

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: P591210

Luminaire Tested: **CTN-CA10-310-727-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591210
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-CA10-310-727-U-T3-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D 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: 21188 lumens
Efficiency: N/A
Efficacy: 67.8 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G3

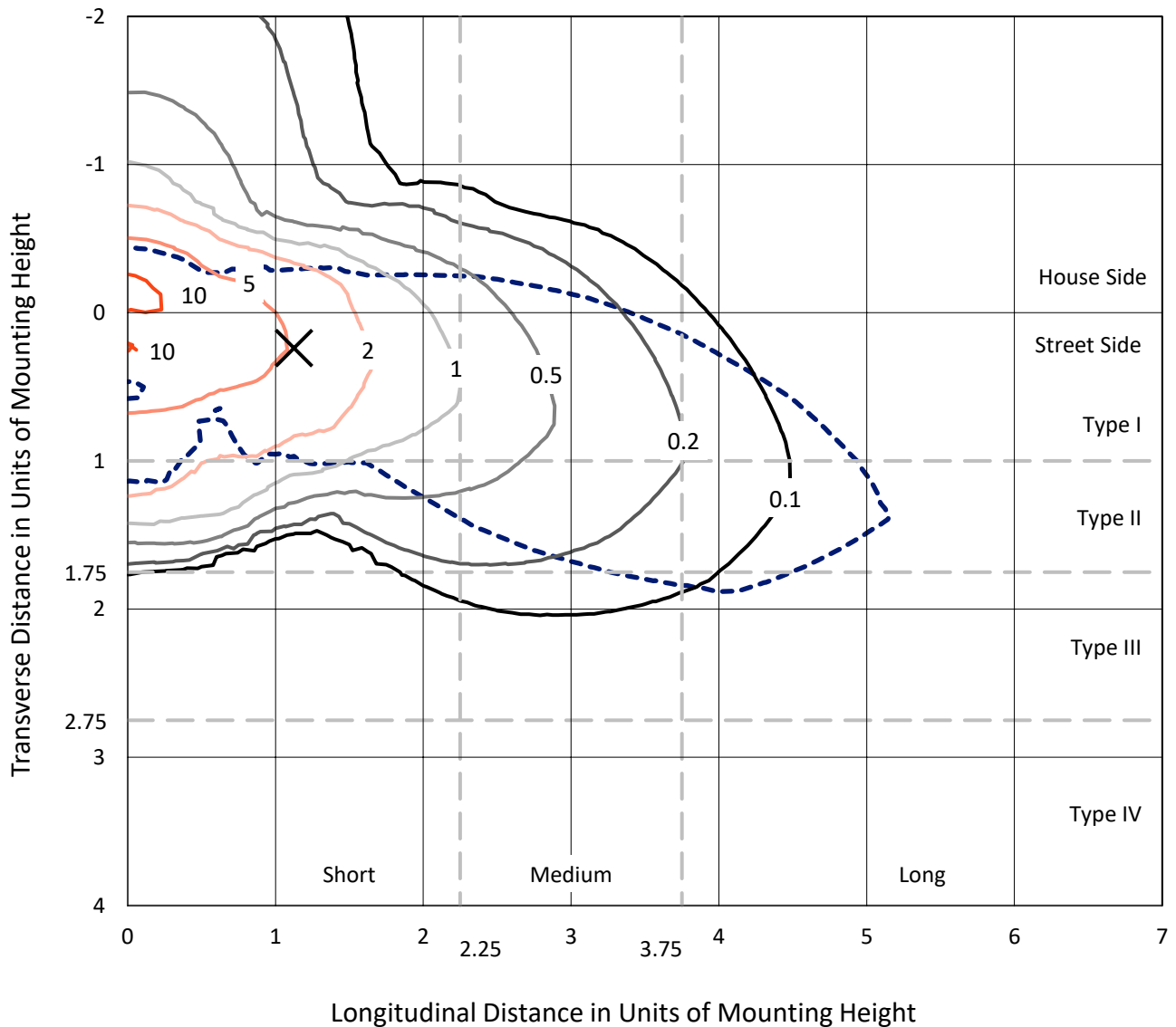
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P591210
 CATALOG NUMBER: CTN-CA10-310-727-U-T3-SSS-HM-EX180

