

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: P256726

Luminaire Tested: **CST-10-8-D-U-T5R-HSS-HM-EX120**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P256726  
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-10-8-D-U-T5R-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE  
(10) 70 CRI, 4000K 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: 62520 lumens  
Efficiency: N/A  
Efficacy: 99.1 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): 631  
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

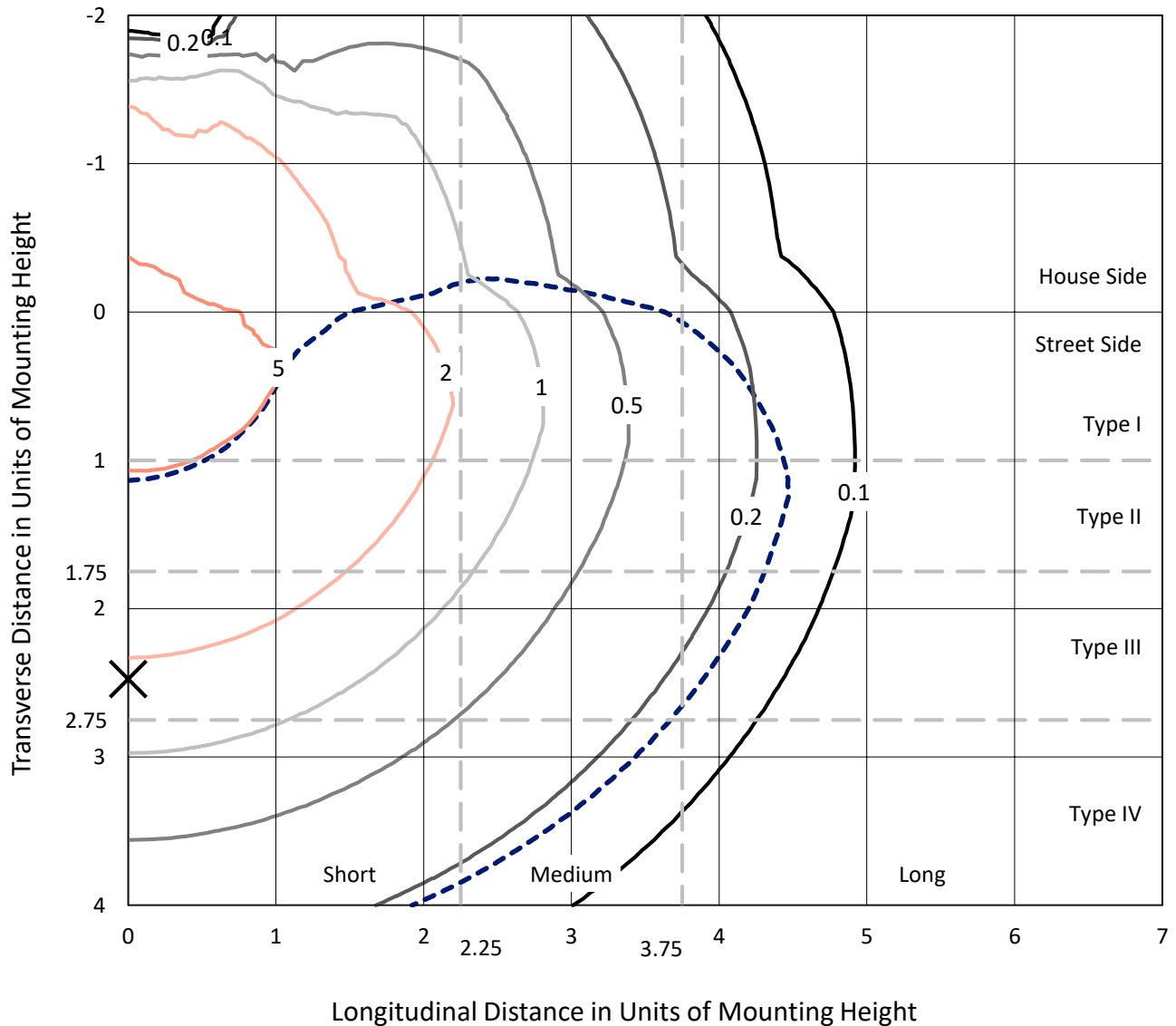


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

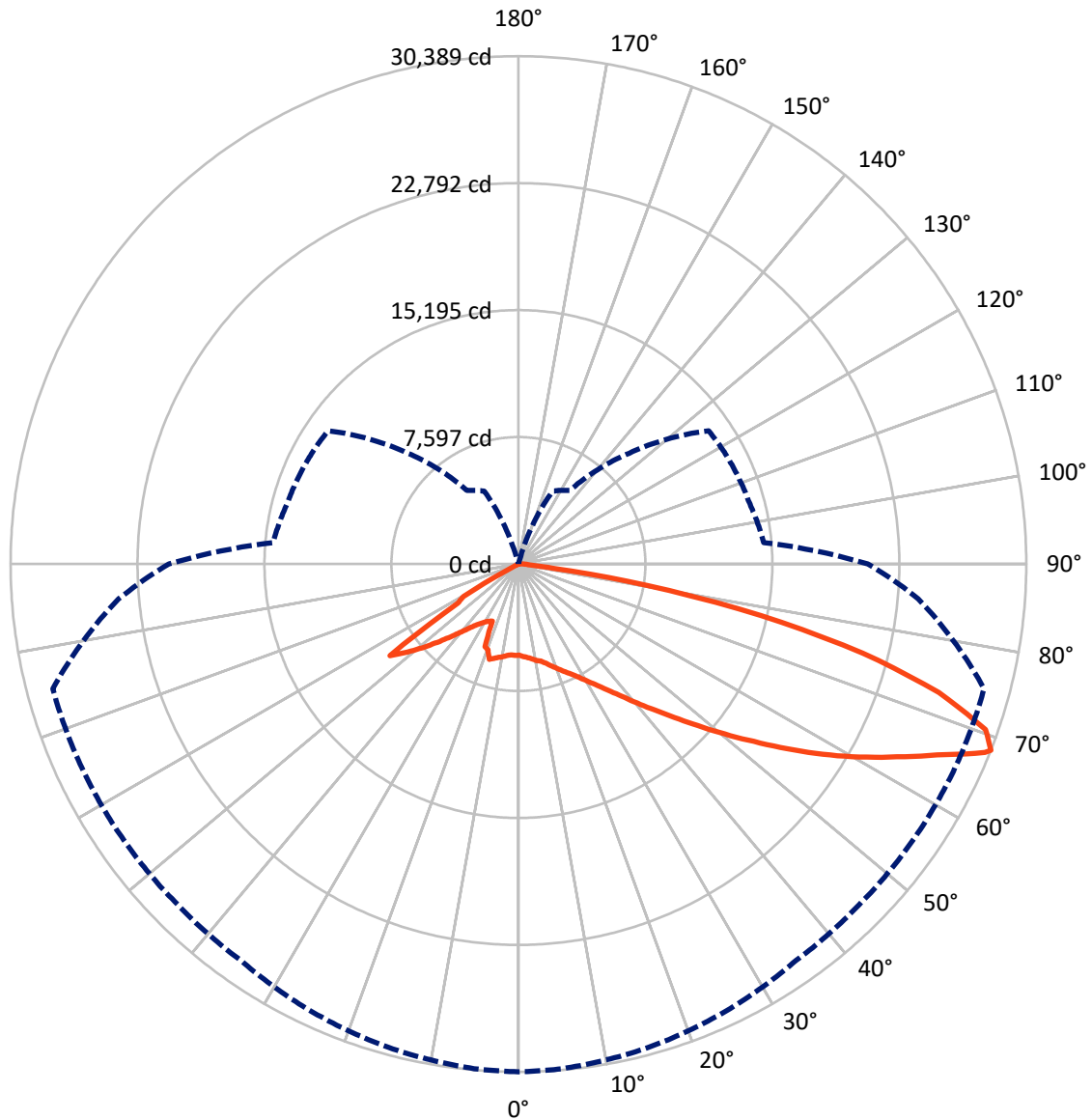


Based on 30 foot mounting height. Maximum calculated value = 6.2 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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



