

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: P256759

Luminaire Tested: **CST-10-9-D-U-T5R-7050-HSS-HM-EX180**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256759
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-10-9-D-U-T5R-7050-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K 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: 62252 lumens
Efficiency: N/A
Efficacy: 81.9 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

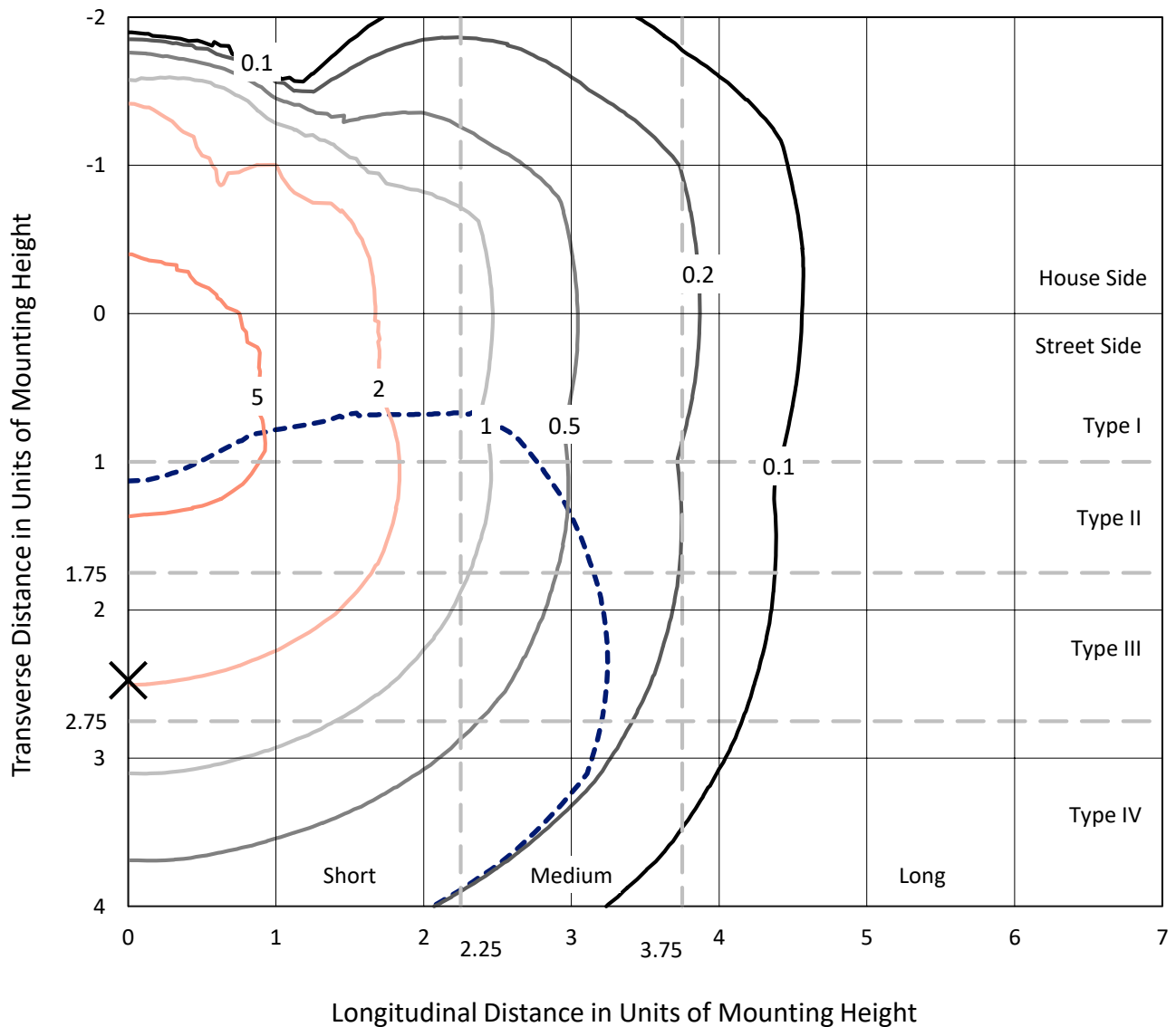


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

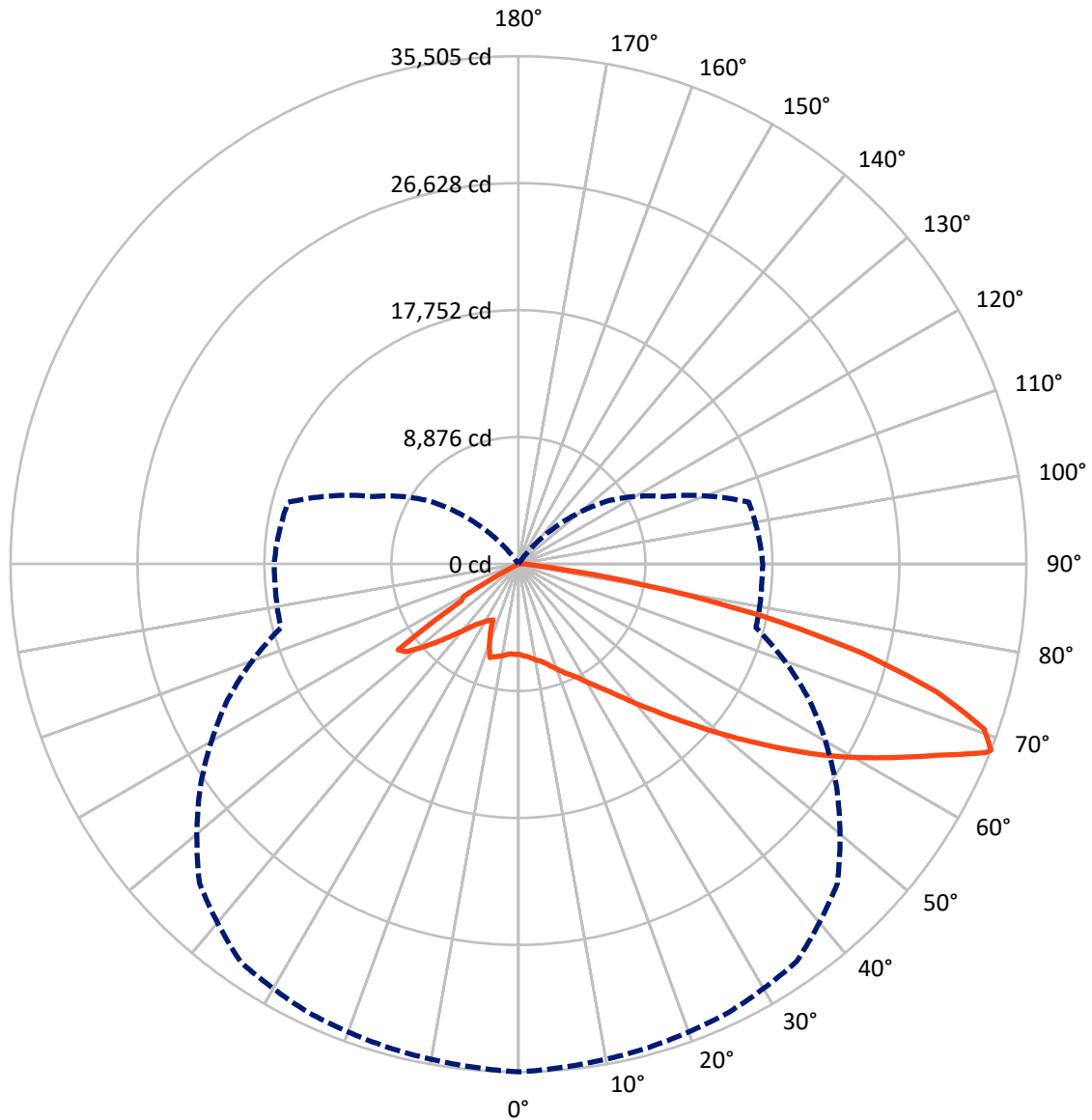


Based on 30 foot mounting height. Maximum calculated value = 7.3 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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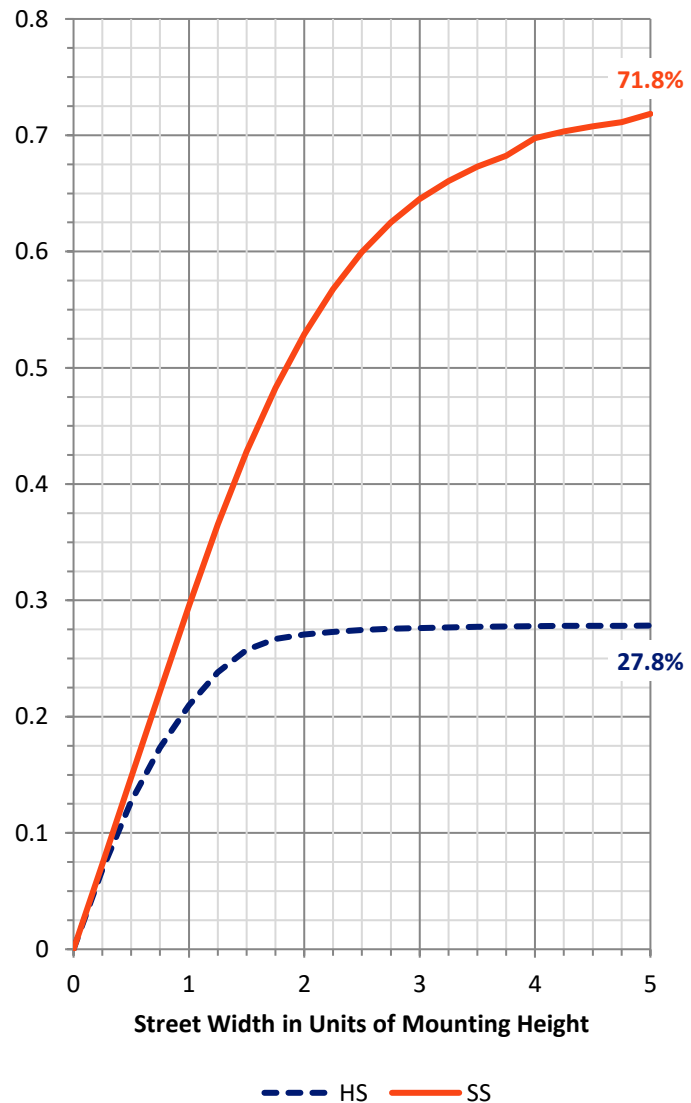
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17387.1	0.4	17387.5
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	44828.9	35.7	44864.5
	% Fixture	72.0	0.1	72.1
Total	Lumens	62216.0	36.0	62252.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	612.1	1.0
10°-20°	1939.6	3.1
20°-30°	3283.7	5.3
30°-40°	5202.2	8.4
40°-50°	8505.3	13.7
50°-60°	13027.9	20.9
60°-70°	16018.7	25.7
70°-80°	12377.6	19.9
80°-90°	1248.9	2.0
90°-100°	35.5	0.1
100°-110°	0.6	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°	62216.0	99.9
0°-180°	62252.0	100.0



