

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: P256702

Luminaire Tested: **CST-10-8-D-U-T5R-HSS-HM-EX90**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256702
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-10-8-D-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 4000K 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: 68718 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B5 - U2 - G5

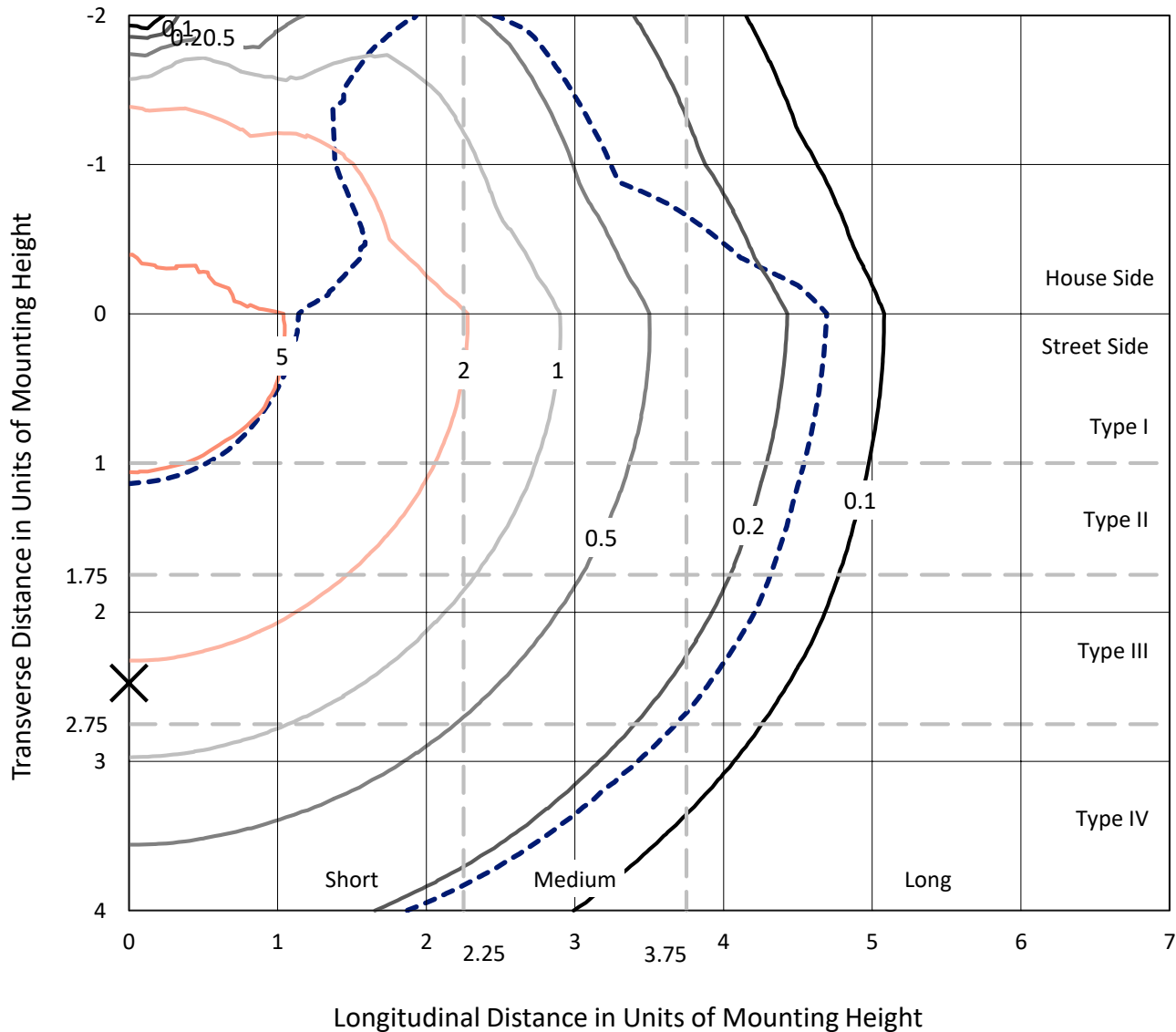
Input Watts (W): 631
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

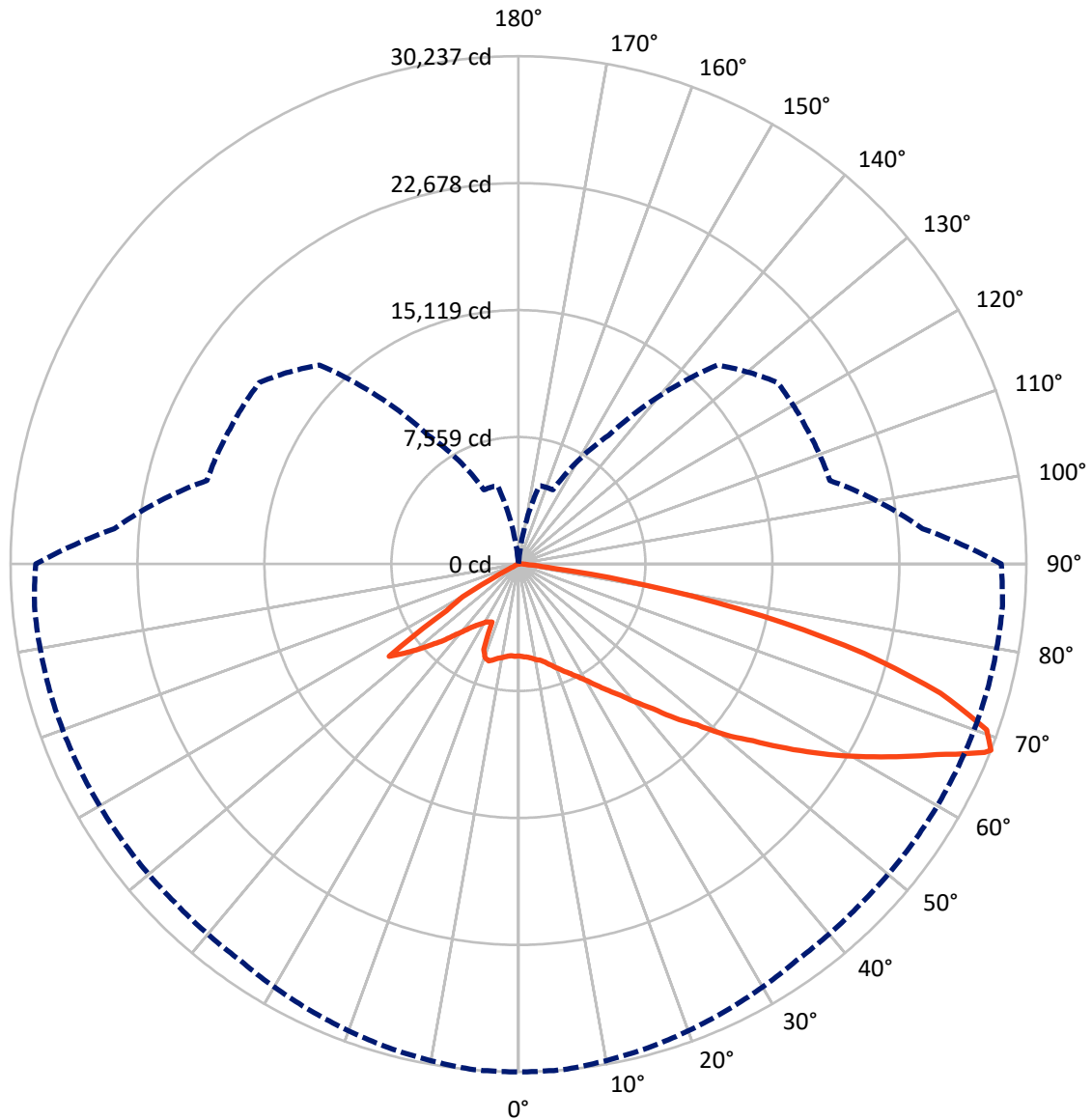


Based on 30 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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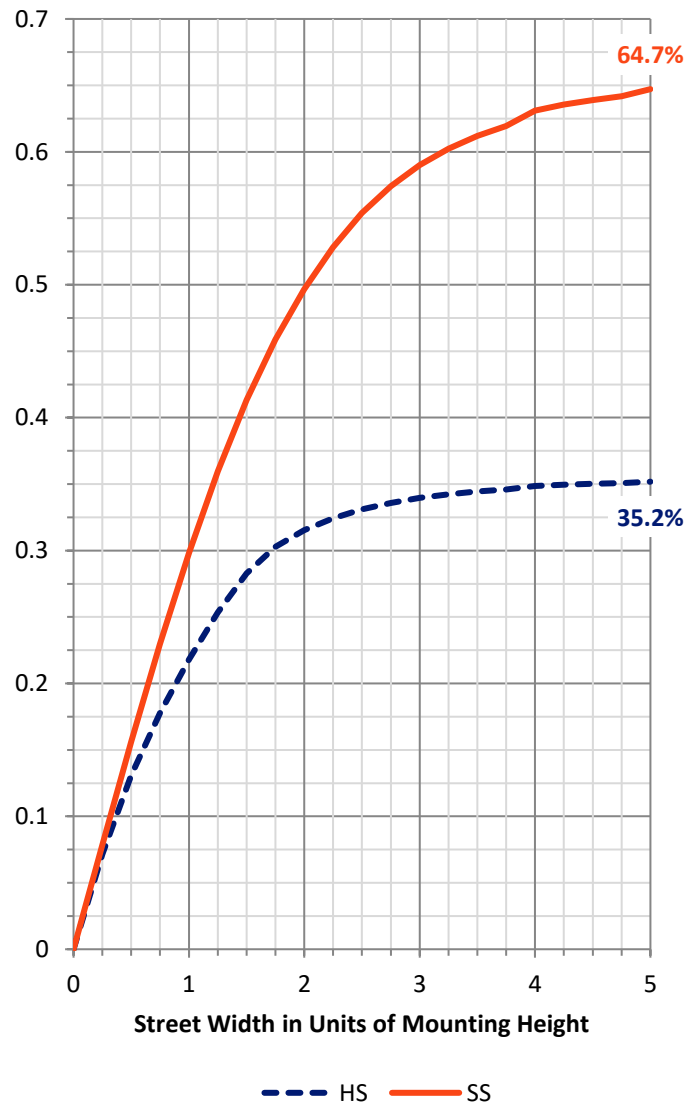
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	24184.1	4.2	24188.2
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	44511.7	18.1	44529.8
	% Fixture	64.8	0.0	64.8
Total	Lumens	68695.7	22.3	68718.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	529.1	0.8
10°-20°	1695.1	2.5
20°-30°	3026.0	4.4
30°-40°	4922.7	7.2
40°-50°	8406.5	12.2
50°-60°	14026.7	20.4
60°-70°	19513.9	28.4
70°-80°	15126.3	22.0
80°-90°	1449.5	2.1
90°-100°	17.5	0.0
100°-110°	1.5	0.0
110°-120°	0.8	0.0
120°-130°	0.5	0.0
130°-140°	0.5	0.0
140°-150°	0.6	0.0
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-90°	68695.7	100.0
0°-180°	68718.0	100.0

Coefficient of Utilization



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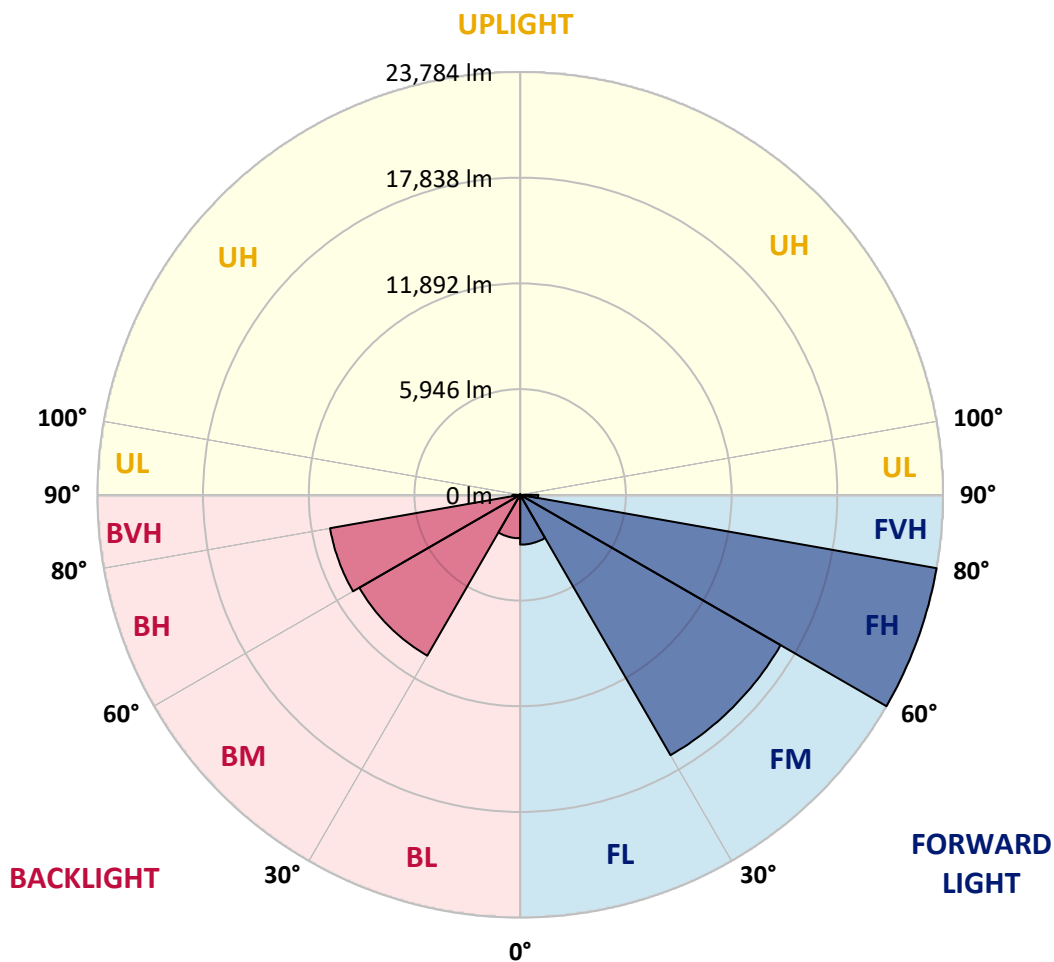
CATALOG NUMBER: CST-10-8-D-U-T5R-HSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2804.7	4.1			
