

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: P591290

Luminaire Tested: **CTN-CA10-210-730-U-T2-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591290  
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-CA10-210-730-U-T2-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D 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: 20989 lumens  
Efficiency: N/A  
Efficacy: 98.6 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 (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

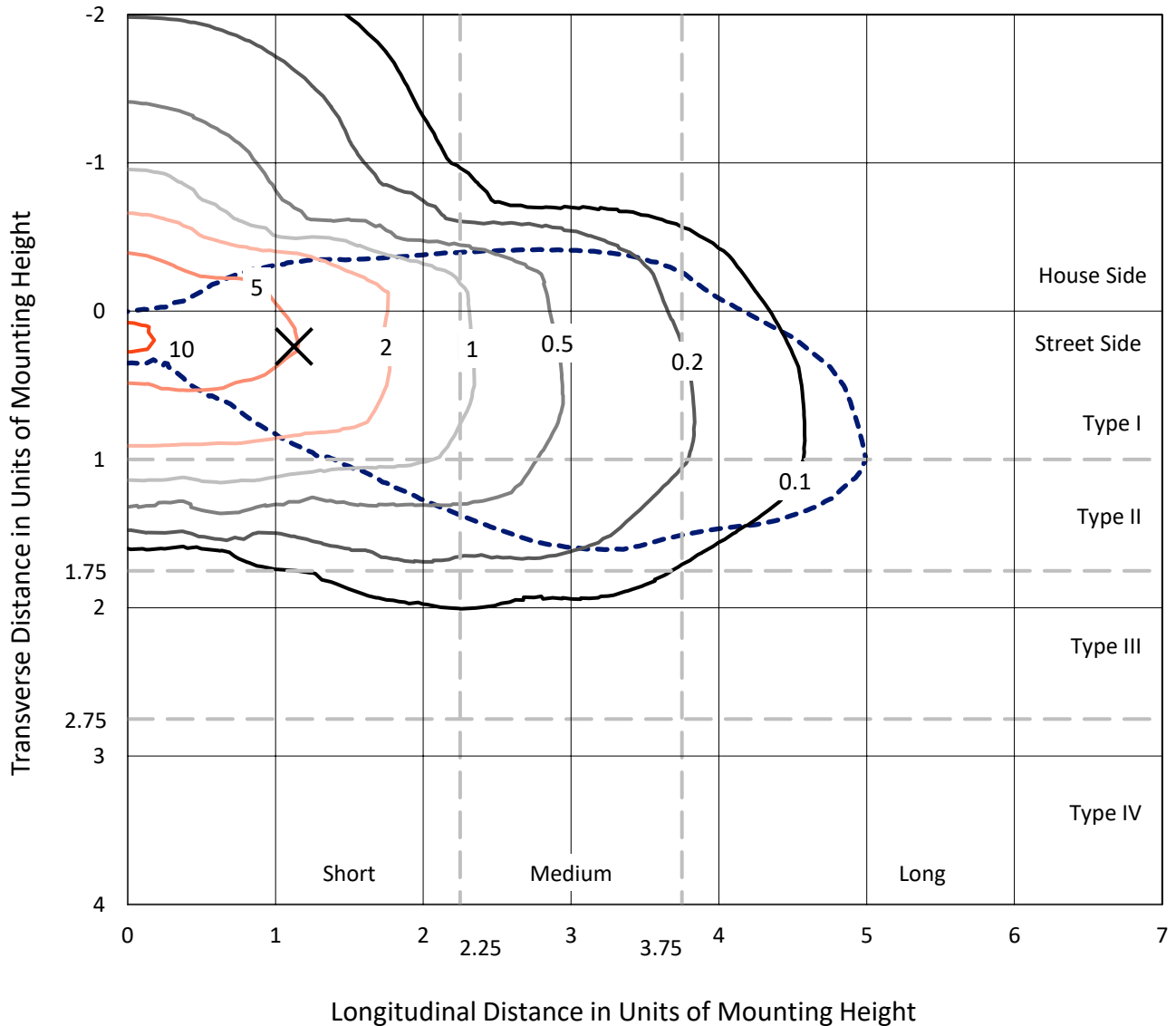




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### Iso-Footcandle Lines of Horizontal Illumination

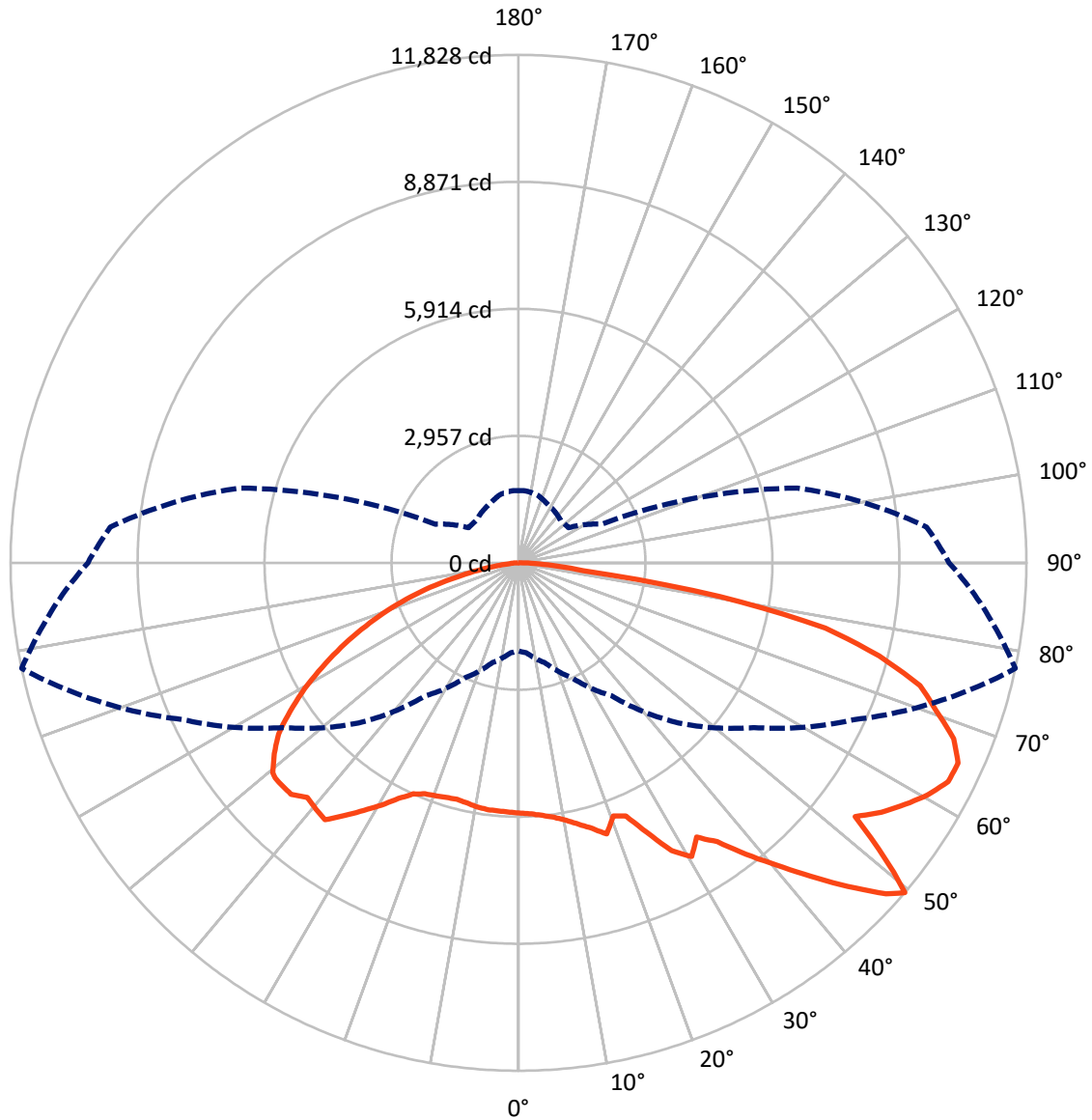
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 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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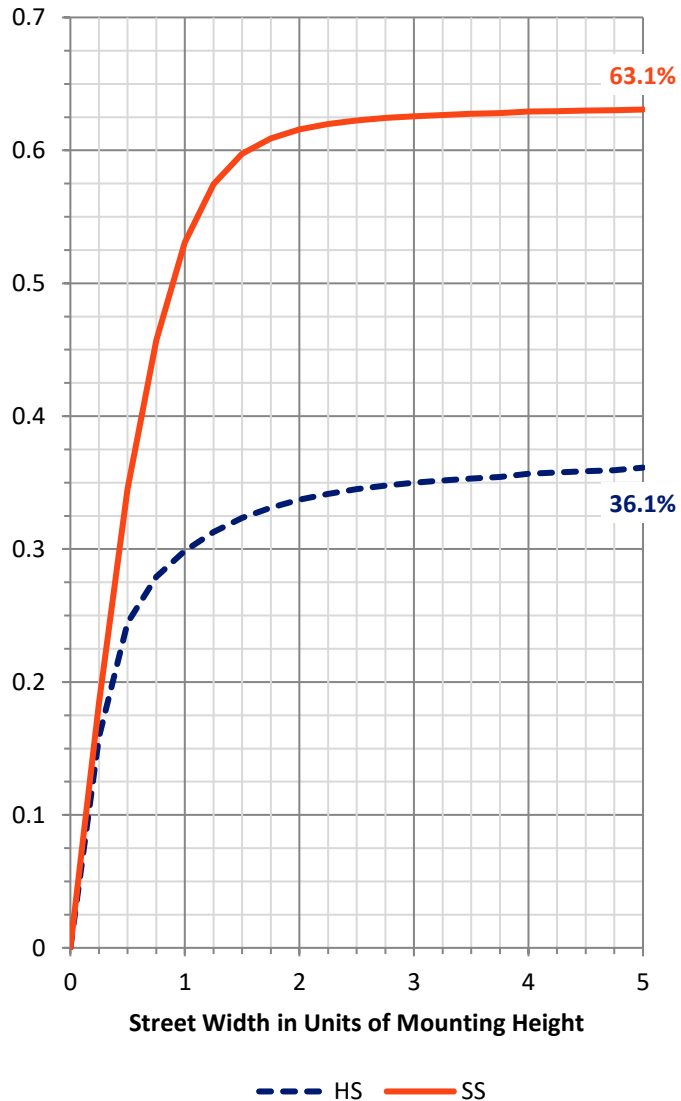
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7771.5	0.0	7771.5
	% Fixture	37.0	0.0	37.0
<b>Street Side</b>	Lumens	13217.5	0.0	13217.5
	% Fixture	63.0	0.0	63.0
<b>Total</b>	Lumens	20989.0	0.0	20989.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	565.0	2.7
10°-20°	1662.6	7.9
20°-30°	2373.4	11.3
30°-40°	3055.3	14.6
40°-50°	3583.9	17.1
50°-60°	3697.3	17.6
60°-70°	3357.1	16.0
70°-80°	2229.5	10.6
