

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: P256753

Luminaire Tested: **CST-8-3-D-U-T5R-7050-HSS-HM-EX180**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256753
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-8-3-D-U-T5R-7050-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 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: 21036 lumens
Efficiency: N/A
Efficacy: 93.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U2 - G4

Input Watts (W): 226
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

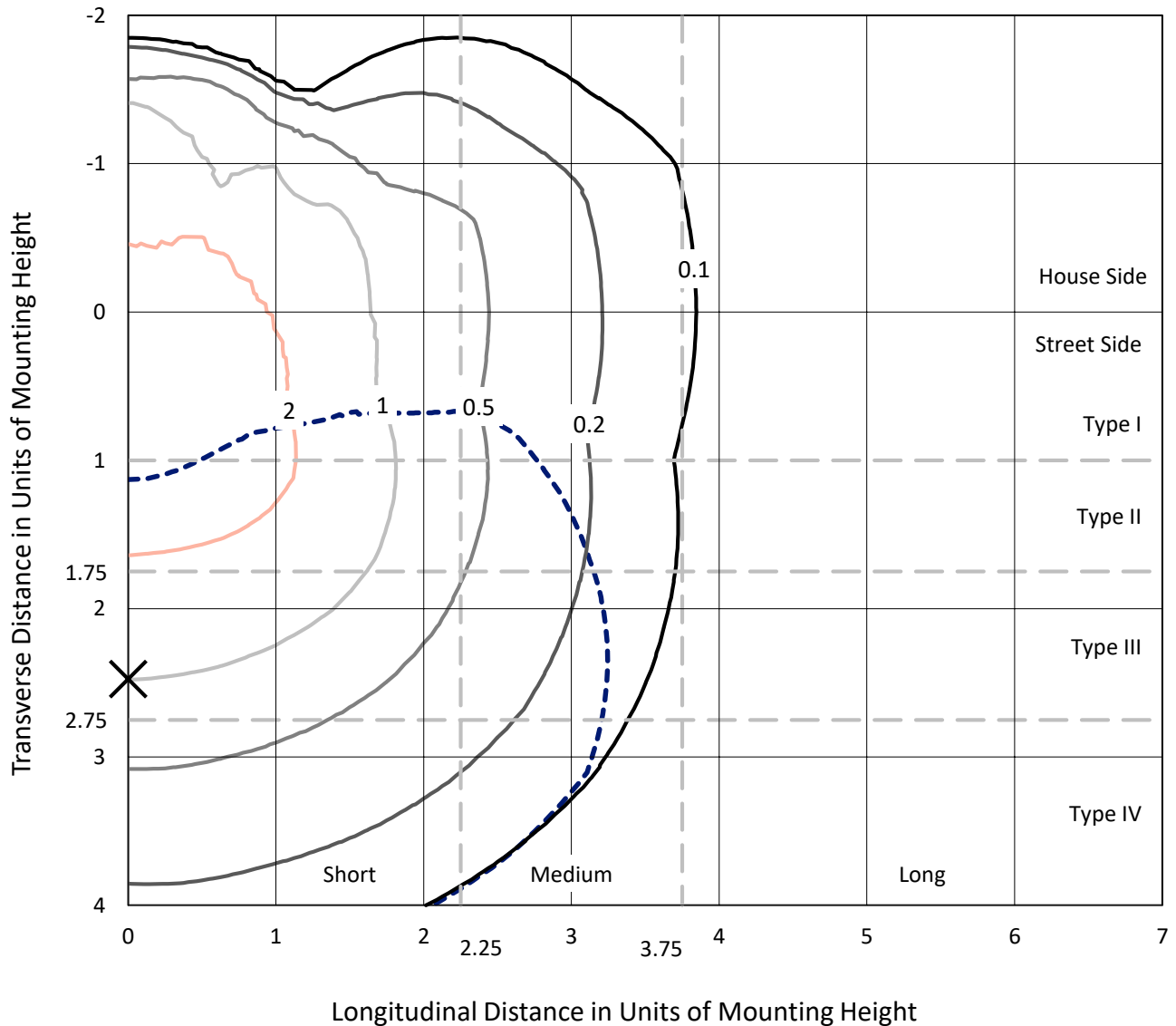


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

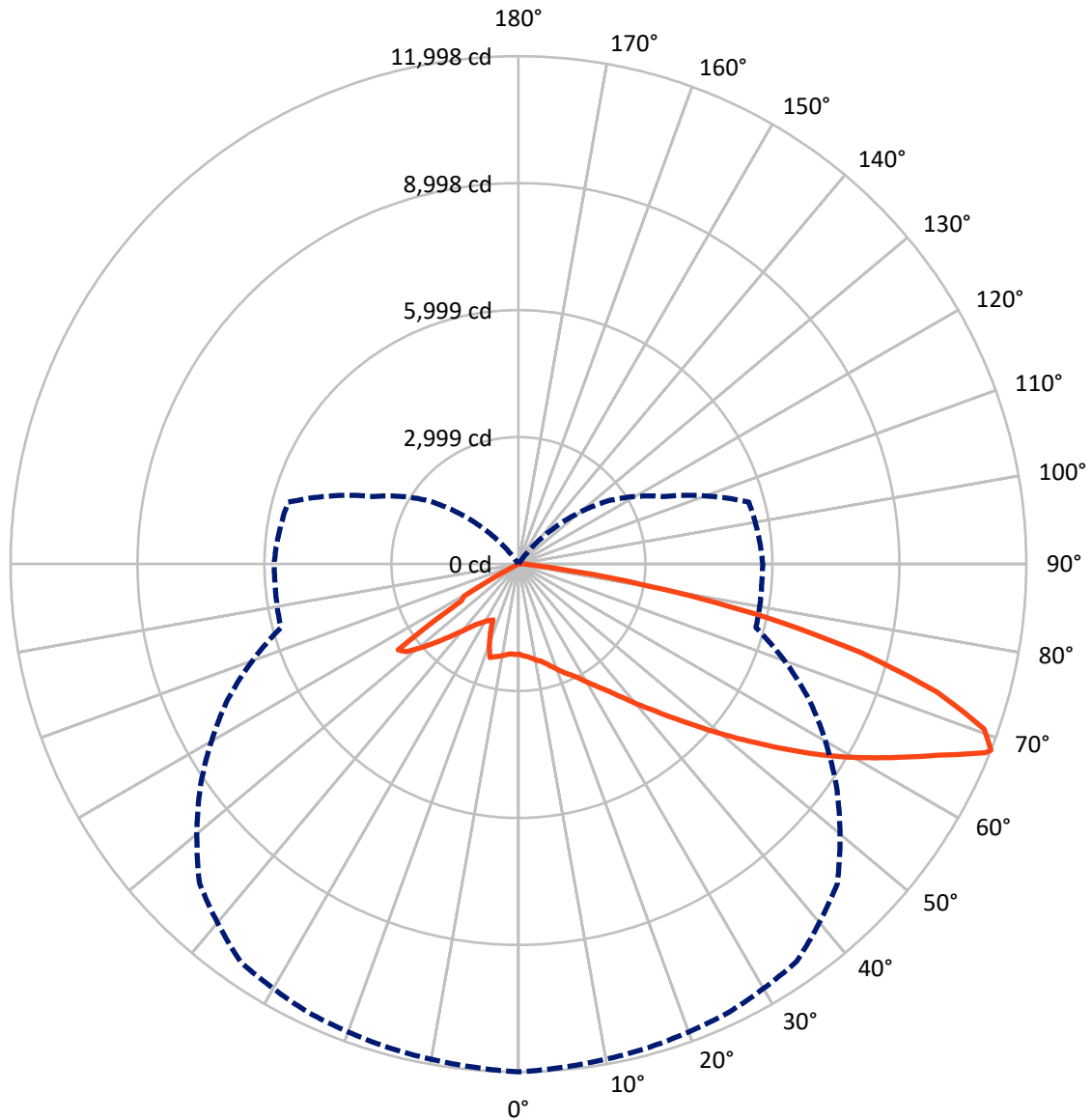


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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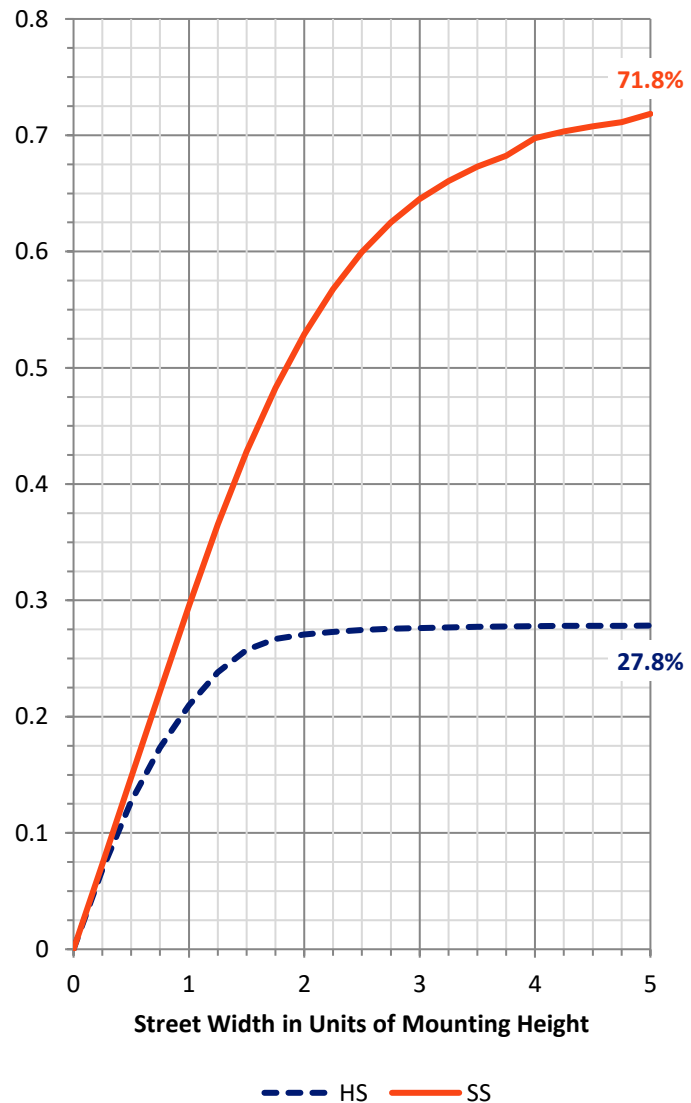
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5875.4	0.1	5875.5
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	15148.4	12.0	15160.5
	% Fixture	72.0	0.1	72.1
Total	Lumens	21023.8	12.2	21036.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.8	1.0
10°-20°	655.4	3.1
20°-30°	1109.6	5.3
30°-40°	1757.9	8.4
40°-50°	2874.1	13.7
50°-60°	4402.3	20.9
60°-70°	5413.0	25.7
70°-80°	4182.6	19.9
80°-90°	422.0	2.0
90°-100°	12.0	0.1
100°-110°	0.2	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°	21023.8	99.9