Iso-Footcandle Lines of Horizontal Illumination

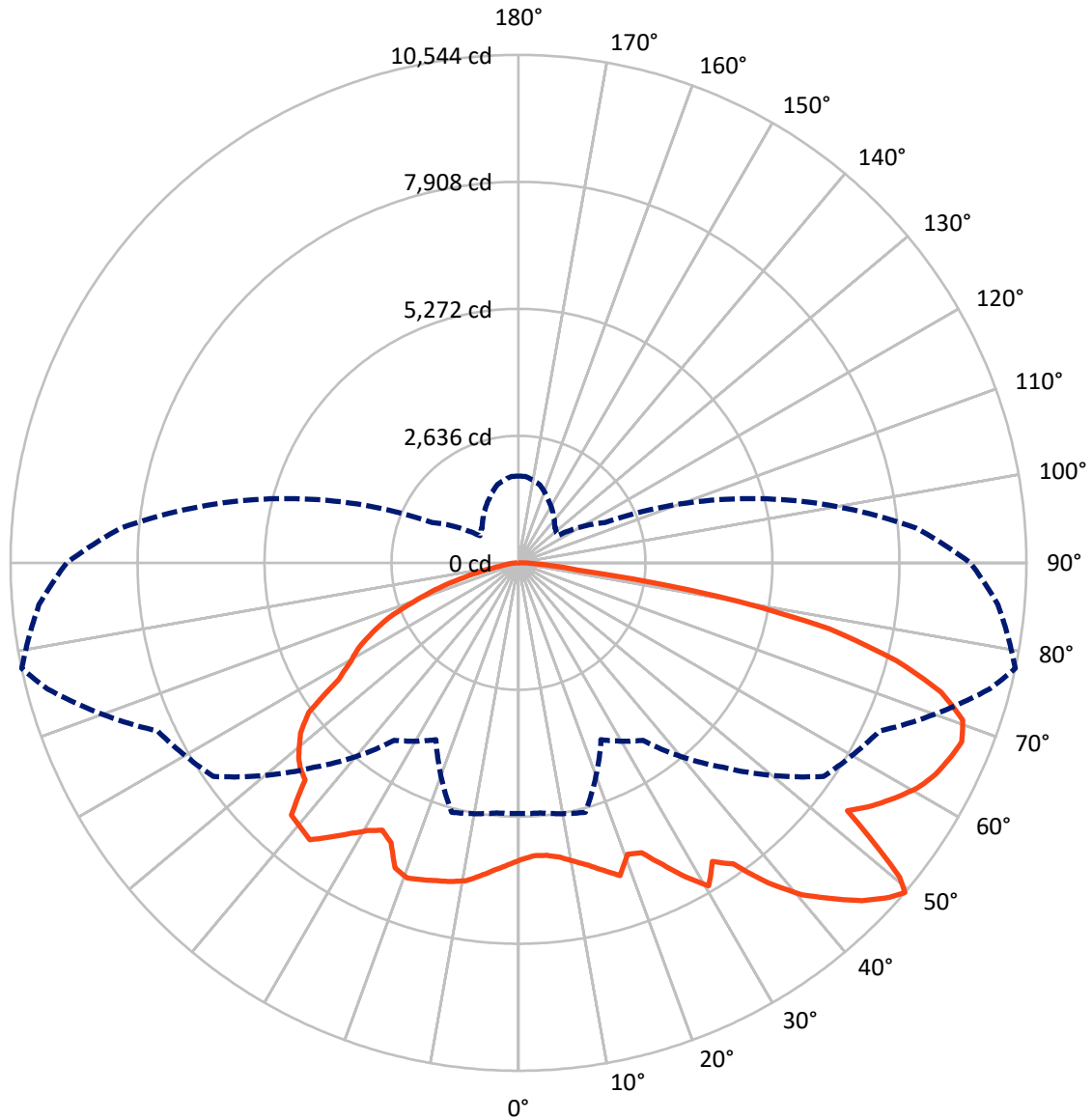
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.1 fc
 Type II - Short - N/A

