

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: P591319

Luminaire Tested: **CTN-CA10-630-730-U-T3-SSS-HM-EX90**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591319  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-7)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-630-730-U-T3-SSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE, 90D 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: 62752 lumens  
Efficiency: N/A  
Efficacy: 99.4 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type III - Medium  
BUG Rating: B5 - U0 - G5

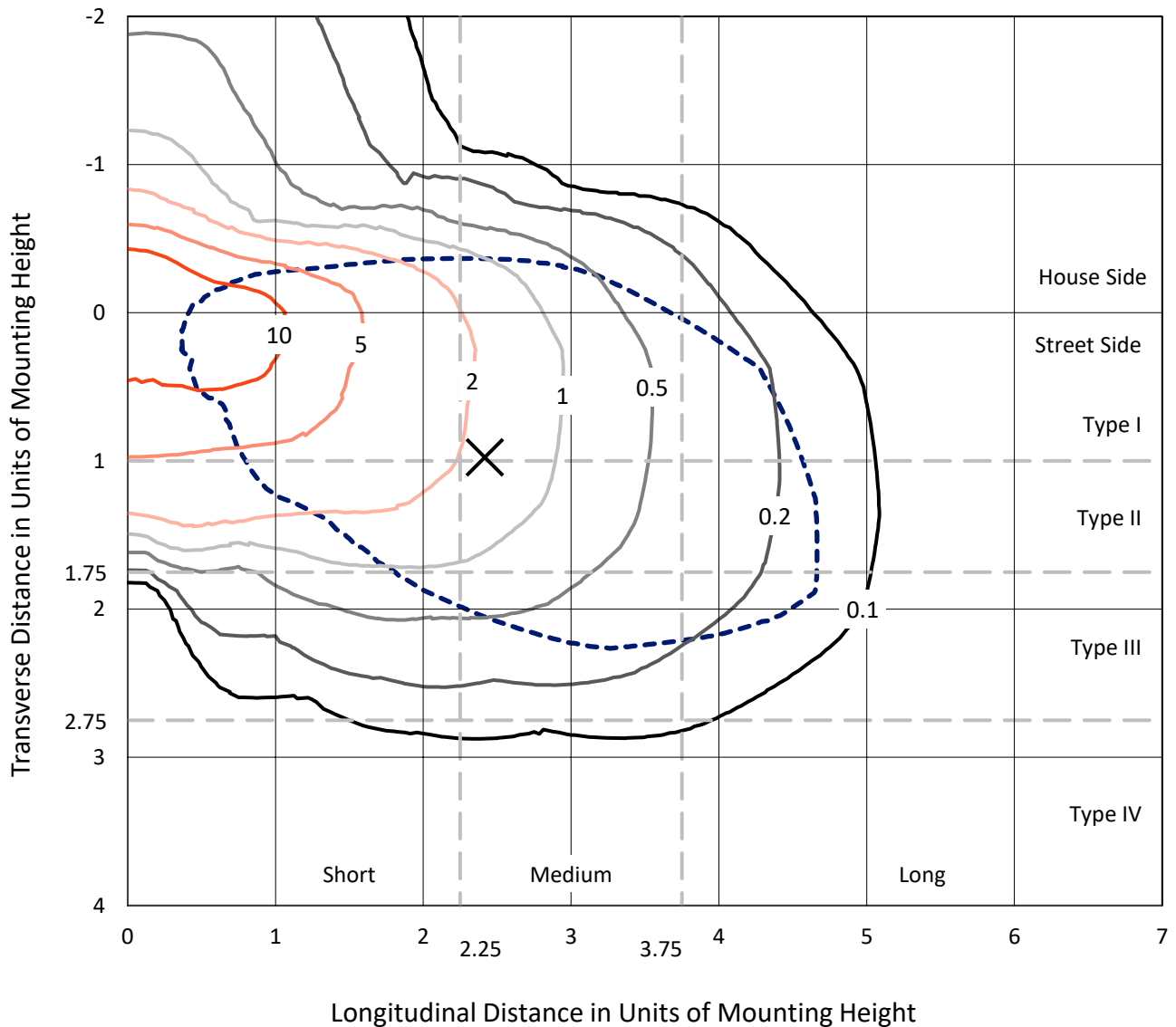
Input Watts (W): 631.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

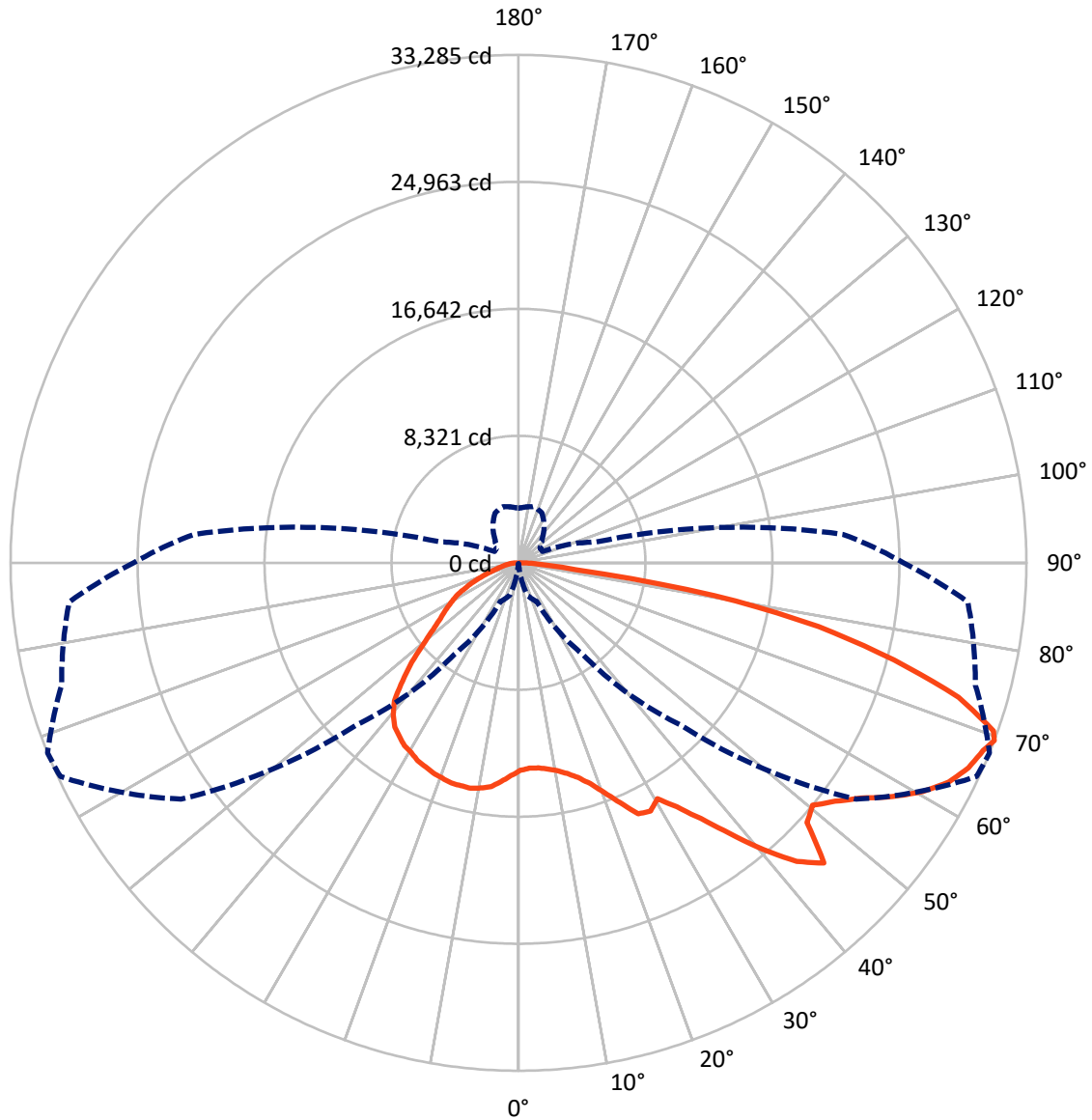
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 16.8 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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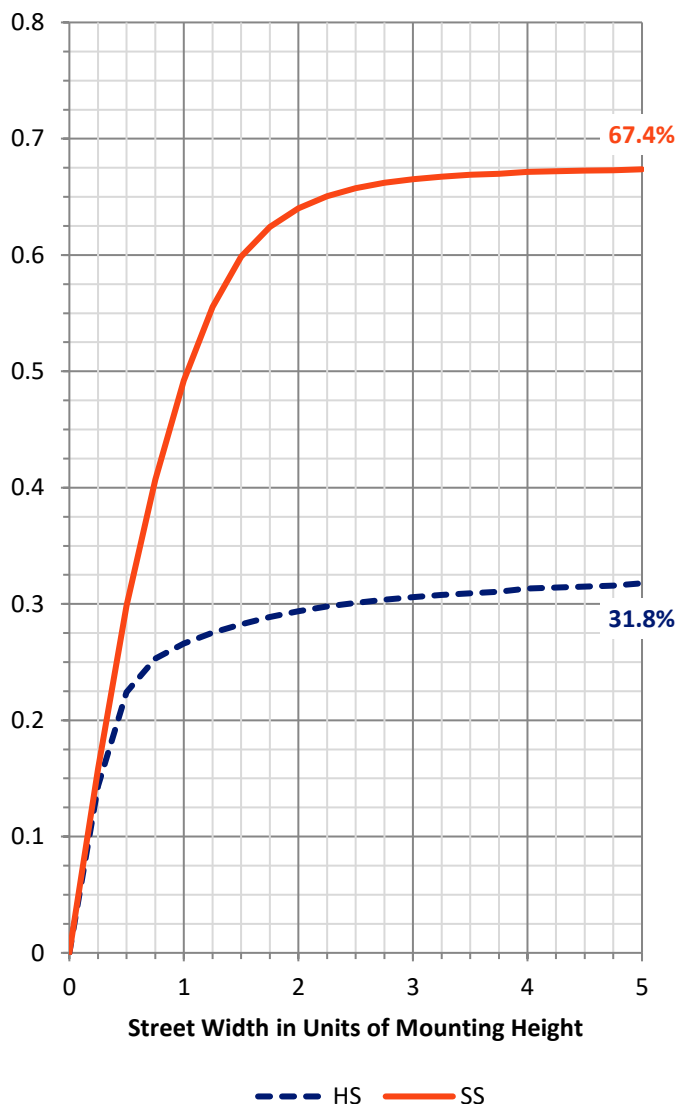
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	20468.8	0.0	20468.8
	% Fixture	32.6	0.0	32.6
<b>Street Side</b>	Lumens	42283.2	0.0	42283.2
	% Fixture	67.4	0.0	67.4
<b>Total</b>	Lumens	62752.0	0.0	62752.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1358.6	2.2
10°-20°	4203.6	6.7
20°-30°	6463.0	10.3
30°-40°	8394.2	13.4
40°-50°	10361.4	16.5
50°-60°	11636.8	18.5
60°-70°	11372.7	18.1
70°-80°	7637.1	12.2
80°-90°	1324.6	2.1
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°	62752.0	100.0
