

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: P591305

Luminaire Tested: **CTN-CA10-310-730-U-T3-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591305  
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-CA10-310-730-U-T3-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: 28449 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B4 - U0 - G3

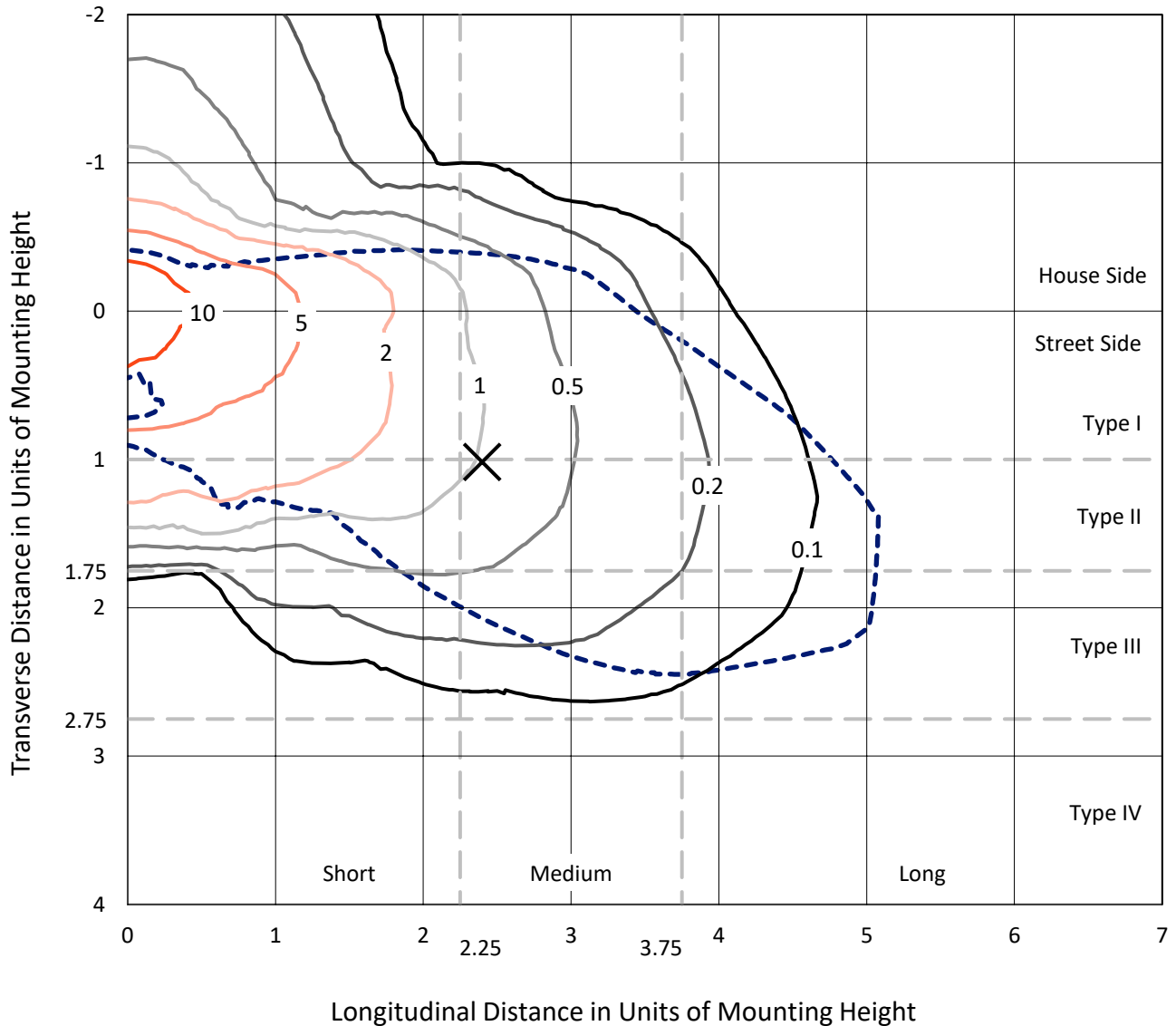
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

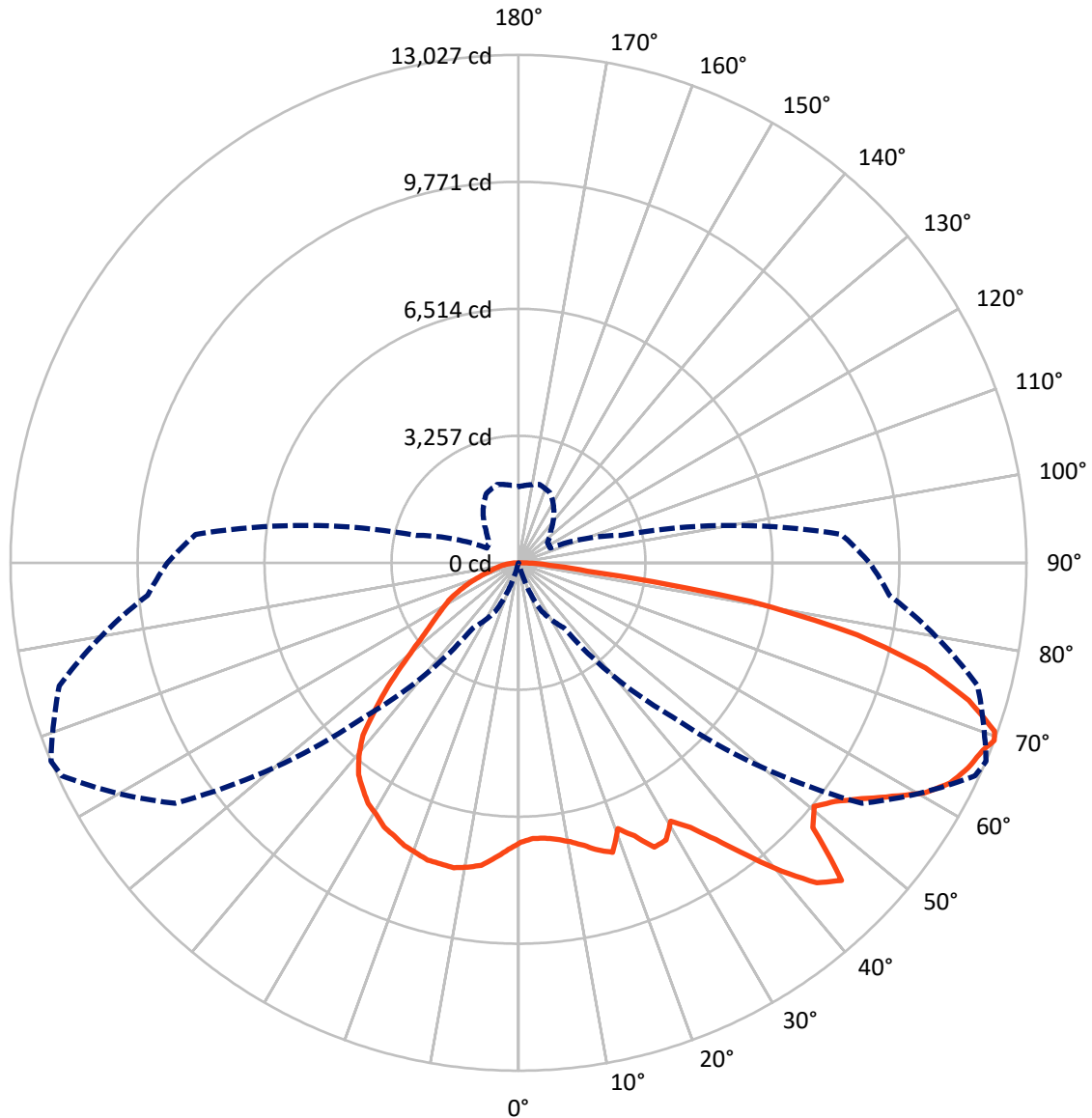
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.9 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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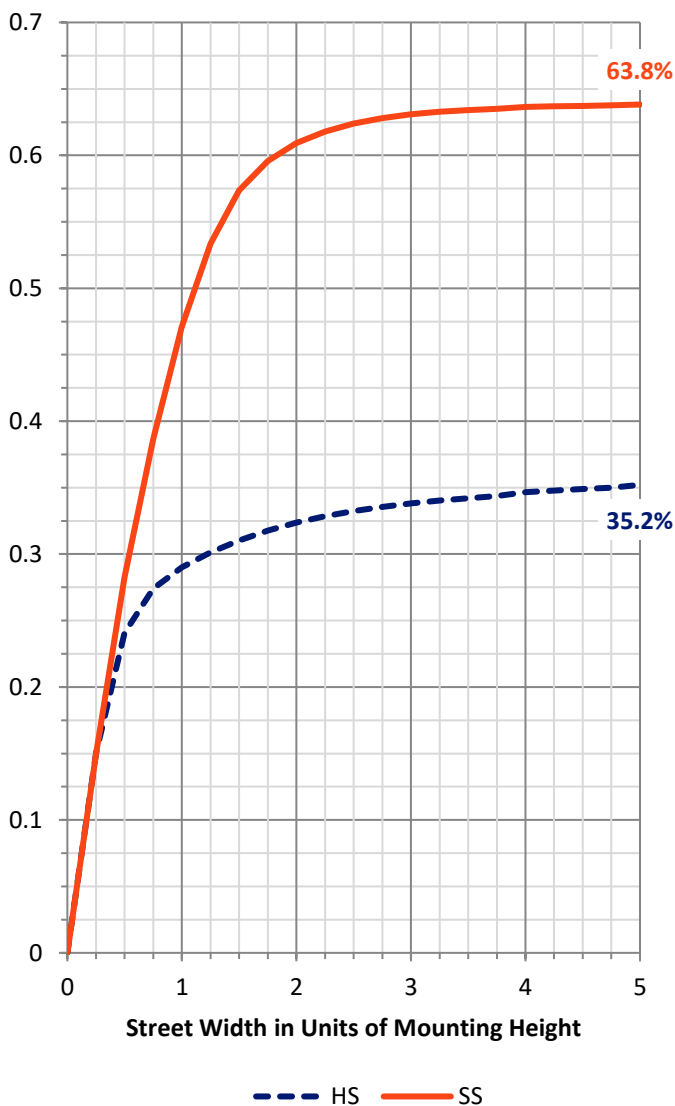
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10292.0	0.0	10292.0
	% Fixture	36.2	0.0	36.2
<b>Street Side</b>	Lumens	18157.0	0.0	18157.0
	% Fixture	63.8	0.0	63.8
<b>Total</b>	Lumens	28449.0	0.0	28449.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	716.7	2.5
10°-20°	2212.6	7.8
20°-30°	3265.7	11.5
30°-40°	4103.1	14.4
40°-50°	4812.7	16.9
50°-60°	5036.2	17.7
60°-70°	4499.3	15.8
70°-80°	3166.6	11.1
80°-90°	636.1	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°	28449.0	100.0
0°-180°	28449.0	100.0

**Coefficient of Utilization**

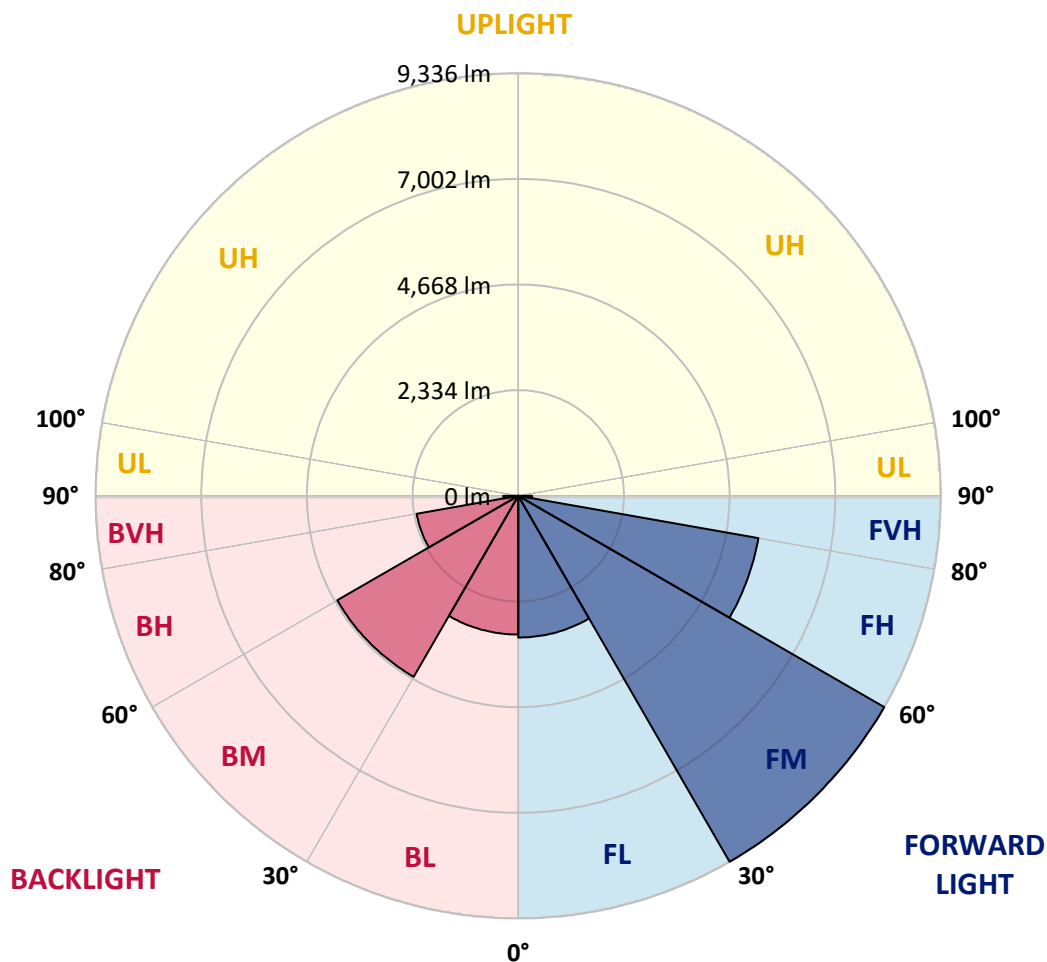