REPORT NUMBER: P591210
CATALOG NUMBER: CTN-CA10-310-727-U-T3-SSS-HM-EX180

Luminous Intensity Polar Plot



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

REPORT NUMBER: P591210
 CATALOG NUMBER: CTN-CA10-310-727-U-T3-SSS-HM-EX180

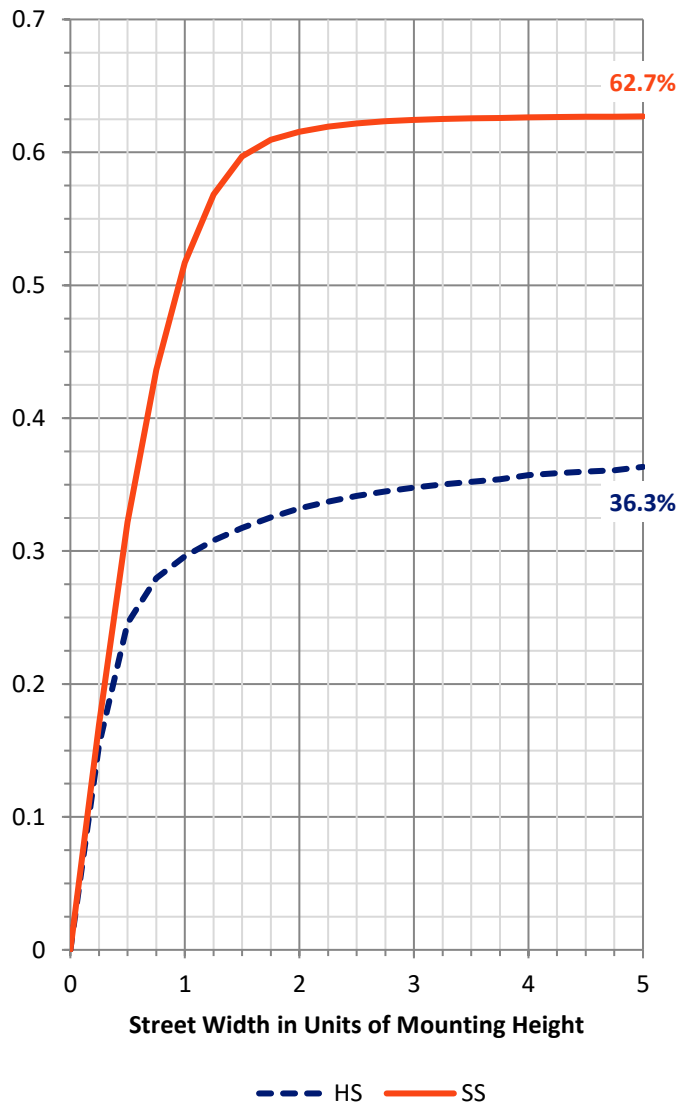
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7924.8	0.0	7924.8
	% Fixture	37.4	0.0	37.4
Street Side	Lumens	13263.2	0.0	13263.2
	% Fixture	62.6	0.0	62.6
Total	Lumens	21188.0	0.0	21188.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	616.7	2.9
10°-20°	1893.1	8.9
20°-30°	2743.4	12.9
30°-40°	3371.0	15.9
40°-50°	3804.7	18.0
50°-60°	3615.4	17.1
60°-70°	2700.2	12.7
70°-80°	2005.3	9.5
80°-90°	438.2	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°	21188.0	100.0
0°-180°	21188.0	100.0

