

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: P591209

Luminaire Tested: **CTN-CA10-310-727-U-T3-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591209  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-8)  
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-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D 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: 24535 lumens  
Efficiency: N/A  
Efficacy: 78.5 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B4 - U0 - G3

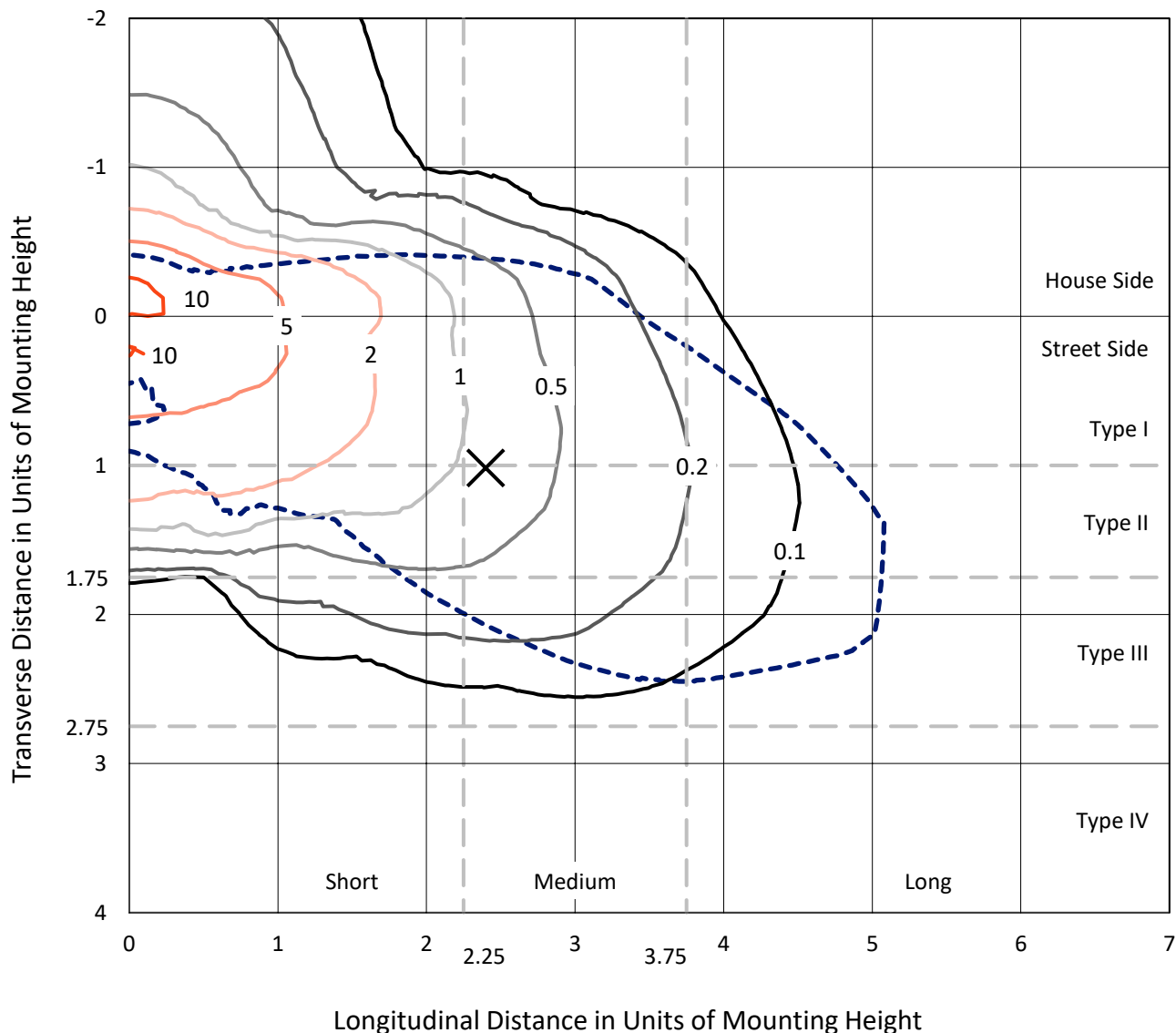
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

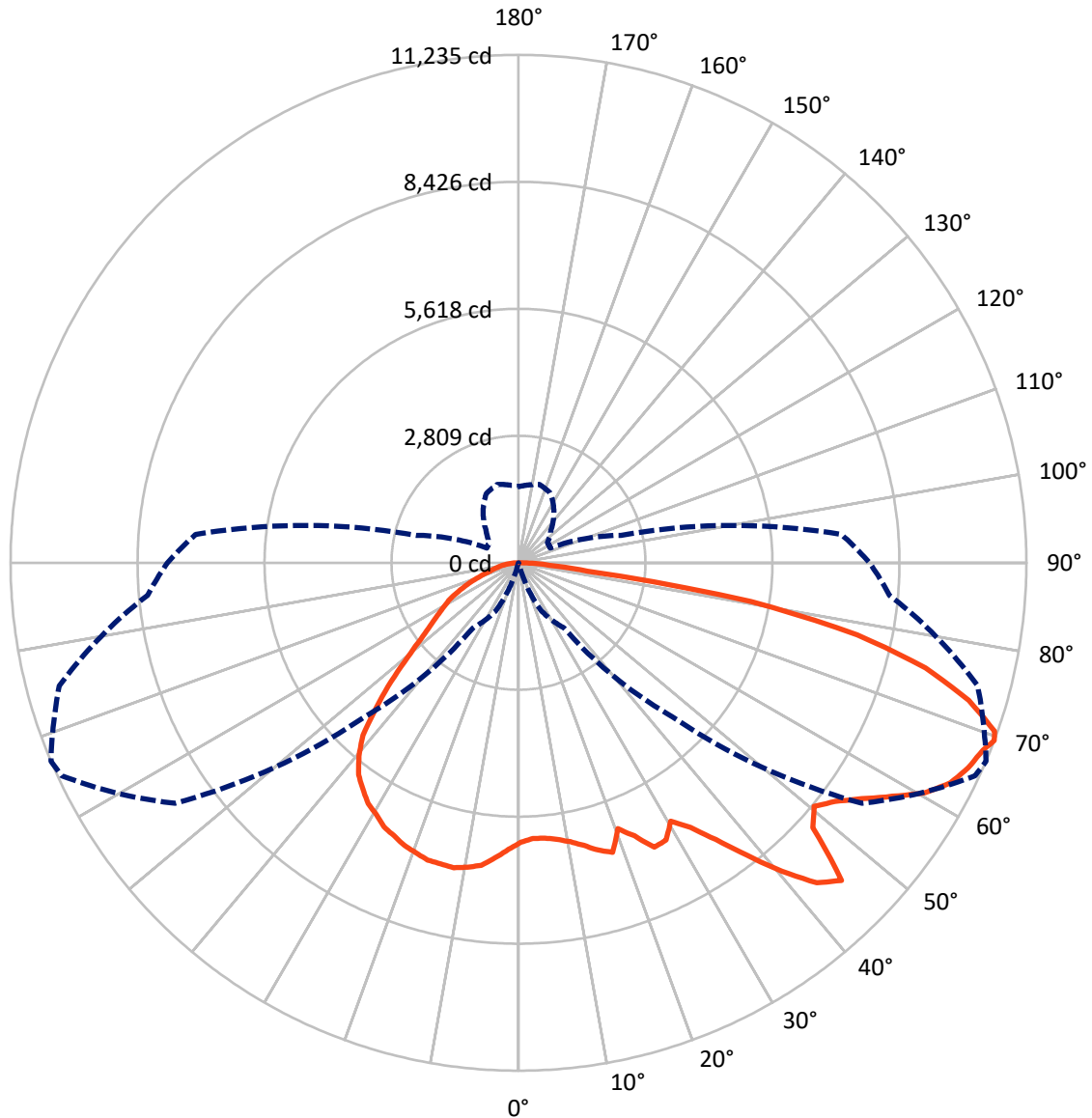
✕ Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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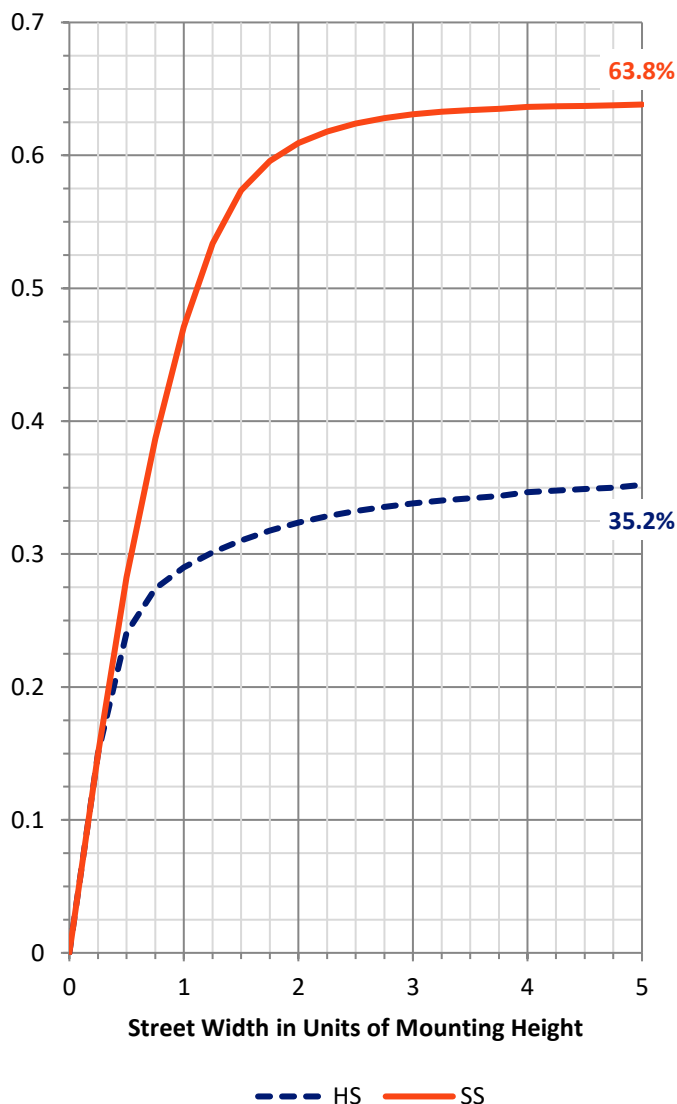
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8876.1	0.0	8876.1
	% Fixture	36.2	0.0	36.2
<b>Street Side</b>	Lumens	15658.9	0.0	15658.9
	% Fixture	63.8	0.0	63.8
<b>Total</b>	Lumens	24535.0	0.0	24535.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	618.1	2.5
10°-20°	1908.2	7.8
20°-30°	2816.4	11.5
30°-40°	3538.6	14.4
40°-50°	4150.6	16.9
50°-60°	4343.3	17.7
60°-70°	3880.3	15.8
70°-80°	2731.0	11.1
80°-90°	548.5	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°	24535.0	100.0
0°-180°	24535.0	100.0

