

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: P256749

Luminaire Tested: **CST-8-6-D-U-T5R-HSS-HM-EX180**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256749
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-7)
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-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 4000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED 180
DEGREE SHIELD - BLACK
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41718 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U2 - G5

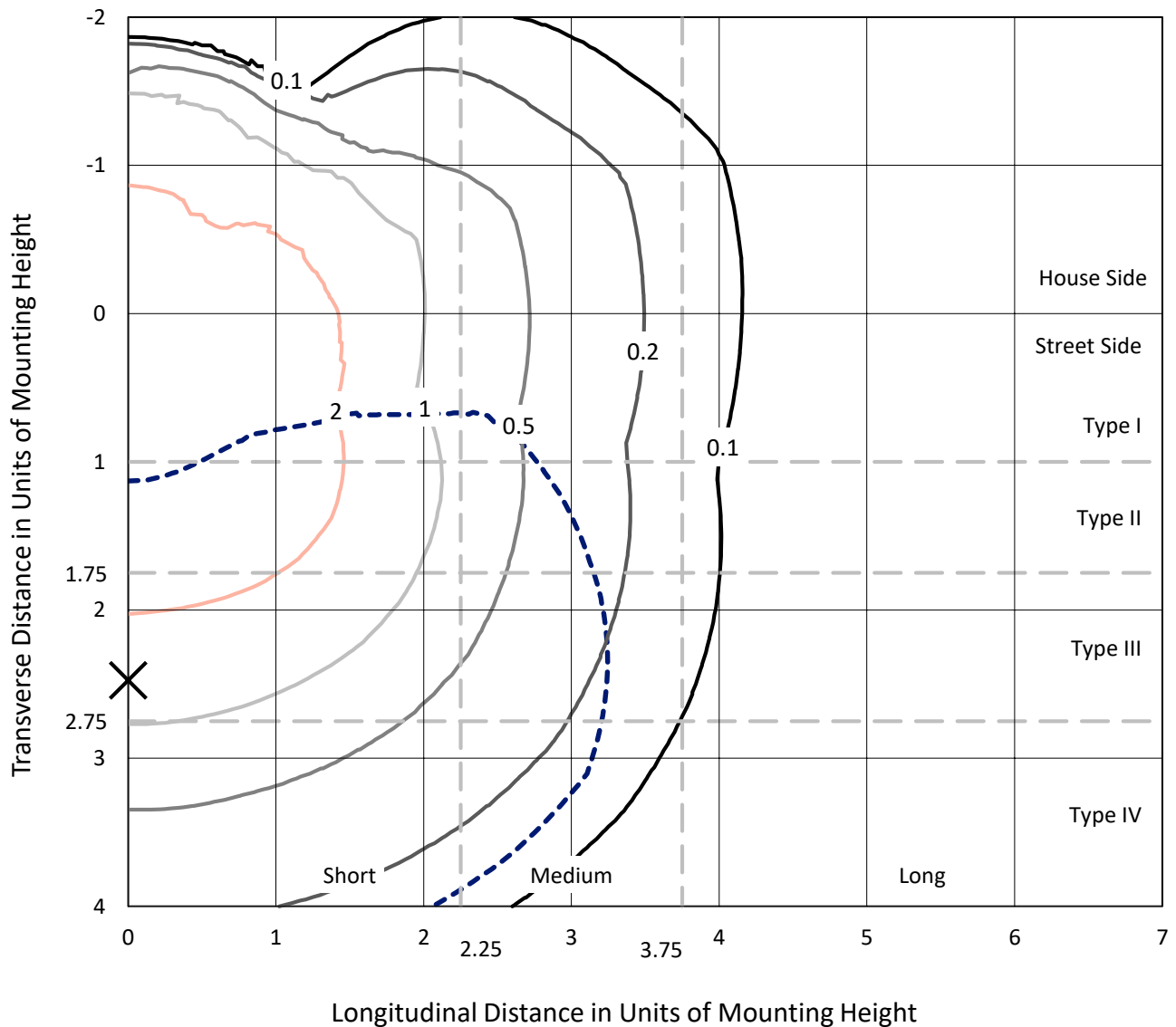
Input Watts (W): 477
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

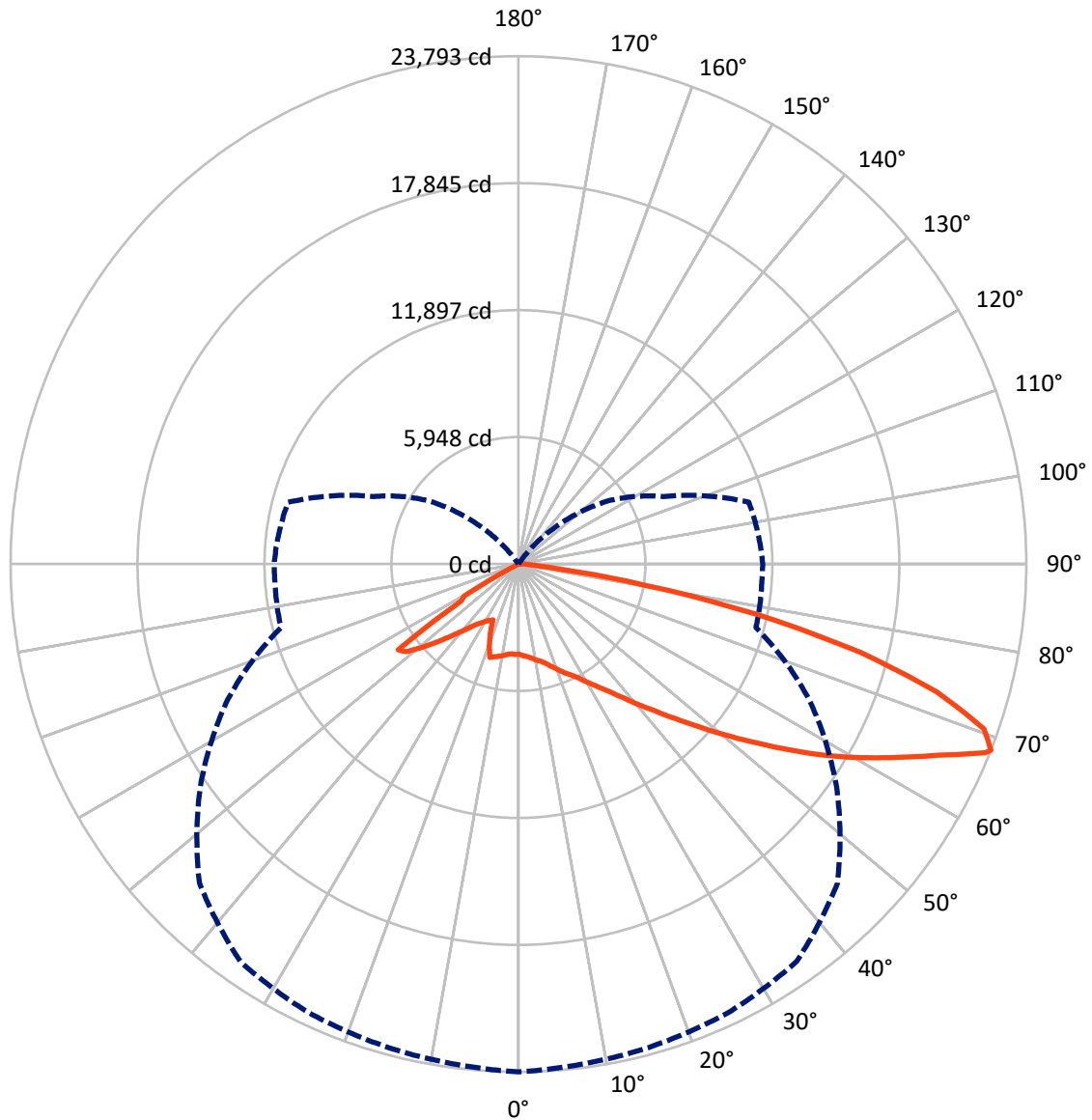


Based on 30 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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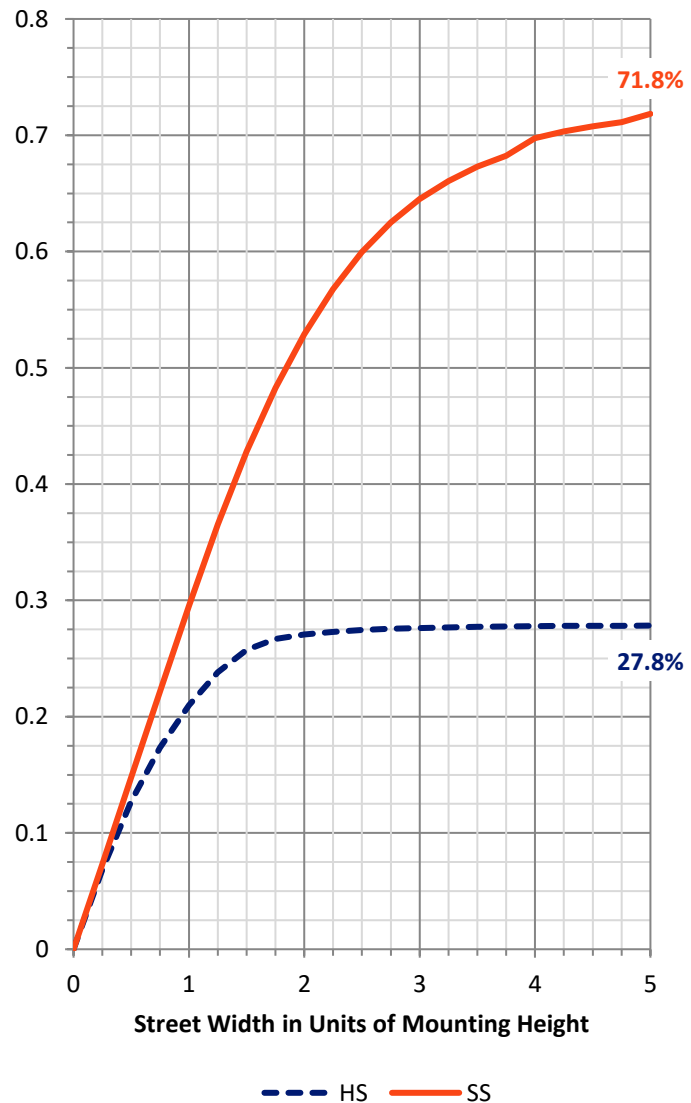
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11651.9	0.3	11652.1
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	30042.0	23.9	30065.8
	% Fixture	72.0	0.1	72.1
Total	Lumens	41693.8	24.1	41718.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	410.2	1.0
10°-20°	1299.8	3.1
20°-30°	2200.6	5.3
30°-40°	3486.2	8.4
40°-50°	5699.8	13.7
50°-60°	8730.6	20.9
60°-70°	10734.9	25.7
70°-80°	8294.8	19.9
80°-90°	836.9	2.0
90°-100°	23.8	0.1
100°-110°	0.4	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	41693.8	99.9
0°-180°	41718.0	100.0