0°-180°	62752.0	100.0

**Coefficient of Utilization**

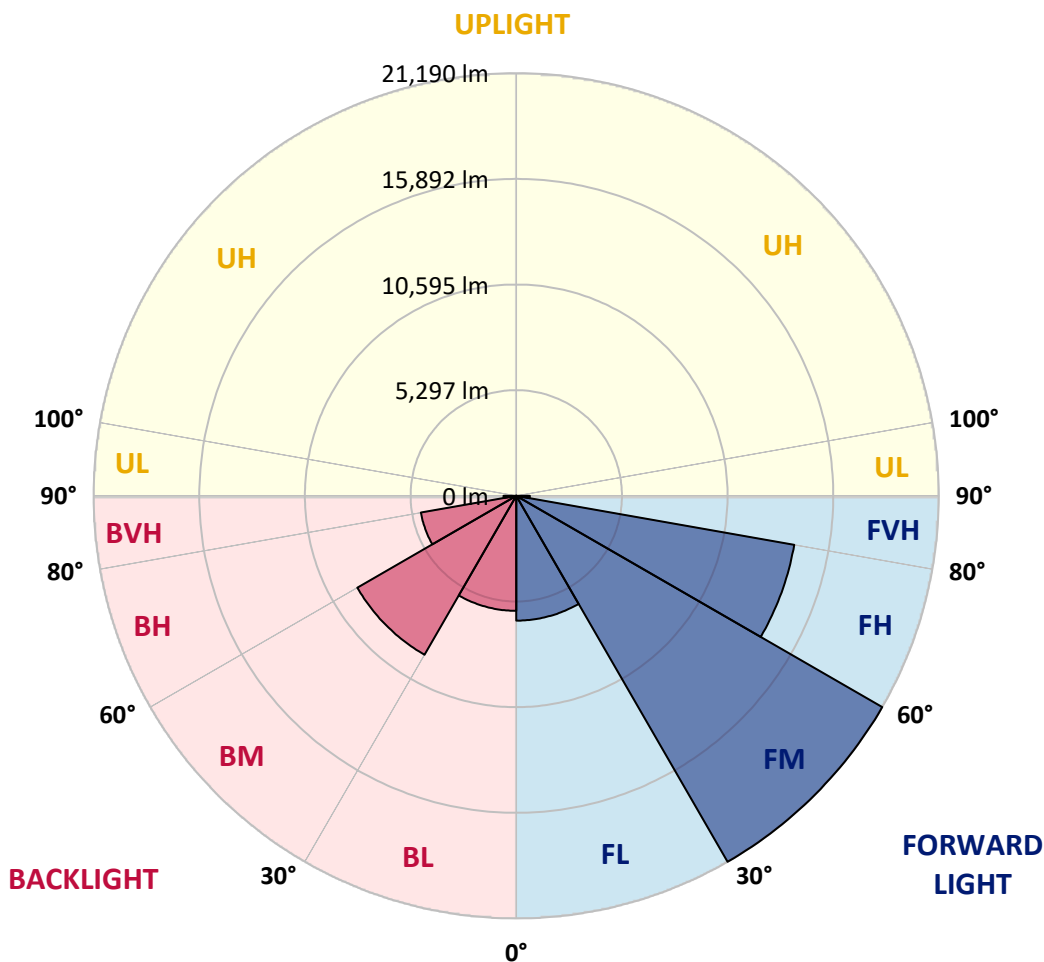


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6257.0	10.0			
FM (30°-60°)	21189.8	33.8			
FH (60°-80°)	14153.7	22.6			G5
FVH (80°-90°)	682.7	1.1			G4/750
BL (0°-30°)	5768.3	9.2	B5		
BM (30°-60°)	9202.7	14.7	B5		
BH (60°-80°)	4856.0	7.7	B4/5000		G4/5000
BVH (80°-90°)	641.8	1.0			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G5**  
 Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	13602.8	13602.8	13602.8	13602.8	13602.8	13602.8	13602.8	13602.8	13602.8	13602.8	13602.8
2.5°	13328.4	13247.1	13278.0	13390.0	13163.1	13311.6	13241.5	13392.8	13471.2	13437.6	13650.4
5°	13454.4	13364.8	13370.4	13448.8	13205.1	13331.2	13252.7	13415.2	13502.0	13454.4	13740.0
7.5°	13838.0	13740.0	13712.0	13706.4	13476.8	13572.0	13415.2	13546.8	13636.4	13611.2	13933.2
10°	14426.0	14308.4	14255.2	14224.4	13950.0	13922.0	13726.0	13784.8	13852.0	13880.0	14227.2
12.5°	15072.8	14913.2	14879.6	14787.2	14434.4	14372.8	14134.8	14162.8	14162.8	14227.2	14571.6
15°	15621.6	15490.0	15490.0	15394.8	15050.4	14963.6	14636.0	14602.4	14596.8	14647.2	14955.2
17.5°	15268.8	15196.0	15131.6	15084.0	14552.0	14412.0	15299.6	15240.8	15212.8	15263.2	15442.4
20°	14084.4	14280.4	13866.0	13280.8	13364.8	15050.4	16153.6	16047.2	16064.0	16114.4	16064.0
22.5°	12395.9	11911.5	12673.1	12883.1	13233.1	14479.2	16932.0	17044.0	17077.7	17080.5	16817.2
