

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: P256709

Luminaire Tested: **CST-8-6-D-U-T5R-7050-HSS-HM-EX90**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P256709  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-8-6-D-U-T5R-7050-HSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 5000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED 90  
DEGREE SHIELD - BLACK  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 53948.9 lumens  
Efficiency: N/A  
Efficacy: 113.1 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B5 - U2 - G5

Input Watts (W): 477  
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

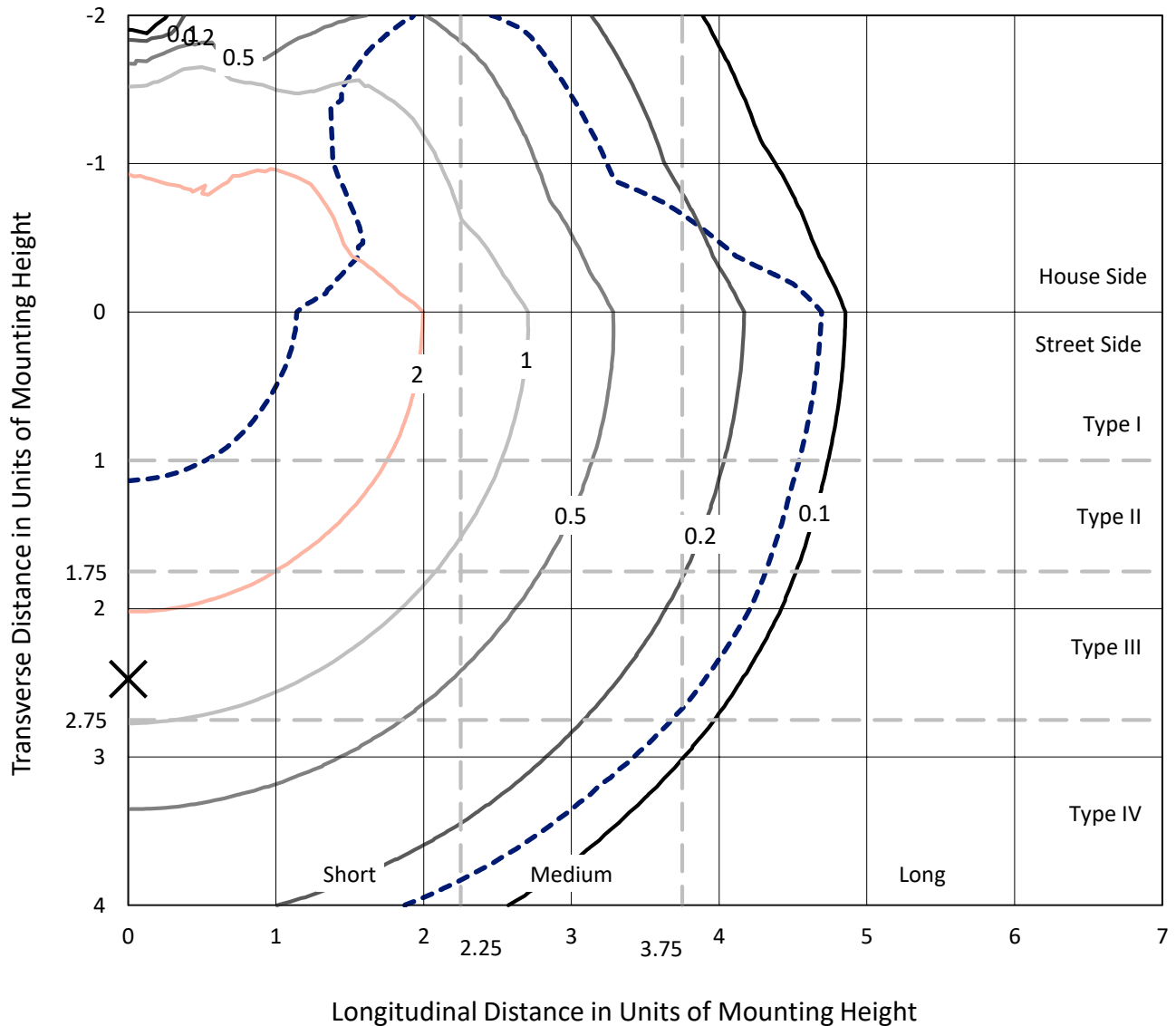


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

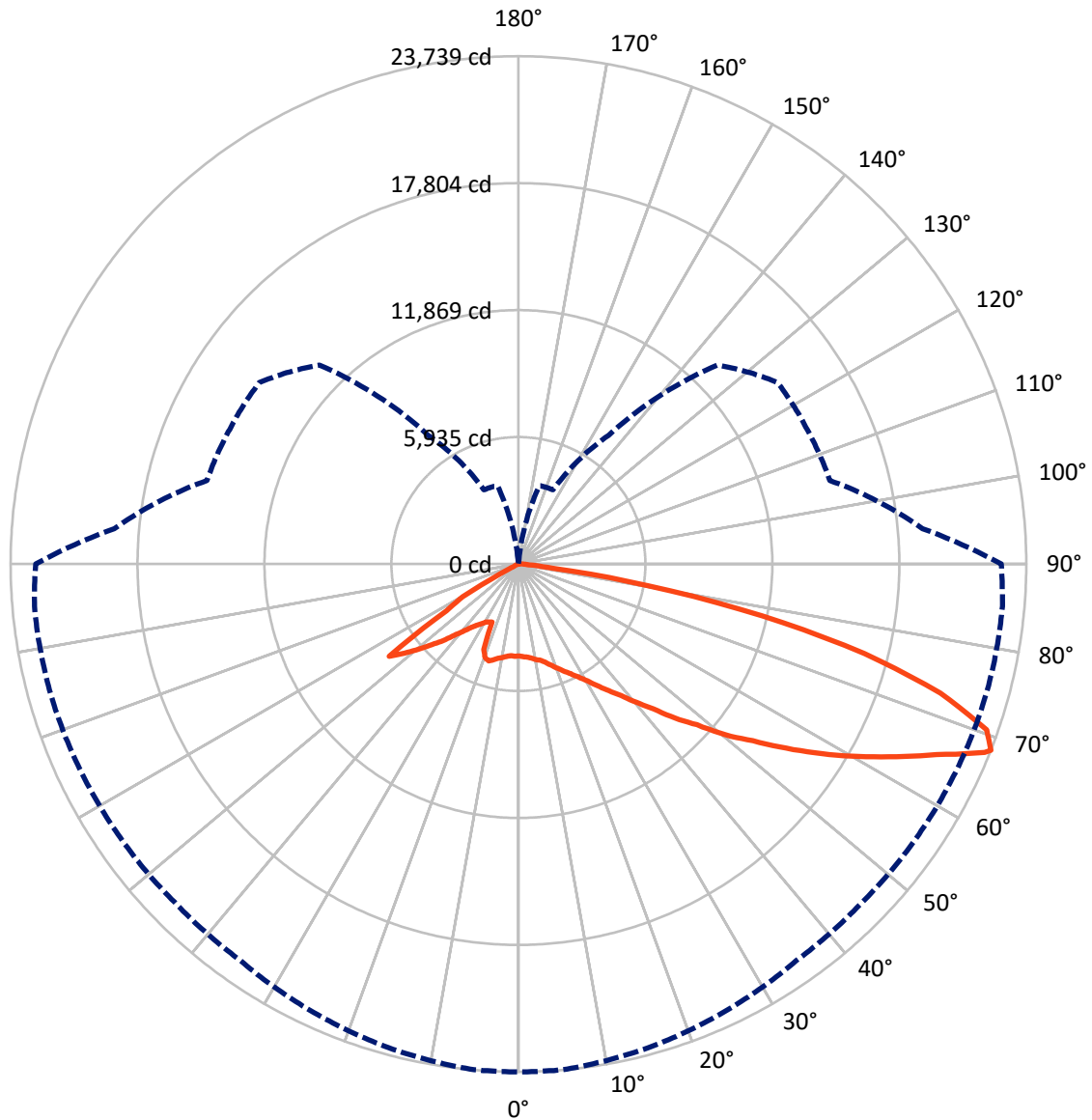


Based on 30 foot mounting height. Maximum calculated value = 4.8 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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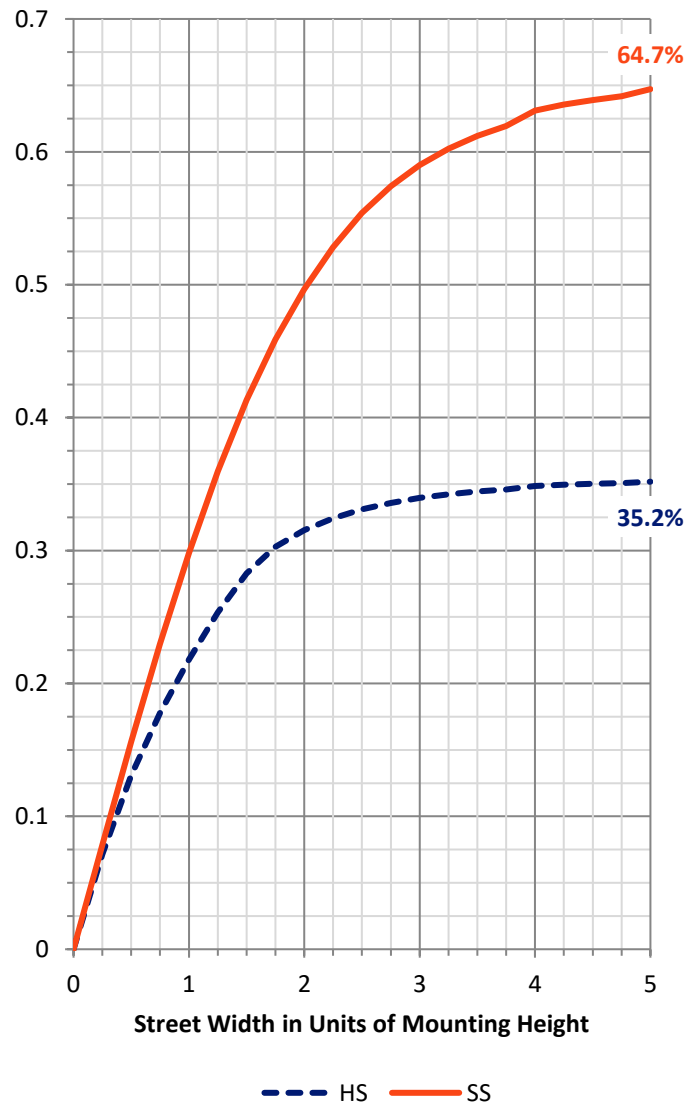
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	18986.4	3.2	18989.6
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	34945.1	14.2	34959.3
	% Fixture	64.8	0.0	64.8
<b>Total</b>	Lumens	53931.5	17.4	53948.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	415.4	0.8
10°-20°	1330.8	2.5
20°-30°	2375.7	4.4
30°-40°	3864.7	7.2
40°-50°	6599.8	12.2
50°-60°	11012.0	20.4
60°-70°	15320.0	28.4
70°-80°	11875.3	22.0
80°-90°	1137.9	2.1
90°-100°	13.8	0.0
100°-110°	1.2	0.0
110°-120°	0.6	0.0
120°-130°	0.4	0.0
130°-140°	0.4	0.0
