

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: STREETWORKS

Report Number: P256715

Luminaire Tested: **CST-8-4-D-U-T5R-7030-HSS-HM-EX120**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P256715  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-6)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-8-4-D-U-T5R-7030-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 3000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED 120  
DEGREE SHIELD - BLACK  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32583.9 lumens  
Efficiency: N/A  
Efficacy: 100.3 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B4 - U2 - G5

Input Watts (W): 325  
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: 28.75 FT

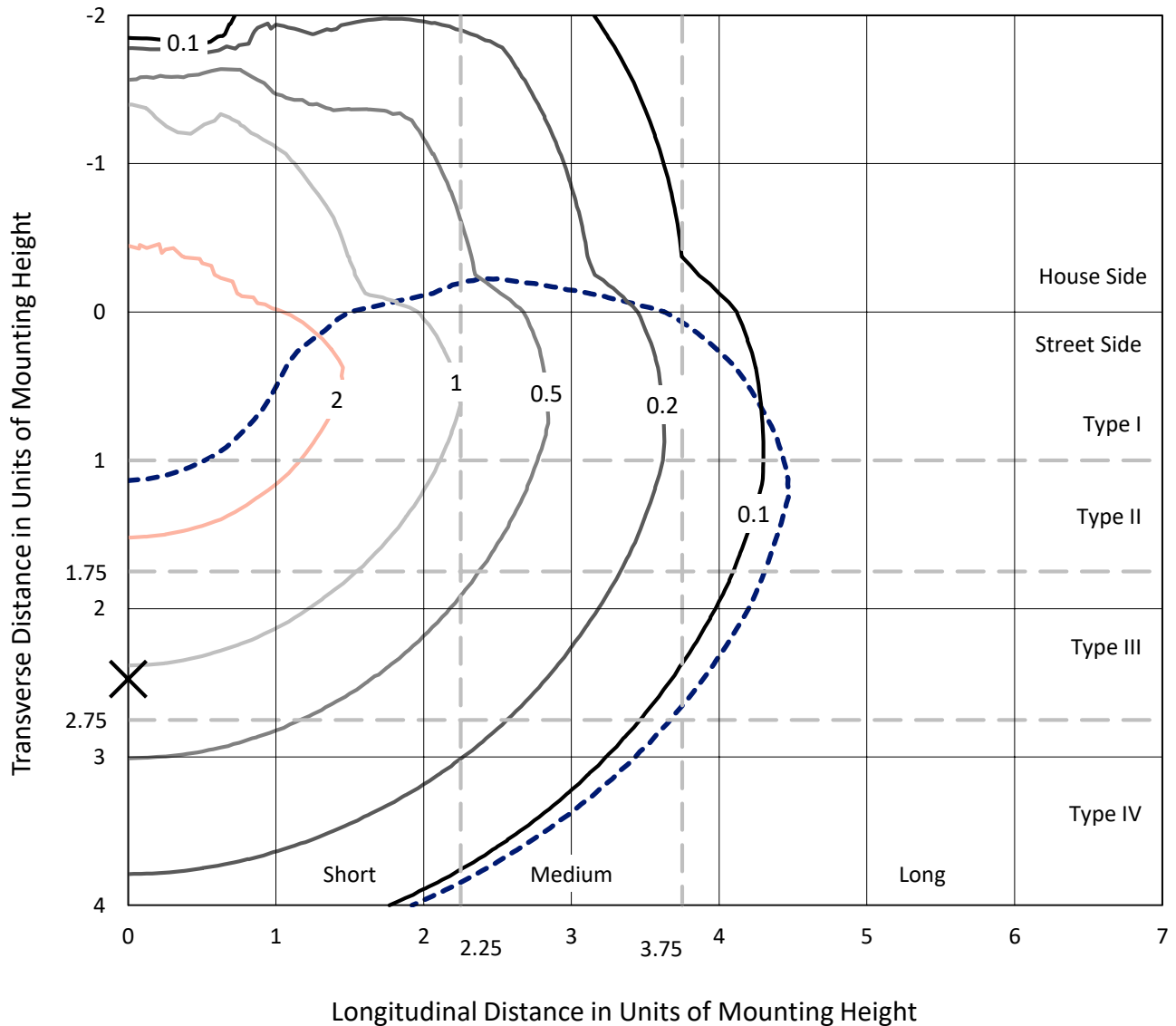


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

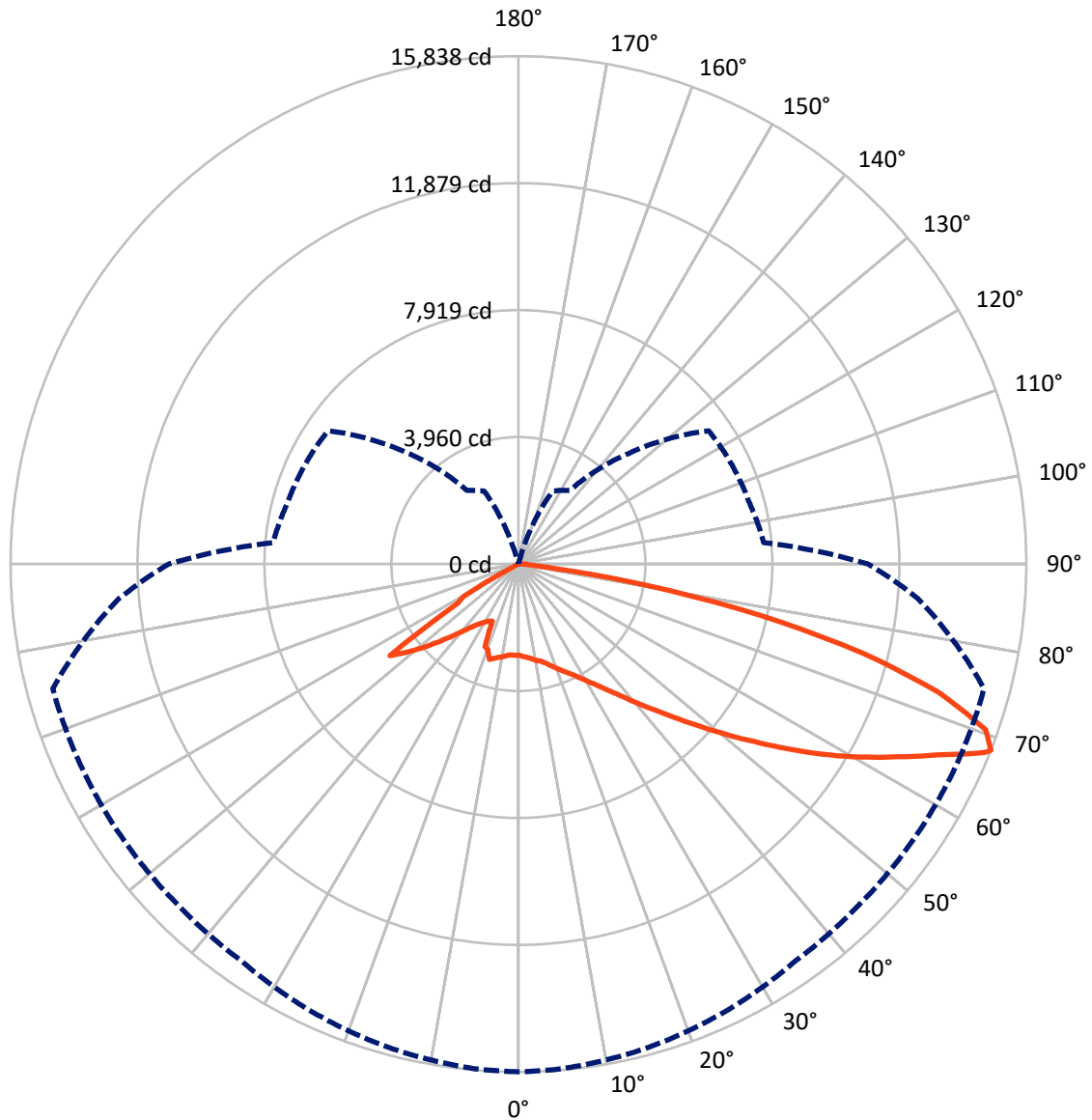


Based on 30 foot mounting height. Maximum calculated value = 3.2 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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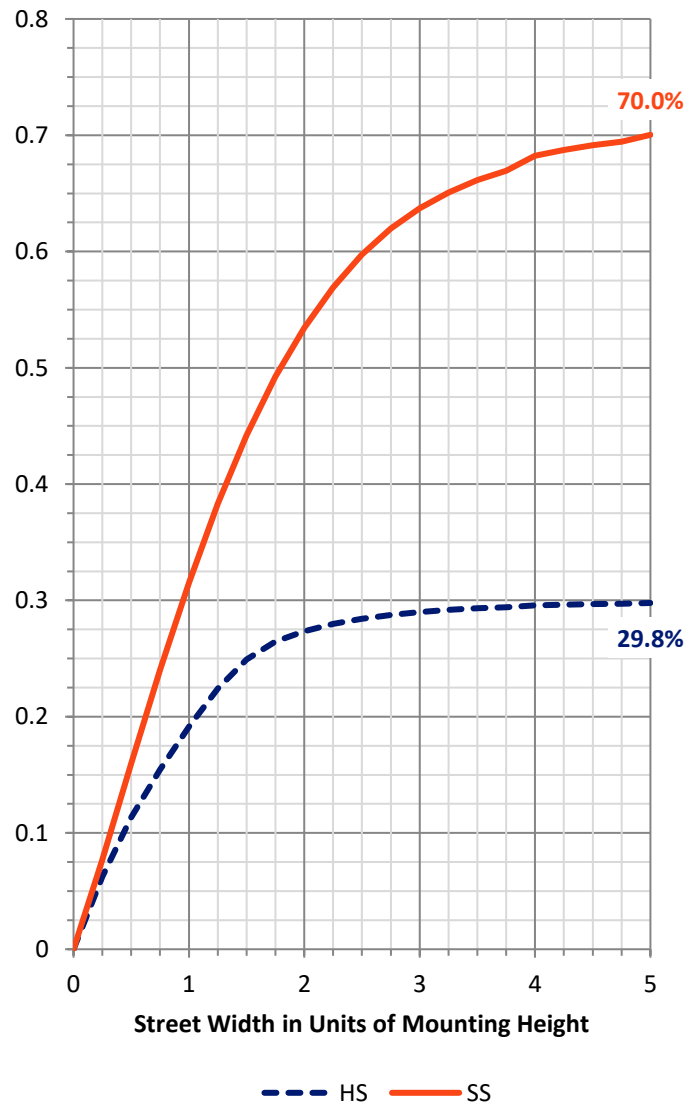
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9712.9	1.5	9714.4
	% Fixture	29.8	0.0	29.8
<b>Street Side</b>	Lumens	22856.2	13.3	22869.5
	% Fixture	70.1	0.0	70.2
<b>Total</b>	Lumens	32569.2	14.8	32583.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	275.7	0.8
10°-20°	877.5	2.7
20°-30°	1503.1	4.6
30°-40°	2438.3	7.5
40°-50°	4112.1	12.6
50°-60°	6702.8	20.6
60°-70°	8989.5	27.6