25°	10623.5	10892.3	11925.5	13527.2	13482.4	14521.2	16458.8	18052.1	18220.1	18203.3	17746.9
27.5°	11133.1	11082.7	11880.7	12933.5	14263.6	15411.6	16750.0	17458.5	18421.7	19488.5	18869.7
30°	11578.3	11536.3	11620.3	13093.1	14778.8	16302.0	17839.3	17724.5	17928.9	19860.9	20194.1
32.5°	11975.9	11945.1	12043.1	12205.5	13922.0	17262.5	19006.9	18984.5	19054.5	19205.7	21756.6
35°	12351.1	12353.9	12474.3	12740.3	14031.2	17461.3	20160.5	20398.5	20583.3	20916.6	21487.8
37.5°	12608.7	12614.3	12709.5	13031.5	13572.0	16478.4	21328.2	22176.6	22507.0	23106.2	22297.0
40°	12605.9	12647.9	12877.5	13297.6	14020.0	15828.8	21689.4	24192.6	24724.7	25161.5	23800.6
42.5°	12342.7	12365.1	12793.5	13552.4	14417.6	16321.6	20566.5	26158.3	26749.1	26628.7	25043.9
45°	12101.9	12096.3	12583.5	13518.8	14773.2	16999.2	20717.7	26102.3	28065.1	27919.5	26186.3
47.5°	11779.9	11788.3	12303.5	13373.2	15098.0	17724.5	21837.8	23736.2	25435.9	29028.4	27115.9
50°	11376.7	11427.1	11950.7	13151.9	15260.4	18402.1	22806.6	24775.1	24976.7	26071.5	28025.9
52.5°	10707.5	10617.9	11572.7	12897.1	15375.2	18894.9	23730.6	25771.9	25962.3	25564.7	28952.8
55°	6079.0	7543.4	11099.5	12600.3	15408.8	19191.7	24447.4	26905.9	27202.7	26827.5	29706.0
57.5°	3819.3	3936.9	9615.5	11813.5	15126.0	19376.5	25326.7	28462.8	28902.4	28009.1	30277.2
60°	1352.4	1458.8	4676.1	5423.7	12398.7	18866.9	26665.1	30296.8	30442.4	29120.8	30697.2