0°-180°	21036.0	100.0



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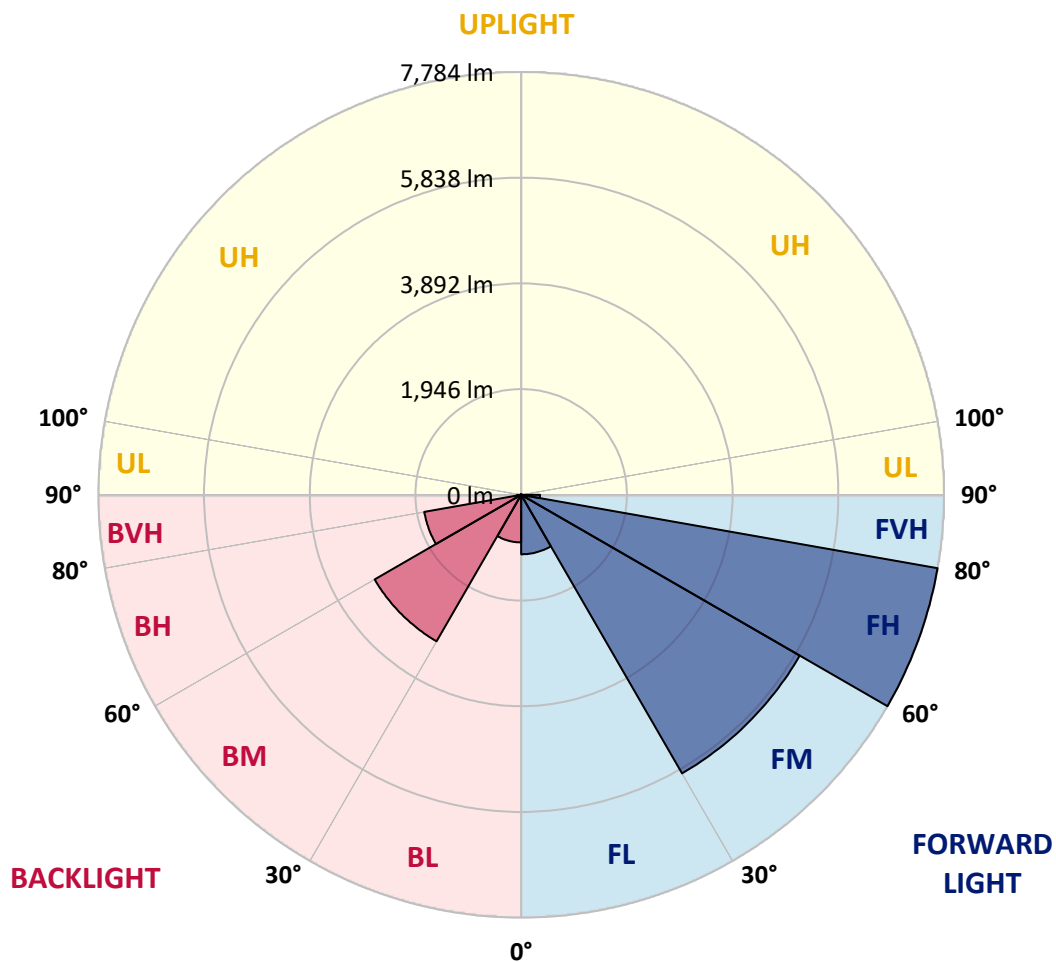
CATALOG NUMBER: CST-8-3-D-U-T5R-7050-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1094.9	5.2			
FM	(30°-60°)	5921.3	28.1			
FH	(60°-80°)	7784.2	37.0			G4/12000
FVH	(80°-90°)	348.0	1.7			G3/500
BL	(0°-30°)	877.0	4.2	B2/1000		
BM	(30°-60°)	3113.0	14.8	B3/5000		
BH	(60°-80°)	1811.4	8.6	B3/2500		G3/2500
BVH	(80°-90°)	74.0	0.4			G1/100
UL	(90°-100°)	12.0	0.1		U2/50	
UH	(100°-180°)	0.1	0.0		U1/10	

BUG Rating: B3-U2-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2131.2	2131.2	2131.2	2131.2	2131.2	2131.2	2131.2	2131.2	2131.2	2131.2	2131.2
2.5°	2169.7	2165.6	2161.6	2170.7	2135.2	2150.4	2138.3	2149.4	2141.3	2150.4	2147.4
5°	2198.1	2194.0	2181.8	2192.0	2168.7	2174.7	2159.5	2163.6	2136.2	2152.5	2151.4
7.5°	2244.7	2233.5	2225.4	2225.4	2205.1	2204.1	2179.8	2180.8	2159.5	2157.5	2161.6
10°	2307.5	2299.4	2277.1	2279.1	2250.8	2246.7	2216.3	2215.3	2198.1	2187.9	2197.0
12.5°	2354.1	2362.2	2342.0	2342.0	2313.6	2293.3	2272.0	2257.8	2244.7	2229.5	2222.4
15°	2439.2	2447.4	2420.0	2419.0	2407.8	2383.5	2360.2	2329.8	2306.5	2299.4	2288.2
17.5°	2549.7	2544.6	2521.3	2522.3	2524.4	2484.8	2461.5	2422.0	2388.6	2364.3	2358.2
20°	2662.2	2662.2	2636.9	2645.0	2634.8	2598.3	2583.1	2528.4	2481.8	2455.5	2434.2