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3130.7	11.0			
FM	(30°-60°)	9335.7	32.8			
FH	(60°-80°)	5386.6	18.9			G3/7500
FVH	(80°-90°)	304.0	1.1			G3/500
BL	(0°-30°)	3064.3	10.8	B4/5000		
BM	(30°-60°)	4616.4	16.2	B3/5000		
BH	(60°-80°)	2279.3	8.0	B3/2500		G3/2500
BVH	(80°-90°)	332.1	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°	7166.5	7166.5	7166.5	7166.5	7166.5	7166.5	7166.5	7166.5	7166.5	7166.5	7166.5
2.5°	6996.0	6954.8	6973.9	7028.3	6915.1	6996.0	6966.6	7048.9	7079.8	7075.4	7193.0
5°	7051.9	7006.3	7013.6	7054.8	6931.3	6994.5	6966.6	7057.7	7093.0	7082.7	7243.0
7.5°	7250.4	7200.4	7184.2	7197.4	7063.6	7112.1	7051.9	7125.4	7163.6	7163.6	7345.9
10°	7563.5	7503.3	7468.0	7466.5	7309.2	7287.1	7213.6	7247.4	7275.3	7298.9	7501.8
12.5°	7891.4	7841.4	7795.9	7770.9	7563.5	7512.1	7404.7	7429.7	7438.6	7470.9	7672.3
15°	8189.9	8139.9	8126.7	8087.0	7881.1	7795.9	7645.9	7634.1	7645.9	7665.0	7865.0
17.5°	8075.2	8078.2	8151.7	8159.0	7891.4	7694.4	7590.0	7788.5	7807.6	7959.1	8088.5
20°	7857.6	7750.3	7365.0	7154.8	7185.7	7441.5	7251.8	7243.0	7282.7	7551.8	8207.6
22.5°	6544.6	6485.8	6697.5	6765.1	7009.2	7106.3	7557.7	7569.4	7609.1	7609.1	7800.3
25°	5650.6	5955.0	6366.7	7101.8	7025.4	7044.5	7228.3	8009.1	8084.0	8082.6	8054.6