140°-150°	0.5	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	53931.5	100.0
0°-180°	53948.9	100.0



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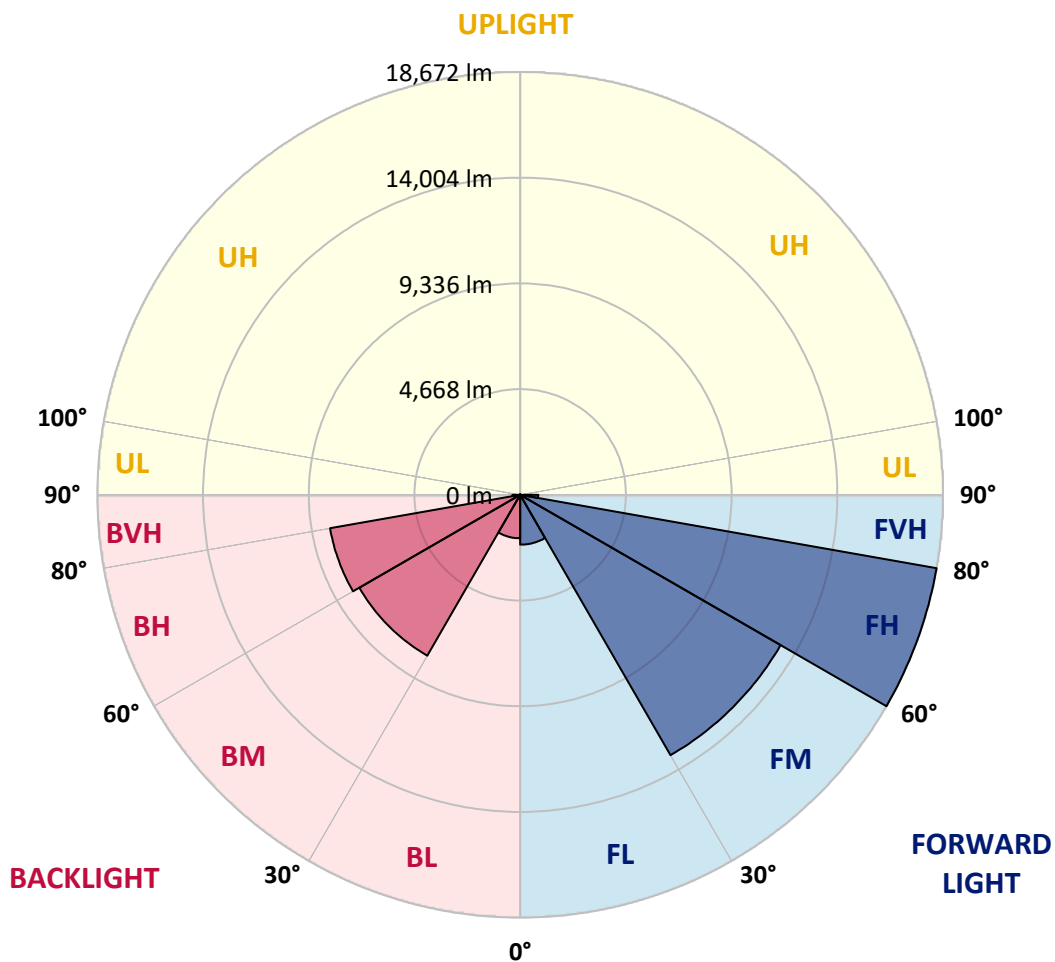
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2201.9	4.1			
FM	(30°-60°)	13275.2	24.6			
FH	(60°-80°)	18671.9	34.6			G5
FVH	(80°-90°)	796.1	1.5			G5
BL	(0°-30°)	1919.9	3.6	B3/2500		
BM	(30°-60°)	8201.3	15.2	B4/8500		
BH	(60°-80°)	8523.4	15.8	B5		G5
BVH	(80°-90°)	341.8	0.6			G3/500
UL	(90°-100°)	13.8	0.0		U2/50	
UH	(100°-180°)	3.2	0.0		U1/10	

**BUG Rating: B5-U2-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4293.4	4293.4	4293.4	4293.4	4293.4	4293.4	4293.4	4293.4	4293.4	4293.4	4293.4
2.5°	4342.2	4336.1	4332.0	4358.4	4283.3	4313.7	4293.4	4319.8	4313.7	4325.9	4327.9
5°	4372.6	4362.5	4348.2	4376.7	4332.0	4352.3	4330.0	4342.2	4303.6	4336.1	4340.1
7.5°	4441.6	4413.2	4411.2	4419.3	4388.8	4403.1	4364.5	4378.7	4358.4	4346.2	4358.4
10°	4545.2	4520.8	4494.4	4510.6	4459.9	4478.2	4437.6	4449.7	4439.6	4413.2	4437.6
12.5°	4616.2	4624.3	4606.1	4618.2	4573.6	4557.3	4543.1	4541.1	4535.0	4496.4	4490.3
15°	4774.5	4778.6	4746.1	4754.2	4744.1	4736.0	4715.7	4699.4	4667.0	4642.6	4626.4
17.5°	4981.6	4959.3	4928.8	4936.9	4965.4	4928.8	4916.6	4886.2	4839.5	4798.9	4790.8
20°	5198.8	5184.6	5156.2	5172.4	5170.4	5146.0	5152.1	5101.4	5034.4	4999.9	4973.5
22.5°	5440.4	5420.1	5399.8	5430.2	5405.9	5389.6	5383.5	5349.0	5265.8	5227.2	5221.1
25°	5681.9	5671.8	5686.0	5675.9	5641.3	5629.2	5637.3	5625.1	5527.7	5481.0	5452.6
27.5°	5984.4	5960.1	5982.4	5970.2	5933.7	5935.7	5937.7	5939.8	5830.1	5769.2	5728.6