22.5°	2787.9	2782.8	2765.6	2782.8	2762.5	2726.0	2700.7	2646.0	2586.2	2437.2	2376.4
25°	2907.4	2904.4	2911.5	2916.6	2891.2	2845.6	2828.4	2770.6	2604.4	2408.8	2286.2
27.5°	3058.4	3048.3	3064.5	3074.6	3049.3	3009.8	2973.3	2908.4	2556.8	2402.8	2389.6
30°	3252.0	3229.7	3253.0	3258.1	3231.7	3207.4	3152.7	2828.4	2573.0	2528.4	2524.4
32.5°	3458.7	3432.4	3462.8	3466.8	3432.4	3412.1	3274.3	2786.8	2732.1	2680.4	2685.5
35°	3704.0	3704.0	3719.2	3721.2	3695.9	3661.4	3136.5	2989.5	2940.9	2893.2	2892.2
37.5°	4002.9	3993.8	4034.3	4058.6	4031.3	3933.0	3337.1	3268.2	3193.2	3132.4	3006.7
40°	4363.7	4379.9	4391.0	4415.4	4389.0	4168.1	3630.0	3552.0	3493.2	3289.5	2972.3
42.5°	4752.8	4756.9	4781.2	4811.6	4811.6	4578.5	3972.5	3905.6	3829.6	3216.5	3073.6
45°	5218.0	5208.9	5255.5	5304.1	5290.9	5049.8	4370.8	4321.1	3965.4	3428.3	3429.3
47.5°	5746.0	5734.8	5801.7	5865.5	5799.7	5572.7	4808.6	4770.1	3827.6	3787.1	3779.0
50°	6356.0	6328.7	6405.7	6490.8	6437.1	6156.4	5340.6	4600.8	4211.7	4179.2	4174.2
52.5°	7007.6	6986.3	7033.0	7177.9	7106.9	6767.5	5844.3	4746.7	4656.6	4620.1	4611.0
55°	7743.4	7701.8	7802.1	7912.6	7830.5	7443.4	6340.8	5231.1	5137.9	5075.1	4983.9
57.5°	8516.6	8456.8	8508.5	8647.3	8568.3	8135.5	6981.3	5729.7	5619.3	4650.5	4280.6
60°	9286.8	9259.4	9279.7	9402.3	9305.0	8808.4	7581.2	6229.3	4755.9	4599.8	4618.0
