	5974.8	5978.5	5984.6	6025.3
12.5°	6926.6	6850.1	6575.2	6331.1	6061.1	5895.9	5819.4	5881.1	5770.1	5704.8	5733.1
15°	7020.3	6881.0	6516.0	6159.7	5904.5	5767.6	5523.5	5544.5	5521.0	5456.9	5485.3
17.5°	7205.2	6967.3	6513.6	6051.2	5704.8	5481.6	5268.3	5167.2	5135.1	5140.1	5164.7
20°	7432.1	7120.2	6518.5	5911.9	5496.4	5237.5	4908.3	4838.0	4732.0	4734.4	4740.6
22.5°	7287.8	7296.5	6520.9	5752.8	5236.2	4912.0	4563.1	4425.0	4343.6	4322.6	4353.5
25°	7678.7	7639.2	6559.2	5667.8	4962.5	4527.3	4162.4	3986.1	3864.0	3854.1	3888.7
27.5°	8199.0	8127.5	6756.4	5484.1	4672.8	4066.2	3670.4	3537.3	3432.5	3395.5	3420.1
30°	8831.5	8747.6	7028.9	5341.0	4282.0	3570.6	3231.5	3140.3	3036.7	2968.9	2975.1
32.5°	9492.3	9313.5	7308.8	5220.2	3881.3	3136.6	2846.8	2765.5	2643.4	2555.9	2576.8
35°	10158.1	9904.1	7620.7	5006.9	3391.8	2754.4	2520.1	2410.4	2310.5	2231.6	2218.0
37.5°	9631.6	10594.5	7922.8	4808.4	3008.3	2463.4	2198.3	2120.6	2061.5	1999.8	1998.6
40°	9674.8	9895.5	8101.6	4457.0	2580.5	2165.0	1898.7	1925.8	1950.5	1903.6	1903.6
42.5°	10102.6	9788.2	8030.1	3991.0	2262.4	1866.7	1744.6	1854.3	1932.0	1898.7	1897.5
45°	10705.5	10297.4	8152.1	3465.8	1953.0	1682.9	1701.4	1835.8	1936.9	1930.8	1928.3
47.5°	11345.4	10876.9	7917.9	2841.9	1739.7	1626.2	1701.4	1808.7	1929.5	1957.9	1951.7
49°	11674.6	11106.2	7824.2	2478.2	1654.6	1618.8	1703.9	1786.5	1916.0	1959.1	1953.0
50°	11875.5	11229.5	7703.3	2271.1	1609.0	1620.1	1708.8	1772.9	1903.6	1951.7	1948.0
52.5°	12328.0	11416.9	7104.1	1911.0	1535.0	1623.8	1740.9	1759.4	1858.0	1909.8	1936.9
55°	11866.9	11844.7	6339.7	1745.8	1495.5	1615.1	1754.5	1771.7	1819.8	1848.2	1869.1
57.5°	11795.4	12030.9	5376.8	1657.1	1461.0	1602.8	1738.4	1770.5	1798.8	1793.9	1785.3
60°	12022.3	12193.6	4384.3	1569.5	1421.6	1583.1	1685.4	1732.3	1740.9	1728.6	1708.8
62.5°	12058.0	12238.0	3369.6	1480.7	1378.4	1535.0	1607.7	1654.6	1654.6	1623.8	1616.4
65°	11891.6	11960.6	2483.1	1378.4	1326.6	1479.5	1516.5	1551.0	1567.0	1526.4	1528.8
67.5°	11414.4	11015.0	1885.1	1256.4	1263.7	1403.1	1429.0	1452.4	1456.1	1432.7	1430.2
70°	10455.2	9957.1	1347.6	1071.4	1149.1	1282.2	1321.7	1357.5	1345.1	1304.4	1298.3
72.5°	9009.0	8566.4	916.1	858.1	1011.0	1166.3	1191.0	1192.2	1167.6	1197.2	1218.1
75°	7750.2	6691.1	683.0	684.3	810.0	1006.1	1082.5	1088.7	1099.8	1262.5	1295.8
77.5°	6158.5	4359.6	581.9	540.0	621.4	837.2	958.0	1002.4	1330.3	1442.5	1427.7
80°	3782.6	2617.5	451.3	427.8	505.5	643.6	823.6	1024.6	1357.5	1276.1	1232.9
82.5°	1771.7	1194.7	325.5	328.0	376.0	469.7	651.0	1192.2	1172.5	967.8	955.5
85°	685.5	413.0	197.3	223.2	252.7	318.1	499.3	1176.2	911.1	819.9	759.5
87.5°	176.3	80.1	86.3	91.2	112.2	167.7	272.5	616.5	479.6	420.4	413.0
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)