

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: P256735

Luminaire Tested: **CST-10-9-D-U-T5R-7050-HSS-HM-EX120**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P256735  
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-10-9-D-U-T5R-7050-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE  
(10) 70 CRI, 5000K 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: 72512 lumens  
Efficiency: N/A  
Efficacy: 95.4 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): 760  
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

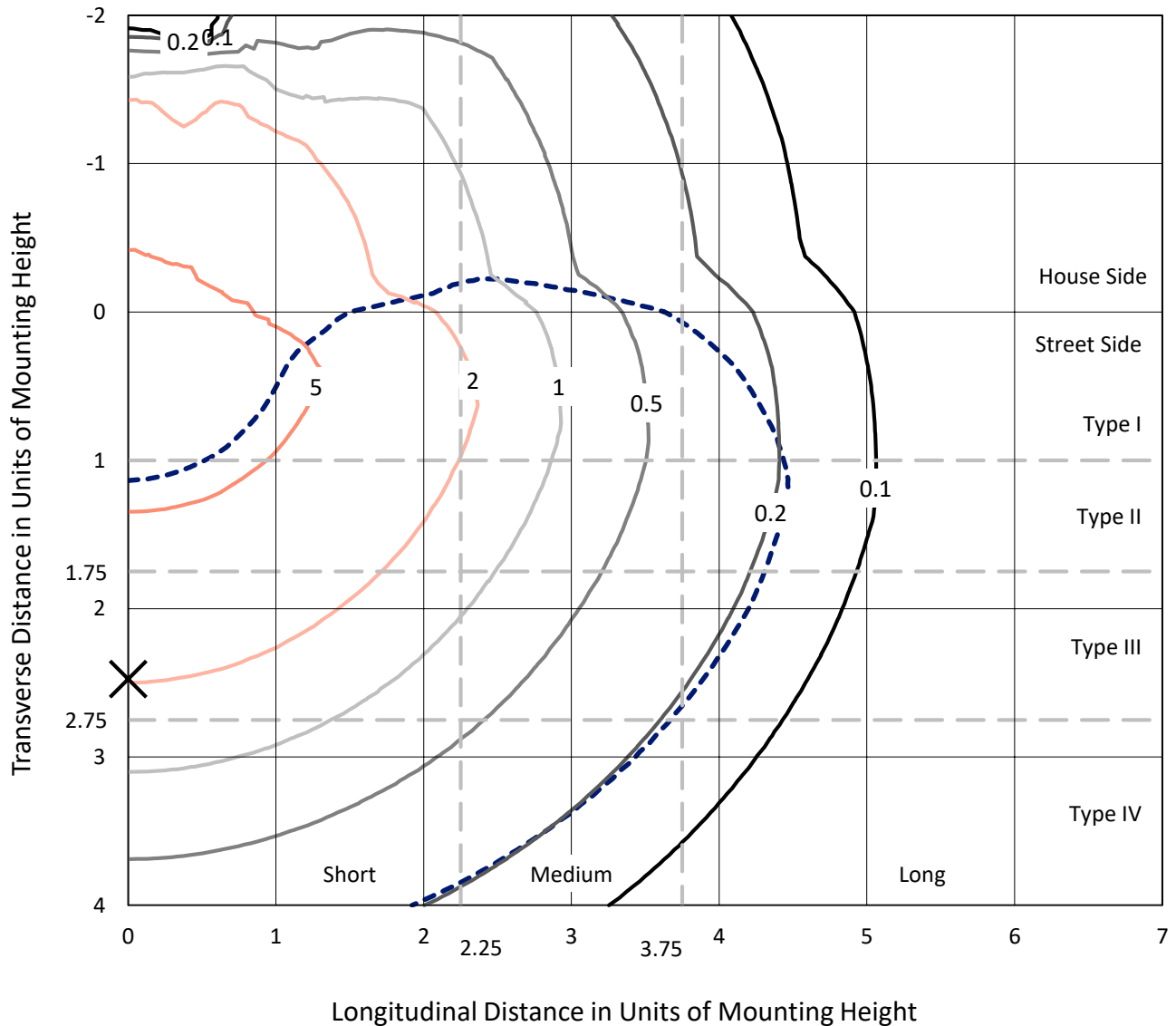


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

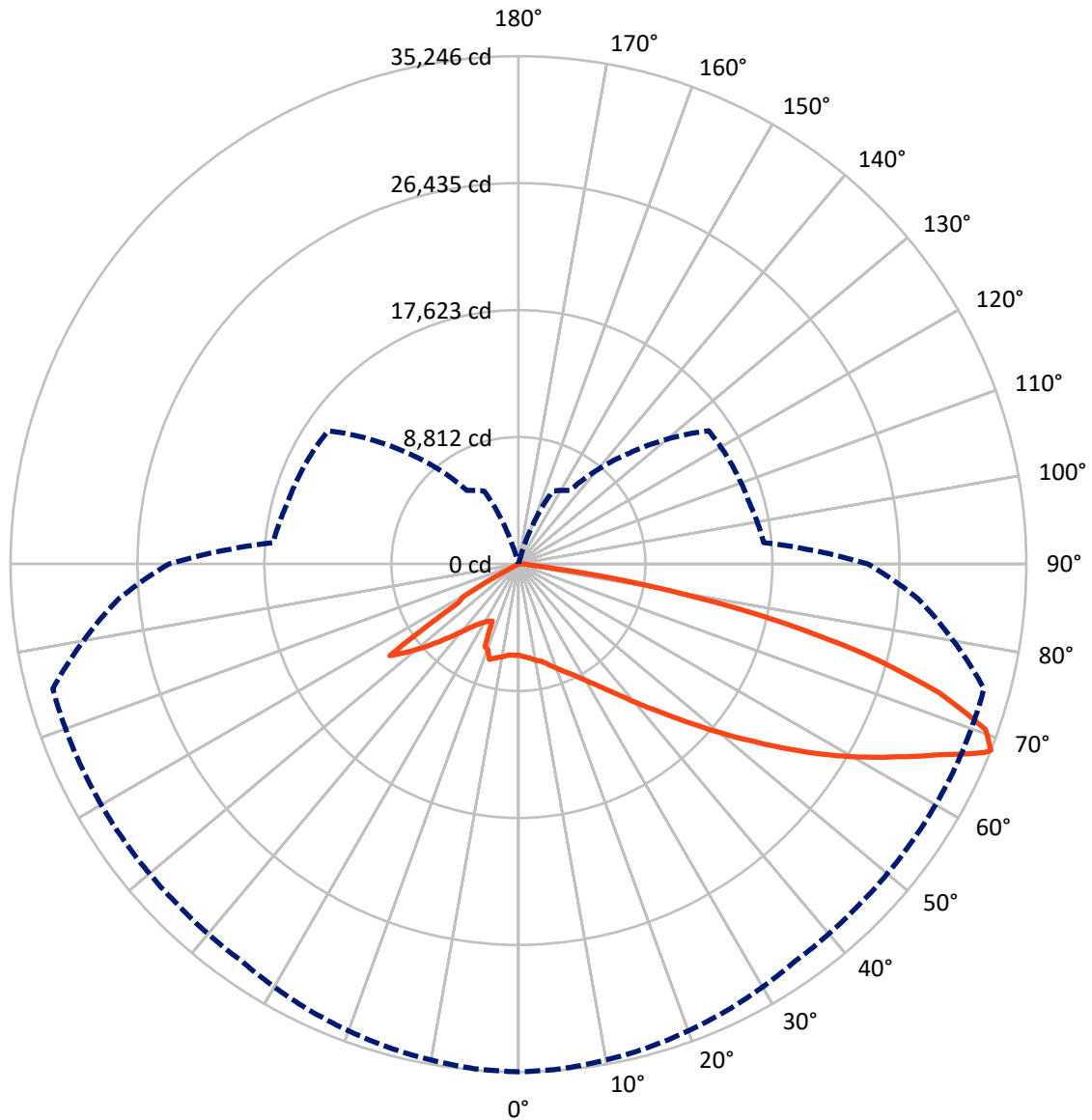


Based on 30 foot mounting height. Maximum calculated value = 7.2 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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



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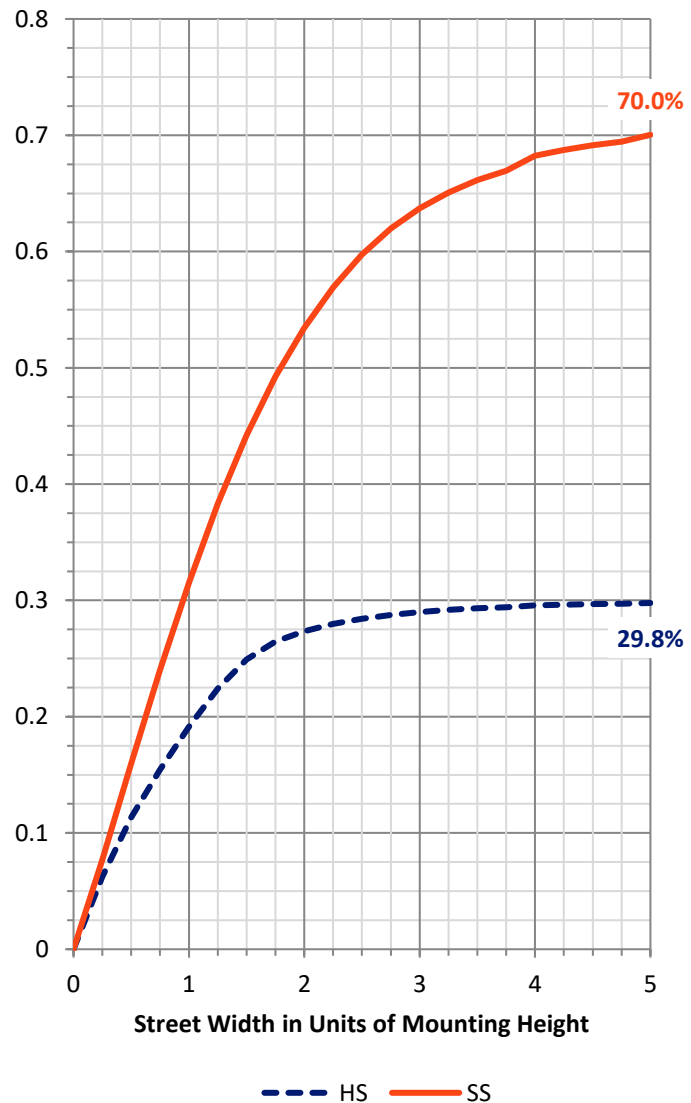
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	21615.0	3.4	21618.4
	% Fixture	29.8	0.0	29.8
<b>Street Side</b>	Lumens	50863.9	29.7	50893.6
	% Fixture	70.1	0.0	70.2
<b>Total</b>	Lumens	72479.0	33.0	72512.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	613.6	0.8
10°-20°	1952.8	2.7
20°-30°	3344.9	4.6
30°-40°	5426.1	7.5
40°-50°	9151.0	12.6
50°-60°	14916.3	20.6
60°-70°	20005.2	27.6
70°-80°	15538.8	21.4
80°-90°	1530.3	2.1
90°-100°	29.1	0.0
100°-110°	1.7	0.0
110°-120°	0.4	0.0
120°-130°	0.3	0.0
130°-140°	0.4	0.0
140°-150°	0.4	0.0
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-90°	72479.0	100.0