30°	6329.5	6321.4	6349.8	6311.2	6276.7	6299.1	6317.3	6276.7	6181.3	6092.0	6077.8
32.5°	6778.1	6727.4	6759.9	6711.2	6658.4	6711.2	6743.6	6662.4	6585.3	6471.6	6491.9
35°	7275.5	7259.2	7259.2	7196.3	7167.9	7251.1	7283.6	7204.4	7084.7	6985.2	6960.8
37.5°	7803.3	7819.5	7870.3	7843.9	7817.5	7868.2	7941.3	7835.8	7681.5	7575.9	7547.5
40°	8503.6	8544.2	8578.7	8544.2	8513.8	8546.3	8629.5	8491.5	8383.9	8327.0	8266.1
42.5°	9256.8	9325.8	9303.5	9307.5	9333.9	9380.6	9463.8	9338.0	9214.1	9212.1	9122.8
45°	10275.8	10275.8	10229.1	10273.8	10269.7	10385.4	10422.0	10353.0	10249.4	10219.0	10141.8
47.5°	11227.9	11327.4	11309.1	11374.0	11323.3	11420.7	11544.6	11485.7	11365.9	11258.3	11242.1
50°	12555.5	12531.1	12506.8	12604.2	12596.1	12663.1	12776.8	12740.2	12573.8	12452.0	12429.6
52.5°	13722.7	13850.6	13820.2	13966.3	13885.1	13980.6	14116.6	14110.5	13907.5	13787.7	13753.2
55°	15196.5	15281.8	15275.7	15425.9	15314.3	15440.1	15553.8	15566.0	15344.7	15174.2	15227.0
57.5°	16731.2	16802.2	16761.6	16885.5	16775.8	16948.4	17017.4	16972.8	16842.8	16627.7	16706.8
60°	18267.9	18328.8	18375.5	18385.6	18322.7	18424.2	18489.2	18527.7	18322.7	18077.1	18172.5
62.5°	19829.0	19898.0	19857.4	19873.6	19699.0	19837.1	19918.3	19928.4	19692.9	19475.7	19542.7
65°	21473.2	21568.7	21422.5	21325.1	21109.9	21107.9	21215.4	21233.7	21067.3	20913.0	20886.6
67.5°	23509.3	23552.0	23239.3	22912.5	22549.1	22470.0	22545.1	22587.7	22683.1	22679.1	22559.3
68°	23738.7	23730.6	23413.9	23024.2	22634.4	22543.1	22579.6	22634.4	22697.3	22709.5	22565.4