FM	(30°-60°)	16909.4	24.6			
FH	(60°-80°)	23783.5	34.6			G5
FVH	(80°-90°)	1014.0	1.5			G5
BL	(0°-30°)	2445.5	3.6	B3/2500		
BM	(30°-60°)	10446.4	15.2	B5		
BH	(60°-80°)	10856.7	15.8	B5		G5
BVH	(80°-90°)	435.4	0.6			G3/500
UL	(90°-100°)	17.5	0.0		U2/50	
UH	(100°-180°)	4.2	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°	5468.8	5468.8	5468.8	5468.8	5468.8	5468.8	5468.8	5468.8	5468.8	5468.8	5468.8
2.5°	5530.9	5523.1	5517.9	5551.5	5455.9	5494.7	5468.8	5502.4	5494.7	5510.2	5512.8
5°	5569.6	5556.7	5538.6	5574.8	5517.9	5543.8	5515.3	5530.9	5481.7	5523.1	5528.3
7.5°	5657.6	5621.4	5618.8	5629.1	5590.3	5608.4	5559.3	5577.4	5551.5	5536.0	5551.5
10°	5789.4	5758.4	5724.8	5745.5	5680.8	5704.1	5652.4	5667.9	5655.0	5621.4	5652.4
12.5°	5879.9	5890.3	5867.0	5882.5	5825.6	5804.9	5786.8	5784.3	5776.5	5727.4	5719.6
15°	6081.6	6086.8	6045.4	6055.8	6042.8	6032.5	6006.6	5985.9	5944.6	5913.5	5892.9
17.5°	6345.4	6316.9	6278.1	6288.5	6324.7	6278.1	6262.6	6223.8	6164.4	6112.6	6102.3
20°	6622.0	6603.9	6567.7	6588.4	6585.8	6554.8	6562.6	6497.9	6412.6	6368.6	6335.0
22.5°	6929.7	6903.9	6878.0	6916.8	6885.8	6865.1	6857.3	6813.4	6707.4	6658.2	6650.5
25°	7237.4	7224.5	7242.6	7229.7	7185.7	7170.2	7180.5	7165.0	7040.9	6981.4	6945.2
27.5°	7622.7	7591.7	7620.1	7604.6	7558.1	7560.6	7563.2	7565.8	7426.2	7348.6	7296.9
30°	8062.3	8051.9	8088.1	8039.0	7995.0	8023.5	8046.8	7995.0	7873.5	7759.7	7741.6
32.5°	8633.7	8569.1	8610.4	8548.4	8481.2	8548.4	8589.8	8486.3	8388.1	8243.3	8269.1
35°	9267.2	9246.5	9246.5	9166.4	9130.2	9236.2	9277.6	9176.7	9024.2	8897.5	8866.4
37.5°	9939.5	9960.2	10024.8	9991.2	9957.6	10022.2	10115.3	9980.9	9784.4	9649.9	9613.7