27.5°	5841.7	5803.5	6419.6	6881.3	7426.8	7393.0	7193.0	7723.8	8056.1	8626.6	8494.3
30°	6071.1	6043.2	6088.8	6869.5	7773.8	7819.4	7634.1	7579.7	7692.9	8891.3	8997.1
32.5°	6284.3	6250.5	6302.0	6421.1	7287.1	8259.0	8116.4	8050.2	8091.4	8332.5	9644.1
35°	6472.5	6469.6	6528.4	6669.6	7407.7	8411.9	8610.4	8606.0	8716.3	8923.6	9738.2
37.5°	6606.3	6604.9	6651.9	6816.6	6982.7	7769.4	9073.6	9336.8	9513.2	9820.5	9513.2
40°	6604.9	6628.4	6751.9	6963.6	7184.2	7420.9	9278.0	10195.5	10407.2	10626.3	10114.6
42.5°	6466.6	6479.9	6697.5	7090.1	7363.6	7567.9	8466.3	10985.1	11221.8	11205.6	10588.1
45°	6338.7	6344.6	6587.2	7069.5	7513.5	7882.6	8300.2	10982.1	11621.7	11721.7	11033.6
47.5°	6172.6	6172.6	6412.2	6950.4	7648.8	8237.0	8744.2	9486.8	10154.3	12168.7	11402.7
50°	5959.4	5985.8	5691.8	6826.9	7713.5	8573.7	9120.6	9732.3	9825.0	10882.1	11745.2
52.5°	5619.7	5605.0	4447.8	6690.1	7740.0	8817.8	9511.8	10116.1	10166.1	10060.2	11410.0
55°	3542.1	3949.4	3933.2	6529.9	7723.8	8975.1	9811.7	10538.1	10679.2	10549.8	9598.5
57.5°	2139.4	2042.3	3361.2	6071.1	6203.5	9097.1	10219.0	11179.2	11302.7	11002.7	9760.3
60°	835.2	788.1	851.3	2762.8	4450.8	8463.4	10773.3	11859.9	11977.6	11433.5	9897.0
62.5°	104.4	89.7	76.5	1912.9	2829.0	6287.3	11067.4	12408.4	12430.4	11745.2	9923.5
65°	14.7	16.2	29.4	1705.6	2570.2	6179.9	11170.3	12631.9	12677.5	11970.2	9833.8
