

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: P256719

Luminaire Tested: **CST-10-9-D-U-T5R-7030-HSS-HM-EX120**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256719
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-7030-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 3000K 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: 69858 lumens
Efficiency: N/A
Efficacy: 91.9 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): 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

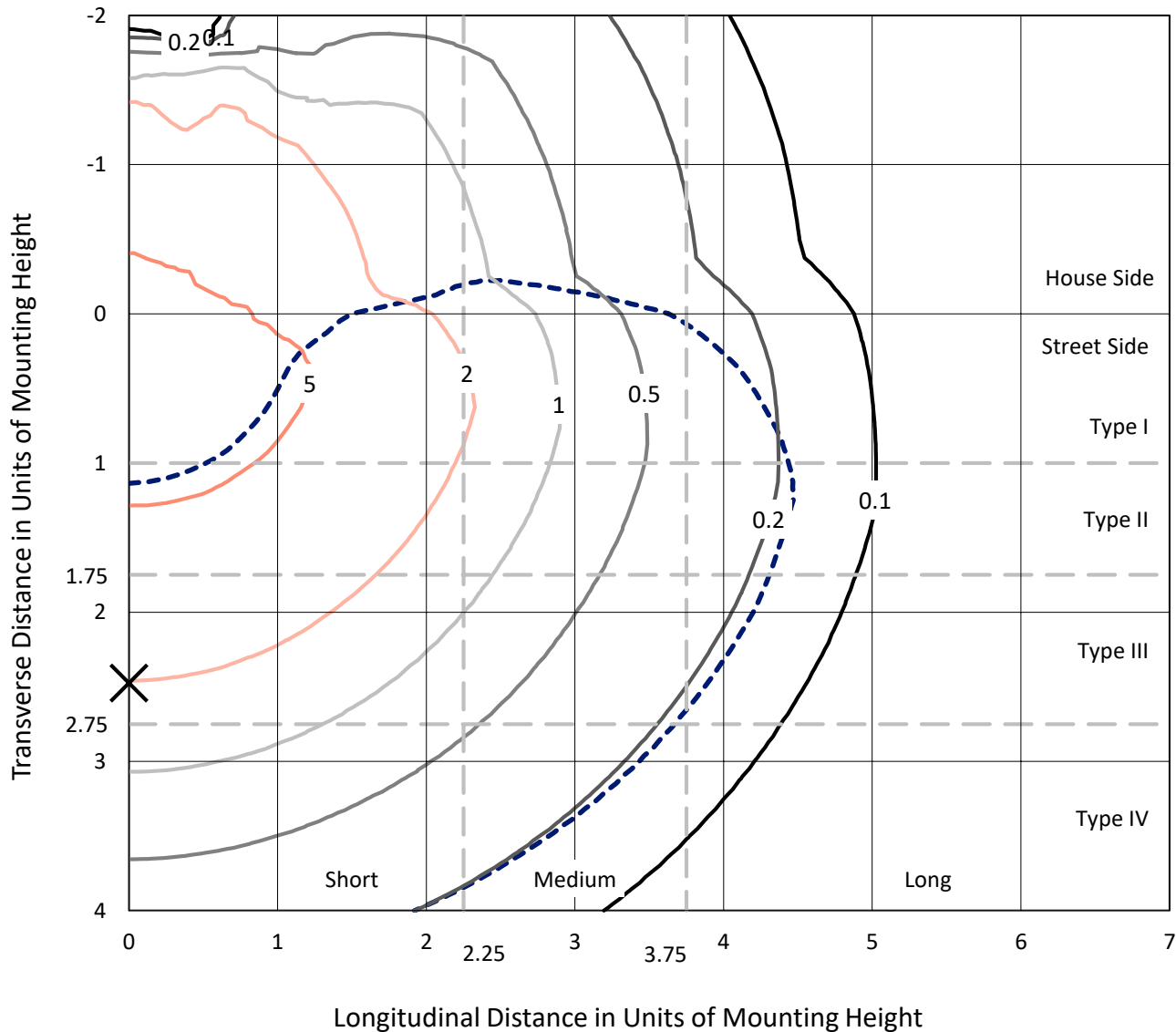


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

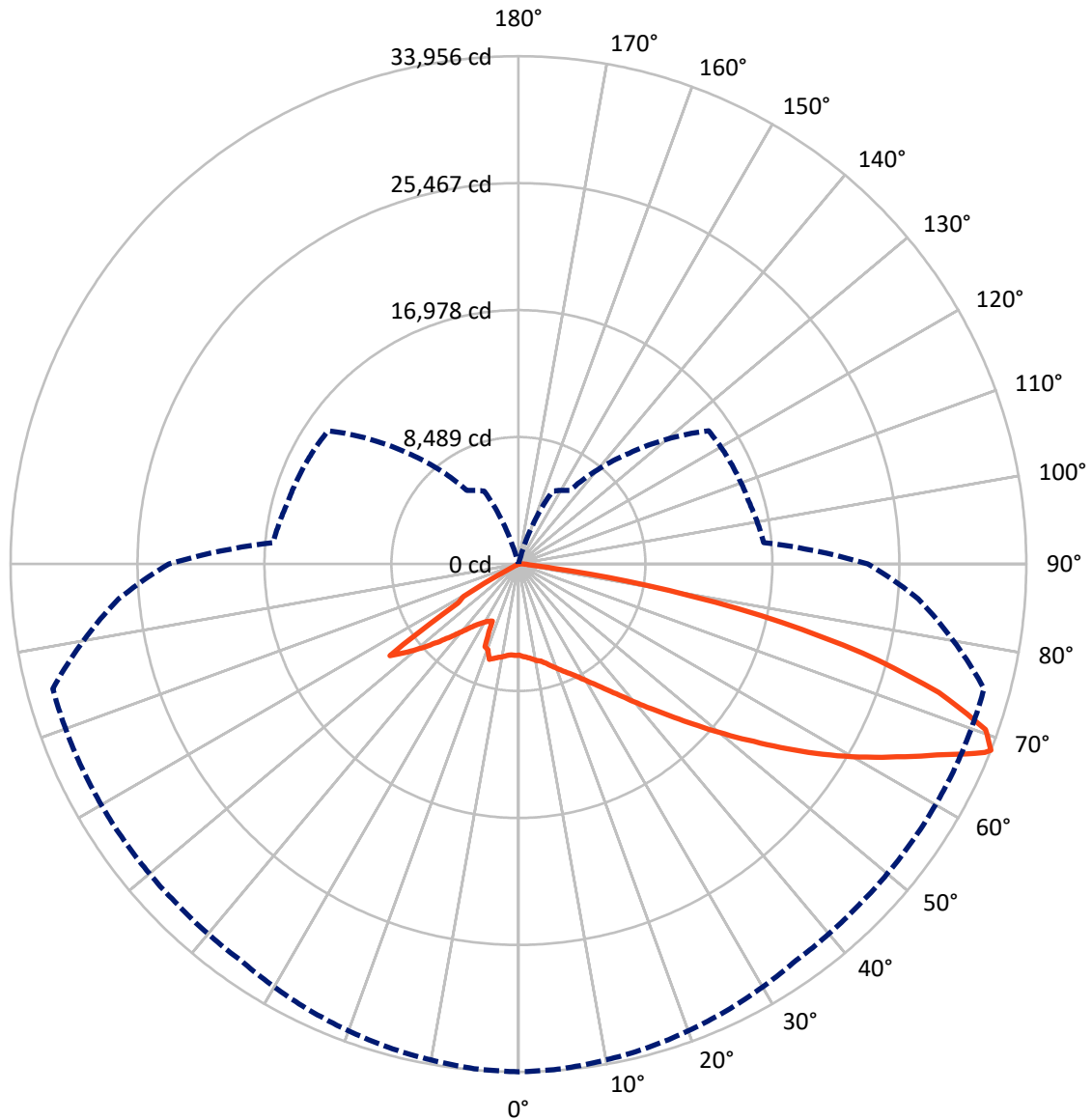


Based on 30 foot mounting height. Maximum calculated value = 6.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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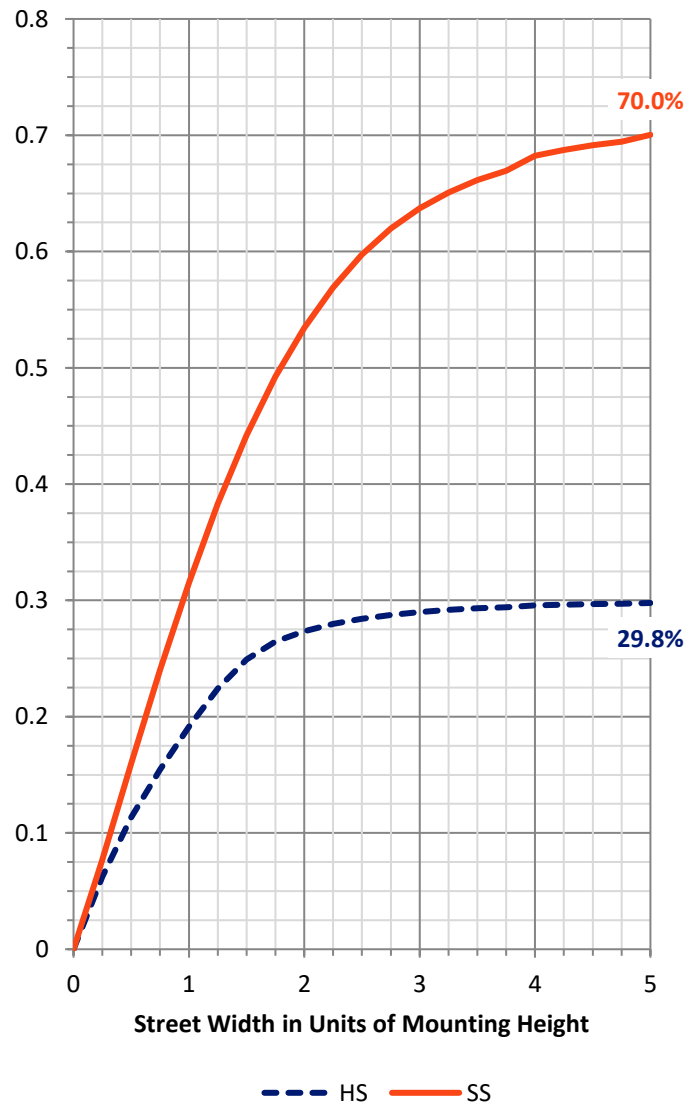
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20823.9	3.2	20827.1
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	49002.3	28.6	49030.9
	% Fixture	70.1	0.0	70.2
Total	Lumens	69826.2	31.8	69858.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	591.1	0.8
10°-20°	1881.3	2.7
20°-30°	3222.4	4.6
30°-40°	5227.5	7.5
40°-50°	8816.0	12.6
50°-60°	14370.3	20.6
60°-70°	19273.0	27.6
70°-80°	14970.1	21.4
80°-90°	1474.3	2.1
90°-100°	28.0	0.0
100°-110°	1.6	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°	69826.2	100.0
0°-180°	69858.0	100.0



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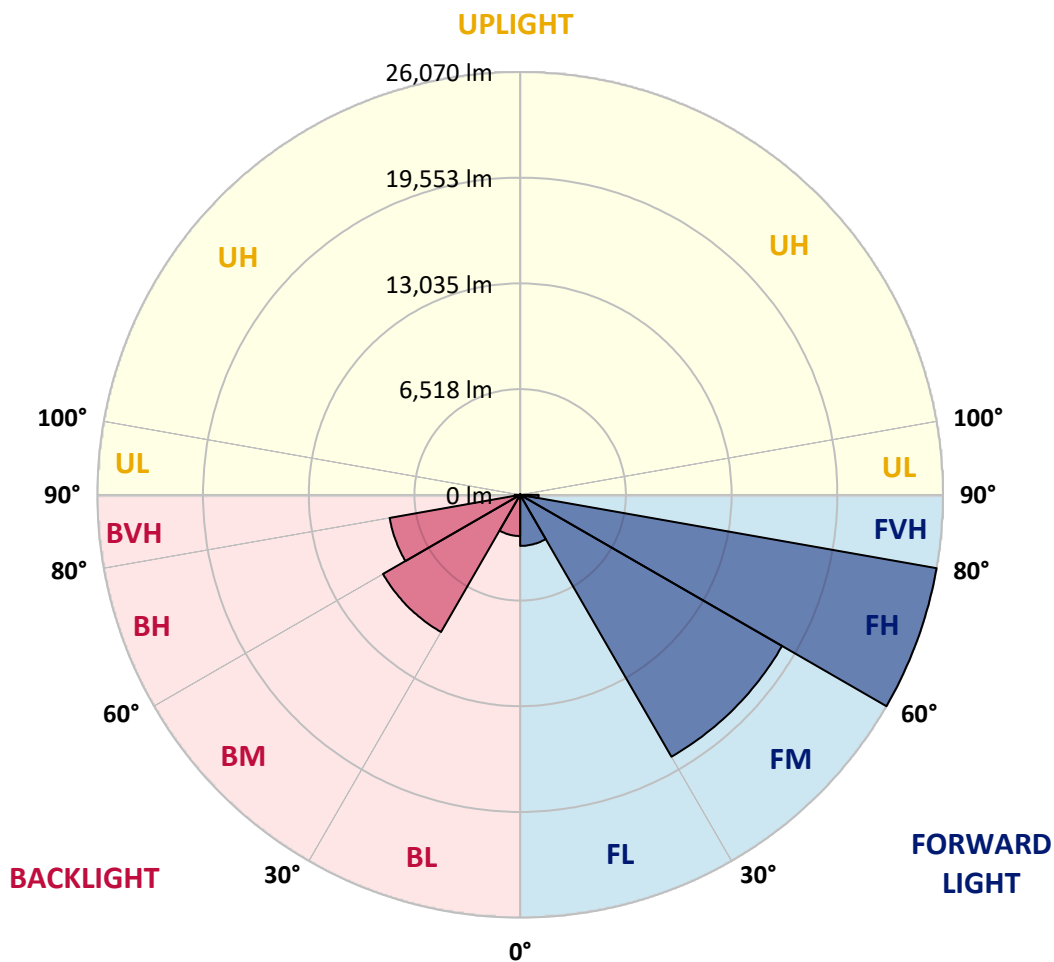
