

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: 769004\_320MP

Luminaire Tested: **GSM-XX-320-MP-XX-FT-FG-XX-X**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: 769004\_320MP  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GSM-XX-320-MP-XX-FT-FG-XX-X  
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-HORIZONTAL LAMP-FORWARD THROW DISTRIBUTION  
Light Source: 320 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 30000 (1 lamp)  
Luminaire Lumens: 12982.8 lumens  
Efficiency: 43.3%  
Efficacy: 37.1 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type IV - Short - Full Cutoff  
BUG Rating: B3 - U0 - G2

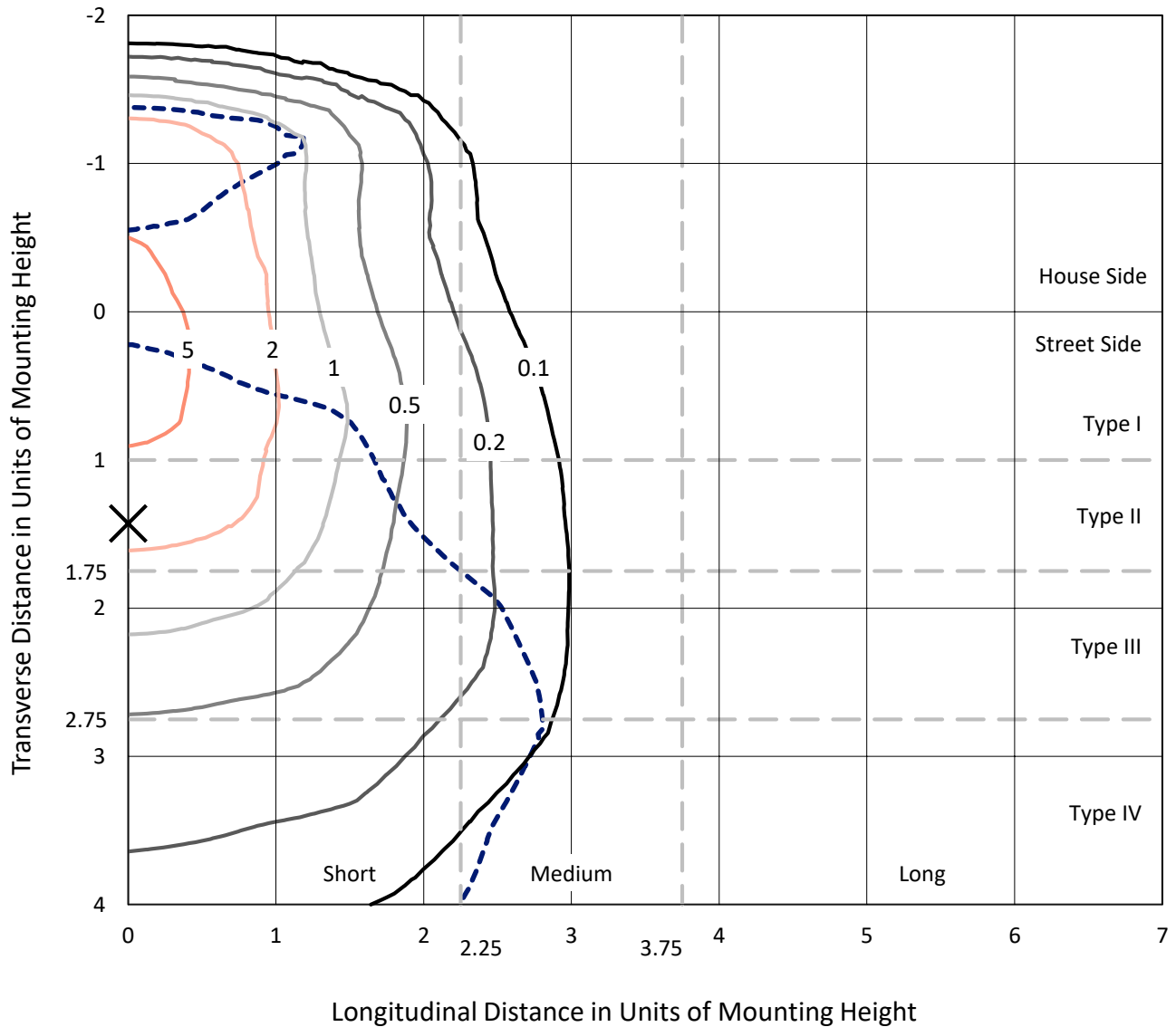
Input Watts (W): 350  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

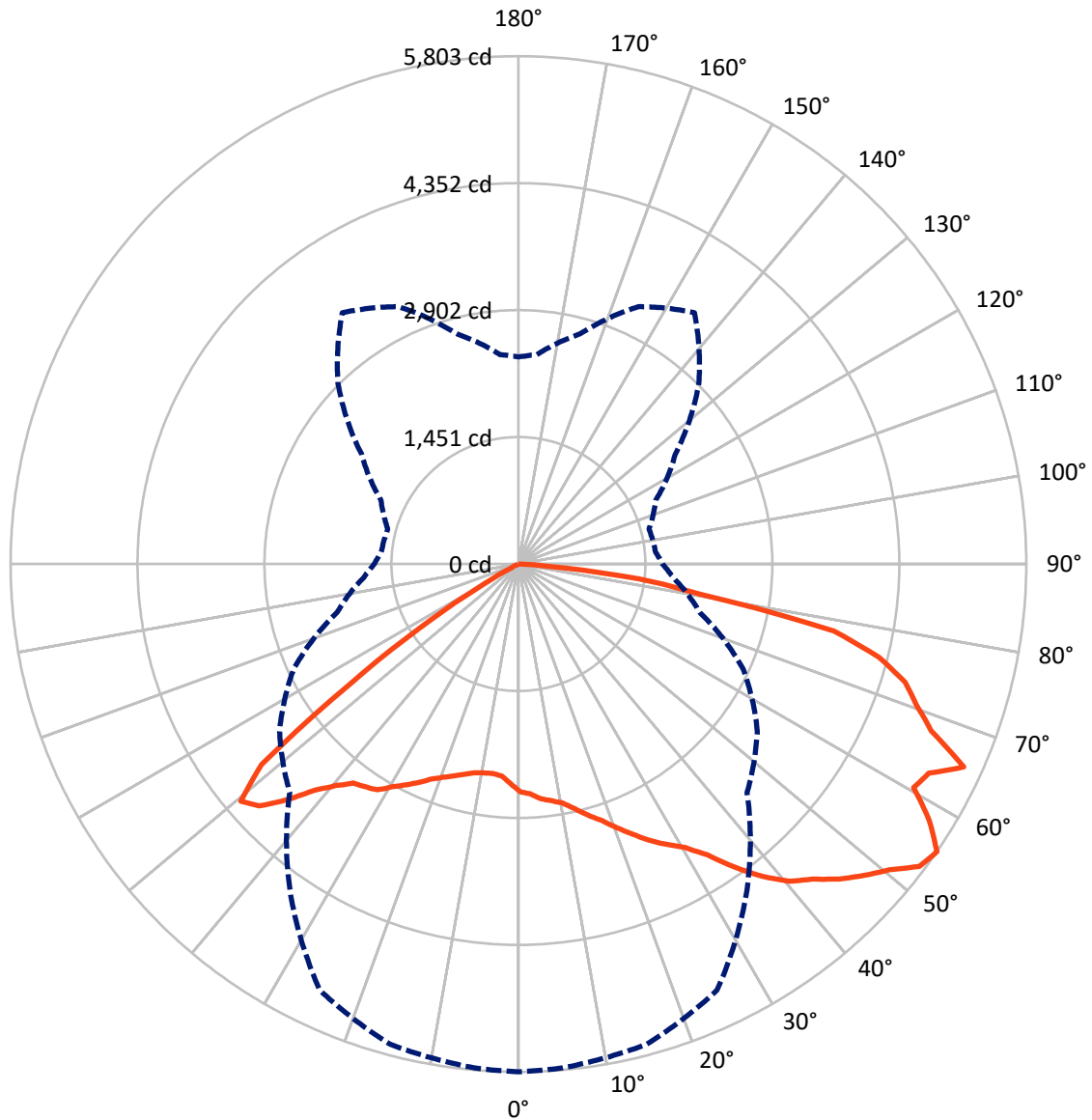
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.7 fc  
 Type IV - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 55-Deg Vertical

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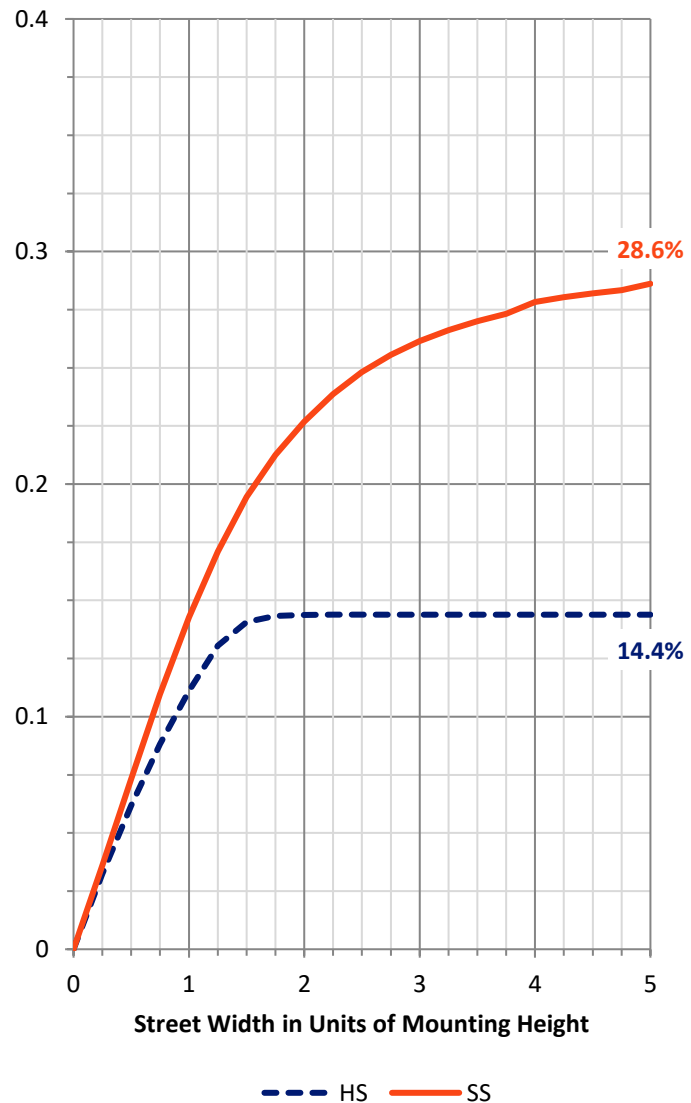
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4337.4	0.0	4337.4
	% Lamp	14.5	0.0	14.5
<b>Street Side</b>	Lumens	8645.4	0.0	8645.4
	% Lamp	28.8	0.0	28.8
<b>Total</b>	Lumens	12982.8	0.0	12982.8
