

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: P591129

Luminaire Tested: **CTN-CA10-630-722-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591129  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-630-722-U-T4-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33062 lumens  
Efficiency: N/A  
Efficacy: 52.4 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B4 - U0 - G4

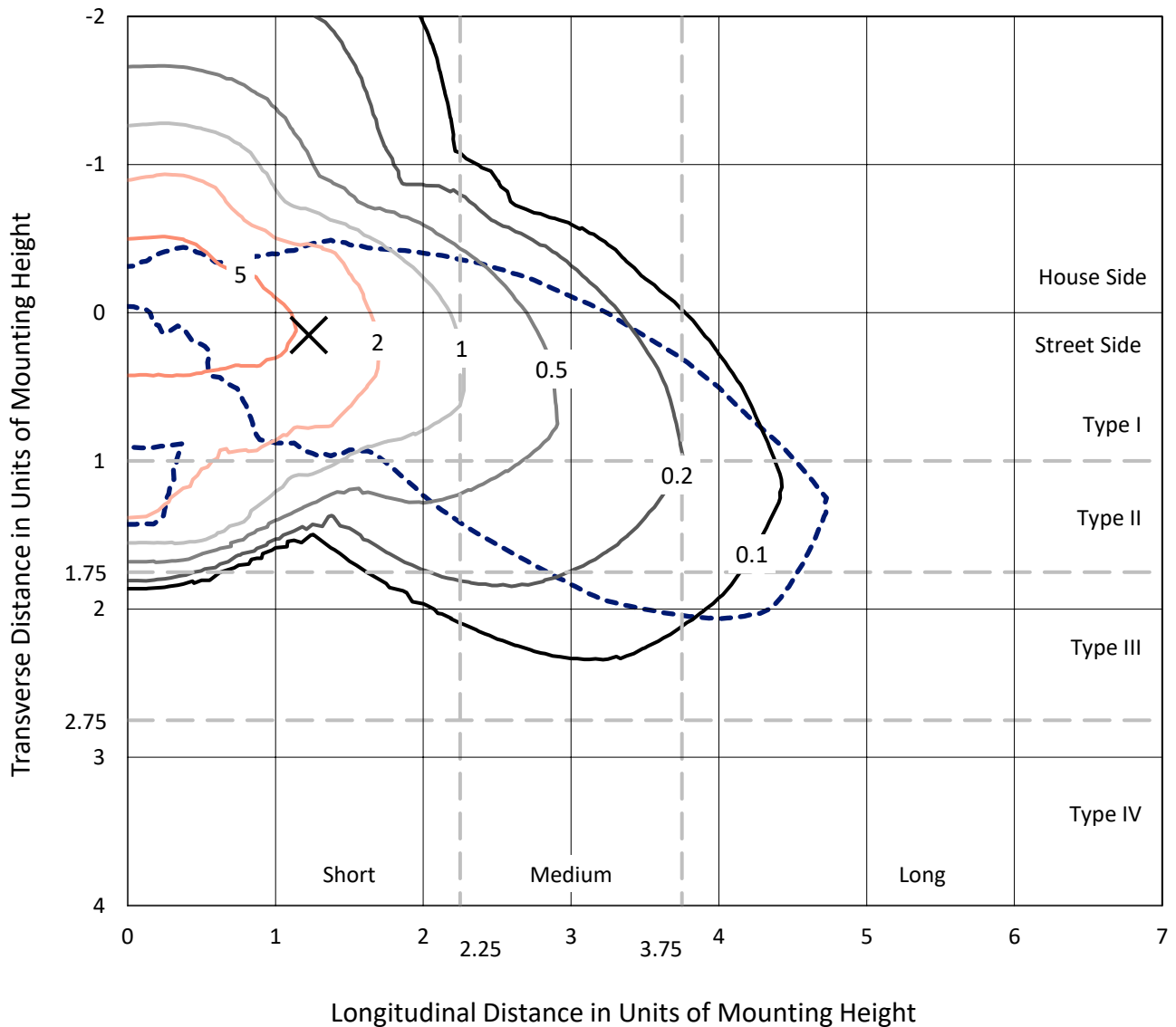
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

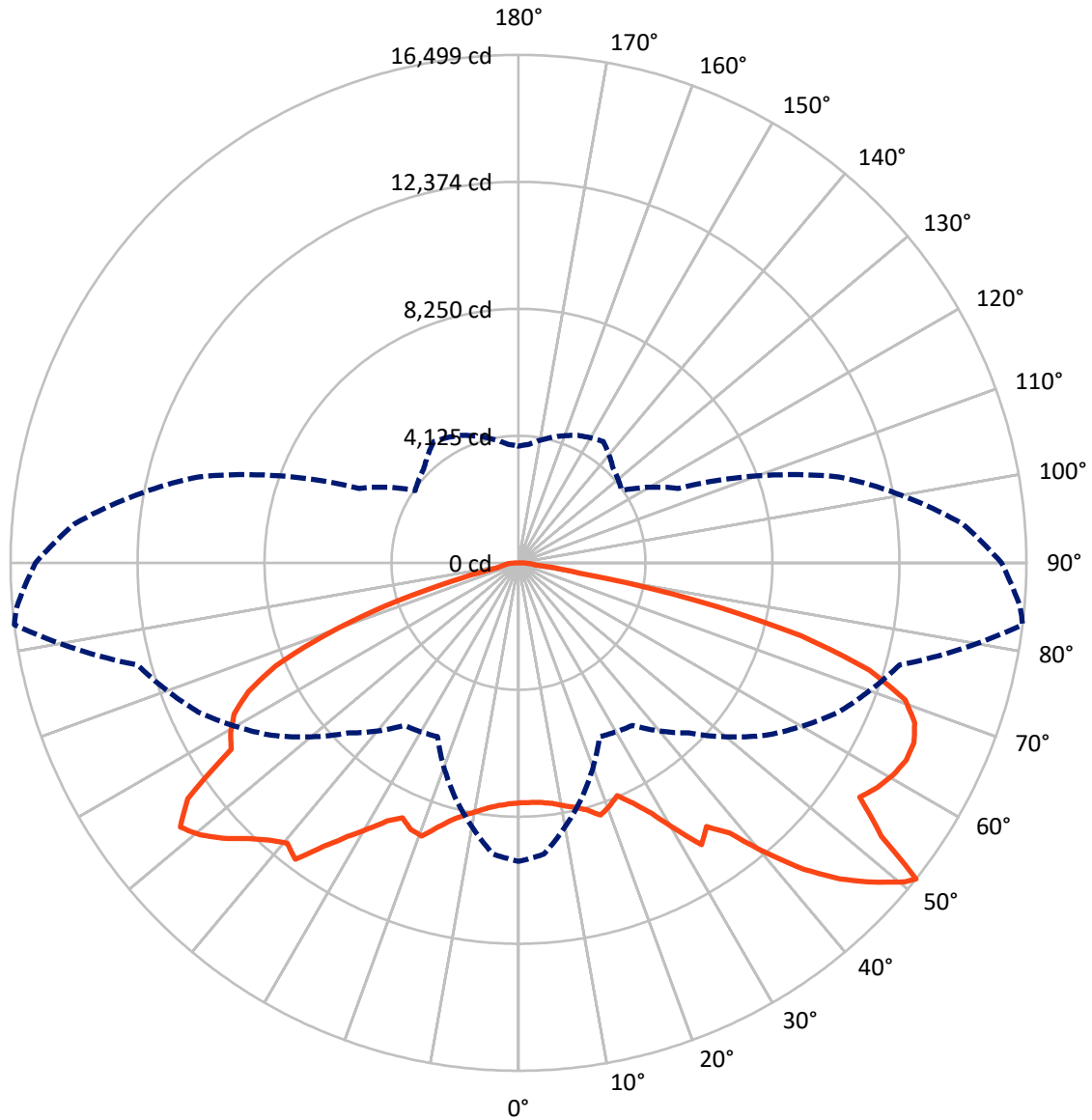
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.2 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral      - - - Horizontal Cone Through 51-Deg Vertical

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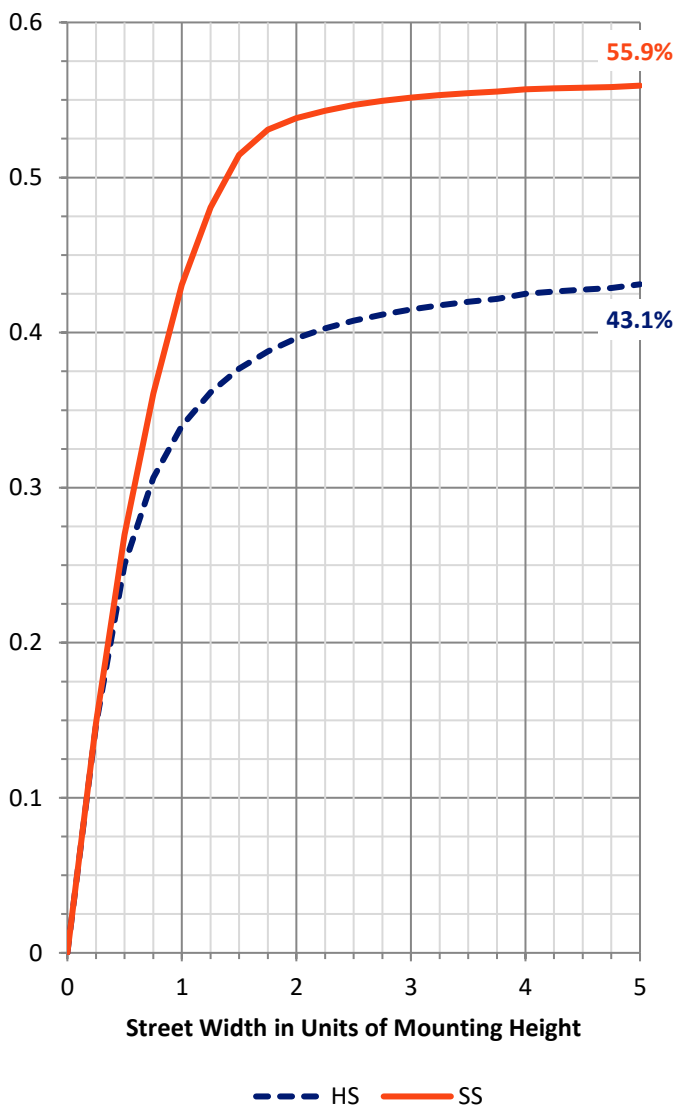
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	14572.3	0.0	14572.3
	% Fixture	44.1	0.0	44.1
<b>Street Side</b>	Lumens	18489.7	0.0	18489.7
	% Fixture	55.9	0.0	55.9
<b>Total</b>	Lumens	33062.0	0.0	33062.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	761.2	2.3
10°-20°	2316.8	7.0
20°-30°	3598.9	10.9
30°-40°	4815.4	14.6
40°-50°	6247.4	18.9
50°-60°	6653.6	20.1
60°-70°	4635.0	14.0
70°-80°	3233.7	9.8
80°-90°	800.0	2.4
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°	33062.0	100.0