70°-80°	6982.5	21.4
80°-90°	687.7	2.1
90°-100°	13.0	0.0
100°-110°	0.7	0.0
110°-120°	0.2	0.0
120°-130°	0.1	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	32569.2	100.0
0°-180°	32583.9	100.0



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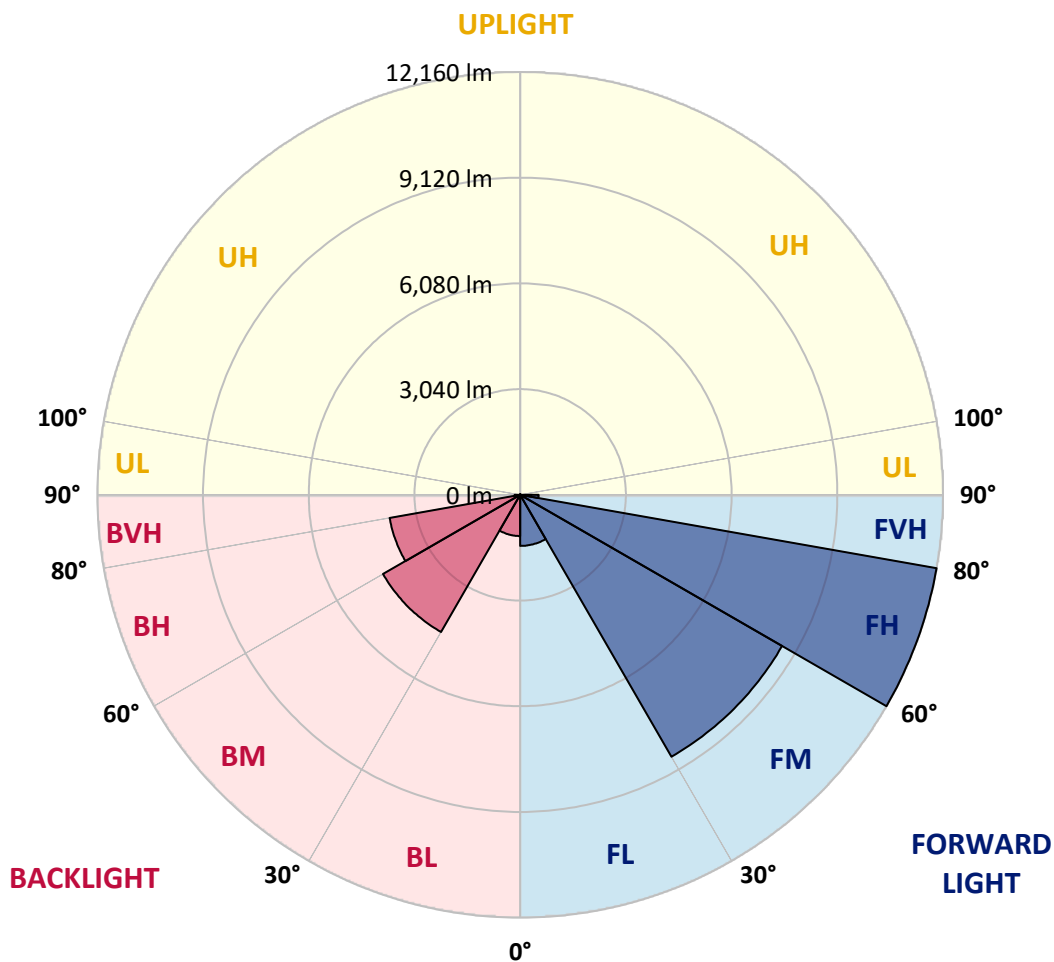
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1469.7	4.5			
FM	(30°-60°)	8697.8	26.7			
FH	(60°-80°)	12160.0	37.3			G5
FVH	(80°-90°)	528.7	1.6			G4/750
BL	(0°-30°)	1186.5	3.6	B3/2500		
BM	(30°-60°)	4555.3	14.0	B3/5000		
BH	(60°-80°)	3812.1	11.7	B4/5000		G4/5000
BVH	(80°-90°)	158.9	0.5			G2/225
UL	(90°-100°)	13.0	0.0		U2/50	
UH	(100°-180°)	1.5	0.0		U1/10	

**BUG Rating: B4-U2-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2840.7	2840.7	2840.7	2840.7	2840.7	2840.7	2840.7	2840.7	2840.7	2840.7	2840.7
2.5°	2887.9	2879.8	2878.5	2894.6	2843.4	2869.0	2846.1	2865.0	2852.9	2862.3	2863.6
5°	2927.0	2912.1	2902.7	2921.6	2889.2	2901.4	2875.8	2883.8	2850.2	2869.0	2871.7
7.5°	2983.6	2959.3	2956.6	2962.0	2933.7	2943.1	2901.4	2910.8	2886.5	2875.8	2885.2
10°	3060.4	3037.5	3020.0	3032.1	2994.3	2999.7	2955.3	2956.6	2939.1	2918.9	2935.1
12.5°	3103.5	3106.2	3098.1	3107.5	3076.6	3059.0	3028.0	3017.3	2999.7	2975.5	2967.4
15°	3211.3	3205.9	3189.7	3204.6	3200.5	3184.4	3146.6	3122.4	3084.6	3071.2	3057.7
17.5°	3343.4	3325.9	3312.4	3331.2	3351.5	3317.8	3281.4	3247.7	3197.8	3170.9	3154.7
20°	3482.2	3470.0	3456.6	3486.2	3493.0	3467.4	3440.4	3390.5	3332.6	3297.6	3263.9