	% Lamp	43.3	0.0	43.3

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	246.4	1.9	0.8
10°-20°	736.9	5.7	2.5
20°-30°	1251.8	9.6	4.2
30°-40°	1833.9	14.1	6.1
40°-50°	2464.8	19.0	8.2
50°-60°	2766.0	21.3	9.2
60°-70°	2171.5	16.7	7.2
70°-80°	1332.9	10.3	4.4
80°-90°	178.7	1.4	0.6
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°	12982.8	100.0	43.3
0°-180°	12982.8	100.0	43.3



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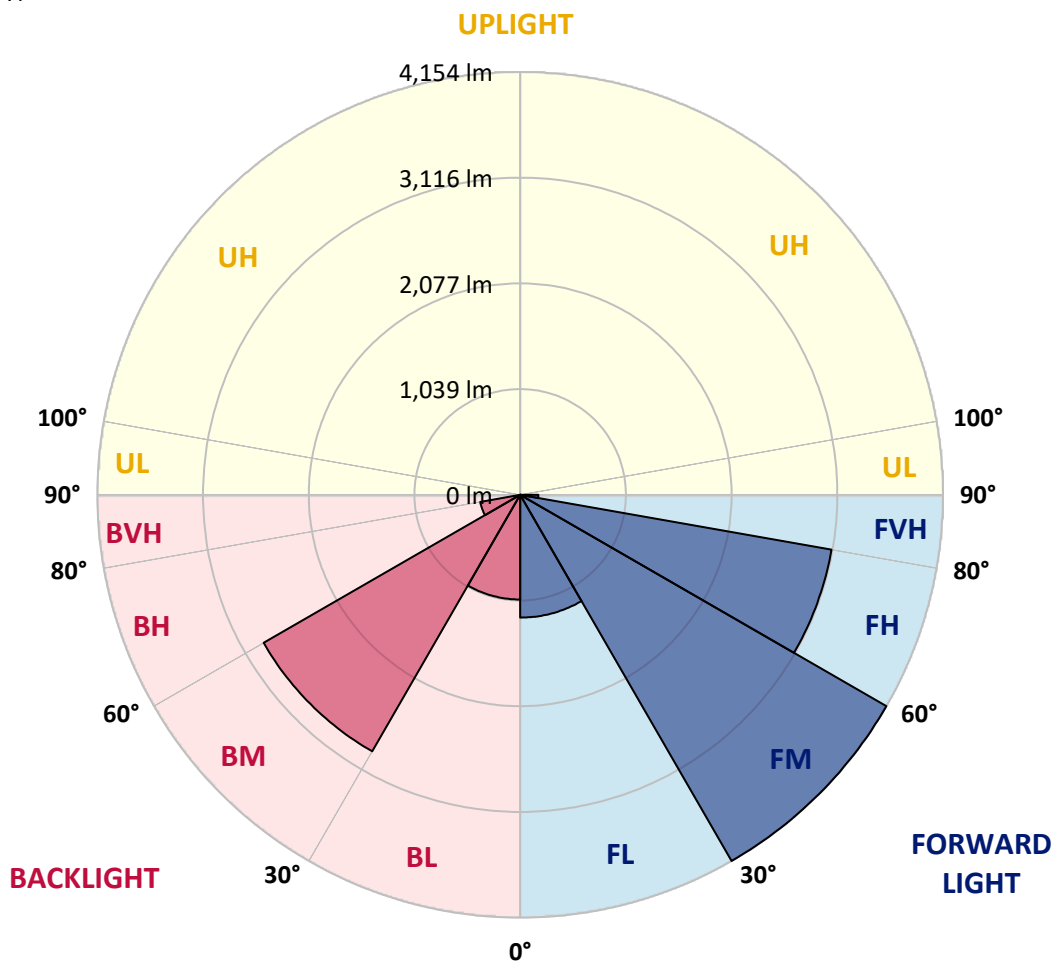
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1206.4	4.0			
FM	(30°-60°)	4154.5	13.8			
FH	(60°-80°)	3106.2	10.4			G2/5000
FVH	(80°-90°)	178.4	0.6			G2/225
BL	(0°-30°)	1028.6	3.4	B3/2500		
BM	(30°-60°)	2910.2	9.7	B3/5000		
BH	(60°-80°)	398.3	1.3	B1/500		G1/500
BVH	(80°-90°)	0.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		17017.2	56.7			

**BUG Rating: B3-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2603.3	2603.3	2603.3	2603.3	2603.3	2603.3	2603.3	2603.3	2603.3	2603.3	2603.3
2.5°	2630.8	2630.8	2635.8	2640.0	2654.2	2654.2	2630.8	2621.7	2612.5	2612.5	2617.5
5°	2695.0	2685.8	2685.8	2690.8	2700.0	2695.0	2663.3	2640.0	2621.7	2603.3	2608.3
7.5°	2731.7	2718.3	2718.3	2727.5	2731.7	2713.3	2672.5	2654.2	2621.7	2594.2	2590.0