0°-180°	72512.0	100.0



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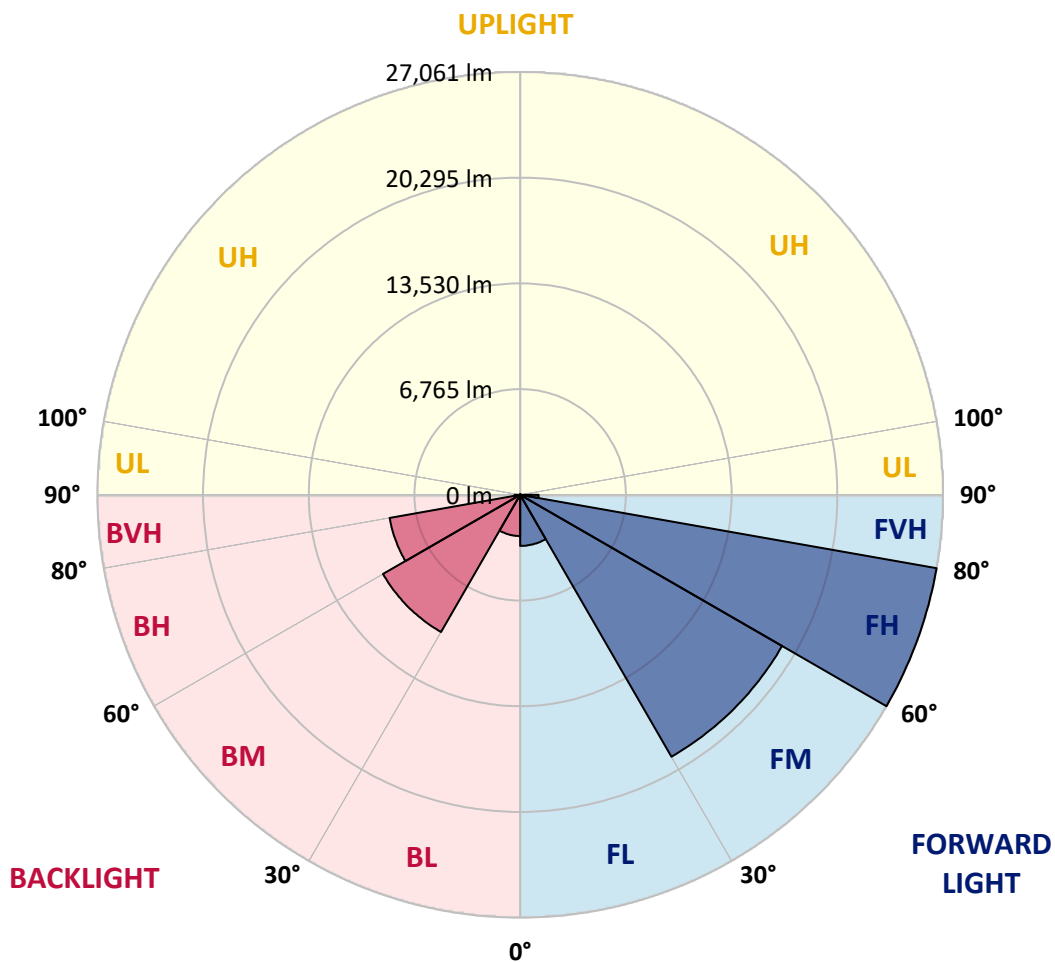
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3270.7	4.5			
FM	(30°-60°)	19356.0	26.7			
FH	(60°-80°)	27060.6	37.3			G5
FVH	(80°-90°)	1176.6	1.6			G5
BL	(0°-30°)	2640.5	3.6	B4/5000		
BM	(30°-60°)	10137.4	14.0	B5		
BH	(60°-80°)	8483.4	11.7	B5		G5
BVH	(80°-90°)	353.7	0.5			G3/500
UL	(90°-100°)	29.1	0.0		U2/50	
UH	(100°-180°)	3.4	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°	6321.7	6321.7	6321.7	6321.7	6321.7	6321.7	6321.7	6321.7	6321.7	6321.7	6321.7
2.5°	6426.7	6408.7	6405.7	6441.7	6327.7	6384.7	6333.7	6375.7	6348.7	6369.7	6372.7
5°	6513.6	6480.6	6459.7	6501.6	6429.7	6456.7	6399.7	6417.7	6342.7	6384.7	6390.7
7.5°	6639.6	6585.6	6579.6	6591.6	6528.6	6549.6	6456.7	6477.6	6423.7	6399.7	6420.7
10°	6810.5	6759.5	6720.6	6747.6	6663.6	6675.6	6576.6	6579.6	6540.6	6495.6	6531.6
12.5°	6906.5	6912.5	6894.5	6915.5	6846.5	6807.5	6738.6	6714.6	6675.6	6621.6	6603.6
15°	7146.4	7134.4	7098.4	7131.4	7122.4	7086.4	7002.5	6948.5	6864.5	6834.5	6804.5
17.5°	7440.3	7401.3	7371.3	7413.3	7458.3	7383.3	7302.4	7227.4	7116.4	7056.4	7020.5
20°	7749.2	7722.2	7692.2	7758.2	7773.2	7716.2	7656.2	7545.3	7416.3	7338.3	7263.4
22.5°	8094.1	8040.1	8049.1	8136.0	8109.1	8082.1	8004.1	7914.1	7758.2	7659.2	7443.3
25°	8450.9	8420.9	8462.9	8501.9	8480.9	8423.9	8385.0	8319.0	8145.0	8025.1	7710.2
27.5°	8894.8	8846.8	8900.8	8915.8	8897.8	8882.8	8828.8	8777.8	8588.9	8453.9	8061.1
30°	9416.6	9359.6	9446.6	9425.6	9407.6	9419.6	9386.6	9275.6	9107.7	8924.8	8531.9