0°-180°	33062.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P591129

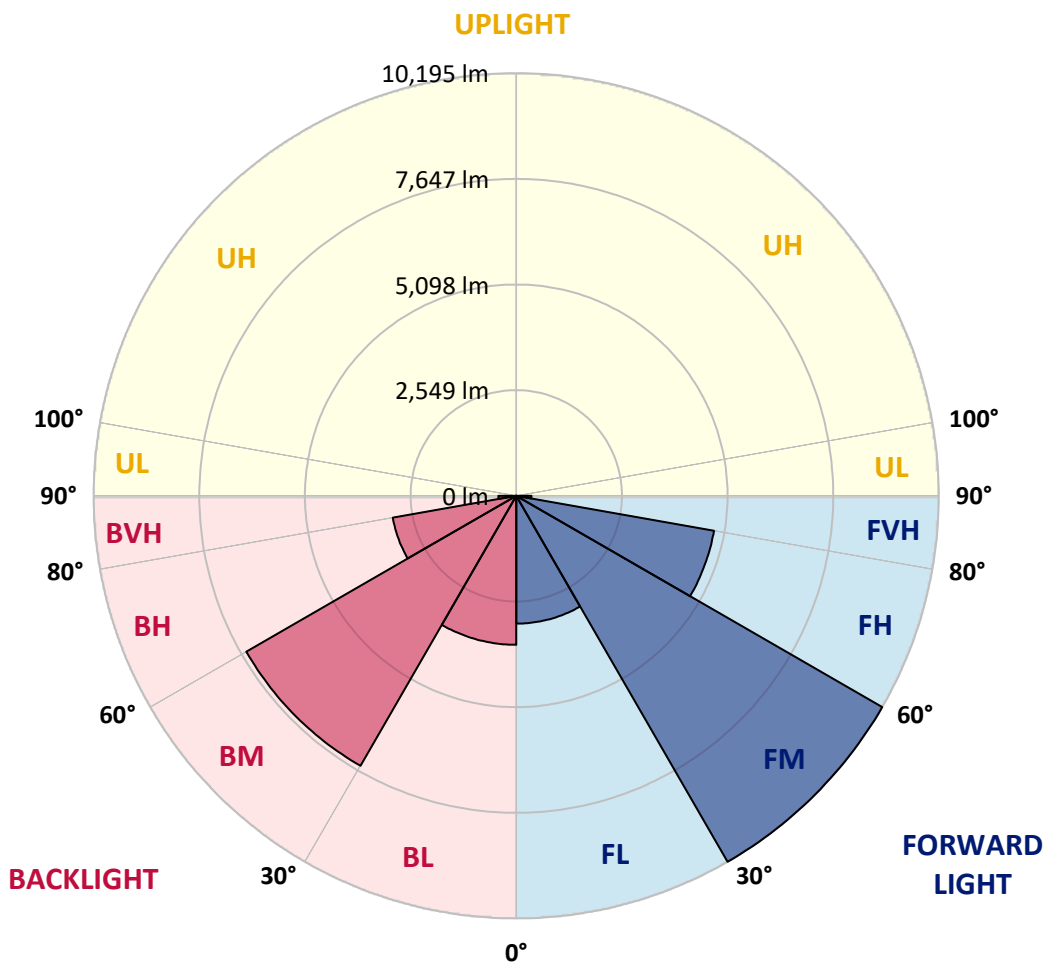
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3082.7	9.3			
FM (30°-60°)	10195.4	30.8			
FH (60°-80°)	4844.3	14.7			G2/5000
FVH (80°-90°)	367.3	1.1			G3/500
BL (0°-30°)	3594.1	10.9	B4/5000		
BM (30°-60°)	7521.1	22.7	B4/8500		
BH (60°-80°)	3024.3	9.1	B4/5000		G4/5000
BVH (80°-90°)	432.7	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-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	7792.8	7792.8	7792.8	7792.8	7792.8	7792.8	7792.8	7792.8	7792.8	7792.8	7792.8
2.5°	7699.8	7646.4	7651.0	7723.1	7627.8	7690.5	7681.2	7792.8	7771.9	7795.1	7811.4
5°	7632.4	7590.6	7590.6	7685.9	7618.5	7685.9	7639.4	7737.0	7769.6	7820.7	7839.3
7.5°	7646.4	7602.2	7620.8	7704.5	7630.1	7699.8	7697.5	7790.5	7802.1	7892.7	7923.0
10°	7685.9	7637.1	7646.4	7713.8	7672.0	7792.8	7771.9	7899.7	7899.7	8020.6	8067.1
12.5°	7604.6	7572.0	7590.6	7681.2	7718.4	7843.9	7871.8	8002.0	8020.6	8150.7	8208.8
15°	7516.2	7469.8	7530.2	7660.3	7723.1	7904.4	7964.8	8164.7	8192.6	8327.4	8392.4
17.5°	7088.6	7058.4	7169.9	7274.5	7309.4	7486.0	7604.6	7936.9	8336.7	8617.9	8694.6
20°	6238.0	6233.3	6026.5	5982.3	6523.8	7169.9	7251.3	7534.8	7997.3	8436.6	8592.3
22.5°	5208.4	5347.8	6019.5	6233.3	6219.4	6475.0	7516.2	7783.5	7988.0	8211.2	8304.1