CATALOG NUMBER: CST-10-9-D-U-T5R-7030-HSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3151.0	4.5			
FM	(30°-60°)	18647.5	26.7			
FH	(60°-80°)	26070.2	37.3			G5
FVH	(80°-90°)	1133.6	1.6			G5
BL	(0°-30°)	2543.9	3.6	B4/5000		
BM	(30°-60°)	9766.3	14.0	B5		
BH	(60°-80°)	8172.9	11.7	B5		G5
BVH	(80°-90°)	340.8	0.5			G3/500
UL	(90°-100°)	28.0	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°	6090.3	6090.3	6090.3	6090.3	6090.3	6090.3	6090.3	6090.3	6090.3	6090.3	6090.3
2.5°	6191.4	6174.1	6171.2	6205.9	6096.1	6151.0	6101.9	6142.3	6116.3	6136.6	6139.4
5°	6275.2	6243.5	6223.2	6263.7	6194.3	6220.3	6165.4	6182.8	6110.6	6151.0	6156.8
7.5°	6396.6	6344.6	6338.8	6350.3	6289.7	6309.9	6220.3	6240.6	6188.6	6165.4	6185.7
10°	6561.3	6512.1	6474.6	6500.6	6419.7	6431.2	6335.9	6338.8	6301.2	6257.9	6292.6
12.5°	6653.7	6659.5	6642.2	6662.4	6595.9	6558.4	6491.9	6468.8	6431.2	6379.2	6361.9
15°	6884.8	6873.3	6838.6	6870.4	6861.7	6827.1	6746.2	6694.2	6613.3	6584.4	6555.5
17.5°	7168.0	7130.4	7101.5	7142.0	7185.3	7113.1	7035.1	6962.8	6856.0	6798.2	6763.5
20°	7465.6	7439.6	7410.7	7474.2	7488.7	7433.8	7376.0	7269.1	7144.9	7069.7	6997.5
22.5°	7797.8	7745.8	7754.5	7838.3	7812.3	7786.3	7711.1	7624.5	7474.2	7378.9	7170.9
25°	8141.6	8112.7	8153.2	8190.7	8170.5	8115.6	8078.1	8014.5	7846.9	7731.4	7428.0
27.5°	8569.2	8523.0	8575.0	8589.4	8572.1	8557.7	8505.7	8456.5	8274.5	8144.5	7766.0
30°	9071.9	9017.0	9100.8	9080.6	9063.3	9074.8	9043.0	8936.1	8774.3	8598.1	8219.6
32.5°	9670.0	9597.8	9693.1	9649.8	9609.3	9690.2	9615.1	9514.0	9323.3	9118.2	8748.3
