

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: P591413

Luminaire Tested: **CTN-CA10-630-740-U-T3-SSS-HM-EX120**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591413  
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-CA10-630-740-U-T3-SSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE, 120D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 55176 lumens  
Efficiency: N/A  
Efficacy: 87.4 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B5 - U0 - G4

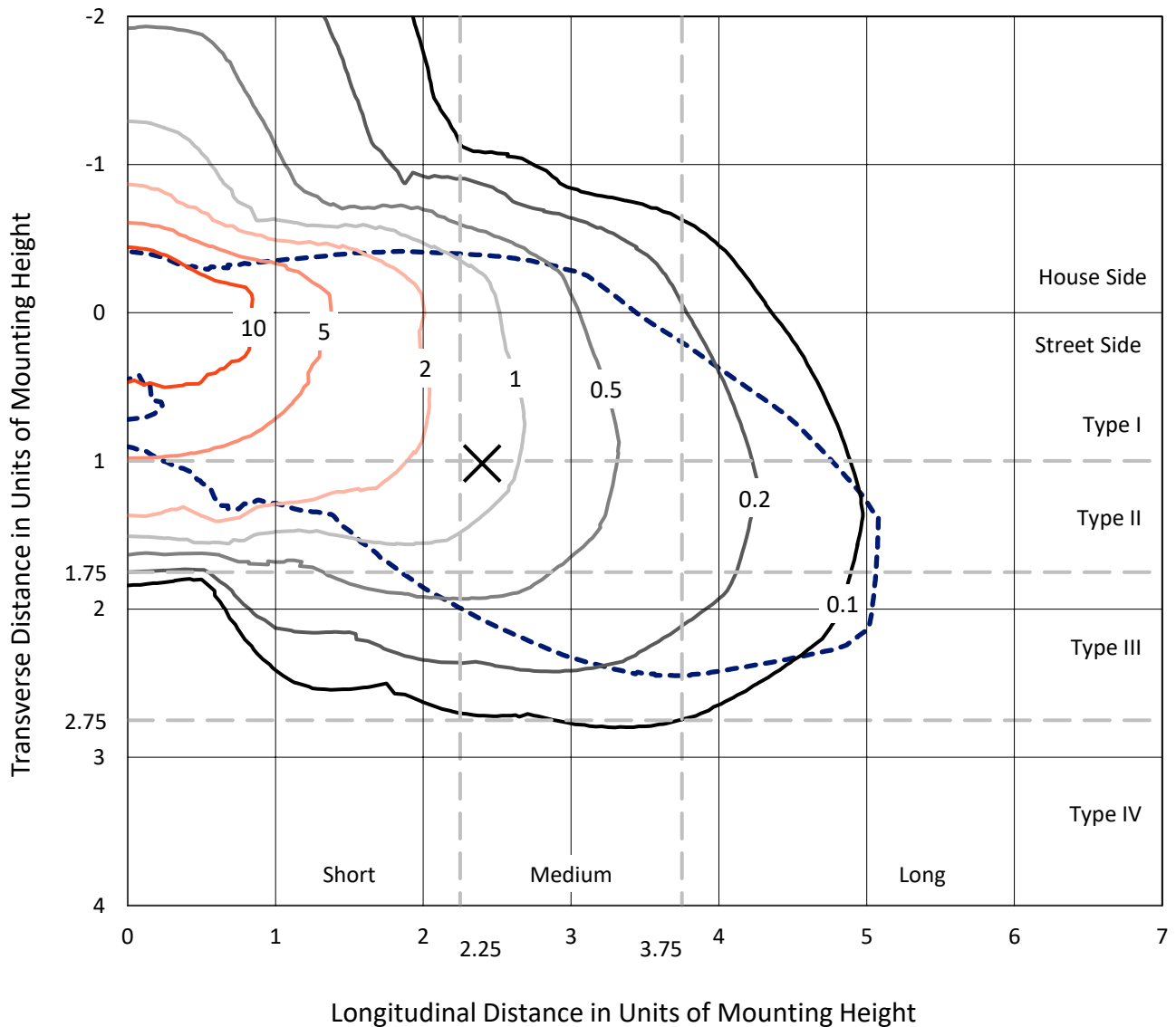
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

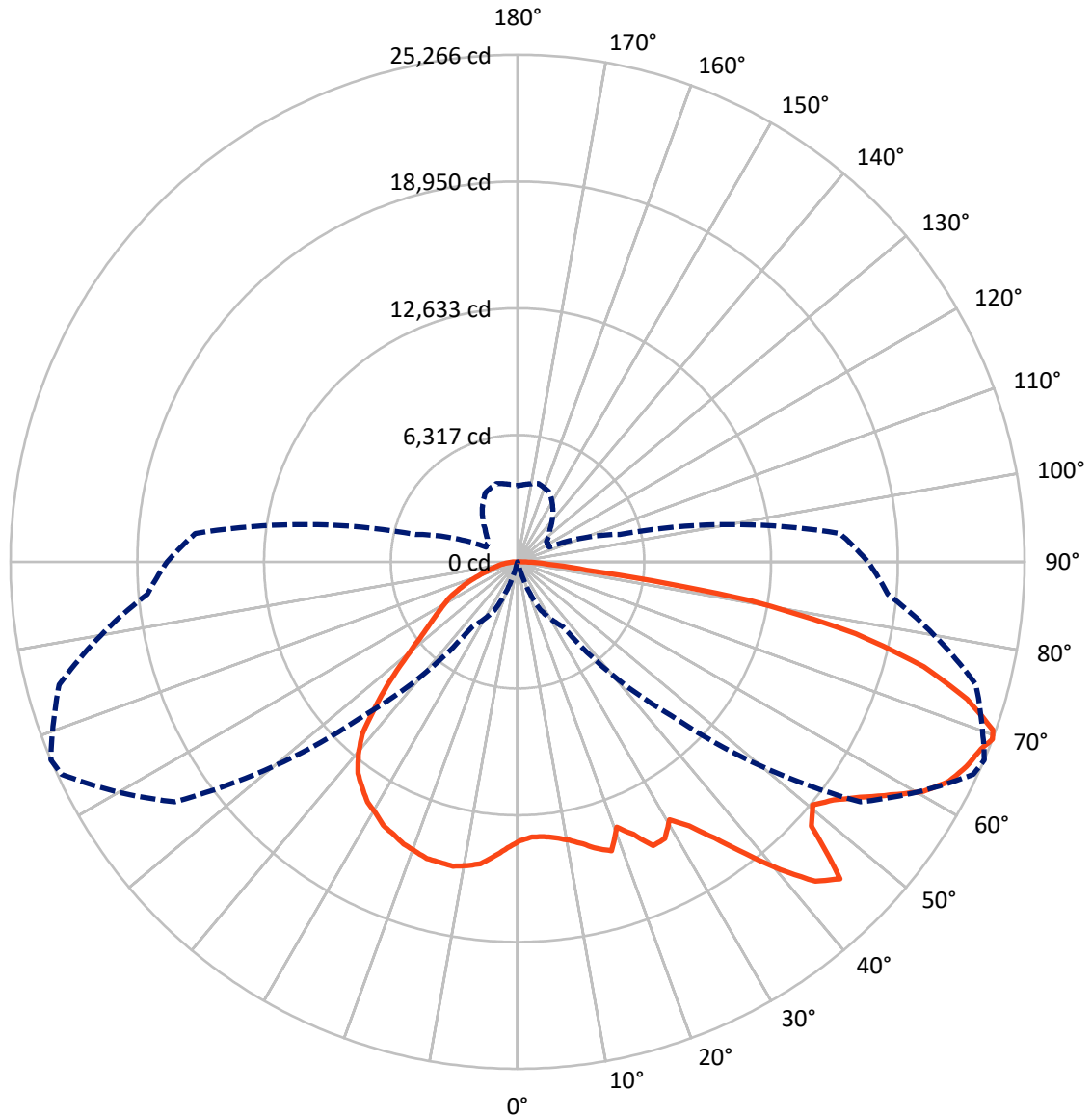
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17.4 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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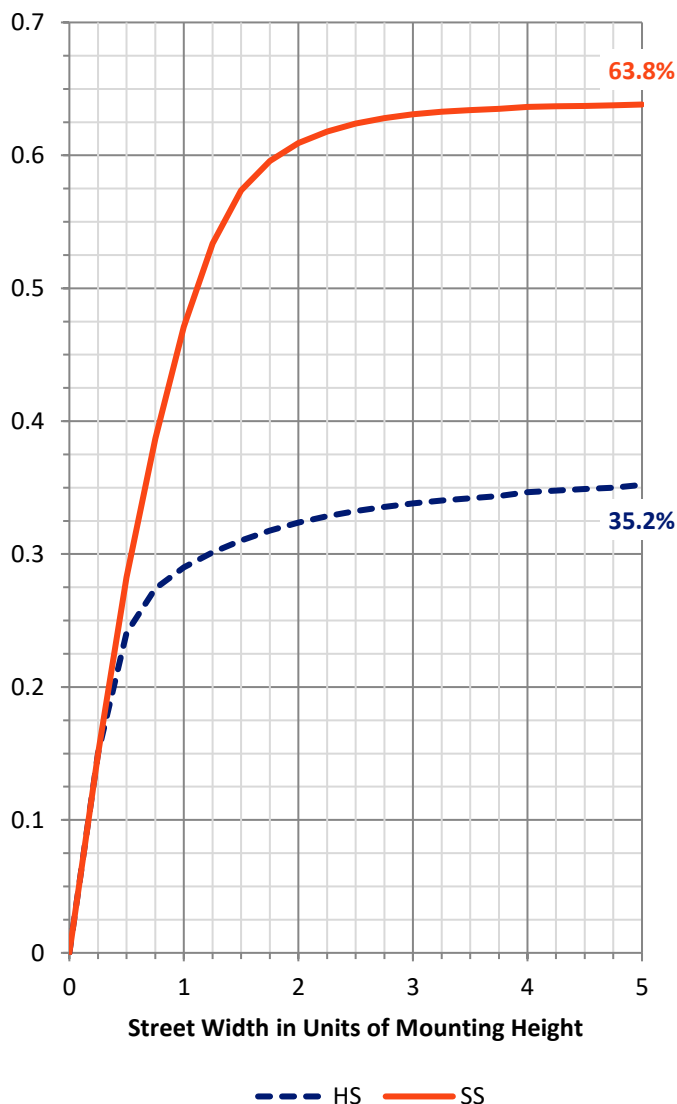
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	19961.1	0.0	19961.1
	% Fixture	36.2	0.0	36.2
<b>Street Side</b>	Lumens	35214.9	0.0	35214.9
	% Fixture	63.8	0.0	63.8
<b>Total</b>	Lumens	55176.0	0.0	55176.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1390.0	2.5
10°-20°	4291.3	7.8
20°-30°	6333.7	11.5
30°-40°	7957.9	14.4
40°-50°	9334.2	16.9
50°-60°	9767.5	17.7
60°-70°	8726.2	15.8
70°-80°	6141.6	11.1
80°-90°	1233.6	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°	55176.0	100.0
0°-180°	55176.0	100.0

**Coefficient of Utilization**

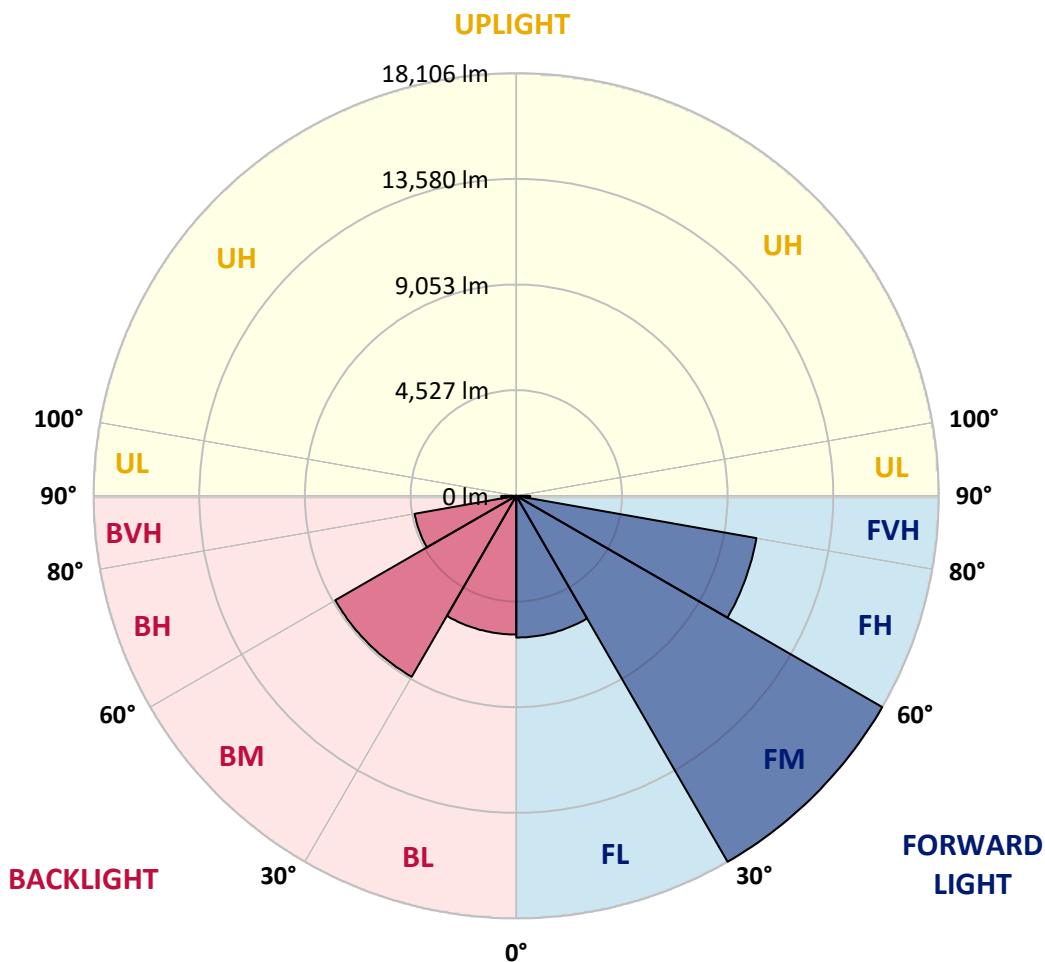