**Coefficient of Utilization**

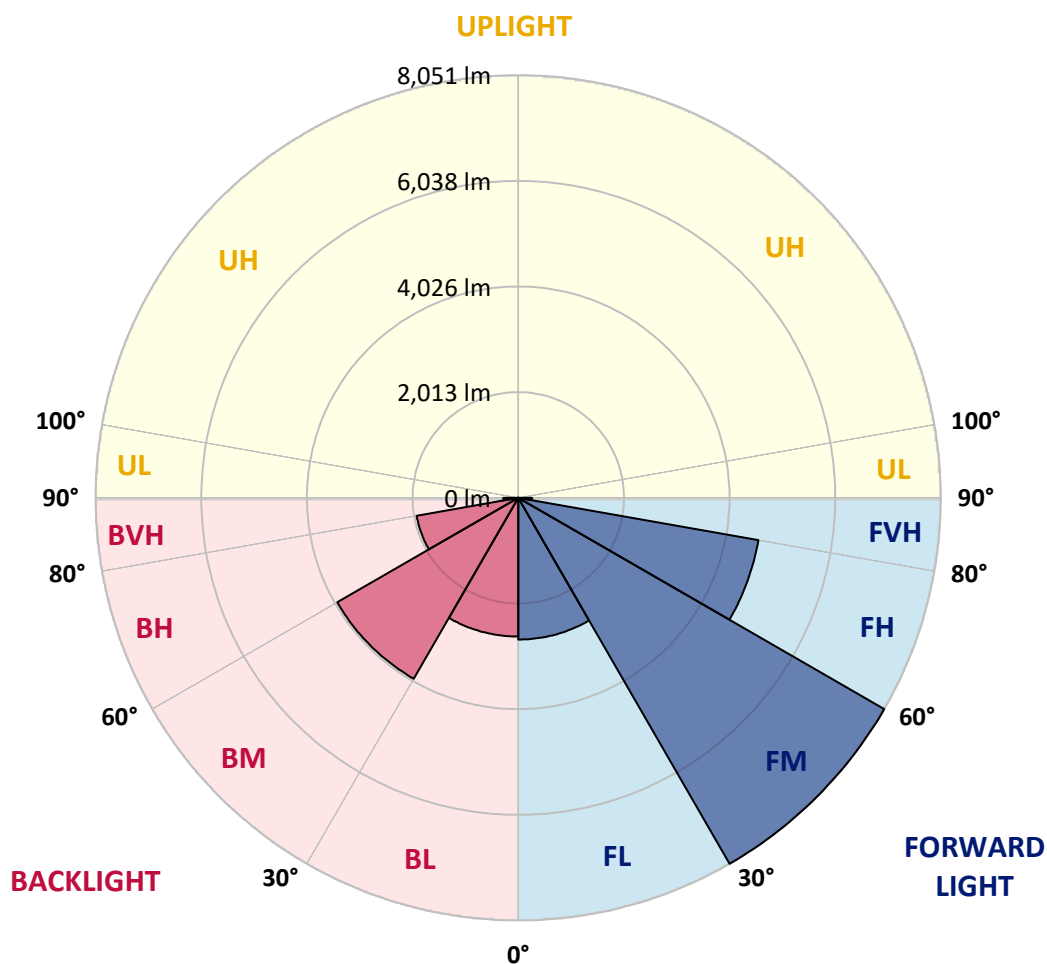


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2700.0	11.0			
FM	(30°-60°)	8051.3	32.8			
FH	(60°-80°)	4645.5	18.9			G2/5000
FVH	(80°-90°)	262.1	1.1			G3/500
BL	(0°-30°)	2642.7	10.8	B4/5000		
BM	(30°-60°)	3981.3	16.2	B3/5000		
BH	(60°-80°)	1965.7	8.0	B3/2500		G3/2500
BVH	(80°-90°)	286.4	1.2			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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	6180.6	6180.6	6180.6	6180.6	6180.6	6180.6	6180.6	6180.6	6180.6	6180.6	6180.6
2.5°	6033.5	5998.0	6014.5	6061.4	5963.7	6033.5	6008.1	6079.1	6105.8	6102.0	6203.4
5°	6081.7	6042.4	6048.7	6084.2	5977.7	6032.2	6008.1	6086.7	6117.2	6108.3	6246.5
7.5°	6252.9	6209.7	6195.8	6207.2	6091.8	6133.7	6081.7	6145.1	6178.0	6178.0	6335.3
10°	6522.9	6471.0	6440.5	6439.3	6303.6	6284.6	6221.1	6250.3	6274.4	6294.7	6469.7
12.5°	6805.7	6762.6	6723.3	6701.7	6522.9	6478.6	6386.0	6407.6	6415.2	6443.1	6616.8
15°	7063.1	7020.0	7008.6	6974.4	6796.9	6723.3	6594.0	6583.8	6594.0	6610.4	6782.9
17.5°	6964.2	6966.8	7030.2	7036.5	6805.7	6635.8	6545.8	6717.0	6733.4	6864.1	6975.7
20°	6776.6	6684.0	6351.8	6170.4	6197.1	6417.7	6254.1	6246.5	6280.7	6512.8	7078.4
22.5°	5644.2	5593.5	5776.1	5834.4	6044.9	6128.6	6517.9	6528.0	6562.3	6562.3	6727.1