10°	2777.5	2782.5	2773.3	2759.2	2740.8	2718.3	2681.7	2654.2	2621.7	2585.0	2571.7
12.5°	2869.2	2860.0	2846.7	2814.2	2777.5	2727.5	2676.7	2635.8	2603.3	2562.5	2539.2
15°	2979.2	2960.8	2947.5	2887.5	2828.3	2759.2	2685.8	2640.0	2603.3	2548.3	2507.5
17.5°	3080.0	3080.0	3030.0	2960.8	2896.7	2805.0	2695.0	2635.8	2599.2	2525.8	2480.0
20°	3217.5	3217.5	3149.2	3048.3	2942.5	2846.7	2718.3	2626.7	2575.8	2489.2	2438.3
22.5°	3355.0	3355.0	3277.5	3171.7	3034.2	2883.3	2740.8	2617.5	2557.5	2461.7	2392.5
25°	3501.7	3492.5	3410.0	3295.8	3135.0	2938.3	2759.2	2612.5	2535.0	2429.2	2360.8
27.5°	3630.8	3630.8	3530.0	3410.0	3245.0	3025.0	2777.5	2621.7	2507.5	2397.5	2324.2
30°	3759.2	3754.2	3653.3	3515.8	3345.8	3103.3	2819.2	2635.8	2489.2	2374.2	2296.7
32.5°	3960.8	3955.8	3823.3	3653.3	3442.5	3195.0	2865.0	2630.8	2461.7	2355.8	2269.2
35°	4254.2	4226.7	4089.2	3882.5	3566.7	3259.2	2896.7	2617.5	2429.2	2333.3	2241.7
37.5°	4529.2	4510.8	4386.7	4185.0	3745.0	3314.2	2947.5	2594.2	2392.5	2287.5	2209.2
40°	4767.5	4744.2	4593.3	4437.5	3983.3	3369.2	2984.2	2594.2	2355.8	2241.7	2172.5
42.5°	4923.3	4895.8	4753.3	4584.2	4157.5	3415.0	2993.3	2612.5	2324.2	2186.7	2099.2
45°	5134.2	5106.7	4964.2	4725.8	4185.0	3442.5	3034.2	2658.3	2310.0	2117.5	2049.2
47.5°	5317.5	5294.2	5161.7	4886.7	4135.0	3442.5	3085.0	2681.7	2245.8	2016.7	1934.2