25°	5208.4	5196.8	5594.2	6514.5	6516.9	6626.1	6858.5	8197.2	8392.4	8648.1	8722.5
27.5°	5373.4	5385.0	5359.4	6031.1	6837.6	6939.9	7039.8	7732.4	8929.3	9212.9	9336.0
30°	5652.3	5670.9	5568.6	5570.9	6944.5	7251.3	7441.9	7713.8	9303.5	10030.9	10086.7
32.5°	6203.1	6196.1	6068.3	5903.3	6093.9	7555.7	7834.6	8187.9	8713.2	10914.1	11044.3
35°	6642.4	6612.1	6523.8	6409.9	6158.9	7469.8	8208.8	8696.9	9366.2	10521.3	11209.3
37.5°	7130.4	7086.3	6986.3	6846.9	6619.1	5213.0	8578.4	9277.9	10316.8	11137.2	11181.4
40°	7681.2	7632.4	7495.3	7290.8	7000.3	5340.9	8743.4	9996.1	11555.6	12380.6	12373.7
42.5°	8104.2	8055.4	7983.4	7767.2	6154.3	5891.7	7625.5	11004.8	12896.6	13612.4	13552.0
45°	8462.2	8420.3	8427.3	8199.5	5773.1	6568.0	8494.7	11532.3	14160.9	14649.0	14570.0
47.5°	8741.1	8676.0	8499.3	6898.0	5921.9	7035.1	9201.2	10058.8	15227.7	15504.3	15416.0
50°	9419.7	9310.5	8260.0	6124.1	6298.4	7606.9	9872.9	11095.4	13870.4	16282.9	16127.1
51°	9696.3	9498.7	7916.0	6231.0	6447.1	7813.7	9773.0	11471.9	12812.9	16499.0	16359.5
52.5°	9986.8	9596.3	6972.4	6393.7	6628.4	8099.6	8301.8	12050.6	13108.1	14765.2	15587.9
55°	8425.0	8578.4	7200.2	6988.7	6972.4	7000.3	8478.4	12912.9	13724.0	13445.1	13282.4
57.5°	4955.0	5045.7	7314.0	7825.3	6033.4	5559.3	8945.6	13563.6	14256.2	13754.2	13572.9
60°	2491.5	2607.7	2663.5	2428.7	3253.8	5071.3	7534.8	9831.1	14581.6	13986.6	13768.1