80°-90°	464.9	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°	20989.0	100.0
0°-180°	20989.0	100.0

**Coefficient of Utilization**

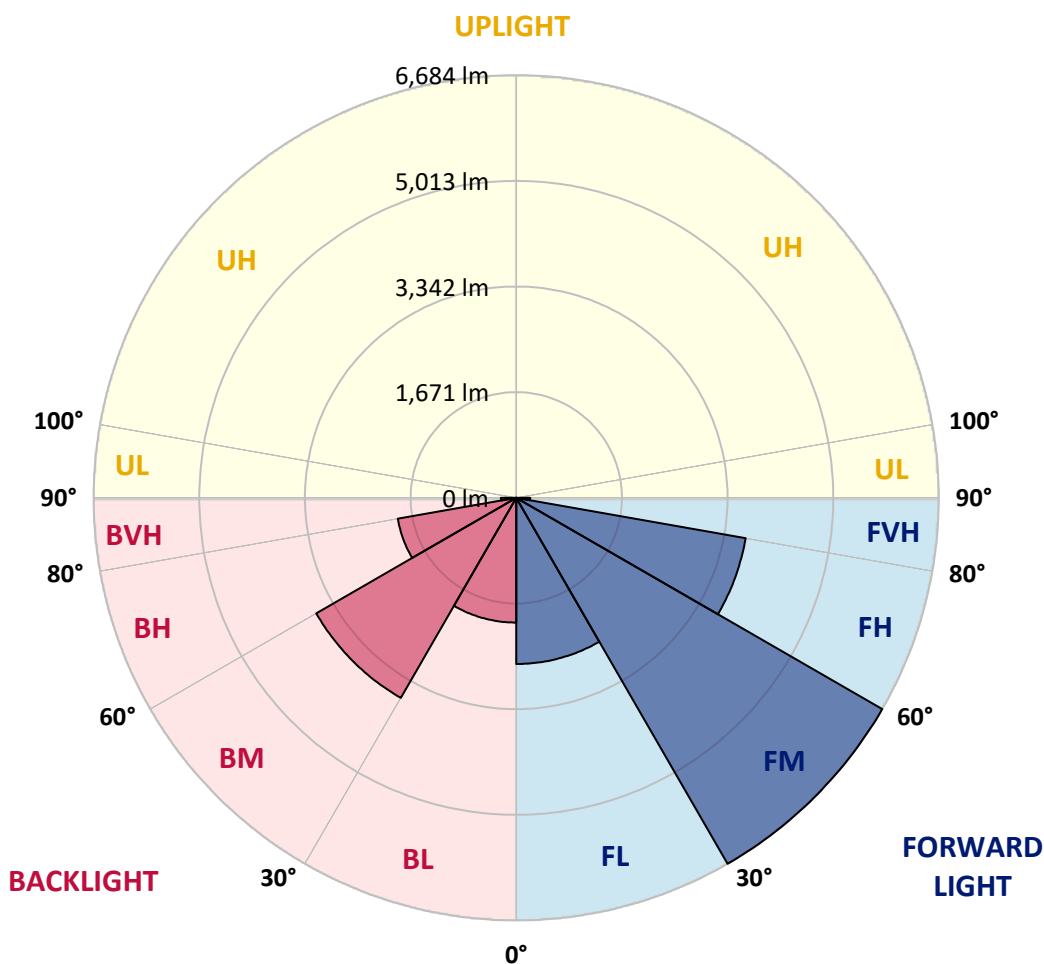


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2628.1	12.5			
FM (30°-60°)	6683.5	31.8			
FH (60°-80°)	3684.4	17.6			G2/5000
FVH (80°-90°)	221.6	1.1			G2/225
BL (0°-30°)	1972.9	9.4	B3/2500		
BM (30°-60°)	3653.0	17.4	B3/5000		
BH (60°-80°)	1902.3	9.1	B3/2500		G3/2500
BVH (80°-90°)	243.3	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°	5828.4	5828.4	5828.4	5828.4	5828.4	5828.4	5828.4	5828.4	5828.4	5828.4	5828.4
2.5°	6066.7	6020.1	6035.0	6060.4	5944.9	5970.4	5920.6	5940.7	5879.3	5856.0	5866.6
5°	6495.7	6445.9	6463.9	6472.4	6305.0	6237.3	6081.6	6048.7	5952.4	5910.0	5905.7
7.5°	6707.5	6653.5	6657.7	6663.0	6529.6	6539.1	6398.2	6229.8	6050.9	5986.2	5957.6
10°	7056.0	6980.8	6955.4	6944.8	6764.7	6689.5	6566.6	6474.5	6194.9	6097.5	6024.4
12.5°	7271.0	7215.9	7215.9	7205.3	7014.7	6956.4	6737.2	6639.7	6364.4	6248.9	6122.9
15°	7310.2	7273.1	7320.8	7311.2	7186.2	7118.5	7021.0	6817.7	6535.9	6416.3	6268.0
17.5°	6867.4	6768.9	6580.4	6609.0	6610.1	6747.8	6681.0	6820.8	6738.2	6640.8	6480.9
20°	5639.9	5673.8	5975.7	5902.6	5875.0	6167.4	6466.0	6474.5	6310.3	6294.5	6510.5
22.5°	4913.3	4792.6	5128.3	5616.6	5647.3	6038.1	6386.6	6806.0	6543.3	6402.5	6237.3