50°	5491.7	5468.3	5308.3	5010.0	4171.7	3479.2	3190.0	2722.5	2190.8	1915.8	1829.2
52.5°	5739.2	5697.5	5500.8	5147.5	4290.8	3543.3	3300.0	2773.3	2159.2	1842.5	1732.5
55°	5803.3	5780.0	5679.2	5372.5	4551.7	3695.0	3332.5	2832.5	2145.0	1774.2	1645.8
57.5°	5537.5	5510.0	5510.0	5495.8	4973.3	3864.2	3323.3	2883.3	2163.3	1723.3	1576.7
60°	5189.2	5143.3	5115.8	5321.7	5230.0	3965.0	3235.8	2810.0	2122.5	1640.8	1471.7
62.5°	5262.5	5207.5	5010.0	5147.5	5079.2	3970.0	3103.3	2630.8	2016.7	1508.3	1334.2
65°	5592.5	5541.7	5436.7	5440.8	4735.0	3809.2	2910.8	2370.0	1838.3	1334.2	1173.3
67.5°	5088.3	5055.8	5180.0	5610.8	4735.0	3653.3	2700.0	2126.7	1631.7	1155.0	971.7
70°	4822.5	4790.0	4804.2	5165.8	4611.7	3644.2	2594.2	1888.3	1375.0	916.7	733.3
72.5°	4620.8	4538.3	4414.2	4918.3	4235.8	3781.7	2516.7	1650.0	1081.7	605.0	467.5
75°	4254.2	4153.3	3965.0	4221.7	3552.5	3217.5	2053.3	1205.8	600.8	344.2	256.7
77.5°	3685.8	3612.5	3465.0	3272.5	2635.8	2269.2	1453.3	738.3	311.7	206.7	155.8
80°	2117.5	2090.0	1985.0	1710.0	1402.5	1255.8	815.8	426.7	179.2	110.0	55.0
82.5°	1384.2	1356.7	1301.7	1173.3	870.8	509.2	265.8	115.0	45.8	18.3	5.0
