

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: P256693

Luminaire Tested: **CST-8-6-D-U-T5R-7030-HSS-HM-EX90**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P256693  
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-7030-HSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE  
(8) 70 CRI, 3000K 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: 51975.1 lumens  
Efficiency: N/A  
Efficacy: 109.0 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

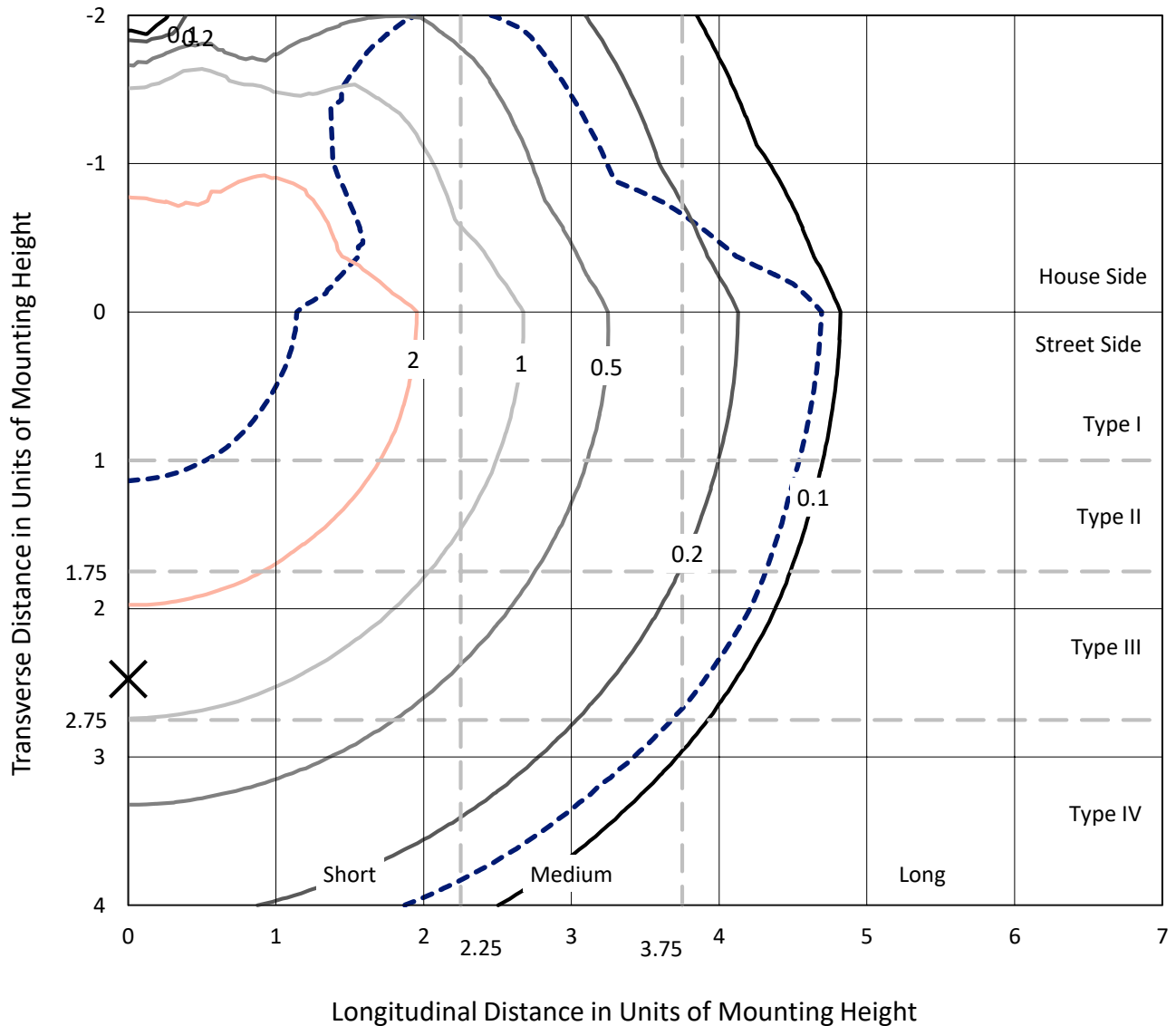


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

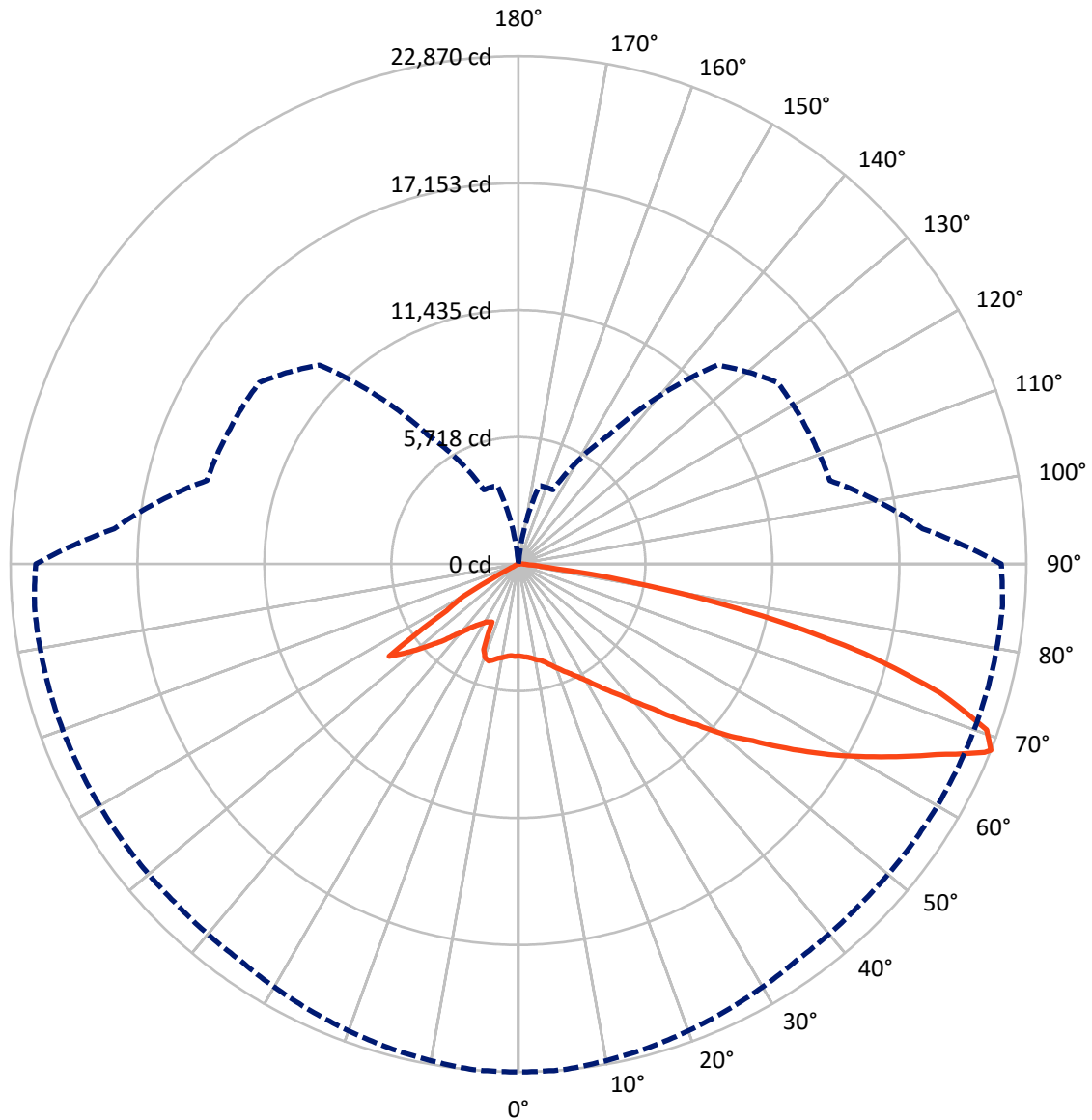


Based on 30 foot mounting height. Maximum calculated value = 4.6 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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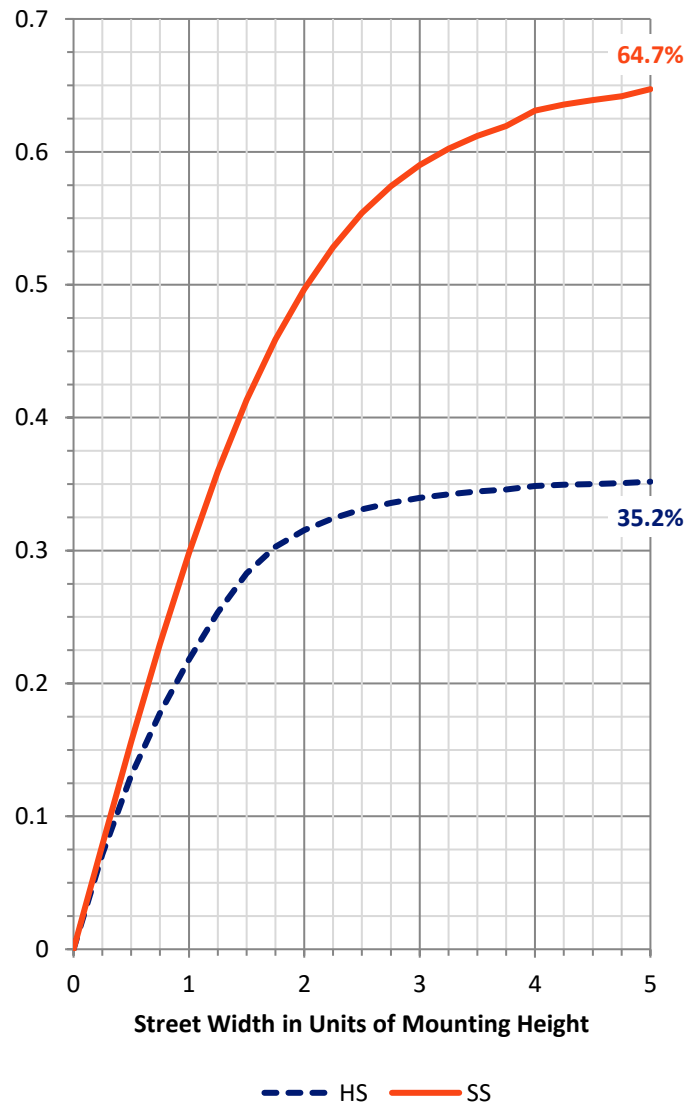
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	18291.7	3.2	18294.8
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	33666.5	13.7	33680.2
	% Fixture	64.8	0.0	64.8
<b>Total</b>	Lumens	51958.1	16.9	51975.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	400.2	0.8
10°-20°	1282.1	2.5
20°-30°	2288.7	4.4
30°-40°	3723.3	7.2
40°-50°	6358.3	12.2
50°-60°	10609.1	20.4
60°-70°	14759.4	28.4
70°-80°	11440.8	22.0
80°-90°	1096.3	2.1
90°-100°	13.3	0.0
100°-110°	1.1	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°	51958.1	100.0