32.5°	10037.4	9962.4	10061.3	10016.4	9974.4	10058.4	9980.4	9875.4	9677.5	9464.6	9080.7
35°	10757.1	10760.1	10811.1	10736.1	10721.1	10811.1	10760.1	10631.1	10448.2	10226.3	9680.5
37.5°	11629.8	11605.8	11734.7	11698.8	11644.8	11764.7	11779.7	11617.8	11287.9	11069.0	10424.2
40°	12691.4	12685.4	12727.4	12733.4	12718.4	12775.4	12802.4	12586.4	12373.5	12043.6	9836.4
42.5°	13825.0	13849.0	13923.9	13870.0	13941.9	14016.9	14025.9	13846.0	13540.1	11554.8	10448.2
45°	15186.5	15261.5	15312.4	15300.4	15333.4	15441.4	15450.4	15354.4	15054.5	12517.5	11557.8
47.5°	16748.9	16820.9	16835.9	16931.9	16901.9	17054.8	17033.8	17036.8	16715.9	13858.0	12766.4
50°	18545.3	18578.3	18701.2	18755.2	18680.2	18887.1	18833.2	18899.1	18503.3	15393.4	14064.9
52.5°	20452.6	20509.6	20560.5	20764.5	20668.5	20848.4	20776.5	20929.4	20470.6	16955.8	15507.4
55°	22620.8	22629.8	22716.8	22923.7	22797.7	23013.6	22908.7	22965.7	22599.8	18683.2	17009.8
57.5°	24918.0	24888.0	24921.0	25085.9	24971.9	25133.9	25091.9	25145.9	24804.0	20500.6	18107.4
60°	27191.1	27146.2	27194.1	27305.1	27149.1	27428.0	27278.1	27329.1	26960.2	22356.9	19672.9
62.5°	29476.3	29443.3	29389.3	29500.3	29272.4	29416.3	29479.3	29395.3	29071.5	24036.3	21034.4
65°	31929.4	31896.4	31698.5	31767.5	31359.6	31290.6	31314.6	31341.6	31125.7	25700.7	22527.8
67.5°	34910.3	34862.4	34490.5	34022.7	33434.9	33305.9	33317.9	33389.9	33419.9	27841.9	24276.2
68°	35246.2	35159.2	34745.4	34202.6	33587.8	33437.9	33422.9	33437.9	33452.9	27859.9	24258.2
70°	34388.5	34355.5	34040.6	33383.9	32754.1	32394.2	32082.4	32070.4	31926.4	26435.4	22917.7