85°	311.7	284.2	302.5	325.8	146.7	78.3	36.7	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	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°	2603.3	2603.3	2603.3	2603.3	2603.3	2603.3	2603.3	2603.3	2603.3	2603.3
2.5°	2617.5	2599.2	2590.0	2585.0	2562.5	2544.2	2539.2	2525.8	2516.7	2511.7
5°	2594.2	2575.8	2553.3	2525.8	2498.3	2475.0	2465.8	2443.3	2429.2	2429.2
7.5°	2566.7	2535.0	2502.5	2470.8	2443.3	2425.0	2425.0	2415.8	2406.7	2410.8
10°	2539.2	2493.3	2452.5	2429.2	2415.8	2406.7	2415.8	2420.0	2420.0	2420.0
12.5°	2502.5	2438.3	2401.7	2397.5	2392.5	2406.7	2420.0	2425.0	2434.2	2438.3
15°	2480.0	2406.7	2374.2	2383.3	2392.5	2410.8	2434.2	2470.8	2489.2	2484.2
17.5°	2429.2	2360.8	2337.5	2355.8	2383.3	2429.2	2470.8	2502.5	2530.0	2530.0
20°	2383.3	2310.0	2296.7	2337.5	2392.5	2434.2	2493.3	2548.3	2585.0	2585.0
22.5°	2337.5	2250.8	2260.0	2319.2	2397.5	2461.7	2539.2	2603.3	2654.2	2649.2
25°	2287.5	2205.0	2227.5	2310.0	2397.5	2493.3	2590.0	2681.7	2736.7	2740.8
27.5°	2241.7	2168.3	2205.0	2287.5	2397.5	2525.8	2663.3	2768.3	2828.3	2832.5
30°	2209.2	2135.8	2172.5	2278.3	2406.7	2590.0	2755.0	2865.0	2924.2	2924.2
32.5°	2177.5	2099.2	2154.2	2264.2	2434.2	2667.5	2860.0	2979.2	3039.2	3043.3
35°	2145.0	2085.8	2131.7	2250.8	2480.0	2786.7	2988.3	3075.8	3085.0	3089.2
37.5°	2131.7	2108.3	2122.5	2255.0	2544.2	2910.8	3085.0	3121.7	3130.8	3135.0
