

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: 768833\_320MP

Luminaire Tested: **GSM-AM-320-MP-MT-AS-FG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: 768833\_320MP  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GSM-AM-320-MP-MT-AS-FG  
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-VERTICAL LAMP-SQUARE DISTRIBUTION  
Light Source: 320 WATT PULSE-START CLEAR ED-37 VBU BURN  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 33000 (1 lamp)  
Luminaire Lumens: 24140.1 lumens  
Efficiency: 73.2%  
Efficacy: 69.0 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2

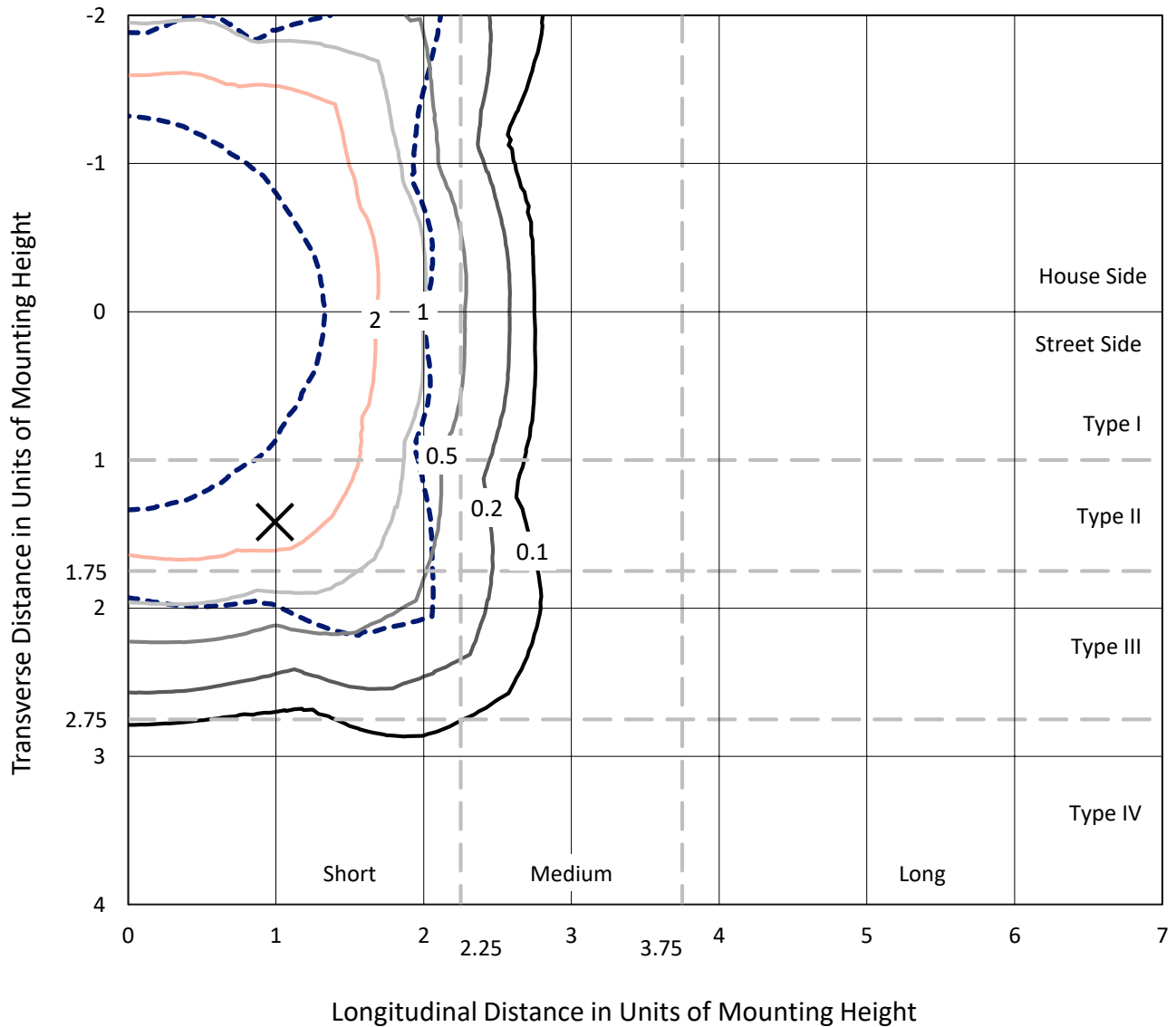
Input Watts (W): 350  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

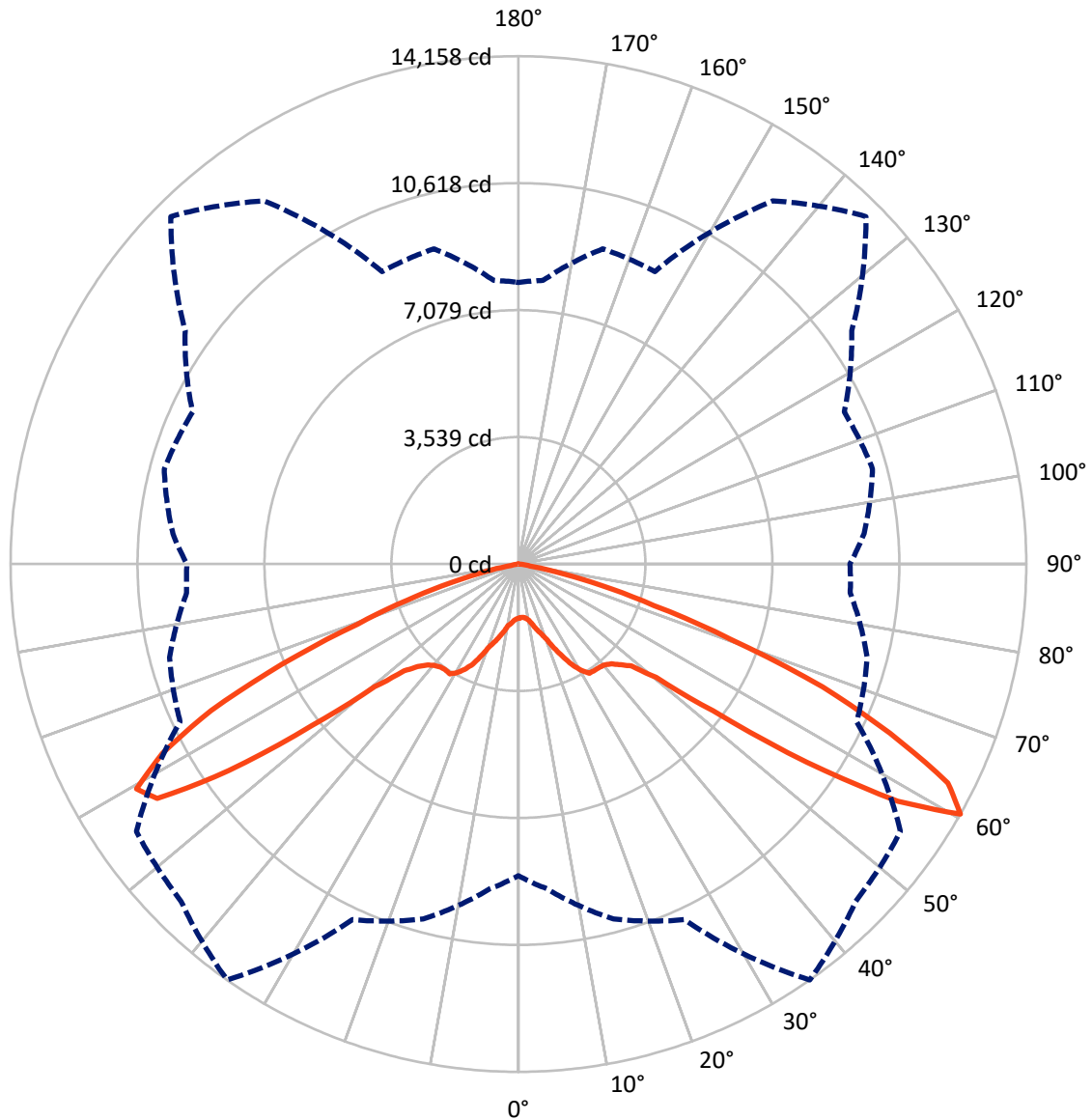
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 60-Deg Vertical

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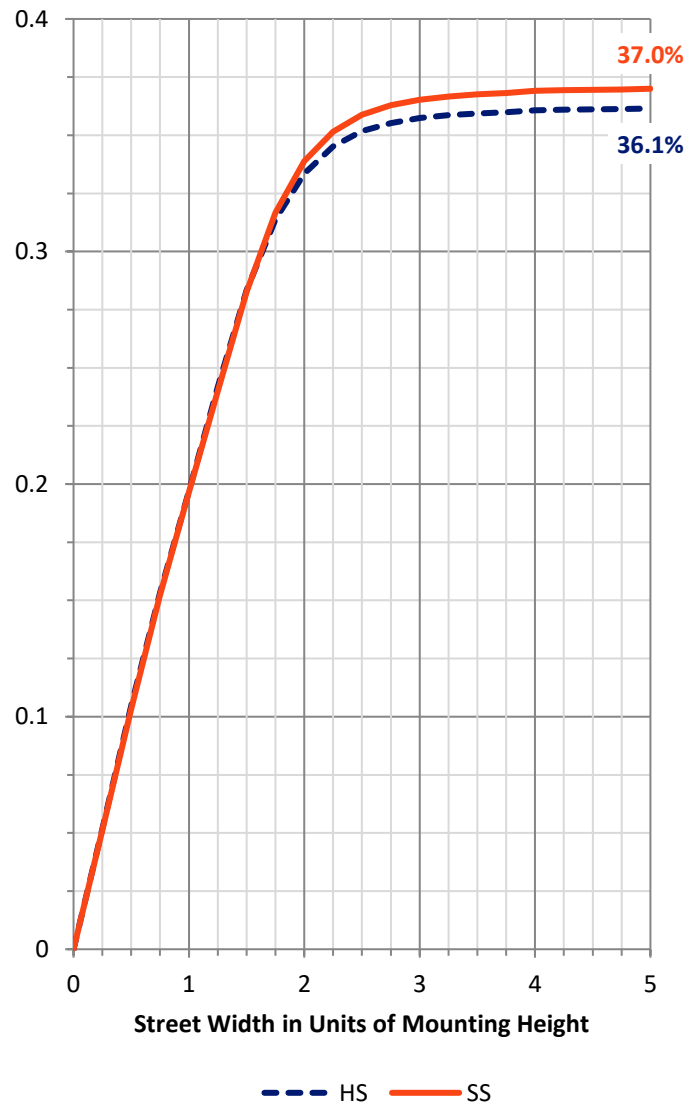
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11927.1	0.0	11927.1
	% Lamp	36.1	0.0	36.1
<b>Street Side</b>	Lumens	12213.0	0.0	12213.0
	% Lamp	37.0	0.0	37.0
<b>Total</b>	Lumens	24140.1	0.0	24140.1
	% Lamp	73.2	0.0	73.2

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	151.7	0.6	0.5
10°-20°	585.3	2.4	1.8