72.5°	30516.9	30474.9	30100.1	29635.2	29245.4	28681.6	28276.7	28300.7	28063.8	23364.5	20059.7
75°	24696.0	24693.0	24243.2	23853.3	23859.3	23817.4	23682.4	23919.3	23673.4	19816.8	17108.8
77.5°	17210.8	17270.7	17240.7	17012.8	17333.7	17777.5	18260.4	18716.2	18575.3	15654.3	13642.1
80°	8990.7	9158.7	9752.5	9779.5	10004.4	10436.2	10766.1	11072.0	11093.0	8882.8	7881.1
82.5°	2390.1	2441.1	2642.0	2585.1	2567.1	2654.0	2726.0	2735.0	2741.0	2315.2	2162.2
85°	743.7	764.7	740.7	707.7	656.8	599.8	584.8	476.8	377.9	311.9	272.9
87.5°	527.8	563.8	509.8	479.8	425.8	404.9	362.9	284.9	221.9	155.9	105.0
90°	272.9	278.9	248.9	212.9	197.9	185.9	158.9	114.0	57.0	30.0	27.0
92.5°	137.9	140.9	123.0	105.0	90.0	78.0	60.0	33.0	18.0	9.0	3.0
95°	54.0	57.0	51.0	45.0	36.0	27.0	24.0	18.0	12.0	6.0	3.0
97.5°	18.0	18.0	18.0	15.0	15.0	15.0	15.0	12.0	9.0	6.0	3.0
100°	0.0	0.0	0.0	3.0	6.0	9.0	9.0	9.0	6.0	3.0	3.0
102.5°	0.0	0.0	0.0	0.0	0.0	3.0	6.0	6.0	6.0	3.0	3.0
105°	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0	3.0	3.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0	3.0



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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	0.0	3.0	3.0	3.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0
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	3.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0	3.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0	3.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0	3.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0	3.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0	3.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0	3.0