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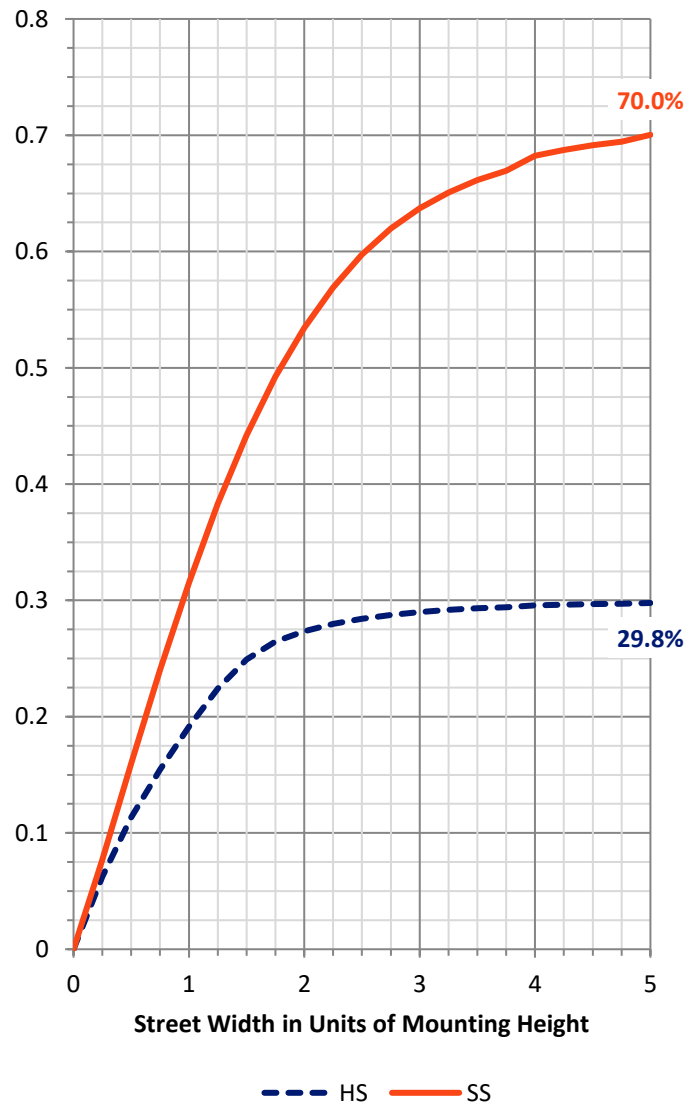
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	18636.5	2.9	18639.4
	% Fixture	29.8	0.0	29.8
<b>Street Side</b>	Lumens	43855.0	25.6	43880.6
	% Fixture	70.1	0.0	70.2
<b>Total</b>	Lumens	62491.5	28.5	62520.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	529.0	0.8
10°-20°	1683.7	2.7
20°-30°	2884.0	4.6
30°-40°	4678.4	7.5
40°-50°	7890.0	12.6