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6071.9	11.0			
FM (30°-60°)	18106.3	32.8			
FH (60°-80°)	10447.2	18.9			G4/12000
FVH (80°-90°)	589.5	1.1			G4/750
BL (0°-30°)	5943.1	10.8	B5		
BM (30°-60°)	8953.3	16.2	B5		
BH (60°-80°)	4420.6	8.0	B4/5000		G4/5000
BVH (80°-90°)	644.1	1.2			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	13899.3	13899.3	13899.3	13899.3	13899.3	13899.3	13899.3	13899.3	13899.3	13899.3	13899.3
2.5°	13568.5	13488.6	13525.7	13631.2	13411.6	13568.5	13511.5	13671.2	13731.0	13722.5	13950.6
5°	13676.9	13588.5	13602.7	13682.6	13443.0	13565.6	13511.5	13688.3	13756.7	13736.7	14047.6
7.5°	14061.8	13964.9	13933.5	13959.2	13699.7	13793.8	13676.9	13819.4	13893.6	13893.6	14247.2
10°	14669.3	14552.3	14483.9	14481.0	14175.9	14133.1	13990.5	14056.1	14110.3	14155.9	14549.5
12.5°	15305.2	15208.2	15119.8	15071.4	14669.3	14569.4	14361.3	14409.8	14426.9	14489.6	14880.3
15°	15884.1	15787.1	15761.5	15684.5	15285.2	15119.8	14829.0	14806.1	14829.0	14866.0	15253.9
17.5°	15661.7	15667.4	15809.9	15824.2	15305.2	14923.1	14720.6	15105.6	15142.6	15436.4	15687.3
20°	15239.6	15031.4	14284.3	13876.5	13936.4	14432.6	14064.7	14047.6	14124.6	14646.4	15918.3
22.5°	12693.0	12578.9	12989.6	13120.8	13594.2	13782.4	14657.9	14680.7	14757.7	14757.7	15128.4
25°	10959.2	11549.5	12348.0	13773.8	13625.5	13662.6	14019.1	15533.3	15678.8	15675.9	15621.7