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°	6321.7	6321.7	6321.7	6321.7	6321.7	6321.7	6321.7	6321.7	6321.7	6321.7
2.5°	6357.7	6339.7	6348.7	6273.7	6291.7	6243.7	6345.7	6318.7	6306.7	6348.7
5°	6372.7	6306.7	6360.7	6309.7	6318.7	6249.7	6333.7	6300.7	6297.7	6321.7
7.5°	6378.7	6345.7	6396.7	6312.7	6339.7	6312.7	6375.7	6342.7	6372.7	6393.7
10°	6462.7	6444.7	6438.7	6408.7	6429.7	6369.7	6447.7	6447.7	6462.7	6519.6
12.5°	6585.6	6561.6	6546.6	6492.6	6513.6	6495.6	6558.6	6570.6	6597.6	6621.6
15°	6753.5	6711.6	6696.6	6648.6	6663.6	6660.6	6705.6	6708.6	6768.5	6765.5
17.5°	6969.5	6909.5	6927.5	6891.5	6894.5	6870.5	6846.5	6846.5	6900.5	6912.5
20°	7227.4	6885.5	6435.7	6183.8	6138.8	6171.8	6300.7	6513.6	6246.7	6321.7
22.5°	6762.5	6453.7	6432.7	6375.7	6339.7	5536.0	5329.1	5263.1	5608.0	6201.7
25°	6822.5	6690.6	6651.6	6579.6	5518.0	5509.0	5449.0	5350.1	4372.4	4351.4
27.5°	7140.4	7011.5	6948.5	5763.9	5739.9	5736.9	5647.0	4654.3	4429.4	4459.4
30°	7512.3	7362.3	6234.7	6054.8	6033.8	5985.8	5470.0	4597.3	4594.3	4597.3
32.5°	7941.1	7443.3	6414.7	6405.7	6417.7	6270.7	4846.2	4828.2	4825.2	4855.2
35°	8528.9	6906.5	6864.5	6909.5	6846.5	5422.0	5137.1	5128.1	5131.1	5116.1
37.5°	8139.0	7446.3	7437.3	7437.3	7290.4	5548.0	5491.0	5533.0	5527.0	5506.0
40°	8304.0	8100.1	8046.1	8028.1	6162.8	5985.8	5952.8	6006.8	6015.8	6030.8
42.5°	9104.7	8918.8	8891.8	8678.9	6705.6	6648.6	6546.6	6603.6	6597.6	6615.6
45°	10088.3	9962.4	9845.4	7524.3	7437.3	7365.3	7260.4	7326.3	7344.3	7332.3