0°-180°	51975.1	100.0



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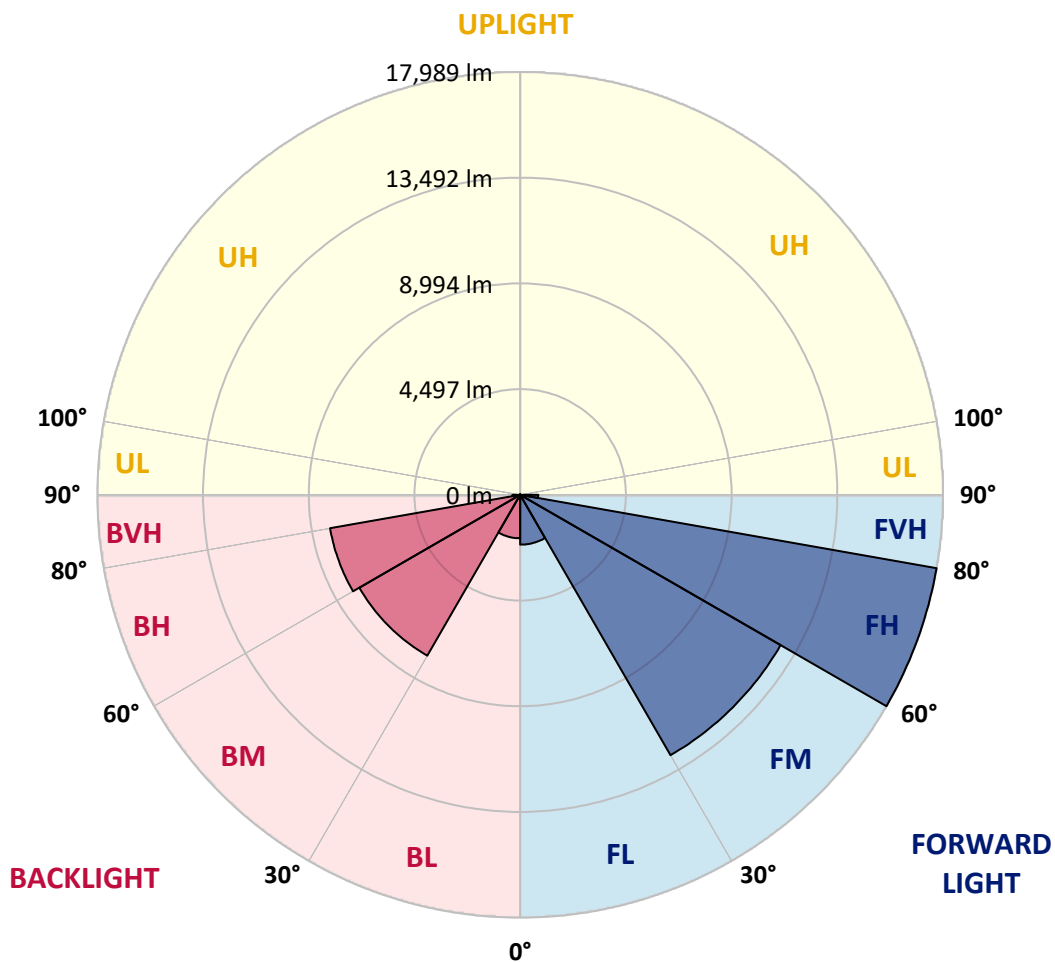
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2121.3	4.1			
FM	(30°-60°)	12789.5	24.6			
FH	(60°-80°)	17988.7	34.6			G5
FVH	(80°-90°)	767.0	1.5			G5
BL	(0°-30°)	1849.7	3.6	B3/2500		
BM	(30°-60°)	7901.2	15.2	B4/8500		
BH	(60°-80°)	8211.5	15.8	B5		G5
BVH	(80°-90°)	329.3	0.6			G3/500
UL	(90°-100°)	13.3	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°	4136.3	4136.3	4136.3	4136.3	4136.3	4136.3	4136.3	4136.3	4136.3	4136.3	4136.3
2.5°	4183.3	4177.4	4173.5	4198.9	4126.6	4155.9	4136.3	4161.8	4155.9	4167.6	4169.6
5°	4212.6	4202.8	4189.1	4216.5	4173.5	4193.1	4171.5	4183.3	4146.1	4177.4	4181.3
7.5°	4279.1	4251.7	4249.8	4257.6	4228.3	4241.9	4204.8	4218.5	4198.9	4187.2	4198.9
10°	4378.8	4355.4	4330.0	4345.6	4296.7	4314.3	4275.2	4286.9	4277.1	4251.7	4275.2
12.5°	4447.3	4455.1	4437.5	4449.2	4406.2	4390.6	4376.9	4374.9	4369.1	4331.9	4326.0
15°	4599.8	4603.8	4572.5	4580.3	4570.5	4562.7	4543.1	4527.5	4496.2	4472.7	4457.1
17.5°	4799.3	4777.8	4748.5	4756.3	4783.7	4748.5	4736.7	4707.4	4662.4	4623.3	4615.5
20°	5008.6	4994.9	4967.5	4983.2	4981.2	4957.7	4963.6	4914.7	4850.2	4816.9	4791.5
22.5°	5241.3	5221.8	5202.2	5231.5	5208.1	5192.4	5186.6	5153.3	5073.1	5036.0	5030.1
25°	5474.0	5464.3	5478.0	5468.2	5434.9	5423.2	5431.0	5419.3	5325.4	5280.4	5253.0
