

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: P256738

Luminaire Tested: **CST-10-3-D-U-T5R-7030-HSS-HM-EX180**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256738
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-7030-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 3000K 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: 20491 lumens
Efficiency: N/A
Efficacy: 96.7 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

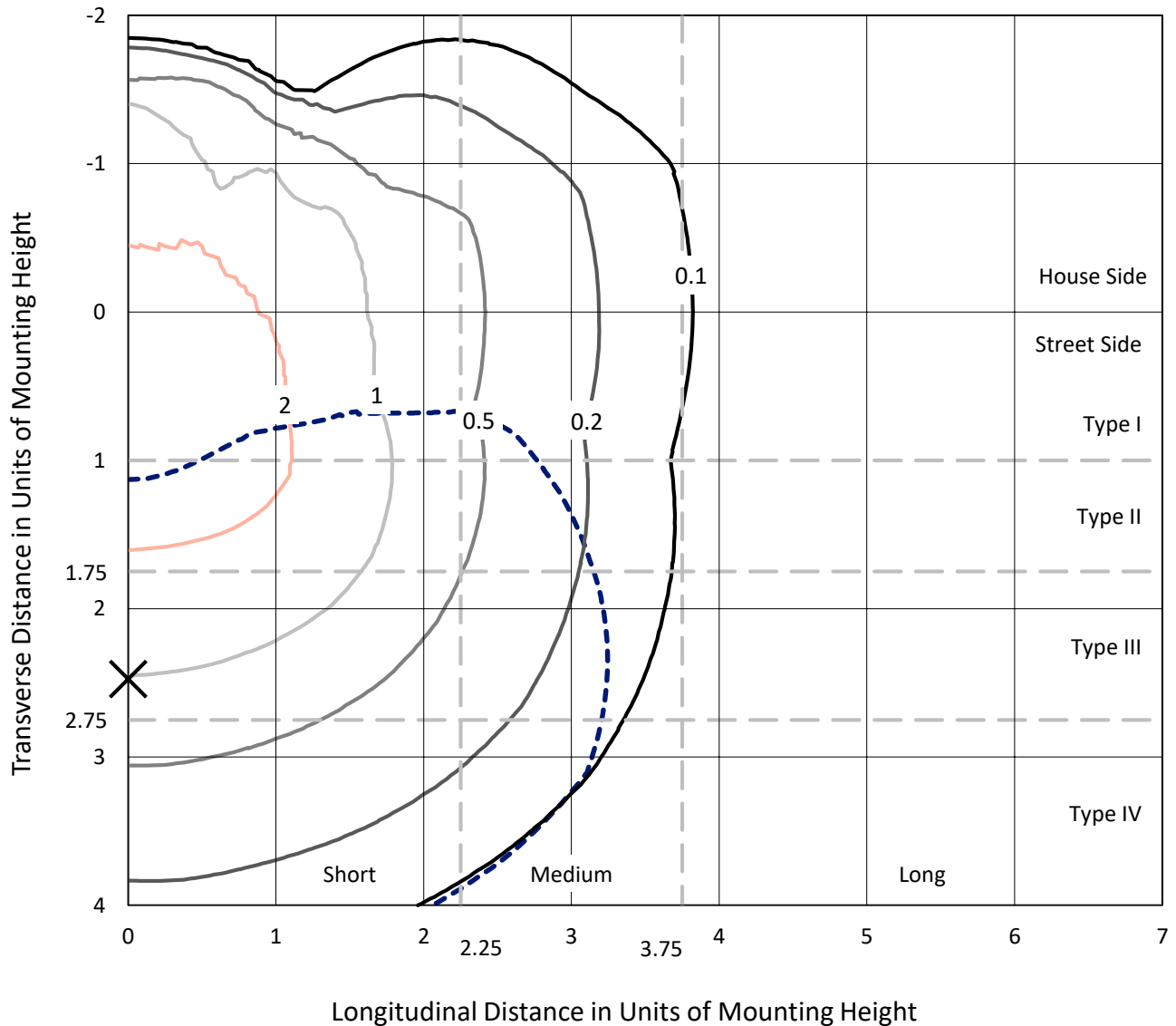


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

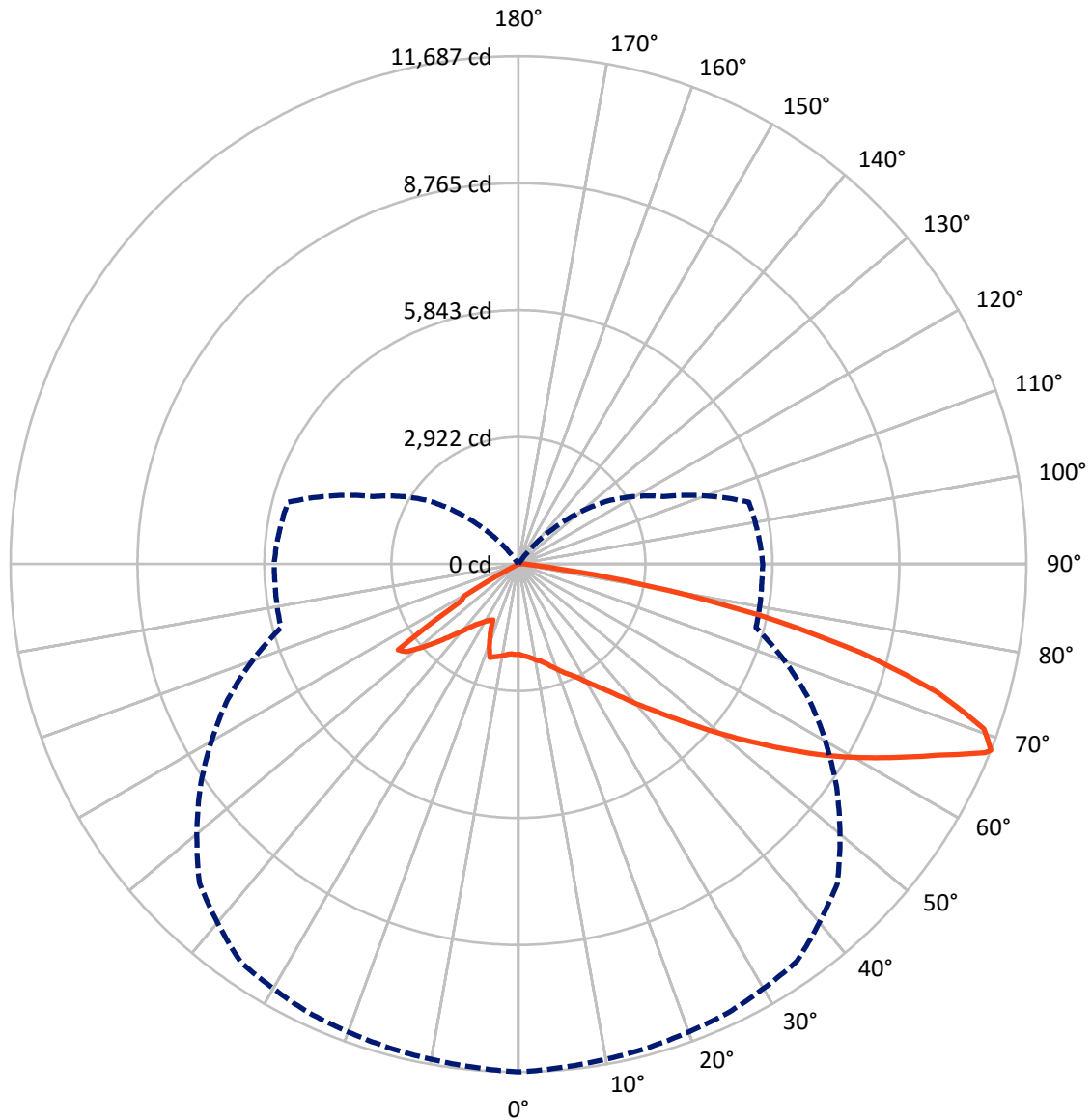


Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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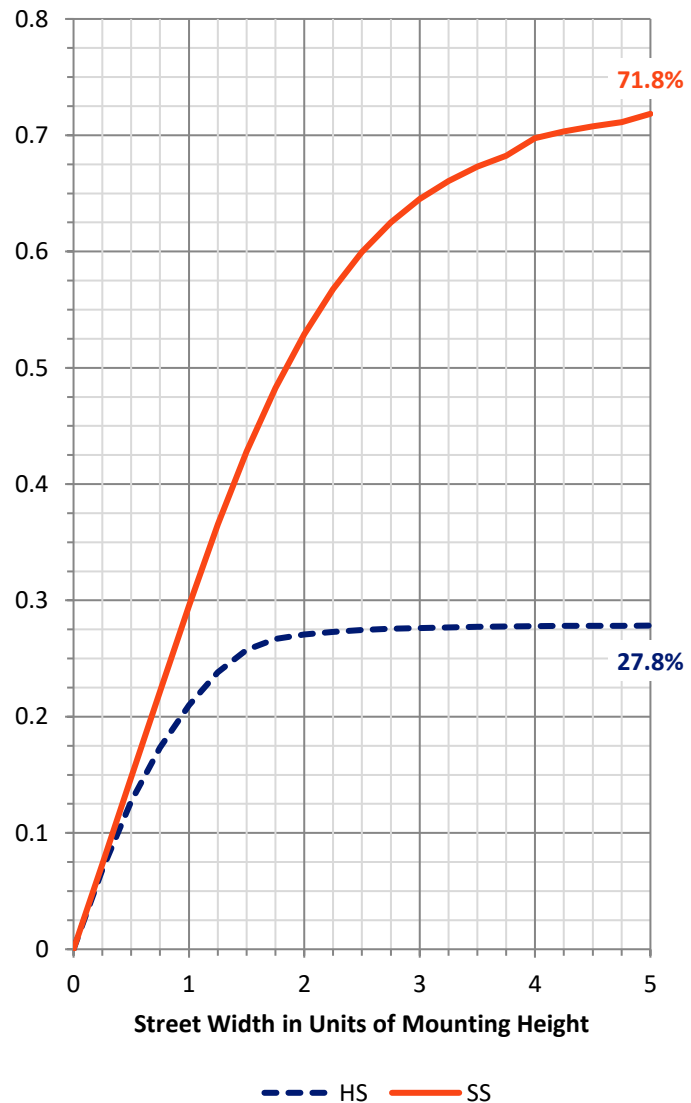
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5723.2	0.1	5723.3
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	14756.0	11.7	14767.7
	% Fixture	72.0	0.1	72.1
Total	Lumens	20479.1	11.9	20491.0
	% Fixture	99.9	0.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.5	1.0
10°-20°	638.4	3.1
20°-30°	1080.9	5.3
30°-40°	1712.4	8.4
40°-50°	2799.6	13.7
50°-60°	4288.3	20.9
60°-70°	5272.8	25.7
70°-80°	4074.2	19.9
80°-90°	411.1	2.0
90°-100°	11.7	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°	20479.1	99.9