47.5°	11233.9	11096.0	10250.3	8274.0	8271.0	8214.0	8097.1	8151.0	8142.0	8142.0
50°	12385.5	12235.6	9311.6	9227.7	9197.7	9107.7	9011.7	9020.7	9023.7	9053.7
52.5°	13672.0	10928.0	10307.3	10139.3	10163.3	10103.3	10010.4	7578.3	9965.4	9992.4
55°	12778.4	11437.8	11401.9	11179.9	11236.9	11159.0	11099.0	7476.3	9911.4	10952.0
57.5°	12634.4	12538.5	12508.5	12280.5	12352.5	11611.8	12166.6	8181.0	6855.5	5008.2
60°	13735.0	13633.1	13615.1	13414.1	13408.1	9227.7	11060.0	5611.0	4384.4	4414.4
62.5°	14802.6	14637.7	14682.7	14445.8	10184.3	5623.0	4957.2	126.0	200.9	212.9
65°	15993.2	15717.3	15762.3	15543.4	10505.2	5928.8	5359.1	66.0	57.0	54.0
67.5°	17138.8	16656.0	16425.0	16194.1	10910.0	6243.7	5584.0	18.0	0.0	0.0
68°	17081.8	16572.0	16335.1	16116.2	10868.1	6234.7	5572.0	18.0	0.0	0.0
70°	16119.2	15660.3	15435.4	15267.5	10376.2	6021.8	5347.1	18.0	0.0	0.0
72.5°	14091.9	13837.0	13693.0	13546.1	9218.7	5386.0	4795.3	18.0	0.0	0.0
75°	11974.7	11902.7	11812.7	11488.8	7683.2	4408.4	3940.6	18.0	0.0	0.0
77.5°	9488.6	9485.6	9266.6	8885.8	5784.9	3235.8	2905.9	15.0	0.0	0.0
80°	5131.1	5593.0	5425.0	5230.1	3280.8	1760.4	1676.4	12.0	0.0	0.0
82.5°	1442.5	1364.5	1310.5	1226.6	689.7	383.9	374.9	12.0	0.0	0.0
85°	200.9	221.9	245.9	278.9	158.9	102.0	90.0	6.0	0.0	0.0
87.5°	114.0	129.0	158.9	164.9	60.0	48.0	15.0	0.0	0.0	0.0
90°	24.0	27.0	30.0	30.0	12.0	12.0	0.0	0.0	0.0	0.0
92.5°	0.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	3.0	3.0	3.0	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°
110°	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	3.0	3.0	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)