67.5°	5.9	7.4	23.5	1483.6	2255.5	5894.7	10916.0	12786.3	12839.2	12187.8	9747.0
69°	5.9	7.4	23.5	1333.6	2040.9	5580.0	10752.8	12923.0	13027.4	12192.2	9548.5
70°	5.9	7.4	22.1	1226.3	1873.2	5313.9	10595.4	12870.1	12953.9	12074.6	9328.0
72.5°	5.9	7.4	22.1	944.0	1424.8	4267.0	9600.0	12120.2	12077.5	11333.5	8469.3
75°	7.4	7.4	22.1	663.1	988.1	3034.8	8101.7	10763.0	10782.2	10089.6	7123.9
77.5°	7.4	7.4	22.1	422.0	623.4	1755.6	5866.7	8826.6	8881.0	8406.1	5334.5
80°	7.4	7.4	22.1	192.6	386.7	917.5	2884.8	5752.1	6044.7	5643.2	2927.5
82.5°	7.4	7.4	20.6	120.6	211.7	413.2	1138.1	1804.1	1786.5	1758.6	930.7
85°	5.9	5.9	16.2	85.3	141.2	239.7	632.3	808.7	798.4	707.2	480.8
87.5°	2.9	2.9	8.8	35.3	58.8	108.8	316.1	367.6	349.9	300.0	205.9
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°	7166.5	7166.5	7166.5	7166.5	7166.5	7166.5	7166.5	7166.5	7166.5	7166.5	7166.5
2.5°	7247.4	7257.7	7306.2	7369.4	7388.6	7470.9	7484.1	7619.4	7640.0	7673.8	7688.5
5°	7320.9	7360.6	7466.5	7615.0	7741.5	7870.8	7875.3	8039.9	8082.6	8073.8	8116.4
7.5°	7425.3	7491.5	7653.2	7859.1	7904.7	8072.3	8060.5	8223.7	8226.7	8203.1	8267.8
10°	7585.6	7667.9	7815.0	7941.4	8028.2	8137.0	8122.3	8276.7	8254.6	8229.6	8301.7
12.5°	7750.3	7792.9	7882.6	8023.8	8042.9	8081.1	8062.0	8204.6	8181.1	8150.2	8220.8