25°	4184.7	4229.1	4735.4	5367.7	5814.7	5901.5	6301.9	6971.2	7083.5	6953.2	6608.0
27.5°	4058.6	4056.5	4276.8	4977.9	5895.2	6221.4	6353.8	6878.0	7660.7	7587.7	7151.3
30°	4031.1	4014.1	4129.6	4712.1	5521.3	6509.5	6761.5	6949.0	7615.2	7940.4	7759.2
32.5°	3910.3	3895.5	4018.4	4323.4	5221.5	6720.2	7150.2	7429.8	7460.6	7614.1	8401.1
35°	3720.7	3732.4	3902.9	4234.4	4788.4	6214.0	7548.5	7971.1	8082.3	7976.4	8085.5
37.5°	3526.9	3539.6	3707.0	4083.0	4713.2	6002.1	7805.8	8494.3	8725.2	8611.8	8107.7
40°	3286.5	3306.6	3500.4	3923.0	4626.3	5524.5	7277.3	9088.5	9402.0	9253.7	8692.3
42.5°	3013.2	3021.7	3242.0	3679.4	4516.2	5553.1	6731.9	9637.1	10058.6	9977.1	9268.5
45°	2776.0	2776.0	2976.2	3365.9	4265.1	5499.0	6501.0	9228.3	10864.6	10749.2	9845.7
47.5°	2453.0	2481.6	2716.7	3103.3	3969.6	5374.1	6633.4	8310.0	11615.6	11519.2	10425.1
49°	2054.7	2103.4	2413.8	2959.2	3780.1	5270.3	6686.3	8634.1	11097.6	11828.4	10801.1
50°	1891.6	1917.0	1920.2	2856.5	3639.2	5176.0	6710.7	8883.0	10223.9	11329.6	11064.8
52.5°	1637.4	1477.5	1313.3	2571.6	3356.4	4827.5	6725.5	9558.7	10014.1	9816.1	10859.3
55°	691.6	905.6	1151.3	2103.4	3051.4	4396.5	6676.8	10301.2	10474.9	10256.7	9310.9
57.5°	523.2	557.1	618.5	1632.1	2186.1	3905.0	6512.6	10771.4	10863.6	10615.7	9689.0