25°	4873.2	5135.7	5490.7	6124.8	6058.8	6075.3	6233.8	6907.2	6971.8	6970.6	6946.5
27.5°	5038.0	5005.1	5536.4	5934.6	6405.0	6375.9	6203.4	6661.2	6947.8	7439.8	7325.6
30°	5235.9	5211.8	5251.1	5924.4	6704.3	6743.6	6583.8	6536.9	6634.5	7668.0	7759.3
32.5°	5419.7	5390.6	5434.9	5537.7	6284.6	7122.7	6999.7	6942.7	6978.2	7186.1	8317.3
35°	5582.0	5579.5	5630.2	5752.0	6388.5	7254.6	7425.8	7422.0	7517.1	7695.9	8398.4
37.5°	5697.4	5696.2	5736.7	5878.8	6022.1	6700.5	7825.3	8052.2	8204.4	8469.4	8204.4
40°	5696.2	5716.5	5823.0	6005.6	6195.8	6399.9	8001.5	8792.8	8975.4	9164.3	8723.0
42.5°	5577.0	5588.4	5776.1	6114.6	6350.5	6526.8	7301.5	9473.7	9677.9	9664.0	9131.4
45°	5466.6	5471.7	5681.0	6096.9	6479.8	6798.1	7158.3	9471.2	10022.8	10109.0	9515.6
47.5°	5323.4	5323.4	5530.1	5994.2	6596.5	7103.7	7541.2	8181.6	8757.3	10494.5	9833.9
50°	5139.5	5162.3	4908.7	5887.6	6652.3	7394.1	7865.8	8393.4	8473.2	9385.0	10129.3
52.5°	4846.6	4833.9	3835.9	5769.7	6675.1	7604.6	8203.1	8724.3	8767.4	8676.1	9840.2
55°	3054.8	3406.0	3392.1	5631.5	6661.2	7740.3	8461.8	9088.3	9210.0	9098.4	8278.0
57.5°	1845.0	1761.3	2898.8	5235.9	5350.0	7845.5	8813.1	9641.1	9747.7	9489.0	8417.4
60°	720.3	679.7	734.2	2382.7	3838.4	7299.0	9291.1	10228.2	10329.7	9860.5	8535.4
62.5°	90.0	77.4	65.9	1649.8	2439.8	5422.3	9544.8	10701.2	10720.3	10129.3	8558.2