20°-30°	1386.8	5.7	4.2
30°-40°	2268.0	9.4	6.9
40°-50°	3273.2	13.6	9.9
50°-60°	7651.5	31.7	23.2
60°-70°	7354.6	30.5	22.3
70°-80°	1427.6	5.9	4.3
80°-90°	41.5	0.2	0.1
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	24140.1	100.0	73.2
0°-180°	24140.1	100.0	73.2



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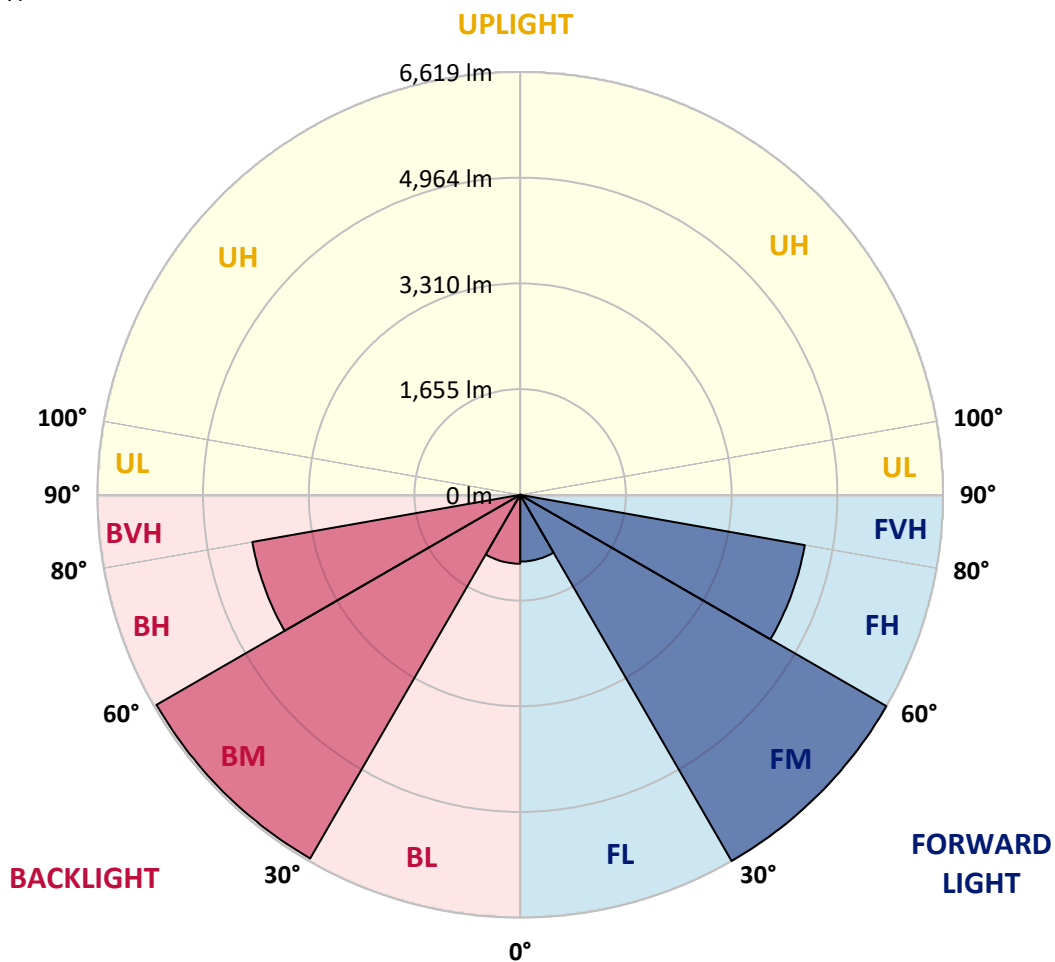
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1045.0	3.2			
FM	(30°-60°)	6619.3	20.1			
FH	(60°-80°)	4524.7	13.7			G2/5000
FVH	(80°-90°)	24.1	0.1			G1/100
BL	(0°-30°)	1078.8	3.3	B3/2500		
BM	(30°-60°)	6573.4	19.9	B4/8500		
BH	(60°-80°)	4257.5	12.9	B4/5000		G2/5000
BVH	(80°-90°)	17.4	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		8859.9	26.8			

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1510.7	1510.7	1510.7	1510.7	1510.7	1510.7	1510.7	1510.7	1510.7	1510.7	1510.7
2.5°	1497.8	1492.3	1479.5	1492.3	1492.3	1492.3	1497.8	1504.2	1497.8	1504.2	1517.1
5°	1485.9	1492.3	1492.3	1497.8	1497.8	1497.8	1517.1	1522.6	1529.0	1535.4	1535.4
7.5°	1510.7	1510.7	1504.2	1504.2	1529.0	1541.8	1566.6	1578.5	1578.5	1591.3	1596.8
10°	1584.9	1578.5	1578.5	1578.5	1591.3	1609.7	1640.8	1665.6	1690.3	1715.1	1720.6
12.5°	1708.7	1702.2	1702.2	1715.1	1720.6	1771.0	1826.0	1875.5	1913.1	1925.0	1925.0