27.5°	5765.4	5742.0	5763.5	5751.8	5716.6	5718.5	5720.5	5722.4	5616.8	5558.1	5519.0
30°	6097.9	6090.1	6117.5	6080.3	6047.1	6068.6	6086.2	6047.1	5955.1	5869.1	5855.4
32.5°	6530.1	6481.2	6512.5	6465.6	6414.7	6465.6	6496.9	6418.7	6344.3	6234.8	6254.4
35°	7009.3	6993.6	6993.6	6933.0	6905.6	6985.8	7017.1	6940.8	6825.4	6729.6	6706.1
37.5°	7517.8	7533.4	7582.3	7556.9	7531.5	7580.3	7650.8	7549.1	7400.4	7298.7	7271.3
40°	8192.5	8231.6	8264.8	8231.6	8202.3	8233.6	8313.7	8180.8	8077.1	8022.3	7963.7
42.5°	8918.1	8984.5	8963.0	8966.9	8992.4	9037.4	9117.5	8996.3	8877.0	8875.0	8789.0
45°	9899.8	9899.8	9854.8	9897.9	9894.0	10005.4	10040.6	9974.1	9874.4	9845.1	9770.7
47.5°	10817.1	10912.9	10895.3	10957.9	10909.0	11002.8	11122.1	11065.4	10950.0	10846.4	10830.7
50°	12096.1	12072.6	12049.2	12143.0	12135.2	12199.7	12309.3	12274.1	12113.7	11996.3	11974.8
52.5°	13220.6	13343.8	13314.5	13455.3	13377.1	13469.0	13600.0	13594.2	13398.6	13283.2	13250.0
55°	14640.5	14722.6	14716.7	14861.5	14753.9	14875.2	14984.7	14996.4	14783.2	14619.0	14669.8
57.5°	16119.0	16187.4	16148.3	16267.6	16162.0	16328.3	16394.7	16351.7	16226.6	16019.3	16095.5
60°	17599.5	17658.1	17703.1	17712.9	17652.3	17750.1	17812.6	17849.8	17652.3	17415.6	17507.5
62.5°	19103.4	19169.9	19130.8	19146.4	18978.2	19111.2	19189.5	19199.2	18972.4	18763.1	18827.7
65°	20687.5	20779.5	20638.6	20544.8	20337.5	20335.5	20439.2	20456.8	20296.4	20147.8	20122.3