62.5°	142.8	187.6	3169.7	3981.7	9626.7	17410.9	27589.1	31772.4	31640.8	29944.0	30924.0
65°	50.4	70.0	2786.1	3561.7	8960.2	16957.2	27894.3	32402.5	32399.7	30470.4	30761.6
67.5°	39.2	53.2	2422.1	3094.1	7997.0	15985.6	27387.5	32875.7	32830.9	30991.2	30333.2
69°	39.2	56.0	2181.3	2788.9	7299.8	15056.0	26995.5	33124.9	33284.5	30999.6	29557.6
70°	39.2	56.0	2027.3	2576.1	6731.4	14204.8	26432.7	32934.5	33015.7	30730.8	28754.0
72.5°	39.2	56.0	1570.8	1993.7	5118.5	10934.3	23156.6	30011.2	30165.2	28370.3	25841.9
75°	39.2	56.0	1106.0	1450.4	3360.1	7336.2	18438.5	24996.3	25413.5	23977.0	21174.2
77.5°	39.2	56.0	660.8	991.2	2108.5	4026.5	12687.1	19158.1	20101.7	18763.3	15134.4
80°	39.2	53.2	310.8	540.4	1201.2	2133.7	5813.0	11793.9	13023.1	11737.9	7915.8
82.5°	39.2	53.2	254.8	389.2	607.6	1061.2	2270.9	3864.1	3794.1	3407.7	2550.9
85°	36.4	47.6	210.0	285.6	436.8	672.0	1265.6	1573.6	1500.8	1327.2	1335.6
87.5°	25.2	28.0	72.8	128.8	176.4	333.2	613.2	666.4	680.4	568.4	596.4
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°	13602.8	13602.8	13602.8	13602.8	13602.8	13602.8	13602.8	13602.8	13602.8	13602.8	13602.8
2.5°	13751.2	13768.0	13849.2	13994.8	13992.0	14148.8	14106.8	14470.8	14484.8	14479.2	14507.2
5°	13877.2	13972.4	14151.6	14462.4	14641.6	14876.8	14832.0	15198.8	15221.2	15190.4	15268.8
7.5°	14095.6	14213.2	14507.2	14890.8	14938.4	15235.2	15173.6	15470.4	15456.4	15400.4	15534.8
10°	14403.6	14543.6	14809.6	15028.0	15165.2	15338.8	15271.6	15523.6	15476.0	15414.4	15543.2