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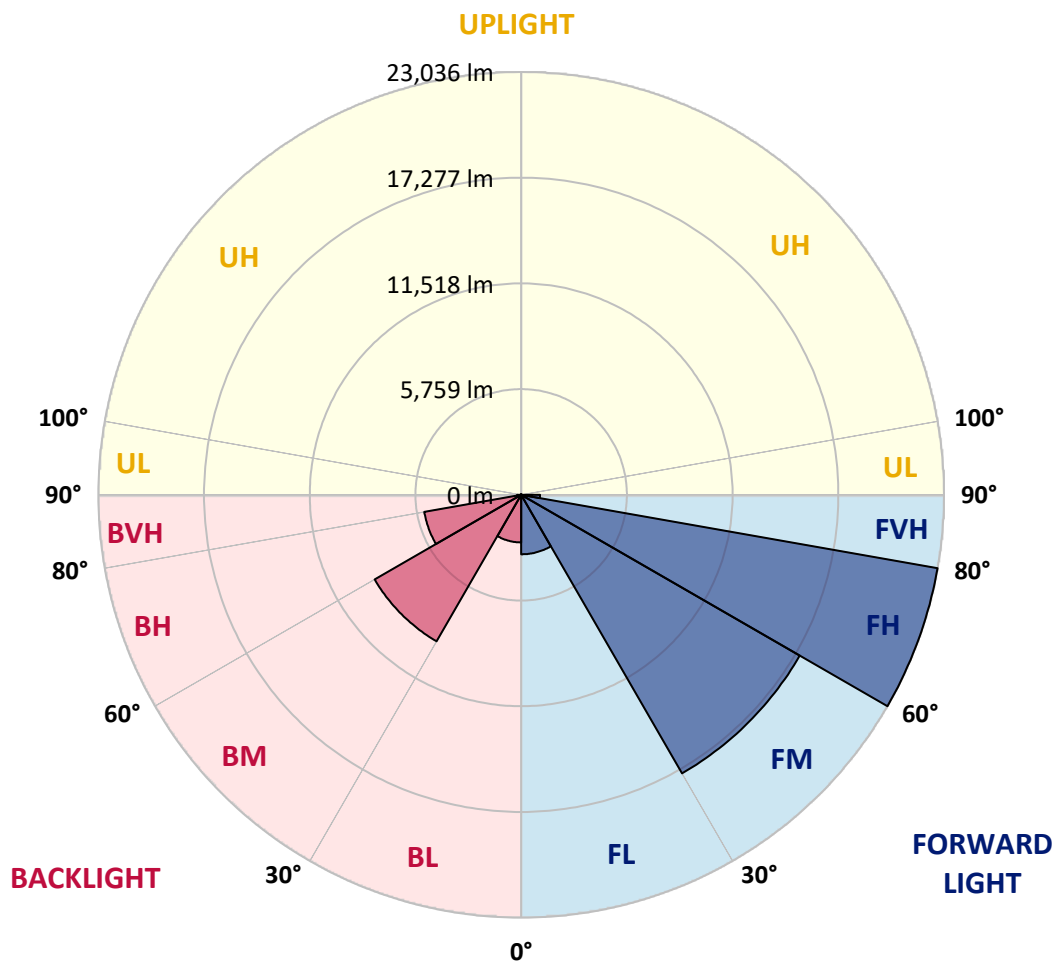
CATALOG NUMBER: CST-10-9-D-U-T5R-7050-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3240.3	5.2			
FM	(30°-60°)	17522.9	28.1			
FH	(60°-80°)	23035.8	37.0			G5
FVH	(80°-90°)	1029.9	1.7			G5
BL	(0°-30°)	2595.2	4.2	B4/5000		
BM	(30°-60°)	9212.4	14.8	B5		
BH	(60°-80°)	5360.5	8.6	B5		G5
BVH	(80°-90°)	218.9	0.4			G2/225
UL	(90°-100°)	35.5	0.1		U2/50	
UH	(100°-180°)	0.4	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°	6306.8	6306.8	6306.8	6306.8	6306.8	6306.8	6306.8	6306.8	6306.8	6306.8	6306.8
2.5°	6420.8	6408.8	6396.8	6423.8	6318.8	6363.8	6327.8	6360.8	6336.8	6363.8	6354.8
5°	6504.7	6492.7	6456.7	6486.7	6417.8	6435.7	6390.8	6402.8	6321.8	6369.8	6366.8
7.5°	6642.7	6609.7	6585.7	6585.7	6525.7	6522.7	6450.7	6453.7	6390.8	6384.8	6396.8
10°	6828.6	6804.6	6738.6	6744.6	6660.7	6648.7	6558.7	6555.7	6504.7	6474.7	6501.7
12.5°	6966.6	6990.6	6930.6	6930.6	6846.6	6786.6	6723.6	6681.7	6642.7	6597.7	6576.7
15°	7218.5	7242.5	7161.5	7158.5	7125.5	7053.5	6984.6	6894.6	6825.6	6804.6	6771.6
17.5°	7545.4	7530.4	7461.4	7464.4	7470.4	7353.4	7284.4	7167.5	7068.5	6996.5	6978.6
20°	7878.2	7878.2	7803.3	7827.3	7797.3	7689.3	7644.3	7482.4	7344.4	7266.5	7203.5
22.5°	8250.1	8235.1	8184.1	8235.1	8175.1	8067.2	7992.2	7830.3	7653.3	7212.5	7032.5