62.5°	10061.0	10001.2	10019.4	10145.1	10020.5	9448.9	8149.7	6683.3	5005.2	4950.4	4969.7
65°	10891.0	10820.0	10836.2	10872.7	10718.7	10023.5	8652.4	7112.0	5380.1	5322.4	5343.6
67.5°	11891.2	11826.3	11738.2	11629.7	11416.9	10633.6	9152.0	7563.0	5801.7	5769.3	5776.4
68°	11997.6	11934.8	11828.4	11699.7	11460.5	10658.9	9173.3	7576.1	5807.8	5767.2	5769.3
70°	11666.2	11703.7	11583.1	11367.3	11167.6	10288.0	8825.7	7284.3	5549.4	5489.6	5474.4
72.5°	10331.6	10413.7	10247.5	10211.0	9965.7	9165.2	7723.1	6320.5	4826.8	4846.1	4791.3
75°	8341.3	8461.9	8260.2	8271.3	8131.5	7645.1	6472.6	5262.6	3963.4	4051.6	4067.8
77.5°	5800.7	5974.0	5885.8	5974.0	5905.1	5729.7	5009.2	4052.6	3024.0	3125.3	3164.8
80°	3025.0	3230.7	3347.2	3383.7	3406.0	3398.9	3050.3	2432.1	1748.1	1785.6	1783.6
82.5°	956.6	907.0	936.4	928.3	902.9	913.1	822.9	643.5	445.9	491.5	470.2
85°	288.8	290.8	282.7	280.7	259.4	228.0	186.5	107.4	52.7	61.8	57.8
87.5°	212.8	214.8	198.6	188.5	176.3	153.0	118.6	66.9	25.3	24.3	19.3
90°	117.6	113.5	105.4	97.3	92.2	79.0	59.8	25.3	9.1	7.1	6.1
92.5°	63.8	60.8	56.8	53.7	46.6	37.5	24.3	8.1	4.1	1.0	0.0
95°	29.4	27.4	26.3	23.3	20.3	14.2	8.1	5.1	3.0	1.0	0.0
97.5°	13.2	12.2	11.1	9.1	7.1	4.1	4.1	3.0	2.0	1.0	0.0
100°	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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°	2131.2	2131.2	2131.2	2131.2	2131.2	2131.2	2131.2	2131.2	2131.2	2131.2