12.5°	14717.2	14784.4	14932.8	15179.2	15190.4	15229.6	15151.2	15355.6	15302.4	15210.0	15344.4
15°	15016.8	15025.2	15000.0	15112.0	14994.4	15019.6	14848.8	14977.6	14885.2	14843.2	14930.0
17.5°	15406.0	15305.2	15126.0	15078.4	14801.2	14683.6	14431.6	14426.0	14263.6	14204.8	14263.6
20°	15873.6	15655.2	15240.8	14846.0	14367.2	14126.4	13698.0	13583.2	13451.6	13325.6	13395.6
22.5°	16520.4	16097.6	15383.6	14647.2	13854.8	13381.6	12855.1	12530.3	12283.9	12040.3	12113.1
25°	17256.9	16666.0	15585.2	14308.4	13241.5	12404.3	11721.1	11166.7	10813.9	10458.3	10617.9
27.5°	18253.7	17438.9	15708.4	14056.4	12443.5	11320.7	10231.5	9509.1	9142.2	8887.4	8806.2
30°	19415.7	18438.5	15929.6	13560.8	11505.5	9987.9	8604.6	7798.2	7409.0	7288.6	7339.0
32.5°	20832.5	19653.7	16380.4	13146.3	10553.5	8573.8	6961.0	6331.0	6051.0	6031.4	6025.8
35°	22728.2	21205.0	16766.8	12502.3	9293.4	6924.6	5538.5	5017.7	5006.5	4998.1	5017.7
37.5°	24184.2	22784.2	17178.5	11872.3	7798.2	5406.9	4429.7	4113.3	4079.7	4177.7	4202.9
40°	25332.3	23915.4	17794.5	10808.3	6045.4	4037.7	3402.1	3284.5	3522.5	3738.1	3782.9
42.5°	26368.3	24867.5	17928.9	9674.3	4404.5	3099.7	2819.7	3015.7	3382.5	3628.9	3676.5
45°	27339.9	25867.1	17416.5	7988.6	3150.1	2626.5	2682.5	2976.5	3388.1	3651.3	3679.3
47.5°	28401.1	26536.3	16862.0	6423.4	2590.1	2517.3	2654.5	2990.5	3421.7	3687.7	3701.7