40°	2113.3	2154.2	2117.5	2273.3	2603.3	2960.8	3140.0	3222.5	3277.5	3281.7
42.5°	2071.7	2190.8	2108.3	2287.5	2640.0	2970.0	3208.3	3355.0	3470.0	3474.2
45°	2025.8	2168.3	2085.8	2300.8	2654.2	3011.7	3327.5	3561.7	3759.2	3777.5
47.5°	1906.7	2040.0	2016.7	2282.5	2658.3	3094.2	3492.5	3768.3	4015.8	4052.5
50°	1783.3	1865.8	1939.2	2245.8	2709.2	3268.3	3612.5	3910.0	4148.3	4171.7
52.5°	1664.2	1705.0	1851.7	2218.3	2795.8	3460.8	3616.7	3745.0	3731.7	3722.5
55°	1572.5	1545.0	1732.5	2186.7	2915.0	3506.7	3245.0	2722.5	2401.7	2365.0
57.5°	1490.0	1416.7	1645.8	2168.3	3057.5	3057.5	2016.7	1370.8	1343.3	1347.5
60°	1389.2	1274.2	1540.0	2131.7	2910.8	1810.8	1017.5	669.2	527.5	522.5
62.5°	1237.5	1127.5	1448.3	2049.2	2058.3	733.3	430.8	179.2	110.0	100.8
65°	1059.2	962.5	1325.0	1728.3	715.0	247.5	60.0	36.7	23.3	27.5
67.5°	857.5	770.0	1013.3	866.7	188.3	18.3	0.0	0.0	0.0	0.0
70°	610.0	463.3	573.3	210.8	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	335.0	210.8	174.2	27.5	0.0	0.0	0.0	0.0	0.0	0.0
75°	174.2	64.2	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	100.8	18.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	36.7	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	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)