27.5°	11329.9	11255.7	12450.6	13346.1	14404.0	14338.5	13950.6	14980.1	15624.6	16731.1	16474.4
30°	11774.8	11720.6	11809.0	13323.2	15077.1	15165.5	14806.1	14700.6	14920.2	17244.4	17449.7
32.5°	12188.3	12122.7	12222.5	12453.5	14133.1	16018.1	15741.5	15613.2	15693.0	16160.7	18704.4
35°	12553.3	12547.6	12661.6	12935.4	14367.0	16314.7	16699.7	16691.1	16905.0	17307.1	18887.0
37.5°	12812.8	12809.9	12901.2	13220.6	13542.8	15068.5	17598.0	18108.4	18450.6	19046.7	18450.6
40°	12809.9	12855.6	13095.1	13505.8	13933.5	14392.6	17994.4	19773.8	20184.5	20609.4	19617.0
42.5°	12541.9	12567.5	12989.6	13751.0	14281.4	14677.8	16420.2	21305.2	21764.3	21733.0	20535.3
45°	12293.8	12305.2	12775.7	13711.1	14572.3	15288.1	16098.0	21299.5	22540.0	22733.9	21399.3
47.5°	11971.5	11971.5	12436.4	13480.1	14834.7	15975.3	16959.2	18399.3	19694.0	23600.9	22115.1
50°	11558.0	11609.4	11039.0	13240.5	14960.1	16628.4	17689.2	18875.5	19055.2	21105.6	22779.6
52.5°	10899.3	10870.8	8626.5	12975.3	15011.5	17101.8	18447.8	19619.8	19716.8	19511.5	22129.4
55°	6869.8	7659.7	7628.4	12664.5	14980.1	17406.9	19029.5	20438.3	20712.1	20461.1	18616.0
57.5°	4149.3	3961.0	6519.0	11774.8	12031.4	17643.6	19819.5	21681.6	21921.2	21339.4	18929.7
60°	1619.8	1528.5	1651.1	5358.4	8632.2	16414.5	20894.6	23002.0	23230.1	22175.0	19194.9
62.5°	202.5	174.0	148.3	3710.1	5486.7	12194.0	21464.9	24065.7	24108.5	22779.6	19246.3