35°	10363.4	10366.3	10415.4	10343.2	10328.7	10415.4	10366.3	10242.0	10065.8	9852.0	9326.2
37.5°	11204.1	11181.0	11305.2	11270.6	11218.6	11334.1	11348.6	11192.6	10874.8	10663.8	10042.7
40°	12226.9	12221.1	12261.5	12267.3	12252.9	12307.8	12333.8	12125.8	11920.6	11602.8	9476.4
42.5°	13319.0	13342.1	13414.3	13362.3	13431.7	13503.9	13512.6	13339.2	13044.5	11131.9	10065.8
45°	14630.7	14702.9	14752.0	14740.4	14772.2	14876.2	14884.9	14792.4	14503.5	12059.3	11134.8
47.5°	16135.9	16205.2	16219.7	16312.1	16283.2	16430.6	16410.4	16413.3	16104.1	13350.8	12299.1
50°	17866.5	17898.3	18016.7	18068.7	17996.5	18195.9	18143.9	18207.4	17826.1	14830.0	13550.1
52.5°	19704.0	19758.9	19808.0	20004.5	19912.0	20085.4	20016.0	20163.4	19721.3	16335.2	14939.8
55°	21792.9	21801.5	21885.3	22084.7	21963.3	22171.3	22070.2	22125.1	21772.6	17999.4	16387.3
57.5°	24005.9	23977.0	24008.8	24167.7	24057.9	24214.0	24173.5	24225.5	23896.2	19750.2	17444.7
60°	26195.9	26152.6	26198.8	26305.7	26155.5	26424.2	26279.7	26328.8	25973.5	21538.6	18952.8
62.5°	28397.4	28365.7	28313.7	28420.6	28201.0	28339.7	28400.3	28319.4	28007.4	23156.5	20264.5
65°	30760.8	30729.0	30538.3	30604.8	30211.8	30145.4	30168.5	30194.5	29986.5	24760.0	21703.3
67.5°	33632.6	33586.4	33228.1	32777.4	32211.1	32086.9	32098.4	32167.8	32196.7	26822.9	23387.7
68°	33956.2	33872.4	33473.7	32950.7	32358.5	32214.0	32199.6	32214.0	32228.5	26840.2	23370.3
70°	33129.9	33098.1	32794.7	32162.0	31555.3	31208.6	30908.1	30896.6	30757.9	25467.9	22078.9