62.5°	109.2	181.3	72.0	79.0	132.5	1768.7	5536.1	10098.3	14855.8	14128.4	13840.2
65°	9.3	9.3	11.6	23.2	58.1	1857.0	6161.3	10467.9	14967.4	14114.4	13728.6
67.5°	2.3	2.3	4.6	16.3	41.8	2010.4	6895.7	10618.9	14972.0	13877.4	13405.6
70°	0.0	2.3	4.6	13.9	37.2	2103.3	7056.1	10588.7	14781.5	13319.6	12671.2
72.5°	0.0	0.0	2.3	11.6	32.5	1984.8	6870.1	10528.3	14130.7	11915.8	10995.5
75°	0.0	0.0	2.3	9.3	27.9	2019.7	6888.7	9849.7	12338.8	9487.1	8369.2
77.5°	0.0	0.0	2.3	9.3	25.6	1864.0	6307.7	8529.6	9752.0	5905.6	4683.1
80°	0.0	0.0	2.3	9.3	23.2	1599.0	5187.5	6658.6	5457.1	2003.4	1292.2
82.5°	0.0	0.0	2.3	9.3	18.6	1083.0	3446.7	3328.2	1099.3	574.1	516.0
85°	0.0	0.0	2.3	7.0	13.9	646.1	1726.8	453.2	425.3	364.9	330.0
87.5°	0.0	0.0	2.3	4.6	9.3	274.2	532.2	139.4	176.6	148.7	132.5
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°	7792.8	7792.8	7792.8	7792.8	7792.8	7792.8	7792.8	7792.8	7792.8	7792.8	7792.8
2.5°	7825.3	7825.3	7850.9	7936.9	7927.6	7997.3	7957.8	8043.8	8050.8	8034.5	8074.0
5°	7855.6	7883.4	7969.4	8060.1	8022.9	8125.2	8174.0	8287.8	8283.2	8269.3	8315.7
7.5°	7941.6	7999.7	8085.6	8194.9	8234.4	8318.1	8322.7	8478.4	8469.1	8462.2	8508.6
10°	8085.6	8162.3	8257.6	8422.6	8399.4	8520.3	8469.1	8583.0	8580.7	8576.0	8622.5
12.5°	8234.4	8346.0	8462.2	8622.5	8620.2	8624.8	8580.7	8638.8	8627.2	8594.6	8629.5