2.5°	2144.3	2138.3	2135.2	2116.0	2122.1	2104.8	2138.3	2130.2	2125.1	2139.3
5°	2146.4	2125.1	2138.3	2127.1	2131.2	2106.8	2133.2	2122.1	2121.0	2127.1
7.5°	2151.4	2137.3	2150.4	2128.1	2138.3	2128.1	2147.4	2136.2	2145.4	2151.4
10°	2178.8	2170.7	2164.6	2159.5	2166.6	2146.4	2170.7	2171.7	2174.7	2193.0
12.5°	2217.3	2209.2	2199.1	2185.9	2193.0	2184.9	2203.1	2208.2	2219.3	2228.5
15°	2271.0	2255.8	2251.8	2239.6	2246.7	2242.6	2246.7	2243.7	2264.9	2261.9
17.5°	2345.0	2327.8	2270.0	2211.2	2173.7	2184.9	2231.5	2292.3	2307.5	2309.5
20°	2372.4	2250.8	2244.7	2177.8	2147.4	2145.4	2049.1	1905.2	1948.8	2051.1
22.5°	2339.9	2173.7	2156.5	2143.3	2013.6	1800.8	1780.5	1759.3	1754.2	1769.4
25°	2267.0	2247.7	2232.5	2060.2	1855.5	1856.5	1827.2	1687.3	1469.4	1451.2
27.5°	2378.4	2352.1	2205.1	1939.6	1935.6	1933.6	1890.0	1531.2	1484.6	1495.8
30°	2505.1	2461.5	2077.5	2043.0	2042.0	2023.8	1694.4	1544.4	1544.4	1546.4
32.5°	2651.0	2380.5	2150.4	2166.6	2165.6	2079.5	1636.6	1626.5	1622.4	1632.6
35°	2762.5	2315.6	2307.5	2336.9	2316.6	1764.3	1739.0	1729.9	1725.8	1720.7
37.5°	2728.1	2502.1	2502.1	2520.3	2357.2	1878.8	1866.7	1866.7	1858.6	1854.5
40°	2780.8	2734.1	2710.8	2717.9	1712.6	2017.7	2026.8	2024.8	2023.8	2030.8
42.5°	3058.4	3016.9	2995.6	2744.3	1917.3	2005.5	2228.5	2227.4	2230.5	2227.4