70°	23217.0	23117.5	22936.9	22445.6	22059.9	21820.4	21692.5	21794.0	21623.5	21625.5	21355.5
72.5°	20622.7	20610.5	20277.6	20034.0	19690.9	19293.0	19110.3	19108.3	19124.5	19006.8	18728.7
75°	16704.8	16721.0	16333.3	16164.8	16059.3	15984.2	16022.7	16142.5	16154.7	16152.6	16055.2
77.5°	11650.1	11717.1	11613.6	11339.5	11633.9	11885.6	12370.8	12618.4	12539.3	12776.8	12927.0
80°	6106.2	6240.2	6244.3	6437.1	6674.6	6904.0	7322.2	7697.7	7421.6	7299.8	7174.0
82.5°	1605.7	1654.4	1727.5	1615.9	1650.4	1684.9	2009.7	1979.2	1827.0	1908.2	2030.0
85°	458.8	473.0	452.7	410.1	375.5	345.1	353.2	298.4	259.8	257.8	249.7
87.5°	322.8	347.1	306.5	263.9	237.5	221.3	213.1	180.7	146.2	127.9	101.5
90°	150.2	148.2	127.9	99.5	87.3	83.2	83.2	65.0	36.5	22.3	20.3
92.5°	62.9	65.0	52.8	42.6	36.5	28.4	22.3	14.2	8.1	4.1	2.0
95°	22.3	24.4	20.3	16.2	14.2	12.2	10.1	8.1	4.1	2.0	2.0
97.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	4.1	4.1	2.0	2.0
100°	0.0	0.0	0.0	2.0	4.1	4.1	4.1	4.1	2.0	2.0	2.0
102.5°	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
105°	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0



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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	2.0	2.0	2.0	2.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
165°	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
167.5°	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
170°	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
172.5°	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
175°	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