15°	8443.6	8592.3	8752.7	8868.9	8766.6	8745.7	8648.1	8613.2	8545.8	8452.9	8480.7
17.5°	8789.9	8936.3	9140.8	9203.6	9036.2	8940.9	8676.0	8483.1	8273.9	8132.1	8162.3
20°	9101.3	9373.2	9568.4	9563.8	9350.0	9099.0	8687.6	8362.2	7957.8	7683.6	7660.3
22.5°	8713.2	9171.0	10021.6	9921.7	9547.5	9191.9	8673.7	8169.3	7497.6	7072.3	7056.1
25°	8936.3	8945.6	9707.9	10121.6	9635.8	9152.4	8506.3	7832.3	6972.4	6530.8	6505.2
27.5°	9505.7	9454.6	9243.1	9907.8	9554.5	8950.2	8169.3	7258.3	6493.6	6110.1	6091.5
30°	10182.0	10024.0	9526.6	8871.2	9219.8	8557.4	7651.0	6670.3	6061.3	5712.7	5684.8
32.5°	10990.8	10658.5	9784.6	8757.3	8122.8	7964.8	6981.7	6205.4	5703.4	5340.9	5268.8
35°	11950.7	11453.3	10033.3	8564.4	7267.6	7086.3	6351.8	5787.1	5366.4	4999.2	4927.2
37.5°	11948.4	12466.6	10400.5	8299.5	6737.7	6100.8	5894.0	5508.2	5131.7	4687.8	4606.4
40°	12036.7	12052.9	10804.9	8041.5	6242.6	5594.2	5622.1	5371.1	4982.9	4494.9	4411.2
42.5°	13110.4	12320.2	11299.9	7695.2	5775.5	5220.0	5505.9	5322.3	4903.9	4404.2	4311.3
45°	14044.7	13133.7	10214.6	7316.4	5285.1	4929.5	5412.9	5208.4	4792.4	4295.0	4190.4
47.5°	14858.2	13779.8	10491.1	6654.0	4806.3	4692.4	5233.9	4989.9	4592.5	4130.0	4037.0
50°	15476.4	14314.3	10732.8	5763.8	4341.5	4455.4	4943.4	4694.7	4311.3	3937.1	3858.1