50°-60°	12860.9	20.6
60°-70°	17248.5	27.6
70°-80°	13397.6	21.4
80°-90°	1319.5	2.1
90°-100°	25.1	0.0
100°-110°	1.4	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°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	62491.5	100.0
0°-180°	62520.0	100.0

**Coefficient of Utilization**



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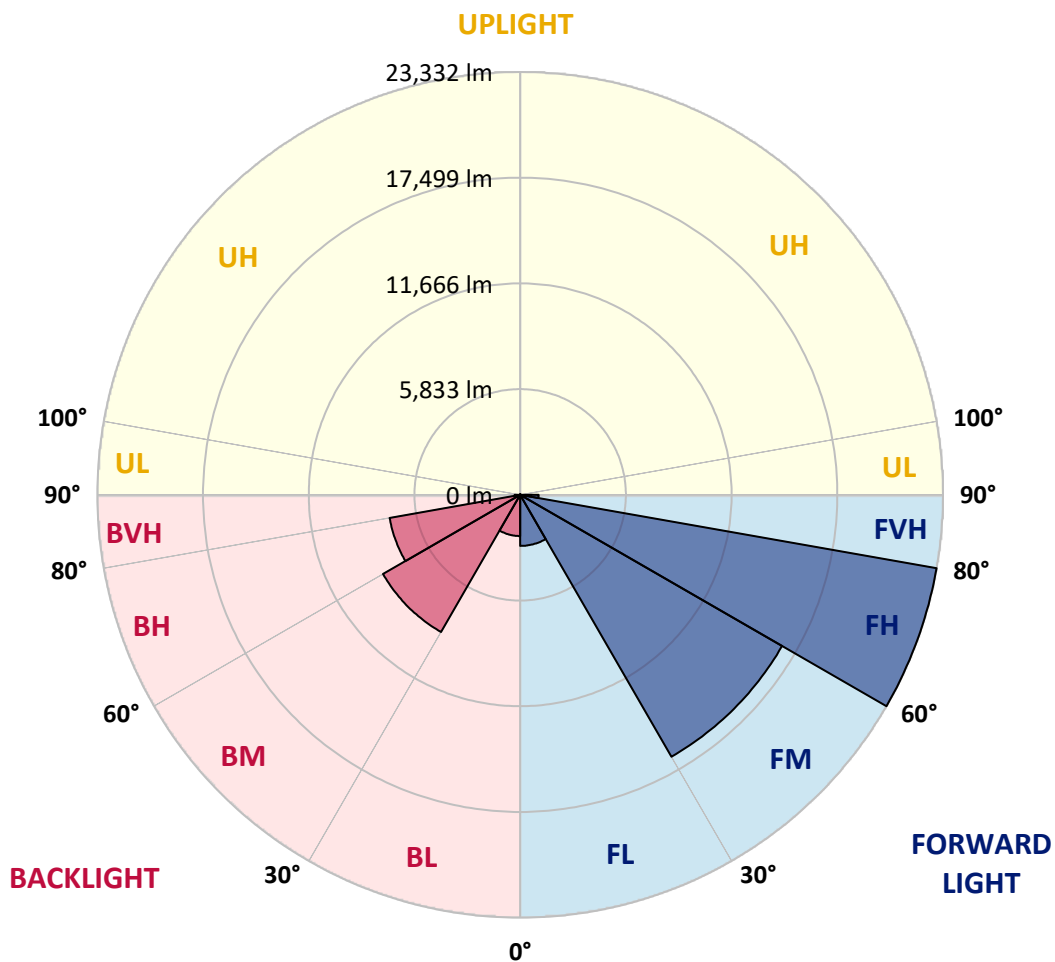
CATALOG NUMBER: CST-10-8-D-U-T5R-HSS-HM-EX120