25°	8604.0	8595.0	8616.0	8631.0	8556.0	8421.1	8370.1	8199.1	7707.3	7128.5	6765.6
27.5°	9050.8	9020.8	9068.8	9098.8	9023.8	8906.9	8798.9	8607.0	7566.4	7110.5	7071.5
30°	9623.6	9557.7	9626.6	9641.6	9563.7	9491.7	9329.7	8370.1	7614.3	7482.4	7470.4
32.5°	10235.4	10157.4	10247.4	10259.4	10157.4	10097.5	9689.6	8247.1	8085.2	7932.2	7947.2
35°	10961.2	10961.2	11006.1	11012.1	10937.2	10835.2	9281.7	8846.9	8703.0	8562.0	8559.0
37.5°	11845.9	11818.9	11938.8	12010.8	11929.8	11638.9	9875.5	9671.6	9449.7	9269.8	8897.9
40°	12913.5	12961.5	12994.4	13066.4	12988.5	12334.7	10742.2	10511.3	10337.4	9734.6	8795.9
42.5°	14065.1	14077.1	14149.0	14239.0	14239.0	13549.3	11755.9	11558.0	11333.0	9518.7	9095.8
45°	15441.6	15414.6	15552.6	15696.5	15657.5	14943.8	12934.5	12787.5	11734.9	10145.4	10148.4
47.5°	17004.0	16971.1	17169.0	17357.9	17163.0	16491.2	14230.0	14116.1	11327.0	11207.1	11183.1
50°	18809.4	18728.4	18956.4	19208.3	19049.3	18218.6	15804.5	13615.2	12463.6	12367.7	12352.7
52.5°	20737.7	20674.8	20812.7	21241.6	21031.6	20027.0	17294.9	14047.1	13780.2	13672.2	13645.2
55°	22915.0	22792.0	23088.9	23415.8	23172.9	22027.3	18764.4	15480.6	15204.7	15018.7	14748.8
57.5°	25203.2	25026.2	25179.2	25590.0	25356.1	24075.6	20659.8	16956.1	16629.2	13762.2	12667.6
60°	27482.4	27401.4	27461.4	27824.3	27536.4	26066.9	22435.1	18434.5	14074.1	13612.2	13666.2
62.5°	29773.6	29596.6	29650.6	30022.5	29653.6	27962.2	24117.6	19778.1	14811.8	14649.9	14706.8
