

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: P256746

Luminaire Tested: **CST-10-3-D-U-T5R-HSS-HM-EX180**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256746
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-10-3-D-U-T5R-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 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: 21057 lumens
Efficiency: N/A
Efficacy: 99.3 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): 212
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

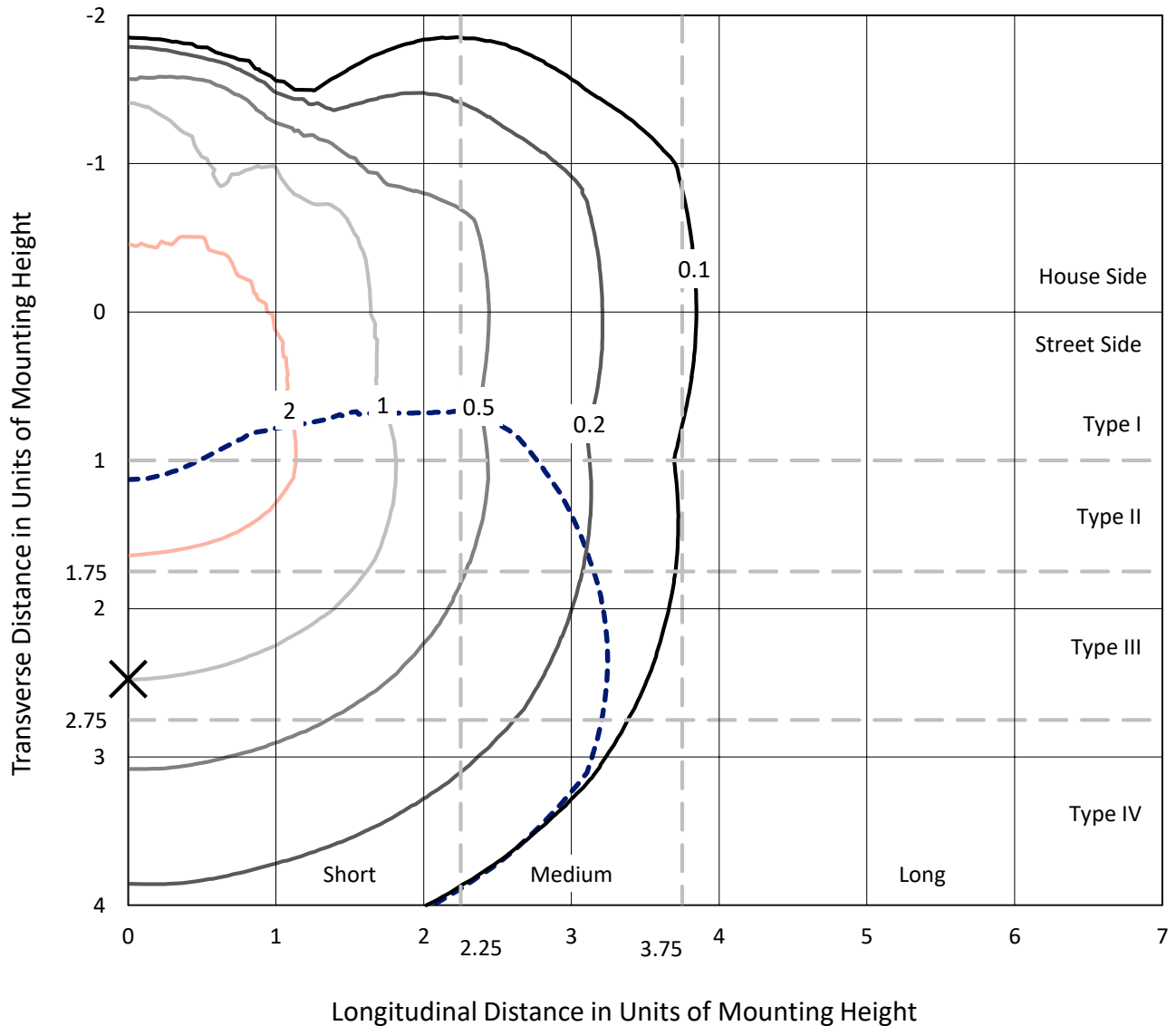


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

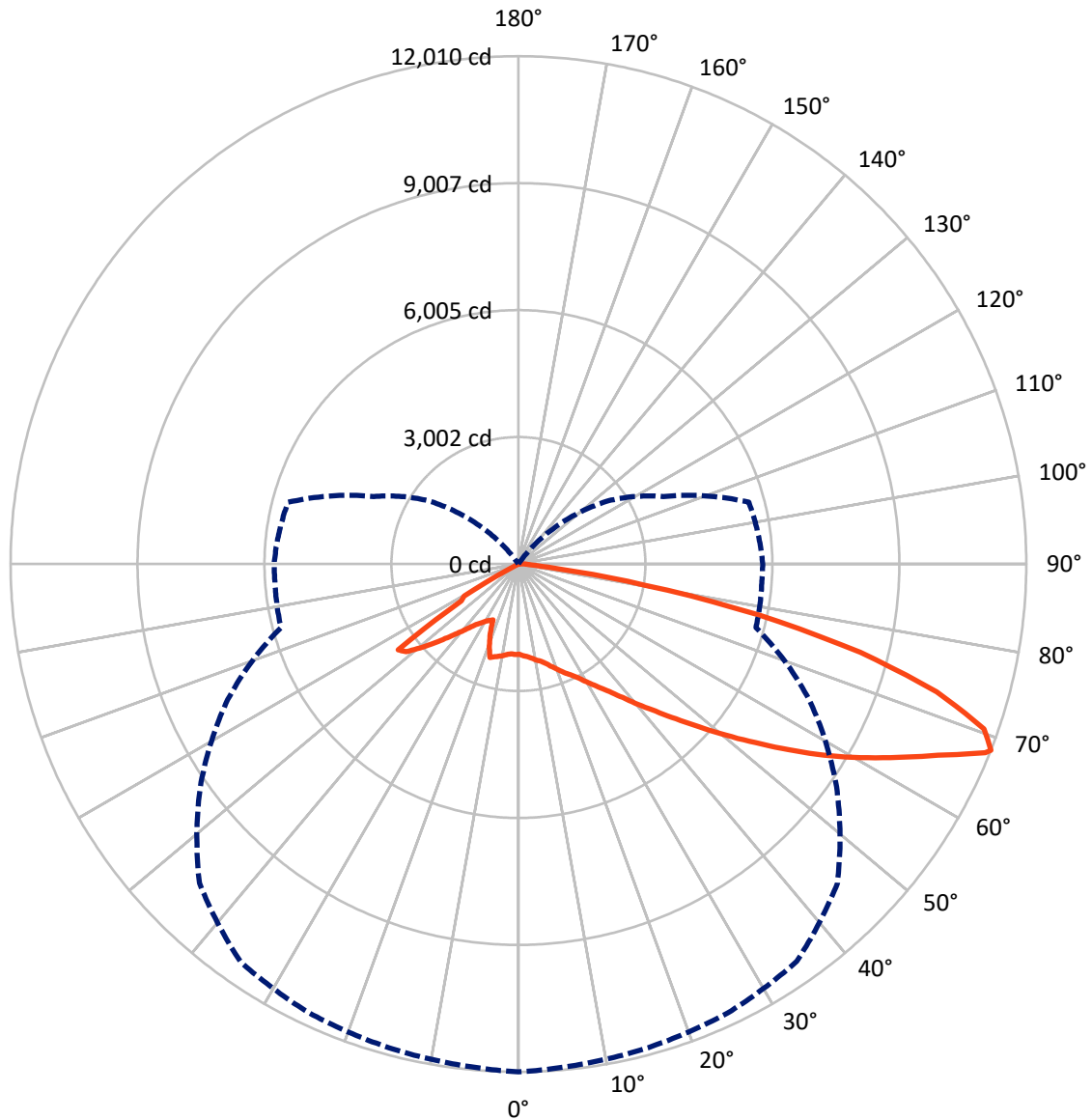


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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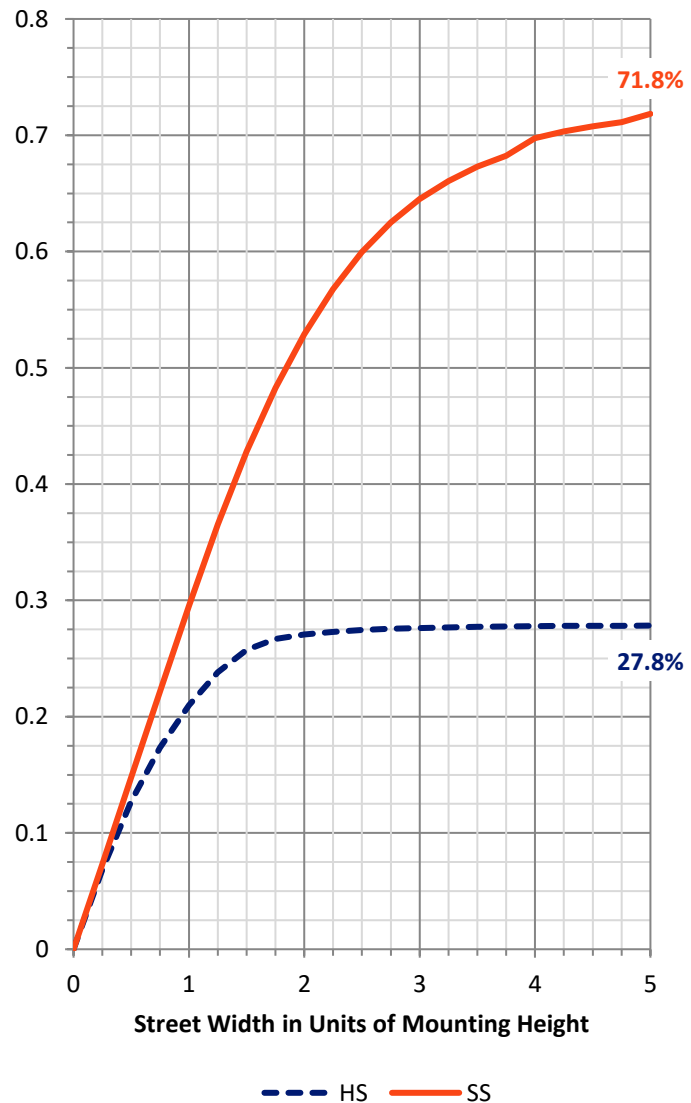
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5881.2	0.1	5881.4
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	15163.6	12.1	15175.6
	% Fixture	72.0	0.1	72.1
Total	Lumens	21044.8	12.2	21057.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.1	1.0
10°-20°	656.1	3.1
20°-30°	1110.7	5.3
30°-40°	1759.7	8.4
40°-50°	2876.9	13.7
50°-60°	4406.7	20.9
60°-70°	5418.4	25.7
70°-80°	4186.8	19.9
80°-90°	422.4	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°	21044.8	99.9