60°	76.3	78.4	110.2	662.0	1251.9	2787.6	5921.6	10757.7	11152.7	10962.1	10015.2
62.5°	31.8	32.8	42.4	542.3	964.9	2145.8	5405.8	10577.6	11433.4	11229.0	10321.3
65°	5.3	6.4	18.0	479.8	797.5	2004.9	4840.3	10613.6	11333.8	11249.1	10439.9
67.5°	4.2	5.3	16.9	431.1	657.7	1835.5	4282.1	10040.6	10970.5	10933.5	10123.2
70°	4.2	5.3	18.0	389.8	568.8	1617.3	3592.6	9247.3	10304.3	10319.2	9591.5
72.5°	5.3	5.3	18.0	348.5	494.6	1382.2	2842.7	8188.2	9699.6	9781.1	8835.3
75°	5.3	5.3	16.9	302.9	424.7	1152.3	2047.3	6021.2	8698.7	8674.3	7748.6
77.5°	5.3	5.3	16.9	240.4	352.7	947.9	1333.5	3391.4	7203.2	7305.9	6478.7
80°	5.3	5.3	16.9	175.8	276.4	710.7	808.1	1735.9	3845.7	4760.8	4456.8
82.5°	5.3	5.3	16.9	118.6	189.6	409.9	466.0	879.1	1381.1	1513.5	1770.9
85°	4.2	4.2	12.7	71.0	97.4	145.1	224.5	468.1	755.2	789.1	770.0
87.5°	2.1	2.1	6.4	25.4	42.4	53.0	100.6	188.5	277.5	283.8	246.8
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°	5828.4	5828.4	5828.4	5828.4	5828.4	5828.4	5828.4	5828.4	5828.4	5828.4	5828.4
2.5°	5866.6	5832.7	5802.0	5807.2	5741.6	5722.5	5649.4	5687.6	5650.5	5617.7	5648.4
5°	5876.1	5834.8	5778.7	5724.6	5574.2	5504.3	5416.4	5438.7	5388.9	5349.7	5383.6
7.5°	5903.6	5852.8	5765.9	5612.4	5433.4	5322.2	5222.6	5320.0	5308.4	5278.7	5313.7
10°	5916.3	5872.9	5723.6	5543.5	5293.6	5223.7	5133.6	5132.6	5135.8	5141.1	5176.0