50°	29101.2	27015.1	15476.0	5023.3	2427.7	2450.1	2643.3	3021.3	3427.3	3617.7	3628.9
52.5°	29386.8	27398.7	14221.6	4020.9	2346.5	2399.7	2657.3	3074.5	3413.3	3519.7	3514.1
55°	29566.0	27575.1	13143.5	3346.1	2273.7	2360.5	2682.5	3113.7	3444.1	3553.3	3553.3
57.5°	29451.2	27180.3	12342.7	2850.5	2200.9	2332.5	2713.3	3172.5	3735.3	3928.5	3908.9
60°	29367.2	26441.1	11205.9	2517.3	2114.1	2301.7	2752.5	3376.9	4356.9	4552.9	4488.5
62.5°	28933.2	25816.7	9973.9	2304.5	2016.1	2284.9	2786.1	3651.3	4443.7	4432.5	4306.5
65°	27827.1	24545.4	8030.6	2088.9	1915.3	2262.5	2797.3	3771.7	4088.1	3911.7	3875.3
67.5°	26259.1	22711.4	6336.6	1873.2	1803.2	2214.9	2889.7	3628.9	3889.3	3738.1	3682.1
69°	25234.3	21353.4	5264.1	1738.8	1730.4	2175.7	2926.1	3614.9	3816.5	3645.7	3572.9
70°	24408.2	20177.3	4544.5	1652.0	1674.4	2144.9	2889.7	3612.1	3785.7	3572.9	3491.7
72.5°	20863.4	16346.8	2934.5	1444.8	1509.2	2063.7	2752.5	3519.7	3721.3	3581.3	3469.3
75°	16167.6	11900.3	1898.5	1248.8	1335.6	1926.5	2615.3	3460.9	3780.1	3525.3	3284.5
77.5°	10374.3	6367.4	1470.0	1050.0	1148.0	1733.2	2368.9	3222.9	3670.9	3441.3	3130.5
80°	4519.3	2363.3	1134.0	851.2	929.6	1408.4	2032.9	2864.5	3480.5	3455.3	3245.3
82.5°	1918.1	1523.2	873.6	652.4	739.2	1041.6	1593.2	2455.7	3074.5	3194.9	3424.5
85°	1086.4	912.8	582.4	448.0	548.8	767.2	1134.0	1884.4	2503.3	2774.9	2968.1
87.5°	467.6	380.8	268.8	240.8	310.8	397.6	487.2	884.8	1335.6	1629.6	1752.8
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)