40°	10831.6	10883.3	10927.2	10883.3	10844.5	10885.9	10991.9	10816.1	10679.0	10606.6	10529.0
42.5°	11790.9	11878.8	11850.3	11855.5	11889.1	11948.6	12054.6	11894.3	11736.6	11734.0	11620.2
45°	13088.9	13088.9	13029.4	13086.3	13081.2	13228.5	13275.1	13187.2	13055.3	13016.5	12918.3
47.5°	14301.6	14428.3	14405.0	14487.8	14423.1	14547.3	14705.0	14630.0	14477.4	14340.4	14319.7
50°	15992.7	15961.6	15930.6	16054.7	16044.4	16129.7	16274.5	16228.0	16015.9	15860.8	15832.4
52.5°	17479.5	17642.4	17603.6	17789.7	17686.3	17807.8	17981.1	17973.3	17714.8	17562.2	17518.2
55°	19356.7	19465.3	19457.5	19648.9	19506.7	19667.0	19811.8	19827.3	19545.4	19328.2	19395.5
57.5°	21311.5	21402.0	21350.3	21508.0	21368.4	21588.2	21676.1	21619.2	21453.7	21179.6	21280.5
60°	23268.9	23346.5	23405.9	23418.9	23338.7	23468.0	23550.7	23599.9	23338.7	23025.8	23147.4
62.5°	25257.3	25345.2	25293.5	25314.2	25091.8	25267.6	25371.1	25384.0	25084.1	24807.4	24892.7
65°	27351.7	27473.3	27287.1	27163.0	26888.9	26886.3	27023.3	27046.6	26834.6	26638.1	26604.5
67.5°	29945.2	29999.5	29601.3	29185.0	28722.2	28621.3	28717.0	28771.3	28892.8	28887.7	28735.1
68°	30237.4	30227.1	29823.7	29327.2	28830.8	28714.4	28761.0	28830.8	28910.9	28926.4	28742.9
70°	29572.9	29446.2	29216.0	28590.3	28099.0	27793.9	27631.0	27760.3	27543.1	27545.7	27201.8
72.5°	26268.3	26252.8	25828.7	25518.5	25081.5	24574.7	24342.0	24339.4	24360.1	24210.1	23855.8
75°	21277.9	21298.6	20804.7	20590.1	20455.6	20360.0	20409.1	20561.6	20577.2	20574.6	20450.5
77.5°	14839.4	14924.8	14792.9	14443.8	14818.8	15139.4	15757.4	16072.8	15972.0	16274.5	16465.9