0°-180°	21057.0	100.0



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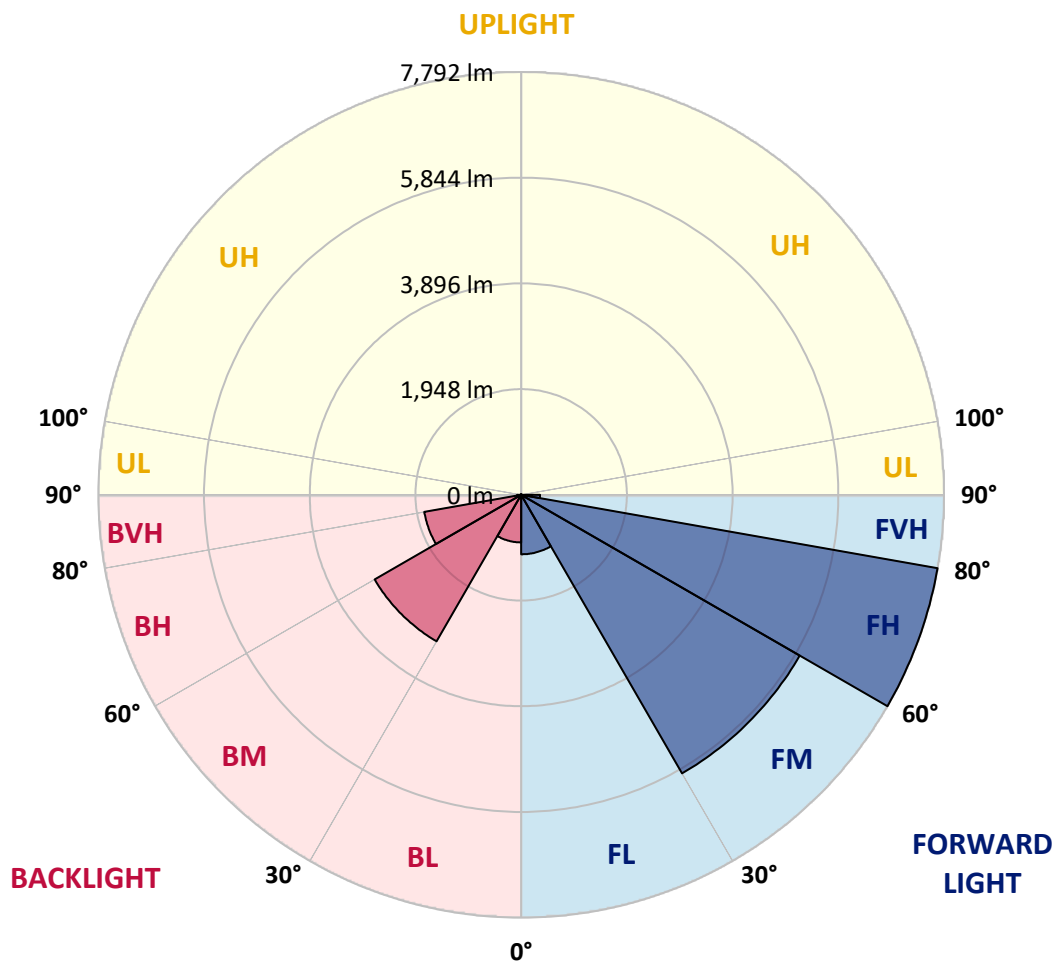
CATALOG NUMBER: CST-10-3-D-U-T5R-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1096.0	5.2			
FM	(30°-60°)	5927.2	28.1			
FH	(60°-80°)	7792.0	37.0			G4/12000
FVH	(80°-90°)	348.4	1.7			G3/500
BL	(0°-30°)	877.8	4.2	B2/1000		
BM	(30°-60°)	3116.1	14.8	B3/5000		
BH	(60°-80°)	1813.2	8.6	B3/2500		G3/2500
BVH	(80°-90°)	74.1	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°	2133.3	2133.3	2133.3	2133.3	2133.3	2133.3	2133.3	2133.3	2133.3	2133.3	2133.3
2.5°	2171.8	2167.8	2163.7	2172.9	2137.4	2152.6	2140.4	2151.6	2143.4	2152.6	2149.5
5°	2200.2	2196.2	2184.0	2194.2	2170.8	2176.9	2161.7	2165.8	2138.4	2154.6	2153.6
7.5°	2246.9	2235.8	2227.6	2227.6	2207.4	2206.3	2182.0	2183.0	2161.7	2159.7	2163.7
10°	2309.8	2301.7	2279.4	2281.4	2253.0	2248.9	2218.5	2217.5	2200.2	2190.1	2199.2
12.5°	2356.5	2364.6	2344.3	2344.3	2315.9	2295.6	2274.3	2260.1	2246.9	2231.7	2224.6
15°	2441.7	2449.8	2422.4	2421.4	2410.2	2385.9	2362.6	2332.1	2308.8	2301.7	2290.5
17.5°	2552.2	2547.2	2523.8	2524.9	2526.9	2487.3	2464.0	2424.4	2391.0	2366.6	2360.5
20°	2664.8	2664.8	2639.5	2647.6	2637.5	2600.9	2585.7	2530.9	2484.3	2457.9	2436.6