177.5°	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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°	4293.4	4293.4	4293.4	4293.4	4293.4	4293.4	4293.4	4293.4	4293.4	4293.4
2.5°	4323.9	4313.7	4309.7	4258.9	4273.1	4242.7	4313.7	4293.4	4289.4	4317.8
5°	4334.0	4287.3	4315.8	4283.3	4291.4	4246.7	4303.6	4279.2	4281.3	4295.5
7.5°	4340.1	4313.7	4342.2	4285.3	4307.6	4291.4	4332.0	4307.6	4332.0	4344.2
10°	4401.0	4388.8	4368.5	4352.3	4368.5	4330.0	4380.7	4376.7	4390.9	4427.4
12.5°	4484.3	4470.0	4449.7	4421.3	4433.5	4419.3	4457.9	4461.9	4488.3	4506.6
15°	4608.1	4589.8	4579.7	4551.2	4555.3	4545.2	4567.5	4571.5	4624.3	4618.2
17.5°	4782.7	4762.4	4770.5	4744.1	4733.9	4709.6	4669.0	4654.8	4717.7	4736.0
20°	4973.5	4951.1	4961.3	4939.0	4750.2	4366.5	4624.3	4800.9	4667.0	4656.8
22.5°	5190.7	5166.3	5174.4	5139.9	4906.5	4187.9	3643.8	3599.2	4110.7	4317.8
25°	5430.2	5397.7	5393.7	5349.0	4581.7	3792.0	3731.1	3652.0	3278.4	2982.1
27.5°	5726.6	5677.9	5653.5	4979.6	4549.2	3940.2	3848.9	3566.7	3024.7	3043.0
30°	6047.3	5976.3	5519.5	5075.0	4786.7	4114.8	3993.0	3126.2	3130.2	3122.1
32.5°	6412.7	6254.4	5407.9	5367.3	5070.9	4301.6	3315.0	3278.4	3282.5	3294.7
35°	6891.8	5805.8	5783.4	5785.5	5418.0	4161.5	3511.9	3477.4	3481.4	3489.6
37.5°	6993.3	6258.5	6262.5	6215.8	5787.5	3802.2	3751.4	3749.4	3741.3	3733.2
40°	7074.5	6828.9	6770.0	6694.9	5365.3	4094.5	4078.3	4066.1	4072.2	4088.4
42.5°	7709.9	7525.2	7468.3	7379.0	5503.3	4537.0	4484.3	4470.0	4486.3	4478.2
45°	8554.4	8400.1	8288.5	6822.8	6079.8	5018.1	4975.5	4957.2	4963.3	5014.1
47.5°	9447.6	9356.2	9015.2	7370.9	6751.8	5586.5	5543.9	5515.5	5525.6	5513.5