0°-180°	20491.0	100.0



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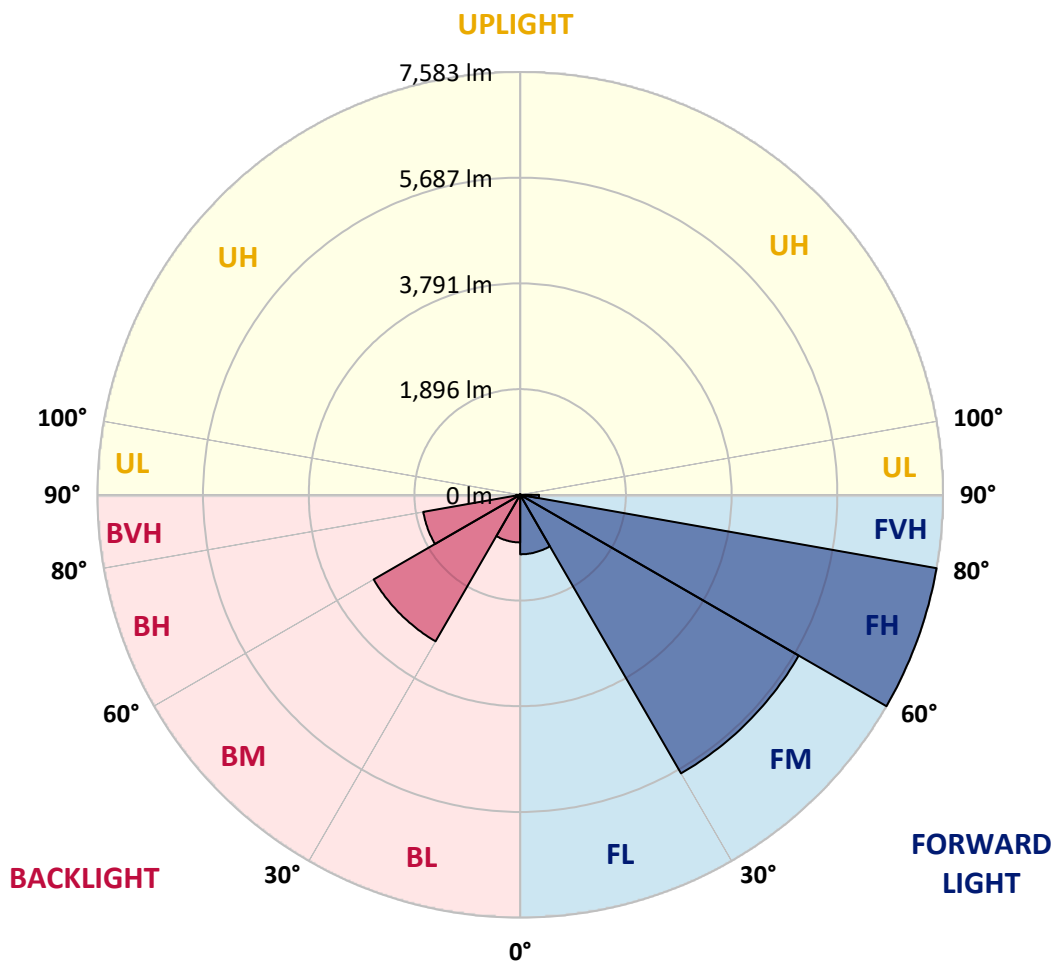
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1066.6	5.2			
FM	(30°-60°)	5767.9	28.1			
FH	(60°-80°)	7582.5	37.0			G4/12000
FVH	(80°-90°)	339.0	1.7			G3/500
BL	(0°-30°)	854.2	4.2	B2/1000		
BM	(30°-60°)	3032.4	14.8	B3/5000		
BH	(60°-80°)	1764.5	8.6	B3/2500		G3/2500
BVH	(80°-90°)	72.1	0.4			G1/100
UL	(90°-100°)	11.7	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°	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0
2.5°	2113.5	2109.5	2105.6	2114.5	2079.9	2094.7	2082.9	2093.7	2085.8	2094.7	2091.8
5°	2141.1	2137.2	2125.3	2135.2	2112.5	2118.4	2103.6	2107.5	2080.9	2096.7	2095.7
7.5°	2186.5	2175.7	2167.8	2167.8	2148.0	2147.0	2123.3	2124.3	2103.6	2101.6	2105.6
10°	2247.7	2239.8	2218.1	2220.1	2192.4	2188.5	2158.9	2157.9	2141.1	2131.2	2140.1
12.5°	2293.1	2301.0	2281.3	2281.3	2253.6	2233.9	2213.2	2199.3	2186.5	2171.7	2164.8
15°	2376.0	2383.9	2357.3	2356.3	2345.4	2321.8	2299.1	2269.4	2246.7	2239.8	2229.0
17.5°	2483.6	2478.7	2456.0	2457.0	2459.0	2420.5	2397.8	2359.3	2326.7	2303.0	2297.1
20°	2593.2	2593.2	2568.5	2576.4	2566.6	2531.0	2516.2	2462.9	2417.5	2391.8	2371.1
22.5°	2715.6	2710.7	2693.9	2710.7	2690.9	2655.4	2630.7	2577.4	2519.2	2374.1	2314.8