65°	28.5	31.4	57.0	3308.0	4984.8	11985.8	21664.5	24499.1	24587.5	23215.9	19072.3
67.5°	11.4	14.3	45.6	2877.4	4374.5	11432.6	21171.2	24798.6	24901.2	23637.9	18904.1
69°	11.4	14.3	45.6	2586.5	3958.2	10822.3	20854.6	25063.8	25266.3	23646.5	18519.1
70°	11.4	14.3	42.8	2378.3	3633.1	10306.1	20549.5	24961.1	25123.7	23418.3	18091.3
72.5°	11.4	14.3	42.8	1830.8	2763.3	8275.7	18618.9	23506.7	23424.0	21981.1	16425.9
75°	14.3	14.3	42.8	1286.1	1916.4	5886.0	15713.0	20874.6	20911.7	19568.5	13816.6
77.5°	14.3	14.3	42.8	818.4	1209.1	3405.0	11378.4	17118.9	17224.4	16303.3	10346.0
80°	14.3	14.3	42.8	373.6	750.0	1779.5	5595.1	11155.9	11723.4	10944.9	5677.8
82.5°	14.3	14.3	39.9	233.8	410.6	801.3	2207.2	3499.1	3464.8	3410.7	1805.1
85°	11.4	11.4	31.4	165.4	273.8	464.8	1226.2	1568.4	1548.5	1371.7	932.5
87.5°	5.7	5.7	17.1	68.4	114.1	211.0	613.1	712.9	678.7	581.8	399.2
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°	13899.3	13899.3	13899.3	13899.3	13899.3	13899.3	13899.3	13899.3	13899.3	13899.3	13899.3
2.5°	14056.1	14076.1	14170.2	14292.8	14329.9	14489.6	14515.3	14777.6	14817.5	14883.1	14911.7
5°	14198.7	14275.7	14481.0	14769.1	15014.3	15265.3	15273.8	15593.2	15675.9	15658.8	15741.5
7.5°	14401.2	14529.5	14843.2	15242.5	15330.9	15656.0	15633.1	15949.7	15955.4	15909.8	16035.2
10°	14712.0	14871.7	15156.9	15402.2	15570.4	15781.4	15752.9	16052.3	16009.6	15961.1	16100.8