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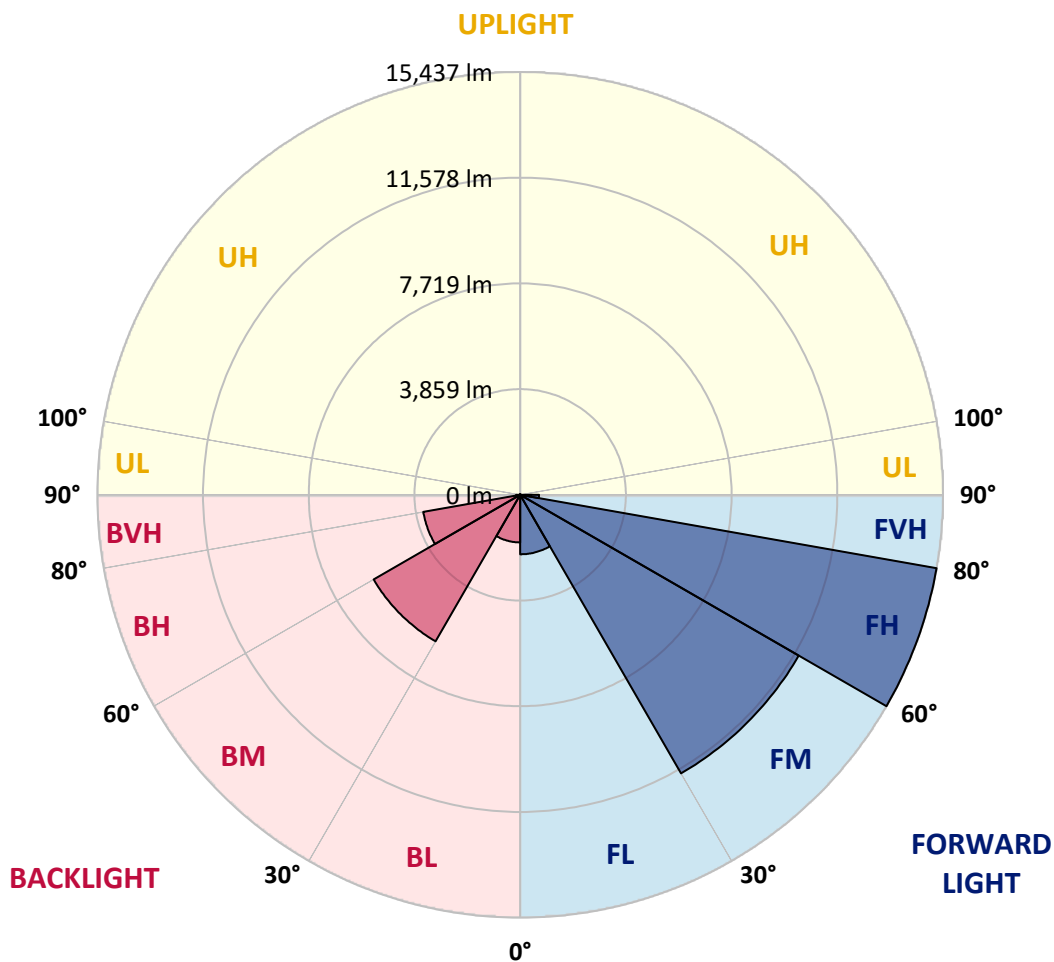
CATALOG NUMBER: CST-8-6-D-U-T5R-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2171.5	5.2			
FM	(30°-60°)	11742.9	28.1			
FH	(60°-80°)	15437.4	37.0			G5
FVH	(80°-90°)	690.2	1.7			G4/750
BL	(0°-30°)	1739.2	4.2	B3/2500		
BM	(30°-60°)	6173.7	14.8	B4/8500		
BH	(60°-80°)	3592.3	8.6	B4/5000		G4/5000
BVH	(80°-90°)	146.7	0.4			G2/225
UL	(90°-100°)	23.8	0.1		U2/50	
UH	(100°-180°)	0.3	0.0		U1/10	

BUG Rating: B4-U2-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4226.5	4226.5	4226.5	4226.5	4226.5	4226.5	4226.5	4226.5	4226.5	4226.5	4226.5
2.5°	4302.8	4294.8	4286.8	4304.9	4234.5	4264.7	4240.5	4262.7	4246.6	4264.7	4258.6
5°	4359.1	4351.1	4327.0	4347.1	4300.8	4312.9	4282.8	4290.8	4236.5	4268.7	4266.7
7.5°	4451.6	4429.5	4413.4	4413.4	4373.2	4371.2	4322.9	4325.0	4282.8	4278.7	4286.8
10°	4576.2	4560.1	4515.9	4519.9	4463.6	4455.6	4395.3	4393.3	4359.1	4339.0	4357.1
12.5°	4668.6	4684.7	4644.5	4644.5	4588.2	4548.0	4505.8	4477.7	4451.6	4421.4	4407.4
15°	4837.4	4853.5	4799.3	4797.2	4775.1	4726.9	4680.7	4620.4	4574.2	4560.1	4538.0
17.5°	5056.5	5046.5	5000.2	5002.2	5006.3	4927.9	4881.7	4803.3	4737.0	4688.7	4676.7
20°	5279.6	5279.6	5229.3	5245.4	5225.3	5153.0	5122.8	5014.3	4921.8	4869.6	4827.4
22.5°	5528.8	5518.7	5484.6	5518.7	5478.5	5406.2	5356.0	5247.4	5128.9	4833.4	4712.8
25°	5765.9	5759.9	5774.0	5784.0	5733.8	5643.3	5609.2	5494.6	5165.0	4777.1	4534.0
27.5°	6065.4	6045.3	6077.4	6097.5	6047.3	5968.9	5896.6	5767.9	5070.6	4765.1	4739.0