51°	15687.9	14486.3	10781.6	5724.3	4095.1	4343.8	4806.3	4564.6	4220.6	3862.7	3790.7
52.5°	15915.6	14709.4	10853.7	5812.6	3746.5	4160.2	4583.2	4371.7	4085.8	3779.0	3697.7
55°	13233.6	13821.6	10670.1	5626.7	3342.1	3795.3	4174.1	4078.8	3920.8	3648.9	3590.8
57.5°	12750.2	11695.0	8850.3	4764.5	2986.5	3360.7	3776.7	3839.5	3718.6	3442.0	3400.2
60°	12854.8	11588.1	7881.1	3553.6	2633.2	2972.6	3479.2	3535.0	3430.4	3221.2	3163.1
62.5°	12836.2	11313.9	7028.2	2503.1	2326.5	2770.4	3265.4	3288.6	3144.5	2970.2	2916.8
65°	12529.4	10684.0	5863.8	1894.2	2156.8	2658.8	3139.9	3151.5	2972.6	2749.4	2721.6
67.5°	11846.1	9687.0	4078.8	1664.1	2061.5	2572.8	3056.2	3005.1	2833.1	2598.4	2556.5
70°	10537.6	7892.7	1905.8	1531.6	1917.4	2414.8	2851.7	2791.3	2603.0	2384.6	2347.4
72.5°	8448.2	5484.9	904.1	1401.5	1766.3	2217.2	2600.7	2505.4	2349.7	2268.4	2247.4
75°	5529.1	2575.1	755.3	1262.0	1566.5	1977.8	2384.6	2349.7	2205.6	2042.9	1963.9
77.5°	2242.8	678.6	683.3	1120.2	1406.1	1822.1	2154.5	2126.6	1936.0	1789.6	1757.0
80°	564.8	509.0	625.2	925.0	1224.8	1587.4	1889.5	1810.5	1740.8	1582.7	1531.6
82.5°	430.0	409.0	490.4	715.8	1006.3	1308.5	1612.9	1645.5	1529.3	1408.4	1382.9
85°	299.8	371.9	297.5	509.0	746.0	1031.9	1352.6	1410.7	1331.7	1194.6	1101.6
87.5°	165.0	195.2	123.2	267.3	395.1	564.8	776.3	783.2	648.4	595.0	560.1
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)