25°	2832.1	2829.1	2836.1	2841.0	2816.3	2771.9	2755.1	2698.8	2537.0	2346.4	2227.0
27.5°	2979.2	2969.3	2985.1	2995.0	2970.3	2931.8	2896.3	2833.1	2490.6	2340.5	2327.7
30°	3167.7	3146.0	3168.7	3173.7	3148.0	3124.3	3071.0	2755.1	2506.4	2462.9	2459.0
32.5°	3369.1	3343.4	3373.1	3377.0	3343.4	3323.7	3189.5	2714.6	2661.3	2611.0	2615.9
35°	3608.0	3608.0	3622.8	3624.8	3600.1	3566.5	3055.2	2912.1	2864.7	2818.3	2817.3
37.5°	3899.2	3890.3	3929.8	3953.5	3926.8	3831.1	3250.7	3183.5	3110.5	3051.3	2928.8
40°	4250.6	4266.4	4277.3	4301.0	4275.3	4060.1	3535.9	3459.9	3402.7	3204.3	2895.3
42.5°	4629.7	4633.6	4657.3	4686.9	4686.9	4459.9	3869.6	3804.4	3730.4	3133.2	2994.0
45°	5082.8	5073.9	5119.3	5166.7	5153.9	4918.9	4257.5	4209.2	3862.7	3339.5	3340.5
47.5°	5597.1	5586.2	5651.4	5713.6	5649.4	5428.3	4684.0	4646.5	3728.4	3688.9	3681.0
50°	6191.3	6164.7	6239.7	6322.6	6270.3	5996.9	5202.2	4481.6	4102.6	4071.0	4066.0
52.5°	6826.1	6805.3	6850.8	6991.9	6922.8	6592.1	5692.8	4623.8	4535.9	4500.4	4491.5
55°	7542.7	7502.3	7600.0	7707.6	7627.6	7250.5	6176.5	5095.6	5004.8	4943.6	4854.8
57.5°	8295.9	8237.7	8288.0	8423.3	8346.3	7924.8	6800.4	5581.3	5473.7	4530.0	4169.7
60°	9046.2	9019.5	9039.2	9158.7	9063.9	8580.2	7384.8	6068.0	4632.7	4480.6	4498.4