65°	12.7	13.9	25.4	1471.0	2216.6	5329.7	9633.5	10894.0	10933.3	10323.4	8480.8
67.5°	5.1	6.3	20.3	1279.5	1945.2	5083.7	9414.1	11027.1	11072.8	10511.0	8406.0
69°	5.1	6.3	20.3	1150.1	1760.1	4812.3	9273.4	11145.1	11235.1	10514.8	8234.8
70°	5.1	6.3	19.0	1057.6	1615.5	4582.8	9137.7	11099.4	11171.7	10413.4	8044.6
72.5°	5.1	6.3	19.0	814.1	1228.8	3679.9	8279.2	10452.7	10415.9	9774.3	7304.1
75°	6.3	6.3	19.0	571.9	852.1	2617.3	6987.1	9282.3	9298.8	8701.5	6143.8
77.5°	6.3	6.3	19.0	363.9	537.7	1514.1	5059.6	7612.2	7659.1	7249.6	4600.6
80°	6.3	6.3	19.0	166.1	333.5	791.3	2488.0	4960.7	5213.0	4866.9	2524.7
82.5°	6.3	6.3	17.8	104.0	182.6	356.3	981.5	1555.9	1540.7	1516.6	802.7
85°	5.1	5.1	13.9	73.5	121.7	206.7	545.3	697.4	688.6	609.9	414.7
87.5°	2.5	2.5	7.6	30.4	50.7	93.8	272.6	317.0	301.8	258.7	177.5
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°	6180.6	6180.6	6180.6	6180.6	6180.6	6180.6	6180.6	6180.6	6180.6	6180.6	6180.6
2.5°	6250.3	6259.2	6301.0	6355.6	6372.0	6443.1	6454.5	6571.1	6588.9	6618.1	6630.7
5°	6313.7	6348.0	6439.3	6567.3	6676.4	6788.0	6791.8	6933.8	6970.6	6963.0	6999.7
7.5°	6403.8	6460.8	6600.3	6777.8	6817.1	6961.7	6951.6	7092.3	7094.8	7074.6	7130.4
10°	6542.0	6613.0	6739.8	6848.8	6923.7	7017.5	7004.8	7138.0	7118.9	7097.4	7159.5