67.5°	22649.1	22690.2	22389.0	22074.1	21724.1	21647.8	21720.2	21761.2	21853.1	21849.2	21733.8
68°	22870.1	22862.3	22557.2	22181.7	21806.2	21718.2	21753.4	21806.2	21866.8	21878.6	21739.7
70°	22367.5	22271.7	22097.6	21624.3	21252.7	21022.0	20898.8	20996.5	20832.3	20834.2	20574.1
72.5°	19868.1	19856.4	19535.6	19300.9	18970.4	18587.1	18411.1	18409.1	18424.8	18311.3	18043.4
75°	16093.6	16109.2	15735.7	15573.3	15471.7	15399.3	15436.4	15551.8	15563.6	15561.6	15467.7
77.5°	11223.8	11288.4	11188.6	10924.6	11208.2	11450.7	11918.1	12156.7	12080.4	12309.3	12454.0
80°	5882.8	6011.9	6015.8	6201.6	6430.4	6651.4	7054.3	7416.1	7150.1	7032.7	6911.5
82.5°	1547.0	1593.9	1664.3	1556.7	1590.0	1623.2	1936.2	1906.8	1760.1	1838.4	1955.7
85°	442.0	455.7	436.1	395.1	361.8	332.5	340.3	287.5	250.3	248.4	240.6
87.5°	311.0	334.4	295.3	254.2	228.8	213.2	205.3	174.1	140.8	123.2	97.8
90°	144.7	142.8	123.2	95.8	84.1	80.2	80.2	62.6	35.2	21.5	19.6
92.5°	60.6	62.6	50.8	41.1	35.2	27.4	21.5	13.7	7.8	3.9	2.0
95°	21.5	23.5	19.6	15.6	13.7	11.7	9.8	7.8	3.9	2.0	2.0
97.5°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	3.9	3.9	2.0	2.0
100°	0.0	0.0	0.0	2.0	3.9	3.9	3.9	3.9	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°	4136.3	4136.3	4136.3	4136.3	4136.3	4136.3	4136.3	4136.3	4136.3	4136.3
2.5°	4165.7	4155.9	4152.0	4103.1	4116.8	4087.4	4155.9	4136.3	4132.4	4159.8