12.5°	5950.2	5884.6	5648.4	5438.7	5206.7	5064.8	4999.1	5052.1	4956.8	4900.6	4925.0
15°	6030.7	5911.0	5597.5	5291.4	5072.2	4954.6	4744.9	4762.9	4742.8	4687.7	4712.1
17.5°	6189.6	5985.2	5595.4	5198.2	4900.6	4708.9	4525.7	4438.8	4411.3	4415.5	4436.7
20°	6384.5	6116.5	5599.7	5078.6	4721.6	4499.2	4216.4	4156.1	4065.0	4067.1	4072.4
22.5°	6260.6	6268.0	5601.8	4941.9	4498.2	4219.6	3919.9	3801.2	3731.3	3713.3	3739.8
25°	6596.3	6562.4	5634.6	4868.9	4263.0	3889.2	3575.6	3424.2	3319.3	3310.9	3340.5
27.5°	7043.3	6981.8	5804.1	4711.0	4014.1	3493.0	3153.1	3038.7	2948.6	2916.9	2938.0
30°	7586.6	7514.6	6038.1	4588.2	3678.4	3067.3	2776.0	2697.6	2608.7	2550.4	2555.7
32.5°	8154.3	8000.7	6278.6	4484.4	3334.2	2694.4	2445.5	2375.6	2270.8	2195.6	2213.6
35°	8726.2	8508.0	6546.5	4301.2	2913.7	2366.1	2164.9	2070.6	1984.8	1917.0	1905.4
37.5°	8274.0	9101.2	6806.0	4130.6	2584.3	2116.2	1888.4	1821.7	1770.9	1717.9	1716.9
40°	8311.0	8500.6	6959.6	3828.8	2216.8	1859.8	1631.1	1654.4	1675.6	1635.3	1635.3
42.5°	8678.6	8408.5	6898.2	3428.4	1943.5	1603.5	1498.7	1592.9	1659.7	1631.1	1630.0
45°	9196.5	8845.9	7003.0	2977.2	1677.7	1445.7	1461.6	1577.1	1663.9	1658.6	1656.5
47.5°	9746.2	9343.7	6801.8	2441.3	1494.4	1397.0	1461.6	1553.8	1657.5	1681.9	1676.6
49°	10029.0	9540.7	6721.3	2128.9	1421.4	1390.6	1463.7	1534.7	1645.9	1683.0	1677.7