22.5°	3637.1	3612.9	3616.9	3656.0	3643.9	3631.8	3596.7	3556.3	3486.2	3441.7	3344.7
25°	3797.5	3784.0	3802.9	3820.4	3811.0	3785.4	3767.9	3738.2	3660.1	3606.2	3464.7
27.5°	3997.0	3975.4	3999.7	4006.4	3998.3	3991.6	3967.3	3944.4	3859.5	3798.9	3622.3
30°	4231.4	4205.8	4244.9	4235.5	4227.4	4232.8	4218.0	4168.1	4092.6	4010.4	3833.9
32.5°	4510.4	4476.7	4521.2	4501.0	4482.1	4519.8	4484.8	4437.6	4348.7	4253.0	4080.5
35°	4833.8	4835.2	4858.1	4824.4	4817.6	4858.1	4835.2	4777.2	4695.0	4595.3	4350.0
37.5°	5226.0	5215.2	5273.1	5257.0	5232.7	5286.6	5293.3	5220.6	5072.3	4974.0	4684.2
40°	5703.0	5700.3	5719.2	5721.9	5715.1	5740.7	5752.9	5655.8	5560.2	5411.9	4420.1
42.5°	6212.4	6223.2	6256.9	6232.6	6265.0	6298.6	6302.7	6221.8	6084.4	5192.3	4695.0
45°	6824.2	6857.9	6880.8	6875.4	6890.2	6938.7	6942.8	6899.7	6764.9	5624.8	5193.6
47.5°	7526.3	7558.6	7565.4	7608.5	7595.0	7663.8	7654.3	7655.7	7511.5	6227.2	5736.7
50°	8333.5	8348.3	8403.6	8427.8	8394.1	8487.1	8462.9	8492.5	8314.6	6917.2	6320.2
52.5°	9190.6	9216.2	9239.1	9330.7	9287.6	9368.5	9336.1	9404.8	9198.7	7619.3	6968.4
55°	10164.9	10168.9	10208.0	10301.0	10244.4	10341.4	10294.3	10319.9	10155.4	8395.5	7643.5
57.5°	11197.1	11183.7	11198.5	11272.6	11221.4	11294.2	11275.3	11299.6	11145.9	9212.1	8136.8
60°	12218.6	12198.4	12220.0	12269.8	12199.7	12325.1	12257.7	12280.6	12114.8	10046.3	8840.2
62.5°	13245.5	13230.7	13206.4	13256.3	13153.8	13218.5	13246.8	13209.1	13063.6	10800.9	9452.0
65°	14347.8	14333.0	14244.0	14275.0	14091.8	14060.8	14071.5	14083.7	13986.7	11548.9	10123.1