15°	7894.4	7915.0	7915.0	7991.4	7942.9	7973.8	7909.1	8023.8	7969.4	7954.7	8022.3
17.5°	8081.1	8047.3	7978.2	7972.3	7845.8	7798.8	7701.8	7732.6	7629.7	7640.0	7675.3
20°	8291.4	8216.4	8034.1	7851.7	7617.9	7506.2	7313.6	7298.9	7203.3	7185.7	7219.5
22.5°	8369.3	8435.5	8101.7	7748.8	7345.9	7096.0	6868.1	6759.2	6619.6	6529.9	6541.6
25°	8606.0	8725.1	8204.6	7565.0	7025.4	6613.7	6271.1	6022.6	5812.3	5705.0	5727.1
27.5°	8926.6	9120.6	8263.4	7437.1	6604.9	6066.7	5493.3	5166.8	4949.2	4837.5	4834.5
30°	9385.3	9629.4	8376.6	7169.5	6137.3	5347.7	4640.5	4255.2	4077.3	4003.8	4009.7
32.5°	9958.8	10252.8	8611.9	6946.0	5628.5	4578.7	3772.9	3436.2	3355.4	3342.1	3334.8
35°	10718.9	11010.1	8798.6	6601.9	4968.4	3706.8	3028.9	2790.7	2804.0	2801.0	2809.9
37.5°	10595.4	11699.7	9011.8	6265.2	4178.8	2905.4	2448.2	2314.3	2318.8	2370.2	2380.5
40°	10130.8	11096.8	9329.4	5707.9	3255.4	2232.0	1930.6	1899.7	2026.2	2139.4	2160.0
42.5°	10495.4	10733.6	9372.1	5106.6	2382.0	1711.5	1614.5	1742.4	1946.8	2077.6	2101.1
45°	10860.1	11052.7	9125.1	4206.7	1708.6	1464.5	1536.5	1720.3	1946.8	2086.4	2102.6
47.5°	11230.6	11229.1	8836.9	3373.0	1396.8	1399.8	1517.4	1721.8	1958.5	2099.7	2108.5
50°	11465.9	11371.8	8084.0	2642.2	1299.8	1361.6	1507.1	1730.6	1955.6	2058.5	2062.9
52.5°	11583.5	11443.8	7419.4	2111.4	1254.2	1330.7	1508.6	1751.2	1939.4	1996.8	1993.8