80°	7777.8	7948.5	7953.7	8199.3	8501.8	8794.0	9326.7	9805.0	9453.4	9298.2	9137.9
82.5°	2045.3	2107.4	2200.4	2058.2	2102.2	2146.1	2559.9	2521.1	2327.1	2430.6	2585.7
85°	584.4	602.5	576.6	522.3	478.4	439.6	449.9	380.1	331.0	328.4	318.0
87.5°	411.1	442.2	390.4	336.1	302.5	281.8	271.5	230.1	186.2	162.9	129.3
90°	191.3	188.8	162.9	126.7	111.2	106.0	106.0	82.7	46.5	28.4	25.9
92.5°	80.2	82.7	67.2	54.3	46.5	36.2	28.4	18.1	10.3	5.2	2.6
95°	28.4	31.0	25.9	20.7	18.1	15.5	12.9	10.3	5.2	2.6	2.6
97.5°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	5.2	5.2	2.6	2.6
100°	0.0	0.0	0.0	2.6	5.2	5.2	5.2	5.2	2.6	2.6	2.6
102.5°	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	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	2.6	2.6	2.6	2.6
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	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	0.0	2.6	2.6
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6
145°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
150°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	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	2.6	2.6	2.6	2.6	2.6
160°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6
165°	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6
167.5°	0.0	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6
170°	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6
172.5°	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6
175°	0.0	0.0	0.0	0.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6
177.5°	0.0	0.0	0.0	0.0	2.6	2.6	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°	5468.8	5468.8	5468.8	5468.8	5468.8	5468.8	5468.8	5468.8	5468.8	5468.8