12.5°	6684.0	6720.8	6798.1	6919.9	6936.3	6969.3	6952.8	7075.8	7055.5	7028.9	7089.8
15°	6808.3	6826.0	6826.0	6892.0	6850.1	6876.7	6820.9	6919.9	6872.9	6860.3	6918.6
17.5°	6969.3	6940.1	6880.5	6875.5	6766.4	6725.8	6642.1	6668.8	6580.0	6588.9	6619.3
20°	7150.6	7086.0	6928.7	6771.5	6569.9	6473.5	6307.4	6294.7	6212.3	6197.1	6226.2
22.5°	7217.9	7274.9	6987.1	6682.7	6335.3	6119.7	5923.2	5829.3	5708.8	5631.5	5641.6
25°	7422.0	7524.7	7075.8	6524.2	6058.8	5703.8	5408.3	5194.0	5012.7	4920.1	4939.1
27.5°	7698.4	7865.8	7126.6	6413.9	5696.2	5232.1	4737.5	4456.0	4268.3	4171.9	4169.4
30°	8094.1	8304.6	7224.2	6183.1	5292.9	4612.0	4002.0	3669.8	3516.4	3453.0	3458.0
32.5°	8588.6	8842.2	7427.1	5990.4	4854.2	3948.8	3253.9	2963.5	2893.7	2882.3	2876.0
35°	9244.2	9495.3	7588.1	5693.6	4284.8	3196.8	2612.2	2406.8	2418.2	2415.7	2423.3
37.5°	9137.7	10090.0	7772.0	5403.2	3603.9	2505.7	2111.3	1995.9	1999.7	2044.1	2053.0
40°	8737.0	9570.1	8045.9	4922.6	2807.5	1924.9	1665.0	1638.3	1747.4	1845.0	1862.8
42.5°	9051.5	9256.9	8082.7	4404.0	2054.3	1476.0	1392.3	1502.7	1678.9	1791.8	1812.1
45°	9366.0	9532.1	7869.6	3627.9	1473.5	1263.0	1325.1	1483.6	1678.9	1799.4	1813.3
47.5°	9685.5	9684.2	7621.1	2909.0	1204.7	1207.2	1308.6	1484.9	1689.1	1810.8	1818.4
50°	9888.4	9807.2	6971.8	2278.7	1121.0	1174.2	1299.8	1492.5	1686.5	1775.3	1779.1