15°	1906.7	1913.1	1888.3	1894.8	1888.3	1913.1	1956.2	1999.2	2024.0	2048.8	2048.8
17.5°	1969.0	1969.0	1962.6	1987.3	2036.8	2092.8	2160.6	2234.8	2290.8	2321.9	2327.4
20°	2241.2	2234.8	2228.4	2241.2	2234.8	2290.8	2389.8	2475.9	2525.4	2531.8	2538.2
22.5°	2563.0	2556.6	2563.0	2563.0	2538.2	2606.1	2717.9	2810.5	2848.1	2860.0	2866.4
25°	2884.8	2860.0	2841.7	2872.8	2848.1	2897.6	3021.3	3102.0	3120.3	3132.2	3126.8
27.5°	3132.2	3120.3	3095.6	3151.5	3163.4	3176.2	3318.3	3355.0	3336.7	3330.2	3287.2
30°	3343.1	3336.7	3330.2	3392.6	3435.7	3473.2	3541.1	3547.5	3491.6	3429.2	3410.9
32.5°	3479.7	3466.8	3498.0	3565.8	3628.2	3714.3	3707.9	3696.0	3578.7	3485.2	3460.4
35°	3628.2	3590.6	3621.8	3683.2	3646.5	3732.7	3763.8	3795.0	3683.2	3584.2	3584.2
37.5°	3801.4	3751.9	3732.7	3727.2	3658.4	3702.4	3788.6	3826.2	3788.6	3707.9	3727.2
40°	3999.4	3943.5	3881.2	3813.3	3696.0	3671.2	3844.5	3906.8	3900.4	3826.2	3831.7
42.5°	4197.4	4141.5	4080.1	3949.9	3806.9	3727.2	3943.5	4036.1	4011.3	3937.1	3906.8
45°	4433.0	4370.7	4364.2	4154.3	4005.8	3906.8	4123.2	4215.8	4184.6	4085.6	4067.2
47.5°	4568.7	4537.5	4618.2	4444.9	4240.5	4191.0	4488.0	4550.3	4408.2	4253.3	4240.5
50°	4840.9	4829.0	4989.4	5008.7	4971.1	4896.8	5423.0	5441.3	5051.8	4754.8	4748.3