67.5°	15687.3	15665.7	15498.6	15288.4	15024.3	14966.3	14971.7	15004.1	15017.6	12511.0	10908.8
68°	15838.2	15799.2	15613.2	15369.3	15093.0	15025.6	15018.9	15025.6	15032.4	12519.1	10900.7
70°	15452.8	15438.0	15296.5	15001.4	14718.4	14556.7	14416.5	14411.1	14346.5	11879.0	10298.3
72.5°	13713.1	13694.2	13525.8	13316.9	13141.7	12888.4	12706.4	12717.2	12610.8	10499.1	9014.0
75°	11097.4	11096.1	10893.9	10718.7	10721.4	10702.6	10641.9	10748.4	10637.9	8904.9	7688.0
77.5°	7733.8	7760.8	7747.3	7644.9	7789.1	7988.5	8205.5	8410.3	8347.0	7034.4	6130.2
80°	4040.1	4115.5	4382.4	4394.5	4495.6	4689.6	4837.9	4975.3	4984.7	3991.6	3541.5
82.5°	1074.0	1096.9	1187.2	1161.6	1153.5	1192.6	1225.0	1229.0	1231.7	1040.3	971.6
85°	334.2	343.6	332.9	318.0	295.1	269.5	262.8	214.3	169.8	140.1	122.6
87.5°	237.2	253.3	229.1	215.6	191.4	181.9	163.1	128.0	99.7	70.1	47.2
90°	122.6	125.3	111.9	95.7	88.9	83.6	71.4	51.2	25.6	13.5	12.1
92.5°	62.0	63.3	55.3	47.2	40.4	35.0	27.0	14.8	8.1	4.0	1.3
95°	24.3	25.6	22.9	20.2	16.2	12.1	10.8	8.1	5.4	2.7	1.3
97.5°	8.1	8.1	8.1	6.7	6.7	6.7	6.7	5.4	4.0	2.7	1.3
100°	0.0	0.0	0.0	1.3	2.7	4.0	4.0	4.0	2.7	1.3	1.3
102.5°	0.0	0.0	0.0	0.0	0.0	1.3	2.7	2.7	2.7	1.3	1.3
105°	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	1.3
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
165°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
170°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
175°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