52.5°	9989.9	9869.4	6398.7	1820.9	1081.7	1147.6	1301.0	1510.3	1672.6	1722.0	1719.5
55°	9818.7	9835.1	5924.4	1514.1	1044.9	1126.0	1307.4	1523.0	1678.9	1729.6	1729.6
57.5°	9605.6	9609.4	5546.5	1282.0	1008.1	1108.3	1315.0	1542.0	1795.6	1890.7	1876.7
60°	9456.0	9284.8	5011.4	1136.2	966.3	1091.8	1325.1	1624.4	2069.5	2165.9	2132.9
62.5°	9210.0	8977.9	4461.1	1034.7	919.4	1079.1	1331.5	1739.8	2106.3	2111.3	2030.2
65°	8778.8	8446.6	3601.3	934.6	871.2	1061.4	1327.7	1782.9	1940.1	1864.1	1841.2
67.5°	8155.0	7721.3	2822.7	834.4	817.9	1034.7	1353.0	1704.3	1832.4	1770.2	1739.8
69°	7765.7	7170.9	2343.4	774.8	783.7	1014.5	1365.7	1689.1	1794.3	1718.2	1682.7
70°	7470.2	6694.1	1984.5	735.5	754.5	996.7	1340.3	1680.2	1776.6	1682.7	1640.9
72.5°	6342.9	5381.7	1270.6	644.2	678.4	952.3	1271.9	1624.4	1737.3	1673.9	1621.9
75°	4903.6	3952.6	810.3	560.5	601.1	886.4	1200.9	1585.1	1755.0	1640.9	1526.8
77.5°	3300.8	2207.7	618.8	470.5	509.8	800.2	1088.0	1474.8	1694.1	1594.0	1453.2
80°	1503.9	842.0	478.1	381.7	412.1	644.2	938.4	1304.8	1601.6	1600.3	1498.9
82.5°	602.3	563.0	355.1	291.7	324.6	480.6	743.1	1117.2	1412.6	1473.5	1573.7
85°	351.3	355.1	235.9	202.9	242.2	353.8	530.1	863.6	1148.9	1270.6	1355.6
87.5°	143.3	159.8	110.3	106.5	133.1	188.9	243.5	418.5	618.8	759.6	811.6
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)