5°	4175.4	4130.5	4157.8	4126.6	4134.4	4091.4	4146.1	4122.6	4124.6	4138.3
7.5°	4181.3	4155.9	4183.3	4128.5	4150.0	4134.4	4173.5	4150.0	4173.5	4185.2
10°	4240.0	4228.3	4208.7	4193.1	4208.7	4171.5	4220.4	4216.5	4230.2	4265.4
12.5°	4320.2	4306.5	4286.9	4259.5	4271.3	4257.6	4294.7	4298.7	4324.1	4341.7
15°	4439.5	4421.9	4412.1	4384.7	4388.6	4378.8	4400.4	4404.3	4455.1	4449.2
17.5°	4607.7	4588.1	4595.9	4570.5	4560.7	4537.3	4498.1	4484.5	4545.1	4562.7
20°	4791.5	4770.0	4779.8	4758.3	4576.4	4206.7	4455.1	4625.3	4496.2	4486.4
22.5°	5000.8	4977.3	4985.1	4951.9	4727.0	4034.6	3510.5	3467.5	3960.3	4159.8
25°	5231.5	5200.2	5196.3	5153.3	4414.0	3653.3	3594.6	3518.3	3158.5	2872.9
27.5°	5517.1	5470.1	5446.7	4797.4	4382.8	3796.0	3708.0	3436.2	2914.0	2931.6
30°	5826.1	5757.6	5317.6	4889.3	4611.6	3964.2	3846.9	3011.8	3015.7	3007.9
32.5°	6178.1	6025.6	5210.0	5170.9	4885.4	4144.2	3193.7	3158.5	3162.4	3174.1
35°	6639.6	5593.3	5571.8	5573.8	5219.8	4009.2	3383.4	3350.1	3354.0	3361.9
37.5°	6737.4	6029.5	6033.4	5988.4	5575.7	3663.1	3614.2	3612.2	3604.4	3596.6
40°	6815.7	6579.0	6522.3	6449.9	5169.0	3944.7	3929.0	3917.3	3923.2	3938.8
42.5°	7427.8	7249.8	7195.1	7109.0	5301.9	4371.0	4320.2	4306.5	4322.1	4314.3
45°	8241.4	8092.7	7985.2	6573.2	5857.4	4834.5	4793.5	4775.9	4781.7	4830.6
47.5°	9101.9	9013.9	8685.3	7101.2	6504.7	5382.1	5341.1	5313.7	5323.5	5311.7