72.5°	29400.0	29359.5	28998.4	28550.6	28175.0	27631.8	27241.8	27264.9	27036.7	22509.4	19325.5
75°	23792.1	23789.3	23355.9	22980.3	22986.1	22945.6	22815.6	23043.9	22806.9	19091.5	16482.6
77.5°	16580.8	16638.6	16609.7	16390.1	16699.3	17126.9	17592.0	18031.2	17895.4	15081.4	13142.7
80°	8661.7	8823.5	9395.5	9421.5	9638.2	10054.2	10372.0	10666.7	10687.0	8557.7	7592.7
82.5°	2302.7	2351.8	2545.3	2490.4	2473.1	2556.9	2626.2	2634.9	2640.7	2230.4	2083.1
85°	716.5	736.7	713.6	681.8	632.7	577.8	563.4	459.4	364.0	300.5	262.9
87.5°	508.5	543.2	491.2	462.3	410.3	390.0	349.6	274.5	213.8	150.2	101.1
90°	262.9	268.7	239.8	205.1	190.7	179.1	153.1	109.8	54.9	28.9	26.0
92.5°	132.9	135.8	118.5	101.1	86.7	75.1	57.8	31.8	17.3	8.7	2.9
95°	52.0	54.9	49.1	43.3	34.7	26.0	23.1	17.3	11.6	5.8	2.9
97.5°	17.3	17.3	17.3	14.4	14.4	14.4	14.4	11.6	8.7	5.8	2.9
100°	0.0	0.0	0.0	2.9	5.8	8.7	8.7	8.7	5.8	2.9	2.9
102.5°	0.0	0.0	0.0	0.0	0.0	2.9	5.8	5.8	5.8	2.9	2.9
105°	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9	2.9
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9



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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	2.9	2.9	2.9
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
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	2.9
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9
165°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
170°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
175°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.9	2.9	2.9