65°	32229.7	32019.8	32067.8	32175.7	31719.9	29662.6	25605.0	21046.6	15921.4	15750.5	15813.5
67.5°	35189.7	34997.7	34736.8	34415.9	33786.2	31468.0	27083.5	22381.2	17169.0	17073.0	17094.0
68°	35504.6	35318.6	35003.7	34622.9	33915.1	31543.0	27146.5	22420.1	17187.0	17067.0	17073.0
70°	34523.9	34634.9	34278.0	33639.2	33048.4	30445.3	26117.9	21556.5	16422.2	16245.3	16200.3
72.5°	30574.3	30817.2	30325.4	30217.4	29491.7	27122.5	22855.0	18704.4	14284.0	14341.0	14179.0
75°	24684.4	25041.2	24444.4	24477.4	24063.6	22624.1	19154.3	15573.5	11728.9	11989.8	12037.8
77.5°	17166.0	17678.8	17417.9	17678.8	17474.9	16956.1	14823.8	11992.8	8948.9	9248.8	9365.7
80°	8951.9	9560.7	9905.5	10013.5	10079.5	10058.5	9026.8	7197.5	5173.2	5284.1	5278.2
82.5°	2831.0	2684.1	2771.0	2747.0	2672.1	2702.1	2435.1	1904.3	1319.5	1454.5	1391.5
85°	854.7	860.7	836.7	830.7	767.7	674.8	551.8	317.9	155.9	182.9	170.9
87.5°	629.8	635.8	587.8	557.8	521.8	452.8	350.9	197.9	75.0	72.0	57.0
90°	347.9	335.9	311.9	287.9	272.9	233.9	176.9	75.0	27.0	21.0	18.0
92.5°	188.9	179.9	167.9	158.9	138.0	111.0	72.0	24.0	12.0	3.0	0.0
95°	87.0	81.0	78.0	69.0	60.0	42.0	24.0	15.0	9.0	3.0	0.0
97.5°	39.0	36.0	33.0	27.0	21.0	12.0	12.0	9.0	6.0	3.0	0.0
100°	9.0	9.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	3.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	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°	6306.8	6306.8	6306.8	6306.8	6306.8	6306.8	6306.8	6306.8	6306.8	6306.8