180°	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°	2840.7	2840.7	2840.7	2840.7	2840.7	2840.7	2840.7	2840.7	2840.7	2840.7
2.5°	2856.9	2848.8	2852.9	2819.2	2827.2	2805.7	2851.5	2839.4	2834.0	2852.9
5°	2863.6	2834.0	2858.2	2835.3	2839.4	2808.4	2846.1	2831.3	2829.9	2840.7
7.5°	2866.3	2851.5	2874.4	2836.7	2848.8	2836.7	2865.0	2850.2	2863.6	2873.1
10°	2904.1	2896.0	2893.3	2879.8	2889.2	2862.3	2897.3	2897.3	2904.1	2929.7
12.5°	2959.3	2948.5	2941.8	2917.5	2927.0	2918.9	2947.2	2952.6	2964.7	2975.5
15°	3034.8	3015.9	3009.2	2987.6	2994.3	2993.0	3013.2	3014.6	3041.5	3040.2
17.5°	3131.8	3104.9	3112.9	3096.8	3098.1	3087.3	3076.6	3076.6	3100.8	3106.2
20°	3247.7	3094.1	2891.9	2778.7	2758.5	2773.3	2831.3	2927.0	2807.0	2840.7
22.5°	3038.8	2900.0	2890.6	2865.0	2848.8	2487.7	2394.7	2365.0	2520.0	2786.8
25°	3065.8	3006.5	2989.0	2956.6	2479.6	2475.5	2448.6	2404.1	1964.8	1955.4
27.5°	3208.6	3150.7	3122.4	2590.1	2579.3	2577.9	2537.5	2091.5	1990.4	2003.9
30°	3375.7	3308.3	2801.6	2720.8	2711.4	2689.8	2458.0	2065.9	2064.5	2065.9
32.5°	3568.4	3344.7	2882.5	2878.5	2883.8	2817.8	2177.7	2169.6	2168.3	2181.8
35°	3832.5	3103.5	3084.6	3104.9	3076.6	2436.4	2308.4	2304.4	2305.7	2299.0
37.5°	3657.4	3346.1	3342.0	3342.0	3276.0	2493.0	2467.4	2486.3	2483.6	2474.2
40°	3731.5	3639.8	3615.6	3607.5	2769.3	2689.8	2675.0	2699.2	2703.3	2710.0
42.5°	4091.3	4007.7	3995.6	3899.9	3013.2	2987.6	2941.8	2967.4	2964.7	2972.8
45°	4533.3	4476.7	4424.1	3381.1	3342.0	3309.7	3262.5	3292.2	3300.3	3294.9