52.5°	6215.9	6196.7	6419.4	6519.3	6791.6	6302.1	6785.2	6785.2	6468.9	6320.4	6270.9
55°	8295.8	8345.3	8698.2	8624.0	9762.5	8487.4	9162.1	8809.2	8586.4	8580.0	8518.6
57.5°	9026.4	9317.0	9986.2	10153.0	12474.0	11162.2	11360.2	9973.3	9713.0	9546.2	9404.1
60°	8691.8	9087.8	10245.6	10939.5	14157.9	13298.1	13001.1	10406.9	10065.9	9285.8	9242.8
62.5°	6971.2	7286.6	8500.2	9509.5	13440.2	13415.4	11929.5	9001.7	8648.8	7621.2	7546.9
65°	4989.4	5162.7	5967.5	6803.5	11385.0	11979.0	9831.2	6797.1	6655.0	5930.8	5868.5
67.5°	3429.2	3534.7	3875.7	4383.5	9150.2	10054.0	7590.0	4433.0	4339.5	3875.7	3782.2
70°	1720.6	1727.0	1845.2	2259.6	6259.0	7855.8	5126.0	2191.8	1919.5	1628.0	1572.1
72.5°	693.0	712.2	811.2	1442.8	3956.3	5441.3	3361.4	984.5	755.3	618.8	600.4
75°	384.1	408.8	458.3	1045.9	2371.4	2971.8	2178.9	687.5	458.3	359.3	340.1
77.5°	247.5	297.0	272.2	507.8	1045.9	1164.2	1120.2	420.8	285.1	210.8	210.8
80°	99.0	117.3	142.1	235.6	328.2	414.3	260.3	166.8	130.2	92.6	92.6
82.5°	37.6	43.1	49.5	92.6	87.1	117.3	74.2	43.1	43.1	24.8	24.8
85°	0.0	0.0	6.4	12.8	18.3	24.8	12.8	6.4	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1510.7	1510.7	1510.7	1510.7	1510.7	1510.7	1510.7	1510.7	1510.7	1510.7