62.5°	9800.3	9742.1	9759.9	9882.3	9760.8	9204.1	7938.6	6510.2	4875.5	4822.2	4840.9
65°	10608.8	10539.7	10555.5	10591.0	10441.0	9763.8	8428.2	6927.8	5240.7	5184.5	5205.2
67.5°	11583.1	11519.9	11434.0	11328.4	11121.1	10358.1	8914.9	7367.0	5651.4	5619.8	5626.7
68°	11686.8	11625.6	11521.9	11396.5	11163.6	10382.7	8935.6	7379.9	5657.3	5617.8	5619.8
70°	11364.0	11400.5	11283.0	11072.8	10878.3	10021.5	8597.0	7095.6	5405.6	5347.3	5332.5
72.5°	10063.9	10143.9	9982.0	9946.4	9707.5	8927.7	7523.0	6156.8	4701.8	4720.5	4667.2
75°	8125.2	8242.6	8046.2	8057.0	7920.8	7447.0	6304.9	5126.2	3860.7	3946.6	3962.4
77.5°	5650.4	5819.2	5733.3	5819.2	5752.1	5581.3	4879.4	3947.6	2945.6	3044.3	3082.8
80°	2946.6	3147.0	3260.5	3296.1	3317.8	3310.9	2971.3	2369.1	1702.8	1739.3	1737.4
82.5°	931.9	883.5	912.1	904.2	879.5	889.4	801.6	626.8	434.3	478.8	458.0
85°	281.3	283.3	275.4	273.4	252.7	222.1	181.6	104.6	51.3	60.2	56.3
87.5°	207.3	209.3	193.5	183.6	171.8	149.1	115.5	65.2	24.7	23.7	18.8
90°	114.5	110.6	102.7	94.8	89.8	77.0	58.2	24.7	8.9	6.9	5.9
92.5°	62.2	59.2	55.3	52.3	45.4	36.5	23.7	7.9	3.9	1.0	0.0
95°	28.6	26.7	25.7	22.7	19.7	13.8	7.9	4.9	3.0	1.0	0.0
97.5°	12.8	11.8	10.9	8.9	6.9	3.9	3.9	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°	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0