50°	10201.6	9646.6	6617.5	1950.9	1382.2	1391.7	1468.0	1523.0	1635.3	1676.6	1673.4
52.5°	10590.3	9807.6	6102.7	1641.7	1318.6	1394.9	1495.5	1511.4	1596.1	1640.6	1663.9
55°	10194.2	10175.1	5446.1	1499.7	1284.7	1387.5	1507.2	1522.0	1563.3	1587.6	1605.7
57.5°	10132.8	10335.1	4618.9	1423.5	1255.1	1376.9	1493.4	1520.9	1545.3	1541.0	1533.6
60°	10327.6	10474.9	3766.3	1348.3	1221.2	1359.9	1447.8	1488.1	1495.5	1484.9	1468.0
62.5°	10358.4	10513.0	2894.6	1272.0	1184.1	1318.6	1381.1	1421.4	1421.4	1394.9	1388.5
65°	10215.4	10274.7	2133.1	1184.1	1139.6	1271.0	1302.7	1332.4	1346.2	1311.2	1313.3
67.5°	9805.5	9462.3	1619.4	1079.3	1085.6	1205.3	1227.5	1247.7	1250.8	1230.7	1228.6
70°	8981.5	8553.6	1157.6	920.4	987.1	1101.5	1135.4	1166.1	1155.5	1120.6	1115.3
72.5°	7739.1	7358.9	786.9	737.2	868.5	1001.9	1023.1	1024.2	1003.0	1028.4	1046.4
75°	6657.7	5747.9	586.8	587.8	695.9	864.3	929.9	935.2	944.8	1084.6	1113.2
77.5°	5290.4	3745.1	499.9	463.9	533.8	719.2	822.9	861.1	1142.8	1239.2	1226.5
80°	3249.4	2248.5	387.6	367.5	434.2	552.9	707.5	880.1	1166.1	1096.2	1059.1
82.5°	1522.0	1026.3	279.6	281.7	323.0	403.5	559.2	1024.2	1007.2	831.4	820.8
85°	588.9	354.8	169.5	191.7	217.1	273.3	429.0	1010.4	782.7	704.3	652.4
87.5°	151.5	68.8	74.1	78.4	96.4	144.0	234.1	529.6	412.0	361.2	354.8
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)