2.5°	1517.1	1517.1	1522.6	1522.6	1522.6	1529.0	1522.6	1529.0	1529.0	1535.4
5°	1541.8	1553.8	1553.8	1553.8	1566.6	1578.5	1584.9	1596.8	1603.2	1609.7
7.5°	1596.8	1603.2	1616.1	1634.4	1652.8	1665.6	1690.3	1695.8	1702.2	1695.8
10°	1720.6	1733.4	1739.8	1746.2	1751.8	1739.8	1746.2	1764.6	1764.6	1758.2
12.5°	1925.0	1919.5	1906.7	1881.9	1894.8	1913.1	1913.1	1919.5	1919.5	1919.5
15°	2055.2	2055.2	2068.0	2055.2	2073.5	2092.8	2104.7	2104.7	2123.0	2129.4
17.5°	2333.8	2315.5	2302.7	2266.0	2266.0	2266.0	2241.2	2241.2	2210.1	2216.5
20°	2544.7	2544.7	2531.8	2500.7	2488.8	2451.2	2445.7	2457.6	2439.2	2426.4
22.5°	2853.6	2848.1	2823.3	2798.6	2779.3	2749.1	2705.1	2674.8	2643.7	2625.3
25°	3120.3	3107.5	3089.2	3077.2	3077.2	3064.4	2952.6	2884.8	2860.0	2848.1
27.5°	3280.8	3318.3	3305.5	3336.7	3305.5	3293.6	3157.0	3082.8	3033.2	3021.3
30°	3379.8	3479.7	3466.8	3522.8	3578.7	3479.7	3318.3	3225.8	3151.5	3120.3
32.5°	3435.7	3541.1	3590.6	3652.9	3806.9	3608.9	3435.7	3336.7	3163.4	3145.1
35°	3547.5	3565.8	3671.2	3646.5	3788.6	3584.2	3491.6	3367.8	3219.3	3219.3
37.5°	3683.2	3640.1	3677.7	3646.5	3714.3	3597.0	3509.9	3473.2	3355.0	3367.8
40°	3770.2	3739.1	3727.2	3671.2	3689.6	3664.8	3633.7	3658.4	3572.2	3565.8
42.5°	3875.7	3862.8	3838.1	3739.1	3763.8	3782.2	3844.5	3906.8	3813.3	3801.4