30°	6449.2	6405.0	6451.3	6461.3	6409.1	6360.8	6252.3	5609.2	5102.7	5014.3	5006.3
32.5°	6859.2	6807.0	6867.3	6875.3	6807.0	6766.8	6493.5	5526.8	5418.3	5315.8	5325.8
35°	7345.6	7345.6	7375.7	7379.8	7329.5	7261.2	6220.1	5928.7	5832.3	5737.8	5735.8
37.5°	7938.5	7920.4	8000.8	8049.0	7994.7	7799.8	6618.1	6481.4	6332.7	6212.1	5962.9
40°	8653.9	8686.1	8708.2	8756.4	8704.2	8266.1	7198.9	7044.1	6927.6	6523.6	5894.6
42.5°	9425.7	9433.7	9481.9	9542.2	9542.2	9080.0	7878.2	7745.5	7594.8	6378.9	6095.5
45°	10348.1	10330.1	10422.5	10519.0	10492.8	10014.5	8668.0	8569.5	7864.1	6798.9	6801.0
47.5°	11395.2	11373.1	11505.7	11632.4	11501.7	11051.5	9536.2	9459.8	7590.8	7510.4	7494.3
50°	12605.1	12550.8	12703.6	12872.4	12765.9	12209.2	10591.3	9124.2	8352.5	8288.2	8278.1
52.5°	13897.3	13855.1	13947.6	14235.0	14094.3	13421.0	11590.2	9413.6	9234.7	9162.4	9144.3
55°	15356.4	15274.0	15473.0	15692.0	15529.2	14761.5	12574.9	10374.3	10189.4	10064.8	9883.9
57.5°	16889.8	16771.3	16873.8	17149.1	16992.3	16134.2	13845.1	11363.1	11144.0	9222.7	8489.1
60°	18417.2	18363.0	18403.2	18646.3	18453.4	17468.6	15034.8	12353.9	9431.7	9122.2	9158.4
62.5°	19952.7	19834.1	19870.3	20119.5	19872.3	18738.8	16162.3	13254.2	9926.1	9817.6	9855.8
65°	21598.6	21458.0	21490.1	21562.5	21257.0	19878.3	17159.1	14104.3	10669.7	10555.1	10597.3
67.5°	23582.3	23453.6	23278.8	23063.7	22641.7	21088.2	18149.9	14998.7	11505.7	11441.4	11455.5