50°	10038.7	9958.5	8039.9	7897.2	7220.5	5972.7	5912.1	5902.3	5906.3	5904.3
52.5°	11055.7	9379.6	8910.2	8761.6	7975.4	6590.8	6569.2	6516.4	6528.2	6516.4
55°	12248.6	9880.3	9868.5	9694.5	8824.2	7308.5	7283.1	7208.8	6741.3	7150.1
57.5°	13381.0	10836.6	10836.6	10668.4	9692.5	8022.3	7981.3	7926.5	4791.5	3864.5
60°	14620.9	11794.9	11767.5	11628.7	10529.6	8702.9	7073.8	7058.2	2894.5	2904.2
62.5°	15692.6	12649.6	12698.4	12569.4	11335.3	6516.4	3277.8	3211.3	285.5	440.0
65°	16893.5	13594.2	13652.8	13519.8	12207.6	6911.5	3557.4	3524.2	64.5	58.7
67.5°	18254.6	14536.8	14403.8	14257.2	12718.0	7116.8	3696.3	3667.0	17.6	11.7
68°	18266.4	14517.3	14345.2	14245.4	12669.1	7077.7	3684.6	3657.2	17.6	11.7
70°	17327.6	13785.8	13613.7	13639.1	12062.8	6768.7	3532.0	3481.2	17.6	11.7
72.5°	15201.8	12268.2	12074.6	11937.7	10697.8	6017.7	3166.3	3070.5	17.6	11.7
75°	13007.5	10396.6	10075.8	9774.7	8607.1	4924.5	2597.2	2489.6	17.6	11.7
77.5°	10251.9	7924.6	7468.9	7271.3	6467.5	3637.6	1930.3	1812.9	17.6	9.8
80°	5665.7	4547.0	4159.8	4038.5	3698.3	2137.6	1106.9	1036.5	15.6	9.8
82.5°	1464.8	1099.1	958.3	925.1	868.3	506.5	269.9	256.2	13.7	7.8
85°	209.3	154.5	170.1	201.4	193.6	131.0	93.9	80.2	11.7	5.9
87.5°	109.5	91.9	107.6	121.3	123.2	76.3	39.1	21.5	5.9	0.0
90°	17.6	17.6	19.6	21.5	21.5	9.8	7.8	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	3.9	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)