2.5°	5507.6	5494.7	5489.5	5424.8	5442.9	5404.2	5494.7	5468.8	5463.6	5499.8
5°	5520.5	5461.0	5497.2	5455.9	5466.2	5409.3	5481.7	5450.7	5453.3	5471.4
7.5°	5528.3	5494.7	5530.9	5458.5	5486.9	5466.2	5517.9	5486.9	5517.9	5533.4
10°	5605.8	5590.3	5564.5	5543.8	5564.5	5515.3	5580.0	5574.8	5592.9	5639.5
12.5°	5711.9	5693.8	5667.9	5631.7	5647.2	5629.1	5678.2	5683.4	5717.0	5740.3
15°	5869.6	5846.3	5833.4	5797.2	5802.4	5789.4	5817.9	5823.0	5890.3	5882.5
17.5°	6092.0	6066.1	6076.4	6042.8	6029.9	5998.9	5947.2	5929.1	6009.2	6032.5
20°	6335.0	6306.6	6319.5	6291.1	6050.6	5561.9	5890.3	6115.2	5944.6	5931.6
22.5°	6611.7	6580.7	6591.0	6547.0	6249.7	5334.3	4641.4	4584.5	5236.1	5499.8
25°	6916.8	6875.4	6870.3	6813.4	5836.0	4830.1	4752.6	4651.7	4175.9	3798.4
27.5°	7294.3	7232.3	7201.2	6342.8	5794.6	5018.9	4902.5	4543.1	3852.7	3876.0
30°	7702.9	7612.4	7030.6	6464.3	6097.1	5241.3	5086.1	3982.0	3987.2	3976.8
32.5°	8168.3	7966.6	6888.4	6836.6	6459.1	5479.1	4222.5	4175.9	4181.1	4196.6
35°	8778.5	7395.2	7366.7	7369.3	6901.3	5300.7	4473.3	4429.3	4434.5	4444.9
37.5°	8907.8	7971.8	7976.9	7917.5	7371.9	4843.1	4778.4	4775.8	4765.5	4755.1
40°	9011.2	8698.4	8623.4	8527.7	6834.1	5215.4	5194.7	5179.2	5187.0	5207.6
42.5°	9820.6	9585.3	9512.9	9399.1	7009.9	5779.1	5711.9	5693.8	5714.4	5704.1
45°	10896.2	10699.7	10557.5	8690.6	7744.2	6391.9	6337.6	6314.3	6322.1	6386.7
47.5°	12033.9	11917.6	11483.2	9388.7	8600.1	7115.9	7061.6	7025.4	7038.3	7022.8
50°	13272.5	13166.5	10629.9	10441.1	9546.5	7896.8	7816.6	7803.7	7808.9	7806.3
52.5°	14617.1	12401.1	11780.5	11584.0	10544.6	8713.9	8685.4	8615.6	8631.1	8615.6