68°	23793.3	23668.7	23457.7	23202.4	22728.1	21138.4	18192.1	15024.8	11517.8	11437.4	11441.4
70°	23136.1	23210.5	22971.3	22543.2	22147.3	20402.9	17502.8	14446.0	11005.3	10886.7	10856.6
72.5°	20489.3	20652.1	20322.5	20250.1	19763.8	18176.1	15316.2	12534.7	9572.4	9610.6	9502.0
75°	16542.1	16781.3	16381.4	16403.5	16126.1	15161.5	12836.2	10436.6	7860.1	8034.9	8067.1
77.5°	11503.7	11847.4	11672.6	11847.4	11710.7	11363.1	9934.1	8036.9	5997.1	6198.0	6276.4
80°	5999.1	6407.0	6638.2	6710.5	6754.7	6740.7	6049.3	4823.4	3466.8	3541.2	3537.1
82.5°	1897.2	1798.7	1857.0	1840.9	1790.7	1810.8	1631.9	1276.2	884.3	974.7	932.5
85°	572.8	576.8	560.7	556.7	514.5	452.2	369.8	213.0	104.5	122.6	114.6
87.5°	422.0	426.1	393.9	373.8	349.7	303.5	235.1	132.6	50.2	48.2	38.2
90°	233.1	225.1	209.0	192.9	182.9	156.8	118.6	50.2	18.1	14.1	12.1
92.5°	126.6	120.6	112.5	106.5	92.4	74.4	48.2	16.1	8.0	2.0	0.0
95°	58.3	54.3	52.3	46.2	40.2	28.1	16.1	10.0	6.0	2.0	0.0
97.5°	26.1	24.1	22.1	18.1	14.1	8.0	8.0	6.0	4.0	2.0	0.0
100°	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	2.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0



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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	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	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	0.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4226.5	4226.5	4226.5	4226.5	4226.5	4226.5	4226.5	4226.5	4226.5	4226.5
2.5°	4252.6	4240.5	4234.5	4196.3	4208.4	4174.2	4240.5	4224.5	4214.4	4242.6