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°	6090.3	6090.3	6090.3	6090.3	6090.3	6090.3	6090.3	6090.3	6090.3	6090.3
2.5°	6125.0	6107.7	6116.3	6044.1	6061.4	6015.2	6113.4	6087.4	6075.9	6116.3
5°	6139.4	6075.9	6127.9	6078.8	6087.4	6021.0	6101.9	6070.1	6067.2	6090.3
7.5°	6145.2	6113.4	6162.6	6081.7	6107.7	6081.7	6142.3	6110.6	6139.4	6159.7
10°	6226.1	6208.8	6203.0	6174.1	6194.3	6136.6	6211.7	6211.7	6226.1	6281.0
12.5°	6344.6	6321.5	6307.0	6255.0	6275.2	6257.9	6318.6	6330.1	6356.1	6379.2
15°	6506.4	6465.9	6451.5	6405.2	6419.7	6416.8	6460.1	6463.0	6520.8	6517.9
17.5°	6714.4	6656.6	6673.9	6639.3	6642.2	6619.0	6595.9	6595.9	6647.9	6659.5
20°	6962.8	6633.5	6200.1	5957.4	5914.1	5945.9	6070.1	6275.2	6018.1	6090.3
22.5°	6515.0	6217.4	6197.2	6142.3	6107.7	5333.4	5134.0	5070.5	5402.7	5974.8
25°	6572.8	6445.7	6408.1	6338.8	5316.0	5307.4	5249.6	5154.2	4212.4	4192.2
27.5°	6879.1	6754.8	6694.2	5552.9	5529.8	5526.9	5440.3	4484.0	4267.3	4296.2
30°	7237.3	7092.9	6006.5	5833.2	5813.0	5766.7	5269.8	4429.1	4426.2	4429.1
32.5°	7650.5	7170.9	6179.9	6171.2	6182.8	6041.2	4668.9	4651.5	4648.6	4677.5
35°	8216.7	6653.7	6613.3	6656.6	6595.9	5223.6	4949.1	4940.4	4943.3	4928.9
37.5°	7841.2	7173.8	7165.1	7165.1	7023.5	5344.9	5290.0	5330.5	5324.7	5304.5
40°	8000.1	7803.6	7751.6	7734.3	5937.2	5766.7	5735.0	5787.0	5795.6	5810.1
42.5°	8771.5	8592.3	8566.3	8361.2	6460.1	6405.2	6307.0	6361.9	6356.1	6373.5
45°	9719.1	9597.8	9485.1	7248.9	7165.1	7095.8	6994.6	7058.2	7075.5	7064.0
47.5°	10822.8	10689.9	9875.1	7971.2	7968.3	7913.4	7800.7	7852.7	7844.0	7844.0