2.5°	6345.8	6327.8	6318.8	6261.8	6279.8	6228.8	6327.8	6303.8	6288.8	6330.8
5°	6351.8	6288.8	6327.8	6294.8	6306.8	6234.8	6312.8	6279.8	6276.8	6294.8
7.5°	6366.8	6324.8	6363.8	6297.8	6327.8	6297.8	6354.8	6321.8	6348.8	6366.8
10°	6447.7	6423.8	6405.8	6390.8	6411.8	6351.8	6423.8	6426.7	6435.7	6489.7
12.5°	6561.7	6537.7	6507.7	6468.7	6489.7	6465.7	6519.7	6534.7	6567.7	6594.7
15°	6720.6	6675.7	6663.7	6627.7	6648.7	6636.7	6648.7	6639.7	6702.7	6693.7
17.5°	6939.6	6888.6	6717.6	6543.7	6432.7	6465.7	6603.7	6783.6	6828.6	6834.6
20°	7020.5	6660.7	6642.7	6444.7	6354.8	6348.8	6063.9	5638.0	5767.0	6069.9
22.5°	6924.6	6432.7	6381.8	6342.8	5958.9	5329.1	5269.2	5206.2	5191.2	5236.2
25°	6708.7	6651.7	6606.7	6096.9	5491.1	5494.1	5407.1	4993.3	4348.5	4294.5
27.5°	7038.5	6960.6	6525.7	5740.0	5728.0	5722.0	5593.0	4531.4	4393.5	4426.4
30°	7413.4	7284.4	6147.8	6045.9	6042.9	5988.9	5014.2	4570.4	4570.4	4576.4
32.5°	7845.3	7044.5	6363.8	6411.8	6408.8	6153.8	4843.3	4813.3	4801.3	4831.3
35°	8175.1	6852.6	6828.6	6915.6	6855.6	5221.2	5146.2	5119.2	5107.2	5092.2
37.5°	8073.2	7404.4	7404.4	7458.4	6975.6	5560.1	5524.1	5524.1	5500.1	5488.1
40°	8229.1	8091.2	8022.2	8043.2	5068.2	5970.9	5997.9	5991.9	5988.9	6009.9
42.5°	9050.8	8927.9	8864.9	8121.2	5674.0	5934.9	6594.7	6591.7	6600.7	6591.7