5°	4256.6	4214.4	4240.5	4218.4	4226.5	4178.2	4230.5	4208.4	4206.4	4218.4
7.5°	4266.7	4238.5	4264.7	4220.4	4240.5	4220.4	4258.6	4236.5	4254.6	4266.7
10°	4320.9	4304.9	4292.8	4282.8	4296.8	4256.6	4304.9	4306.9	4312.9	4349.1
12.5°	4397.3	4381.2	4361.1	4335.0	4349.1	4333.0	4369.2	4379.2	4401.3	4419.4
15°	4503.8	4473.7	4465.6	4441.5	4455.6	4447.5	4455.6	4449.6	4491.8	4485.7
17.5°	4650.5	4616.4	4501.8	4385.2	4310.9	4333.0	4425.4	4546.0	4576.2	4580.2
20°	4704.8	4463.6	4451.6	4318.9	4258.6	4254.6	4063.7	3778.3	3864.7	4067.7
22.5°	4640.5	4310.9	4276.7	4250.6	3993.3	3571.3	3531.1	3488.9	3478.9	3509.0
25°	4495.8	4457.6	4427.5	4085.8	3679.8	3681.8	3623.6	3346.2	2914.1	2877.9
27.5°	4716.9	4664.6	4373.2	3846.6	3838.6	3834.6	3748.2	3036.7	2944.3	2966.4
30°	4968.1	4881.7	4120.0	4051.6	4049.6	4013.4	3360.3	3062.8	3062.8	3066.9
32.5°	5257.5	4720.9	4264.7	4296.8	4294.8	4124.0	3245.7	3225.6	3217.6	3237.7
35°	5478.5	4592.3	4576.2	4634.5	4594.3	3499.0	3448.7	3430.6	3422.6	3412.5
37.5°	5410.2	4962.0	4962.0	4998.2	4674.6	3726.1	3701.9	3701.9	3685.9	3677.8
40°	5514.7	5422.3	5376.0	5390.1	3396.5	4001.4	4019.5	4015.5	4013.4	4027.5
42.5°	6065.4	5983.0	5940.8	5442.4	3802.4	3977.3	4419.4	4417.4	4423.4	4417.4
45°	6766.8	6690.4	6579.9	5092.7	4316.9	3486.9	4871.6	4893.7	4895.7	4893.7
47.5°	7502.4	7454.1	6322.6	5637.3	4875.6	3742.1	4656.6	5438.3	5428.3	5440.4
50°	8280.1	8063.1	6290.5	6282.4	5470.5	4164.2	4166.2	5914.7	6017.2	6049.3