Coefficient of Utilization

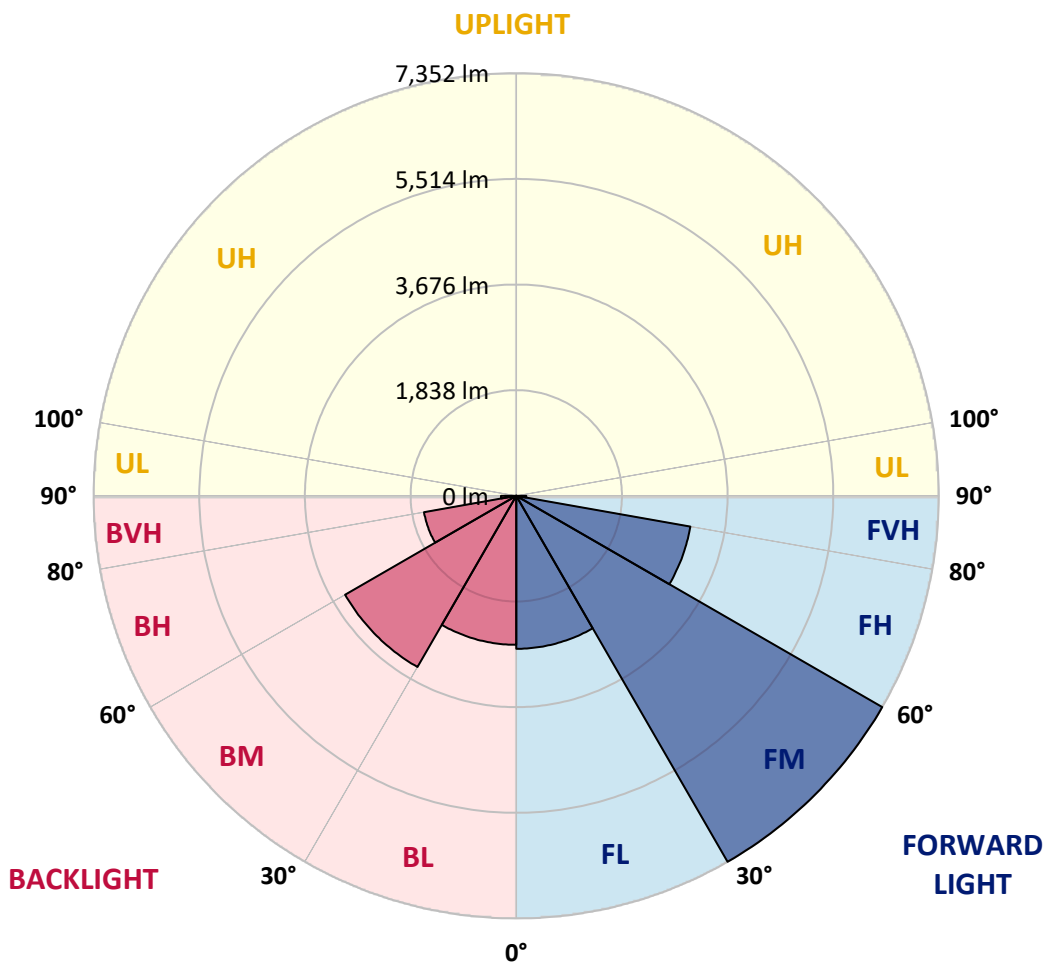


REPORT NUMBER: P591210
 CATALOG NUMBER: CTN-CA10-310-727-U-T3-SSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2661.3	12.6			
FM (30°-60°)	7352.3	34.7			
FH (60°-80°)	3076.3	14.5			G2/5000
FVH (80°-90°)	173.2	0.8			G2/225
BL (0°-30°)	2591.9	12.2	B4/5000		
BM (30°-60°)	3438.8	16.2	B3/5000		
BH (60°-80°)	1629.2	7.7	B3/2500		G3/2500
BVH (80°-90°)	265.0	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