22.5°	2790.6	2785.6	2768.3	2785.6	2765.3	2728.8	2703.4	2648.6	2588.8	2439.6	2378.8
25°	2910.3	2907.3	2914.4	2919.5	2894.1	2848.5	2831.2	2773.4	2607.0	2411.2	2288.5
27.5°	3061.5	3051.3	3067.6	3077.7	3052.4	3012.8	2976.3	2911.3	2559.3	2405.2	2392.0
30°	3255.2	3232.9	3256.2	3261.3	3234.9	3210.6	3155.8	2831.2	2575.6	2530.9	2526.9
32.5°	3462.2	3435.8	3466.2	3470.3	3435.8	3415.5	3277.5	2789.6	2734.8	2683.1	2688.2
35°	3707.7	3707.7	3722.9	3724.9	3699.5	3665.1	3139.6	2992.5	2943.8	2896.1	2895.1
37.5°	4006.9	3997.8	4038.4	4062.7	4035.3	3936.9	3340.4	3271.5	3196.4	3135.5	3009.7
40°	4368.0	4384.3	4395.4	4419.8	4393.4	4172.3	3633.6	3555.5	3496.7	3292.8	2975.3
42.5°	4757.6	4761.6	4786.0	4816.4	4816.4	4583.1	3976.5	3909.5	3833.4	3219.7	3076.7
45°	5223.2	5214.1	5260.7	5309.4	5296.2	5054.8	4375.1	4325.4	3969.4	3431.7	3432.8
47.5°	5751.7	5740.5	5807.5	5871.4	5805.5	5578.2	4813.4	4774.8	3831.4	3790.8	3782.7
50°	6362.4	6335.0	6412.1	6497.3	6443.5	6162.5	5345.9	4605.4	4215.9	4183.4	4178.3
52.5°	7014.6	6993.3	7040.0	7185.0	7114.0	6774.2	5850.1	4751.5	4661.2	4624.7	4615.6
55°	7751.1	7709.5	7809.9	7920.5	7838.3	7450.8	6347.1	5236.4	5143.0	5080.2	4988.9
57.5°	8525.1	8465.2	8517.0	8655.9	8576.8	8143.7	6988.3	5735.5	5624.9	4655.1	4284.9
60°	9296.0	9268.6	9288.9	9411.7	9314.3	8817.2	7588.8	6235.6	4760.6	4604.4	4622.7