45°	3412.1	3373.6	3317.9	2567.9	2176.8	1758.2	2456.5	2467.6	2468.6	2467.6
47.5°	3783.0	3758.7	3188.1	2842.6	2458.5	1886.9	2348.0	2742.2	2737.2	2743.3
50°	4175.2	4065.7	3171.9	3167.9	2758.5	2099.8	2100.8	2982.4	3034.1	3050.3
52.5°	4612.0	3685.7	3515.5	3207.4	3062.5	2318.6	2296.4	2642.9	3348.3	3364.5
55°	4283.6	3893.5	3890.4	2854.7	3186.1	2529.4	2532.5	2508.2	3070.6	3490.1
57.5°	4262.3	4271.5	4264.4	3185.1	2324.7	2371.3	2759.5	2738.2	1988.3	1611.3
60°	4630.2	4643.4	4142.8	3439.5	2513.2	1458.3	1699.5	1444.1	1463.3	1478.5
62.5°	4981.9	4985.9	3369.5	2254.8	1245.5	58.8	28.4	23.3	22.3	22.3
65°	5371.0	5371.0	3611.7	2459.5	1202.9	22.3	4.1	3.0	11.1	11.1
67.5°	5747.0	5663.9	3789.1	2611.5	1224.2	3.0	0.0	0.0	0.0	0.0
68°	5725.7	5634.5	3772.9	2607.5	1221.1	2.0	0.0	0.0	0.0	0.0
70°	5407.5	5319.3	3579.3	2488.9	1175.5	2.0	0.0	0.0	0.0	0.0
72.5°	4773.1	4692.0	3169.9	2194.0	1060.0	1.0	0.0	0.0	0.0	0.0
75°	4040.4	4029.3	2738.2	1851.5	909.0	1.0	0.0	0.0	0.0	0.0
77.5°	3251.0	3200.3	2140.3	1451.2	732.7	0.0	0.0	0.0	0.0	0.0
80°	1810.9	1885.9	1252.6	853.3	461.1	0.0	0.0	0.0	0.0	0.0
82.5°	489.5	458.1	273.6	185.5	88.2	0.0	0.0	0.0	0.0	0.0
85°	62.8	68.9	31.4	25.3	6.1	0.0	0.0	0.0	0.0	0.0
87.5°	32.4	38.5	10.1	8.1	2.0	0.0	0.0	0.0	0.0	0.0
90°	6.1	7.1	3.0	1.0	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)