52.5°	9146.3	7309.4	6971.8	6360.8	6073.4	4598.3	4554.1	5241.4	6640.2	6672.3
55°	8495.2	7721.4	7715.4	5661.4	6318.6	5016.3	5022.3	4974.1	6089.5	6921.5
57.5°	8453.0	8471.0	8457.0	6316.6	4610.3	4702.8	5472.5	5430.3	3943.1	3195.5
60°	9182.5	9208.6	8215.8	6821.0	4984.1	2892.0	3370.3	2863.9	2902.1	2932.2
62.5°	9879.9	9887.9	6682.4	4471.7	2470.0	116.6	56.3	46.2	44.2	44.2
65°	10651.6	10651.6	7162.7	4877.6	2385.6	44.2	8.0	6.0	22.1	22.1
67.5°	11397.2	11232.4	7514.4	5179.1	2427.8	6.0	0.0	0.0	0.0	0.0
68°	11355.0	11174.1	7482.3	5171.1	2421.7	4.0	0.0	0.0	0.0	0.0
70°	10724.0	10549.1	7098.4	4935.9	2331.3	4.0	0.0	0.0	0.0	0.0
72.5°	9465.9	9305.1	6286.5	4351.1	2102.2	2.0	0.0	0.0	0.0	0.0
75°	8012.8	7990.7	5430.3	3671.8	1802.7	2.0	0.0	0.0	0.0	0.0
77.5°	6447.2	6346.8	4244.6	2877.9	1453.0	0.0	0.0	0.0	0.0	0.0
80°	3591.4	3740.1	2484.0	1692.2	914.4	0.0	0.0	0.0	0.0	0.0
82.5°	970.7	908.4	542.6	367.8	174.8	0.0	0.0	0.0	0.0	0.0
85°	124.6	136.7	62.3	50.2	12.1	0.0	0.0	0.0	0.0	0.0
87.5°	64.3	76.4	20.1	16.1	4.0	0.0	0.0	0.0	0.0	0.0
90°	12.1	14.1	6.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	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°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	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
120°	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
125°	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
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	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)