62.5°	10071.0	10011.2	10029.4	10155.2	10030.5	9458.3	8157.9	6690.0	5010.2	4955.4	4974.7
65°	10901.8	10830.8	10847.1	10883.6	10729.4	10033.5	8661.0	7119.1	5385.5	5327.7	5349.0
67.5°	11903.1	11838.1	11749.9	11641.3	11428.3	10644.2	9161.1	7570.5	5807.5	5775.0	5782.1
68°	12009.6	11946.7	11840.2	11711.3	11471.9	10669.5	9182.4	7583.7	5813.6	5773.0	5775.0
70°	11677.9	11715.4	11594.7	11378.6	11178.8	10298.3	8834.5	7291.6	5554.9	5495.0	5479.8
72.5°	10341.9	10424.0	10257.7	10221.2	9975.7	9174.3	7730.8	6326.9	4831.6	4850.9	4796.1
75°	8349.6	8470.3	8268.4	8279.6	8139.6	7652.7	6479.0	5267.8	3967.3	4055.6	4071.8
77.5°	5806.5	5979.9	5891.7	5979.9	5911.0	5735.5	5014.2	4056.6	3027.0	3128.4	3168.0
80°	3028.0	3233.9	3350.6	3387.1	3409.4	3402.3	3053.4	2434.6	1749.9	1787.4	1785.4
82.5°	957.6	907.9	937.3	929.2	903.8	914.0	823.7	644.1	446.3	492.0	470.7
85°	289.1	291.1	283.0	281.0	259.7	228.2	186.7	107.5	52.7	61.9	57.8
87.5°	213.0	215.1	198.8	188.7	176.5	153.2	118.7	67.0	25.4	24.3	19.3
90°	117.7	113.6	105.5	97.4	92.3	79.1	59.9	25.4	9.1	7.1	6.1
92.5°	63.9	60.9	56.8	53.8	46.7	37.5	24.3	8.1	4.1	1.0	0.0
95°	29.4	27.4	26.4	23.3	20.3	14.2	8.1	5.1	3.0	1.0	0.0
97.5°	13.2	12.2	11.2	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°	2133.3	2133.3	2133.3	2133.3	2133.3	2133.3	2133.3	2133.3	2133.3	2133.3