45°	10097.5	9983.5	9818.6	7599.3	6441.7	5203.2	7269.5	7302.4	7305.4	7302.4
47.5°	11195.1	11123.1	9434.7	8412.1	7275.5	5584.0	6948.6	8115.2	8100.2	8118.2
50°	12355.7	12031.8	9386.7	9374.7	8163.1	6213.8	6216.8	8825.9	8978.9	9026.8
52.5°	13648.2	10907.2	10403.4	9491.7	9062.8	6861.6	6795.6	7821.3	9908.5	9956.5
55°	12676.6	11522.0	11513.0	8448.0	9428.7	7485.4	7494.4	7422.4	9086.8	10328.4
57.5°	12613.6	12640.6	12619.6	9425.7	6879.6	7017.5	8166.1	8103.2	5883.9	4768.3
60°	13702.2	13741.2	12259.7	10178.4	7437.4	4315.5	5029.2	4273.5	4330.5	4375.5
62.5°	14742.8	14754.8	9971.5	6672.7	3685.7	173.9	84.0	69.0	66.0	66.0
65°	15894.4	15894.4	10688.3	7278.5	3559.8	66.0	12.0	9.0	33.0	33.0
67.5°	17007.0	16761.1	11213.1	7728.3	3622.7	9.0	0.0	0.0	0.0	0.0
68°	16944.1	16674.2	11165.1	7716.3	3613.7	6.0	0.0	0.0	0.0	0.0
70°	16002.4	15741.5	10592.3	7365.4	3478.8	6.0	0.0	0.0	0.0	0.0
72.5°	14125.1	13885.1	9380.7	6492.7	3136.9	3.0	0.0	0.0	0.0	0.0
75°	11956.8	11923.8	8103.2	5479.1	2690.1	3.0	0.0	0.0	0.0	0.0
77.5°	9620.6	9470.7	6333.8	4294.5	2168.2	0.0	0.0	0.0	0.0	0.0
80°	5359.1	5581.0	3706.7	2525.1	1364.5	0.0	0.0	0.0	0.0	0.0
82.5°	1448.5	1355.5	809.7	548.8	260.9	0.0	0.0	0.0	0.0	0.0
85°	185.9	203.9	93.0	75.0	18.0	0.0	0.0	0.0	0.0	0.0
87.5°	96.0	114.0	30.0	24.0	6.0	0.0	0.0	0.0	0.0	0.0
90°	18.0	21.0	9.0	3.0	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)