55°	11385.0	11404.1	6869.5	1755.6	1211.6	1305.7	1515.9	1765.9	1946.8	2005.6	2005.6
57.5°	11138.0	11142.4	6431.4	1486.5	1168.9	1285.1	1524.8	1788.0	2082.0	2192.3	2176.1
60°	10964.5	10766.0	5810.9	1317.4	1120.4	1266.0	1536.5	1883.5	2399.6	2511.4	2473.1
62.5°	10679.2	10410.2	5172.7	1199.8	1066.0	1251.3	1543.9	2017.3	2442.3	2448.2	2354.0
65°	10179.3	9794.1	4175.8	1083.7	1010.1	1230.7	1539.5	2067.3	2249.7	2161.4	2135.0
67.5°	9455.9	8953.0	3273.0	967.5	948.4	1199.8	1568.9	1976.2	2124.7	2052.6	2017.3
69°	9004.5	8314.9	2717.2	898.4	908.7	1176.3	1583.6	1958.5	2080.6	1992.3	1951.2
70°	8661.9	7762.0	2301.1	852.8	874.9	1155.7	1554.2	1948.2	2060.0	1951.2	1902.6
72.5°	7354.7	6240.2	1473.3	746.9	786.6	1104.2	1474.8	1883.5	2014.4	1940.9	1880.6
75°	5685.9	4583.1	939.6	649.9	697.0	1027.8	1392.4	1838.0	2035.0	1902.6	1770.3
77.5°	3827.3	2559.9	717.5	545.5	591.1	927.8	1261.6	1710.0	1964.4	1848.2	1685.0
80°	1743.8	976.3	554.3	442.6	477.9	746.9	1088.1	1513.0	1857.1	1855.6	1738.0
82.5°	698.4	652.8	411.7	338.2	376.4	557.3	861.6	1295.4	1638.0	1708.6	1824.7
85°	407.3	411.7	273.5	235.3	280.8	410.2	614.6	1001.3	1332.1	1473.3	1571.8
87.5°	166.2	185.3	127.9	123.5	154.4	219.1	282.3	485.2	717.5	880.7	941.0
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)