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2820.0	4.5			
FM	(30°-60°)	16688.8	26.7			
FH	(60°-80°)	23331.7	37.3			G5
FVH	(80°-90°)	1014.5	1.6			G5
BL	(0°-30°)	2276.7	3.6	B3/2500		
BM	(30°-60°)	8740.5	14.0	B5		
BH	(60°-80°)	7314.4	11.7	B5		G5
BVH	(80°-90°)	305.0	0.5			G3/500
UL	(90°-100°)	25.1	0.0		U2/50	
UH	(100°-180°)	2.9	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°	5450.6	5450.6	5450.6	5450.6	5450.6	5450.6	5450.6	5450.6	5450.6	5450.6	5450.6
2.5°	5541.1	5525.6	5523.0	5554.0	5455.8	5504.9	5460.9	5497.1	5473.9	5492.0	5494.5
5°	5616.1	5587.6	5569.5	5605.7	5543.7	5566.9	5517.8	5533.3	5468.7	5504.9	5510.1
7.5°	5724.7	5678.1	5673.0	5683.3	5629.0	5647.1	5566.9	5585.0	5538.5	5517.8	5535.9
10°	5872.1	5828.1	5794.5	5817.8	5745.4	5755.7	5670.4	5673.0	5639.3	5600.6	5631.6
12.5°	5954.8	5960.0	5944.5	5962.6	5903.1	5869.5	5810.0	5789.3	5755.7	5709.2	5693.6
15°	6161.6	6151.3	6120.3	6148.7	6141.0	6109.9	6037.5	5991.0	5918.6	5892.7	5866.9
17.5°	6415.0	6381.4	6355.6	6391.8	6430.6	6365.9	6296.1	6231.5	6135.8	6084.1	6053.0
20°	6681.4	6658.1	6632.2	6689.1	6702.1	6652.9	6601.2	6505.5	6394.4	6327.1	6262.5
22.5°	6978.7	6932.2	6939.9	7014.9	6991.6	6968.4	6901.1	6823.6	6689.1	6603.8	6417.6
25°	7286.4	7260.6	7296.8	7330.4	7312.3	7263.1	7229.5	7172.6	7022.7	6919.2	6647.8
27.5°	7669.1	7627.7	7674.3	7687.2	7671.7	7658.7	7612.2	7568.3	7405.4	7289.0	6950.3
30°	8119.0	8069.9	8144.9	8126.8	8111.2	8121.6	8093.1	7997.5	7852.7	7694.9	7356.2
32.5°	8654.2	8589.6	8674.9	8636.1	8599.9	8672.3	8605.1	8514.6	8344.0	8160.4	7829.4
35°	9274.8	9277.4	9321.3	9256.7	9243.8	9321.3	9277.4	9166.2	9008.5	8817.1	8346.5
37.5°	10027.2	10006.5	10117.7	10086.7	10040.1	10143.6	10156.5	10016.9	9732.5	9543.7	8987.8
40°	10942.5	10937.4	10973.6	10978.7	10965.8	11014.9	11038.2	10852.0	10668.5	10384.0	8481.0
42.5°	11919.9	11940.6	12005.3	11958.7	12020.8	12085.4	12093.2	11938.0	11674.3	9962.6	9008.5
45°	13093.8	13158.5	13202.4	13192.1	13220.5	13313.6	13321.4	13238.6	12980.1	10792.6	9965.2
47.5°	14441.0	14503.0	14515.9	14598.7	14572.8	14704.7	14686.6	14689.2	14412.5	11948.4	11007.2
50°	15989.8	16018.2	16124.2	16170.8	16106.1	16284.5	16238.0	16294.9	15953.6	13272.2	12126.8
52.5°	17634.3	17683.4	17727.3	17903.2	17820.4	17975.6	17913.5	18045.4	17649.8	14619.4	13370.5
55°	19503.7	19511.5	19586.4	19764.8	19656.2	19842.4	19751.9	19801.0	19485.6	16108.7	14665.9
57.5°	21484.3	21458.5	21486.9	21629.1	21530.9	21670.5	21634.3	21680.8	21386.1	17675.6	15612.3
60°	23444.3	23405.5	23446.8	23542.5	23408.1	23648.5	23519.2	23563.2	23245.2	19276.2	16962.0
62.5°	25414.5	25386.1	25339.5	25435.2	25238.7	25362.8	25417.1	25344.7	25065.5	20724.1	18135.9
65°	27529.6	27501.2	27330.5	27390.0	27038.3	26978.9	26999.5	27022.8	26836.7	22159.2	19423.5
67.5°	30099.8	30058.4	29737.8	29334.4	28827.6	28716.4	28726.8	28788.8	28814.7	24005.3	20931.0
68°	30389.4	30314.4	29957.6	29489.5	28959.5	28830.2	28817.3	28830.2	28843.1	24020.9	20915.5
70°	29649.9	29621.4	29349.9	28783.7	28240.7	27930.4	27661.5	27651.1	27527.0	22792.7	19759.7
72.5°	26311.8	26275.6	25952.4	25551.6	25215.4	24729.3	24380.3	24401.0	24196.7	20144.9	17295.5
75°	21293.0	21290.4	20902.5	20566.4	20571.6	20535.4	20419.0	20623.3	20411.3	17086.1	14751.2
77.5°	14839.1	14890.9	14865.0	14668.5	14945.2	15327.8	15744.1	16137.2	16015.6	13497.2	11762.2
80°	7751.8	7896.6	8408.6	8431.9	8625.8	8998.1	9282.5	9546.3	9564.4	7658.7	6795.1
82.5°	2060.8	2104.7	2278.0	2228.8	2213.3	2288.3	2350.4	2358.1	2363.3	1996.1	1864.3
85°	641.2	659.3	638.7	610.2	566.3	517.1	504.2	411.1	325.8	268.9	235.3
87.5°	455.1	486.1	439.6	413.7	367.2	349.1	312.9	245.6	191.3	134.5	90.5
90°	235.3	240.5	214.6	183.6	170.7	160.3	137.0	98.3	49.1	25.9	23.3
92.5°	118.9	121.5	106.0	90.5	77.6	67.2	51.7	28.4	15.5	7.8	2.6
95°	46.5	49.1	44.0	38.8	31.0	23.3	20.7	15.5	10.3	5.2	2.6
97.5°	15.5	15.5	15.5	12.9	12.9	12.9	12.9	10.3	7.8	5.2	2.6
100°	0.0	0.0	0.0	2.6	5.2	7.8	7.8	7.8	5.2	2.6	2.6
102.5°	0.0	0.0	0.0	0.0	0.0	2.6	5.2	5.2	5.2	2.6	2.6
105°	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6