2.5°	2146.5	2140.4	2137.4	2118.1	2124.2	2106.9	2140.4	2132.3	2127.2	2141.4
5°	2148.5	2127.2	2140.4	2129.2	2133.3	2109.0	2135.3	2124.2	2123.2	2129.2
7.5°	2153.6	2139.4	2152.6	2130.3	2140.4	2130.3	2149.5	2138.4	2147.5	2153.6
10°	2181.0	2172.9	2166.8	2161.7	2168.8	2148.5	2172.9	2173.9	2176.9	2195.2
12.5°	2219.5	2211.4	2201.3	2188.1	2195.2	2187.1	2205.3	2210.4	2221.6	2230.7
15°	2273.3	2258.1	2254.0	2241.8	2248.9	2244.9	2248.9	2245.9	2267.2	2264.2
17.5°	2347.3	2330.1	2272.3	2213.4	2175.9	2187.1	2233.7	2294.6	2309.8	2311.8
20°	2374.7	2253.0	2246.9	2180.0	2149.5	2147.5	2051.1	1907.1	1950.7	2053.2
22.5°	2342.3	2175.9	2158.7	2145.5	2015.6	1802.6	1782.3	1761.0	1755.9	1771.2
25°	2269.2	2250.0	2234.7	2062.3	1857.4	1858.4	1829.0	1689.0	1470.9	1452.6
27.5°	2380.8	2354.4	2207.4	1941.6	1937.5	1935.5	1891.9	1532.8	1486.1	1497.3
30°	2507.6	2464.0	2079.5	2045.0	2044.0	2025.8	1696.1	1546.0	1546.0	1548.0
32.5°	2653.7	2382.8	2152.6	2168.8	2167.8	2081.6	1638.3	1628.1	1624.1	1634.2
35°	2765.3	2317.9	2309.8	2339.2	2318.9	1766.1	1740.7	1731.6	1727.5	1722.5
37.5°	2730.8	2504.6	2504.6	2522.8	2359.5	1880.7	1868.5	1868.5	1860.4	1856.4
40°	2783.5	2736.9	2713.5	2720.6	1714.3	2019.7	2028.8	2026.8	2025.8	2032.9
42.5°	3061.5	3019.9	2998.6	2747.0	1919.3	2007.5	2230.7	2229.7	2232.7	2229.7