50°	10419.9	10336.7	8345.3	8197.1	7494.7	6199.6	6136.7	6126.5	6130.6	6128.5
52.5°	11475.5	9735.8	9248.6	9094.4	8278.3	6841.1	6818.7	6763.9	6776.1	6763.9
55°	12713.8	10255.5	10243.3	10062.7	9159.3	7586.1	7559.7	7482.5	6997.4	7421.6
57.5°	13889.2	11248.2	11248.2	11073.6	10060.6	8327.0	8284.4	8227.6	4973.5	4011.3
60°	15176.2	12242.9	12214.5	12070.3	10929.5	9033.5	7342.5	7326.2	3004.4	3014.5
62.5°	16288.7	13130.0	13180.7	13046.8	11765.8	6763.9	3402.3	3333.2	296.4	456.7
65°	17535.1	14110.5	14171.4	14033.3	12671.2	7174.0	3692.6	3658.0	67.0	60.9
67.5°	18947.9	15088.9	14950.9	14798.6	13201.0	7387.1	3836.7	3806.2	18.3	12.2
68°	18960.1	15068.6	14890.0	14786.5	13150.3	7346.5	3824.5	3796.1	18.3	12.2
70°	17985.7	14309.4	14130.8	14157.2	12521.0	7025.8	3666.2	3613.4	18.3	12.2
72.5°	15779.1	12734.1	12533.2	12391.1	11104.1	6246.3	3286.6	3187.1	18.3	12.2
75°	13501.5	10791.4	10458.5	10145.9	8934.0	5111.5	2695.8	2584.2	18.3	12.2
77.5°	10641.2	8225.5	7752.5	7547.5	6713.2	3775.8	2003.6	1881.8	18.3	10.1
80°	5880.9	4719.7	4317.8	4191.9	3838.7	2218.8	1149.0	1075.9	16.2	10.1
82.5°	1520.5	1140.9	994.7	960.2	901.3	525.8	280.1	265.9	14.2	8.1
85°	217.2	160.4	176.6	209.1	201.0	136.0	97.4	83.2	12.2	6.1
87.5°	113.7	95.4	111.6	125.9	127.9	79.2	40.6	22.3	6.1	0.0
90°	18.3	18.3	20.3	22.3	22.3	10.1	8.1	0.0	0.0	0.0
92.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.0	4.1	2.0	2.0	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°	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.0	2.0	2.0	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)