55°	16194.4	13063.1	13047.5	12817.4	11666.8	9662.8	9629.2	9531.0	8913.0	9453.4
57.5°	17691.5	14327.5	14327.5	14105.1	12814.8	10606.6	10552.3	10479.9	6335.0	5109.4
60°	19330.8	15594.5	15558.3	15374.7	13921.5	11506.4	9352.5	9331.9	3826.9	3839.8
62.5°	20747.8	16724.4	16789.1	16618.4	14986.8	8615.6	4333.7	4245.8	377.5	581.8
65°	22335.4	17973.3	18050.9	17875.1	16140.1	9137.9	4703.4	4659.5	85.3	77.6
67.5°	24135.1	19219.6	19043.8	18849.9	16814.9	9409.4	4887.0	4848.2	23.3	15.5
68°	24150.6	19193.8	18966.2	18834.4	16750.3	9357.7	4871.5	4835.3	23.3	15.5
70°	22909.5	18226.7	17999.2	18032.8	15948.7	8949.2	4669.8	4602.6	23.3	15.5
72.5°	20098.8	16220.2	15964.2	15783.2	14143.9	7956.3	4186.3	4059.6	23.3	15.5
75°	17197.6	13745.7	13321.6	12923.4	11379.7	6510.8	3433.8	3291.6	23.3	15.5
77.5°	13554.3	10477.3	9874.9	9613.7	8551.0	4809.4	2552.1	2397.0	23.3	12.9
80°	7490.8	6011.8	5499.8	5339.5	4889.6	2826.2	1463.5	1370.4	20.7	12.9
82.5°	1936.7	1453.2	1267.0	1223.0	1148.1	669.7	356.8	338.7	18.1	10.3
85°	276.7	204.3	225.0	266.3	256.0	173.2	124.1	106.0	15.5	7.8
87.5°	144.8	121.5	142.2	160.3	162.9	100.8	51.7	28.4	7.8	0.0
90°	23.3	23.3	25.9	28.4	28.4	12.9	10.3	0.0	0.0	0.0
92.5°	2.6	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	2.6	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.6	5.2	2.6	2.6	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	2.6	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.6	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.6	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.6	2.6	2.6	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)