50°	11932.2	11787.7	8970.8	8889.9	8861.0	8774.3	8681.9	8690.6	8693.4	8722.3
52.5°	13171.6	10528.1	9930.0	9768.2	9791.3	9733.5	9644.0	7300.9	9600.6	9626.6
55°	12310.7	11019.2	10984.5	10770.7	10825.6	10750.5	10692.7	7202.6	9548.6	10551.2
57.5°	12172.0	12079.5	12050.6	11831.1	11900.4	11186.8	11721.3	7881.6	6604.6	4824.9
60°	13232.3	13134.1	13116.7	12923.2	12917.4	8889.9	10655.2	5405.6	4223.9	4252.8
62.5°	14260.8	14101.9	14145.3	13917.0	9811.6	5417.2	4775.8	121.3	193.6	205.1
65°	15407.8	15142.0	15185.4	14974.5	10120.7	5711.8	5162.9	63.6	54.9	52.0
67.5°	16511.5	16046.3	15823.9	15601.4	10510.7	6015.2	5379.6	17.3	0.0	0.0
68°	16456.6	15965.4	15737.2	15526.3	10470.3	6006.5	5368.0	17.3	0.0	0.0
70°	15529.2	15087.1	14870.5	14708.7	9996.5	5801.4	5151.4	17.3	0.0	0.0
72.5°	13576.1	13330.5	13191.9	13050.3	8881.2	5188.9	4619.7	17.3	0.0	0.0
75°	11536.4	11467.0	11380.4	11068.3	7402.0	4247.0	3796.3	17.3	0.0	0.0
77.5°	9141.3	9138.4	8927.5	8560.5	5573.2	3117.4	2799.6	14.4	0.0	0.0
80°	4943.3	5388.3	5226.5	5038.7	3160.7	1695.9	1615.0	11.6	0.0	0.0
82.5°	1389.7	1314.6	1262.6	1181.7	664.5	369.8	361.1	11.6	0.0	0.0
85°	193.6	213.8	236.9	268.7	153.1	98.2	86.7	5.8	0.0	0.0
87.5°	109.8	124.2	153.1	158.9	57.8	46.2	14.4	0.0	0.0	0.0
90°	23.1	26.0	28.9	28.9	11.6	11.6	0.0	0.0	0.0	0.0
92.5°	0.0	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	2.9	2.9	2.9	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°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	2.9	2.9	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)