12.5°	15031.4	15114.1	15288.1	15561.8	15598.9	15673.1	15636.0	15912.6	15867.0	15807.1	15944.0
15°	15310.9	15350.8	15350.8	15499.1	15405.0	15464.9	15339.4	15561.8	15456.3	15427.8	15559.0
17.5°	15673.1	15607.5	15473.4	15462.0	15216.8	15125.5	14937.3	14997.2	14797.6	14817.5	14886.0
20°	16080.9	15935.4	15581.8	15228.2	14774.8	14558.0	14184.5	14155.9	13970.6	13936.4	14002.0
22.5°	16232.0	16360.3	15713.0	15028.6	14247.2	13762.4	13320.4	13109.4	12838.5	12664.5	12687.3
25°	16691.1	16922.1	15912.6	14672.1	13625.5	12827.0	12162.6	11680.7	11272.9	11064.7	11107.5
27.5°	17312.8	17689.2	16026.7	14424.0	12809.9	11766.2	10654.0	10021.0	9598.9	9382.2	9376.5
30°	18202.5	18675.9	16246.3	13905.0	11903.1	10371.7	9000.0	8252.9	7907.8	7765.2	7776.6
32.5°	19314.7	19885.1	16702.5	13471.5	10916.4	8880.3	7317.5	6664.5	6507.6	6482.0	6467.7
35°	20789.1	21353.7	17064.7	12804.2	9636.0	7189.2	5874.5	5412.6	5438.2	5432.5	5449.6
37.5°	20549.5	22691.2	17478.2	12151.2	8104.6	5635.0	4748.1	4488.6	4497.2	4597.0	4616.9
40°	19648.4	21521.9	18094.2	11070.4	6313.7	4328.9	3744.3	3684.4	3929.7	4149.3	4189.2
42.5°	20355.6	20817.6	18176.9	9904.0	4619.8	3319.4	3131.2	3379.3	3775.7	4029.5	4075.1
45°	21062.8	21436.4	17697.8	8158.8	3313.7	2840.3	2980.0	3336.5	3775.7	4046.6	4078.0
47.5°	21781.5	21778.6	17138.8	6541.9	2709.1	2714.8	2943.0	3339.4	3798.5	4072.3	4089.4
50°	22237.7	22055.2	15678.8	5124.5	2520.9	2640.7	2923.0	3356.5	3792.8	3992.4	4001.0