REPORT NUMBER: P591210

CATALOG NUMBER: CTN-CA10-310-727-U-T3-SSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	6161.4	6161.4	6161.4	6161.4	6161.4	6161.4	6161.4	6161.4	6161.4	6161.4	6161.4
2.5°	6028.2	5995.2	6004.1	6054.8	5957.2	6028.2	5999.1	6067.5	6090.3	6087.8	6186.7
5°	6077.7	6034.6	6047.2	6081.5	5975.0	6029.5	6006.7	6080.2	6099.2	6100.5	6234.9
7.5°	6259.0	6209.5	6196.9	6199.4	6099.2	6139.8	6081.5	6138.5	6172.8	6169.0	6318.6
10°	6522.7	6468.2	6440.3	6431.4	6309.7	6292.0	6221.0	6241.2	6292.0	6298.3	6450.5
12.5°	6794.1	6751.0	6710.4	6690.1	6522.7	6483.4	6379.5	6397.2	6435.3	6442.9	6601.4
15°	7033.8	6993.2	6986.8	6964.0	6794.1	6718.0	6592.5	6573.5	6602.6	6626.7	6764.9
17.5°	6799.2	6747.2	6714.2	6721.8	6635.6	6442.9	6365.5	6496.1	6739.6	6824.5	6955.1
20°	6137.3	6200.7	6174.0	6071.3	5978.8	6290.7	6224.8	6196.9	6347.8	6456.8	6772.5
22.5°	5391.7	5391.7	5645.3	5822.8	5858.3	6033.3	6393.4	6518.9	6535.4	6535.4	6444.1
25°	4802.0	4969.4	5399.3	6073.9	6077.7	6042.2	6142.3	6830.9	6945.0	6932.3	6778.9
27.5°	5030.3	5002.4	5291.5	5760.7	6423.8	6383.3	6188.0	6498.7	7439.5	7381.2	7184.7
30°	5231.9	5204.0	5256.0	5838.0	6522.7	6753.5	6586.1	6493.6	7466.2	7783.2	7665.2
32.5°	5420.8	5389.1	5448.7	5537.5	6207.0	7121.3	7003.3	6942.5	7085.8	7393.9	8209.2
35°	5573.0	5578.1	5646.5	5777.1	6084.0	6997.0	7421.8	7444.6	7695.7	7676.7	8088.8
37.5°	5685.8	5696.0	5755.6	5910.3	6024.4	5779.7	7819.9	8083.7	8470.4	8432.4	8129.3
40°	5692.2	5715.0	5834.2	6024.4	6158.8	5146.9	7746.4	8788.7	9171.7	9060.1	8683.5
42.5°	5574.3	5585.7	5784.8	6106.8	4674.0	5353.6	7183.4	9491.2	9662.4	9525.4	9107.0
45°	5469.0	5466.5	5679.5	5968.6	4416.5	5595.8	7168.2	9287.1	10113.8	10007.3	9473.5
47.5°	5320.7	5319.4	5527.3	4491.4	4472.3	5857.0	7546.0	8053.3	10487.9	10373.8	9806.9
49°	5201.5	5214.1	5361.2	4051.4	4497.7	6002.9	7729.9	8263.8	10121.4	10543.7	9992.1
50°	5136.8	5149.5	4790.6	4007.0	4505.3	6086.5	7826.3	8418.5	9109.5	10255.8	10111.3
52.5°	4842.6	4731.0	3714.1	3914.4	4507.8	6185.5	6729.4	8746.9	8682.2	8549.1	9573.6
55°	2917.7	3302.0	3362.8	3809.2	4467.3	4492.6	6573.5	9128.5	9100.7	8906.6	8243.5
57.5°	1768.9	1751.1	2596.9	3516.2	2991.3	3767.3	6830.9	9633.2	9468.4	9209.7	8384.2
60°	623.9	551.6	556.7	599.8	1113.3	2818.8	5448.7	7254.4	9544.5	9503.9	8512.3
62.5°	49.5	46.9	46.9	49.5	71.0	1058.8	4320.2	7277.2	9808.2	9703.0	8541.5
65°	6.3	6.3	6.3	13.9	36.8	957.4	4326.5	7395.2	10004.8	9824.7	8464.1
67.5°	0.0	0.0	3.8	10.1	29.2	847.0	4199.7	7464.9	10181.0	9926.1	8393.1
70°	0.0	0.0	2.5	8.9	25.4	701.2	4045.0	7525.8	10098.6	9782.9	8035.5
72.5°	0.0	0.0	2.5	7.6	21.6	462.8	3586.0	7075.6	9511.5	9169.1	7301.3
75°	0.0	0.0	2.5	6.3	20.3	263.8	2938.0	6251.4	8464.1	8101.4	6152.5
77.5°	0.0	0.0	1.3	5.1	17.8	144.6	2030.1	5174.8	6991.9	6593.8	4609.3
80°	0.0	0.0	1.3	5.1	16.5	98.9	923.1	3361.5	4660.0	4161.7	2525.9
82.5°	0.0	0.0	1.3	5.1	12.7	67.2	372.8	942.1	1441.8	1232.5	803.9
85°	0.0	0.0	1.3	3.8	8.9	43.1	183.9	386.7	582.0	559.2	407.0
87.5°	0.0	0.0	1.3	3.8	6.3	12.7	54.5	126.8	227.0	230.8	173.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P591210