2.5°	2088.8	2082.9	2079.9	2061.1	2067.1	2050.3	2082.9	2075.0	2070.0	2083.9
5°	2090.8	2070.0	2082.9	2072.0	2076.0	2052.3	2077.9	2067.1	2066.1	2072.0
7.5°	2095.7	2081.9	2094.7	2073.0	2082.9	2073.0	2091.8	2080.9	2089.8	2095.7
10°	2122.4	2114.5	2108.5	2103.6	2110.5	2090.8	2114.5	2115.4	2118.4	2136.2
12.5°	2159.9	2152.0	2142.1	2129.3	2136.2	2128.3	2146.0	2151.0	2161.8	2170.7
15°	2212.2	2197.4	2193.4	2181.6	2188.5	2184.5	2188.5	2185.5	2206.3	2203.3
17.5°	2284.2	2267.5	2211.2	2153.9	2117.4	2128.3	2173.7	2232.9	2247.7	2249.7
20°	2310.9	2192.4	2186.5	2121.4	2091.8	2089.8	1996.0	1855.8	1898.3	1998.0
22.5°	2279.3	2117.4	2100.6	2087.8	1961.4	1754.1	1734.4	1713.7	1708.7	1723.5
25°	2208.2	2189.5	2174.7	2006.9	1807.5	1808.4	1779.8	1643.6	1431.4	1413.6
27.5°	2316.8	2291.2	2148.0	1889.4	1885.4	1883.5	1841.0	1491.6	1446.2	1457.0
30°	2440.2	2397.8	2023.6	1990.1	1989.1	1971.3	1650.5	1504.4	1504.4	1506.4
32.5°	2582.4	2318.8	2094.7	2110.5	2109.5	2025.6	1594.2	1584.4	1580.4	1590.3
35°	2690.9	2255.6	2247.7	2276.3	2256.6	1718.6	1693.9	1685.0	1681.1	1676.2
37.5°	2657.4	2437.3	2437.3	2455.0	2296.1	1830.2	1818.3	1818.3	1810.4	1806.5
40°	2708.7	2663.3	2640.6	2647.5	1668.3	1965.4	1974.3	1972.3	1971.3	1978.2
42.5°	2979.2	2938.7	2918.0	2673.2	1867.7	1953.6	2170.7	2169.7	2172.7	2169.7