52.5°	22465.9	22195.0	14389.8	4095.1	2432.5	2580.8	2925.9	3396.4	3761.4	3872.6	3866.9
55°	22080.9	22118.0	13323.2	3405.0	2349.8	2532.3	2940.1	3424.9	3775.7	3889.7	3889.7
57.5°	21601.8	21610.4	12473.4	2883.1	2267.1	2492.4	2957.2	3467.7	4038.0	4251.9	4220.5
60°	21265.3	20880.3	11270.0	2555.1	2173.0	2455.3	2980.0	3653.1	4654.0	4870.7	4796.6
62.5°	20712.1	20190.2	10032.4	2327.0	2067.5	2426.8	2994.3	3912.6	4736.7	4748.1	4565.6
65°	19742.5	18995.3	8098.9	2101.7	1959.1	2386.9	2985.8	4009.5	4363.1	4192.0	4140.7
67.5°	18339.4	17364.1	6347.9	1876.4	1839.4	2327.0	3042.8	3832.7	4120.7	3981.0	3912.6
69°	17463.9	16126.5	5270.0	1742.4	1762.4	2281.4	3071.3	3798.5	4035.2	3864.1	3784.2
70°	16799.5	15054.2	4462.9	1654.0	1696.8	2241.5	3014.3	3778.5	3995.3	3784.2	3690.1
72.5°	14264.3	12102.7	2857.4	1448.7	1525.7	2141.6	2860.3	3653.1	3906.9	3764.3	3647.4
75°	11027.6	8888.8	1822.3	1260.5	1351.7	1993.4	2700.6	3564.7	3946.8	3690.1	3433.5
77.5°	7423.0	4964.8	1391.6	1058.0	1146.4	1799.4	2446.8	3316.6	3809.9	3584.6	3268.1
80°	3382.1	1893.5	1075.1	858.4	926.8	1448.7	2110.3	2934.4	3601.7	3598.9	3370.7
82.5°	1354.6	1266.2	798.5	655.9	730.0	1080.8	1671.1	2512.4	3176.8	3313.7	3539.0
85°	789.9	798.5	530.4	456.3	544.7	795.6	1192.0	1942.0	2583.7	2857.4	3048.5
87.5°	322.2	359.3	248.1	239.5	299.4	424.9	547.5	941.1	1391.6	1708.2	1825.1
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)