45°	3415.5	3377.0	3321.2	2570.5	2178.9	1760.0	2458.9	2470.1	2471.1	2470.1
47.5°	3786.8	3762.4	3191.3	2845.4	2461.0	1888.8	2350.4	2745.0	2739.9	2746.0
50°	4179.4	4069.8	3175.1	3171.0	2761.2	2101.9	2102.9	2985.4	3037.1	3053.4
52.5°	4616.6	3689.4	3519.0	3210.6	3065.5	2321.0	2298.6	2645.6	3351.6	3367.8
55°	4287.9	3897.4	3894.3	2857.6	3189.3	2532.0	2535.0	2510.7	3073.7	3493.6
57.5°	4266.6	4275.7	4268.6	3188.3	2327.1	2373.7	2762.2	2740.9	1990.3	1612.9
60°	4634.8	4648.0	4146.9	3442.9	2515.7	1459.7	1701.2	1445.5	1464.8	1480.0
62.5°	4986.8	4990.9	3372.9	2257.1	1246.7	58.8	28.4	23.3	22.3	22.3
65°	5376.4	5376.4	3615.3	2462.0	1204.1	22.3	4.1	3.0	11.2	11.2
67.5°	5752.7	5669.5	3792.9	2614.1	1225.4	3.0	0.0	0.0	0.0	0.0
68°	5731.4	5640.1	3776.6	2610.1	1222.4	2.0	0.0	0.0	0.0	0.0
70°	5412.9	5324.6	3582.9	2491.4	1176.7	2.0	0.0	0.0	0.0	0.0
72.5°	4777.9	4696.7	3173.1	2196.2	1061.1	1.0	0.0	0.0	0.0	0.0
75°	4044.4	4033.3	2740.9	1853.3	909.9	1.0	0.0	0.0	0.0	0.0
77.5°	3254.2	3203.5	2142.4	1452.6	733.4	0.0	0.0	0.0	0.0	0.0
80°	1812.7	1887.8	1253.8	854.1	461.6	0.0	0.0	0.0	0.0	0.0
82.5°	490.0	458.5	273.9	185.6	88.3	0.0	0.0	0.0	0.0	0.0
85°	62.9	69.0	31.4	25.4	6.1	0.0	0.0	0.0	0.0	0.0
87.5°	32.5	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)