45°	3323.7	3286.2	3231.9	2501.4	2120.4	1712.7	2392.8	2403.7	2404.7	2403.7
47.5°	3685.0	3661.3	3105.5	2768.9	2394.8	1838.1	2287.2	2671.2	2666.3	2672.2
50°	4067.0	3960.4	3089.8	3085.8	2687.0	2045.4	2046.3	2905.2	2955.5	2971.3
52.5°	4492.5	3590.2	3424.4	3124.3	2983.1	2258.6	2236.9	2574.5	3261.5	3277.3
55°	4172.6	3792.6	3789.6	2780.8	3103.6	2463.9	2466.9	2443.2	2991.0	3399.7
57.5°	4151.9	4160.8	4153.9	3102.6	2264.5	2309.9	2688.0	2667.3	1936.8	1569.6
60°	4510.2	4523.1	4035.4	3350.4	2448.1	1420.5	1655.4	1406.7	1425.4	1440.2
62.5°	4852.8	4856.7	3282.2	2196.4	1213.2	57.3	27.6	22.7	21.7	21.7
65°	5231.8	5231.8	3518.2	2395.8	1171.7	21.7	3.9	3.0	10.9	10.9
67.5°	5598.1	5517.1	3690.9	2543.9	1192.5	3.0	0.0	0.0	0.0	0.0
68°	5577.3	5488.5	3675.1	2539.9	1189.5	2.0	0.0	0.0	0.0	0.0
70°	5267.4	5181.5	3486.6	2424.4	1145.1	2.0	0.0	0.0	0.0	0.0
72.5°	4649.4	4570.5	3087.8	2137.2	1032.5	1.0	0.0	0.0	0.0	0.0
75°	3935.7	3924.9	2667.3	1803.5	885.5	1.0	0.0	0.0	0.0	0.0
77.5°	3166.7	3117.4	2084.8	1413.6	713.7	0.0	0.0	0.0	0.0	0.0
80°	1764.0	1837.1	1220.1	831.2	449.1	0.0	0.0	0.0	0.0	0.0
82.5°	476.8	446.2	266.5	180.6	85.9	0.0	0.0	0.0	0.0	0.0
85°	61.2	67.1	30.6	24.7	5.9	0.0	0.0	0.0	0.0	0.0
87.5°	31.6	37.5	9.9	7.9	2.0	0.0	0.0	0.0	0.0	0.0
90°	5.9	6.9	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)