CATALOG NUMBER: CTN-CA10-310-727-U-T3-SSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6161.4	6161.4	6161.4	6161.4	6161.4	6161.4	6161.4	6161.4	6161.4	6161.4	6161.4
2.5°	6233.6	6245.0	6283.1	6340.2	6349.0	6426.4	6413.7	6558.3	6572.2	6606.4	6644.5
5°	6299.6	6338.9	6425.1	6555.7	6650.8	6767.5	6756.1	6919.6	6936.1	6927.2	6985.6
7.5°	6395.9	6454.3	6588.7	6764.9	6796.6	6941.2	6922.2	7064.2	7066.7	7047.7	7104.8
10°	6536.7	6605.2	6729.4	6829.6	6905.7	6993.2	6980.5	7107.3	7094.6	7073.1	7132.7
12.5°	6672.4	6710.4	6786.5	6904.4	6918.4	6953.9	6932.3	7050.2	7037.6	7007.1	7062.9
15°	6794.1	6813.1	6814.4	6872.7	6841.0	6867.7	6810.6	6895.5	6866.4	6855.0	6894.3
17.5°	6950.1	6914.6	6862.6	6858.8	6751.0	6714.2	6622.9	6645.7	6584.9	6579.8	6601.4
20°	6970.4	7043.9	6894.3	6739.6	6558.3	6465.7	6293.2	6294.5	6226.0	6199.4	6212.1
22.5°	6415.0	6596.3	6931.1	6635.6	6327.5	6119.5	5897.6	5830.4	5701.1	5646.5	5625.0
25°	6631.8	6395.9	6370.6	6460.6	6028.2	5711.2	5389.1	5191.3	5037.9	4913.6	4922.5
27.5°	6967.8	6661.0	6040.9	6077.7	5651.6	5206.5	4720.9	4441.9	4285.9	4165.5	4151.5
30°	7412.9	7027.4	6111.9	5267.4	5219.2	4572.5	3976.5	3668.4	3509.9	3466.8	3440.2
32.5°	7965.8	7463.6	6271.7	5082.3	4318.9	3886.5	3218.3	2969.7	2894.9	2891.1	2860.7
35°	8622.6	8040.6	6418.8	4836.3	3724.2	3165.0	2571.6	2408.0	2419.4	2420.7	2446.0
37.5°	8202.9	8585.8	6602.6	4602.9	3144.7	2352.2	2068.2	1965.4	1998.4	2051.7	2077.0
40°	8209.2	7816.1	6816.9	4213.7	2443.5	1794.3	1618.0	1595.2	1735.9	1843.7	1870.3
42.5°	8538.9	7765.4	6738.3	3769.9	1789.2	1364.4	1347.9	1470.9	1673.8	1794.3	1815.8
45°	8892.7	8006.3	5597.1	3140.9	1297.2	1153.9	1280.7	1451.9	1672.5	1800.6	1813.3
47.5°	9228.7	8158.5	5365.0	2454.9	1042.3	1088.0	1260.4	1451.9	1681.4	1812.0	1819.6
49°	9378.4	8281.5	5149.5	1985.7	977.7	1062.6	1249.0	1454.4	1683.9	1795.5	1799.3
50°	9467.1	8351.2	4975.8	1841.2	946.0	1046.1	1243.9	1458.2	1680.1	1776.5	1780.3
52.5°	9605.3	8464.1	4576.3	1467.1	886.4	1008.1	1236.3	1473.5	1666.2	1723.3	1720.7
55°	7921.4	7911.2	4242.8	1231.3	840.7	973.8	1233.8	1486.1	1672.5	1730.9	1728.3
57.5°	7591.7	6496.1	3574.6	1006.8	802.7	944.7	1236.3	1505.2	1786.7	1888.1	1875.4
60°	7615.8	6397.2	3042.0	873.7	758.3	920.6	1243.9	1590.1	2064.4	2167.1	2135.4
62.5°	7532.1	6155.0	2722.5	784.9	711.4	899.0	1249.0	1708.0	2099.9	2108.7	2054.2
65°	7333.0	5850.7	2292.6	687.3	661.9	878.7	1247.7	1751.1	1937.5	1865.3	1847.5
67.5°	6964.0	5527.3	1814.6	602.3	608.7	848.3	1276.9	1676.3	1833.6	1775.2	1748.6
70°	6526.6	4837.5	1279.4	523.7	560.5	814.1	1273.1	1658.6	1779.0	1692.8	1656.0
72.5°	5748.0	4066.6	861.0	451.4	499.6	774.8	1208.4	1605.3	1743.5	1686.5	1635.8
75°	4568.7	3043.3	499.6	389.3	440.0	717.7	1145.0	1572.4	1762.6	1653.5	1548.3
77.5°	3123.2	1733.4	372.8	325.9	379.1	644.2	1038.5	1462.0	1704.2	1610.4	1469.6
80°	1399.9	626.4	285.3	265.0	318.3	522.4	895.2	1293.4	1614.2	1614.2	1515.3
82.5°	556.7	394.4	197.8	208.0	259.9	398.2	708.8	1115.9	1422.7	1487.4	1590.1
85°	314.5	230.8	126.8	150.9	199.1	308.1	516.1	867.3	1159.0	1284.5	1392.3
87.5°	124.3	87.5	50.7	85.0	115.4	158.5	225.7	424.8	623.9	768.4	849.6
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)