45°	4030.6	4024.2	3993.0	3925.2	3925.2	4005.8	4110.3	4203.8	4147.9	4098.4
47.5°	4203.8	4222.2	4389.0	4308.3	4234.1	4364.2	4550.3	4618.2	4692.4	4631.0
50°	4741.9	4865.7	5398.2	5342.3	5008.7	5268.1	5497.2	5423.0	5342.3	5237.8
52.5°	6369.9	6556.0	7150.0	7403.9	6983.2	7323.2	7075.8	6803.5	6630.2	6524.8
55°	8747.8	8734.9	9031.9	9459.1	9249.2	9923.8	8914.6	8611.2	8444.3	8357.2
57.5°	9775.3	9998.1	10072.3	11007.3	11917.6	12003.8	9651.6	9422.4	8624.0	8493.8
60°	9669.9	10220.8	10022.8	11341.9	13700.5	12356.7	8995.2	9094.2	7936.5	7850.3
62.5°	7998.8	8858.7	8754.2	10505.9	13898.5	11236.5	7596.4	8140.9	6648.6	6648.6
65°	6171.9	6704.5	6630.2	8809.2	12653.7	9496.7	5937.2	6562.4	5503.7	5621.0
67.5°	3986.6	4135.1	4172.7	6772.3	10586.6	7169.2	3652.9	4055.3	3473.2	3565.8
70°	1572.1	1677.5	1789.3	4636.5	8406.8	4785.9	1683.9	1900.2	1541.8	1596.8
72.5°	594.0	916.7	916.7	3361.4	5967.5	3275.2	928.6	922.2	631.6	631.6
75°	377.7	544.5	618.8	2284.3	2965.4	1987.3	550.9	507.8	371.2	346.5
77.5°	247.5	260.3	384.1	1065.2	1176.1	916.7	321.8	247.5	216.3	198.0
80°	80.7	123.8	161.3	241.1	340.1	204.4	166.8	117.3	87.1	87.1
82.5°	24.8	31.2	43.1	55.9	80.7	55.9	49.5	24.8	12.8	12.8
85°	0.0	0.0	0.0	0.0	12.8	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)