47.5°	5048.1	4986.1	4606.1	3718.0	3716.7	3691.1	3638.5	3662.8	3658.7	3658.7
50°	5565.6	5498.2	4184.3	4146.5	4133.1	4092.6	4049.5	4053.6	4054.9	4068.4
52.5°	6143.7	4910.6	4631.7	4556.2	4567.0	4540.0	4498.3	3405.4	4478.0	4490.2
55°	5742.1	5139.7	5123.5	5023.8	5049.4	5014.4	4987.4	3359.5	4453.8	4921.4
57.5°	5677.4	5634.3	5620.8	5518.4	5550.7	5217.9	5467.2	3676.2	3080.6	2250.5
60°	6172.0	6126.2	6118.1	6027.8	6025.1	4146.5	4969.9	2521.3	1970.2	1983.7
62.5°	6651.7	6577.6	6597.8	6491.3	4576.4	2526.7	2227.6	56.6	90.3	95.7
65°	7186.7	7062.7	7082.9	6984.6	4720.6	2664.2	2408.1	29.6	25.6	24.3
67.5°	7701.5	7484.5	7380.8	7277.0	4902.5	2805.7	2509.2	8.1	0.0	0.0
68°	7675.9	7446.8	7340.3	7242.0	4883.7	2801.6	2503.8	8.1	0.0	0.0
70°	7243.3	7037.1	6936.1	6860.6	4662.7	2706.0	2402.8	8.1	0.0	0.0
72.5°	6332.3	6217.8	6153.1	6087.1	4142.5	2420.3	2154.8	8.1	0.0	0.0
75°	5380.9	5348.6	5308.2	5162.6	3452.5	1981.0	1770.7	8.1	0.0	0.0
77.5°	4263.8	4262.4	4164.1	3992.9	2599.5	1454.1	1305.8	6.7	0.0	0.0
80°	2305.7	2513.3	2437.8	2350.2	1474.3	791.0	753.3	5.4	0.0	0.0
82.5°	648.2	613.2	588.9	551.2	309.9	172.5	168.4	5.4	0.0	0.0
85°	90.3	99.7	110.5	125.3	71.4	45.8	40.4	2.7	0.0	0.0
87.5°	51.2	57.9	71.4	74.1	27.0	21.6	6.7	0.0	0.0	0.0
90°	10.8	12.1	13.5	13.5	5.4	5.4	0.0	0.0	0.0	0.0
92.5°	0.0	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.3	1.3	1.3	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°
110°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)