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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	2.6	2.6	2.6
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
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	2.6
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
165°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
170°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
175°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
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°	5450.6	5450.6	5450.6	5450.6	5450.6	5450.6	5450.6	5450.6	5450.6	5450.6
2.5°	5481.6	5466.1	5473.9	5409.2	5424.7	5383.4	5471.3	5448.0	5437.7	5473.9
5°	5494.5	5437.7	5484.2	5440.2	5448.0	5388.5	5460.9	5432.5	5429.9	5450.6
7.5°	5499.7	5471.3	5515.2	5442.8	5466.1	5442.8	5497.1	5468.7	5494.5	5512.6
10°	5572.1	5556.6	5551.4	5525.6	5543.7	5492.0	5559.2	5559.2	5572.1	5621.2
12.5°	5678.1	5657.4	5644.5	5598.0	5616.1	5600.6	5654.9	5665.2	5688.5	5709.2
15°	5822.9	5786.7	5773.8	5732.4	5745.4	5742.8	5781.6	5784.1	5835.9	5833.3
17.5°	6009.1	5957.4	5972.9	5941.9	5944.5	5923.8	5903.1	5903.1	5949.6	5960.0
20°	6231.5	5936.7	5548.8	5331.6	5292.9	5321.3	5432.5	5616.1	5385.9	5450.6
22.5°	5830.7	5564.4	5546.3	5497.1	5466.1	4773.1	4594.7	4537.8	4835.2	5347.2
25°	5882.4	5768.6	5735.0	5673.0	4757.6	4749.9	4698.2	4612.8	3769.9	3751.8
27.5°	6156.5	6045.3	5991.0	4969.7	4949.0	4946.4	4868.8	4013.0	3819.0	3844.9
30°	6477.1	6347.8	5375.6	5220.5	5202.4	5161.0	4716.3	3963.8	3961.2	3963.8
32.5°	6846.8	6417.6	5530.7	5523.0	5533.3	5406.6	4178.4	4162.9	4160.3	4186.2
35°	7353.6	5954.8	5918.6	5957.4	5903.1	4674.9	4429.2	4421.5	4424.1	4411.1
37.5°	7017.5	6420.2	6412.5	6412.5	6285.8	4783.5	4734.4	4770.6	4765.4	4747.3
40°	7159.7	6983.9	6937.3	6921.8	5313.5	5161.0	5132.6	5179.1	5186.9	5199.8
42.5°	7850.1	7689.8	7666.5	7482.9	5781.6	5732.4	5644.5	5693.6	5688.5	5704.0
45°	8698.2	8589.6	8488.7	6487.4	6412.5	6350.4	6259.9	6316.8	6332.3	6322.0
47.5°	9685.9	9567.0	8837.8	7133.9	7131.3	7082.1	6981.3	7027.8	7020.1	7020.1
50°	10678.8	10549.5	8028.5	7956.1	7930.2	7852.7	7769.9	7777.7	7780.3	7806.1
52.5°	11788.1	9422.2	8886.9	8742.1	8762.8	8711.1	8631.0	6534.0	8592.2	8615.4
55°	11017.5	9861.7	9830.7	9639.4	9688.5	9621.3	9569.6	6446.1	8545.6	9442.9
57.5°	10893.4	10810.7	10784.8	10588.3	10650.4	10011.7	10490.1	7053.7	5910.8	4318.1
60°	11842.4	11754.4	11738.9	11565.7	11560.5	7956.1	9535.9	4837.8	3780.2	3806.1
62.5°	12762.9	12620.6	12659.4	12455.2	8780.9	4848.1	4274.1	108.6	173.2	183.6
65°	13789.4	13551.5	13590.3	13401.5	9057.6	5111.9	4620.6	56.9	49.1	46.5
67.5°	14777.1	14360.8	14161.7	13962.6	9406.7	5383.4	4814.5	15.5	0.0	0.0
68°	14728.0	14288.4	14084.1	13895.4	9370.5	5375.6	4804.2	15.5	0.0	0.0
70°	13898.0	13502.4	13308.4	13163.6	8946.4	5192.0	4610.2	15.5	0.0	0.0
72.5°	12150.1	11930.3	11806.2	11679.5	7948.3	4643.9	4134.5	15.5	0.0	0.0
75°	10324.6	10262.5	10184.9	9905.7	6624.5	3800.9	3397.6	15.5	0.0	0.0
77.5°	8181.1	8178.5	7989.7	7661.3	4987.8	2789.9	2505.5	12.9	0.0	0.0
80°	4424.1	4822.3	4677.5	4509.4	2828.7	1517.8	1445.4	10.3	0.0	0.0
82.5°	1243.7	1176.5	1129.9	1057.5	594.7	331.0	323.2	10.3	0.0	0.0
85°	173.2	191.3	212.0	240.5	137.0	87.9	77.6	5.2	0.0	0.0
87.5°	98.3	111.2	137.0	142.2	51.7	41.4	12.9	0.0	0.0	0.0
90°	20.7	23.3	25.9	25.9	10.3	10.3	0.0	0.0	0.0	0.0
92.5°	0.0	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.6	2.6	2.6	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°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.6	2.6	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)