

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: P256722

Luminaire Tested: **CST-10-3-D-U-T5R-HSS-HM-EX120**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256722
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-10-3-D-U-T5R-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 4000K 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: 24527 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U1 - 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

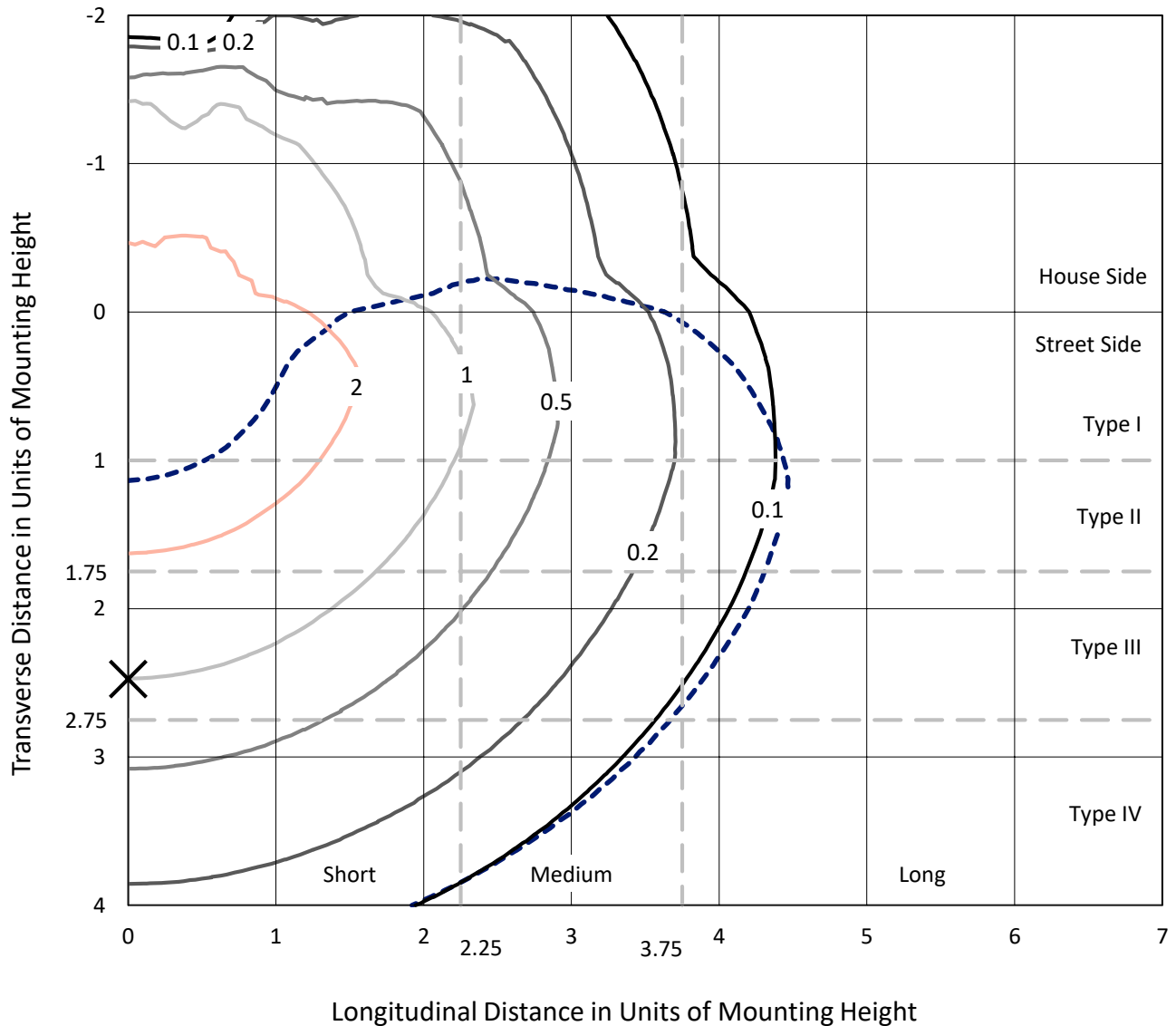


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

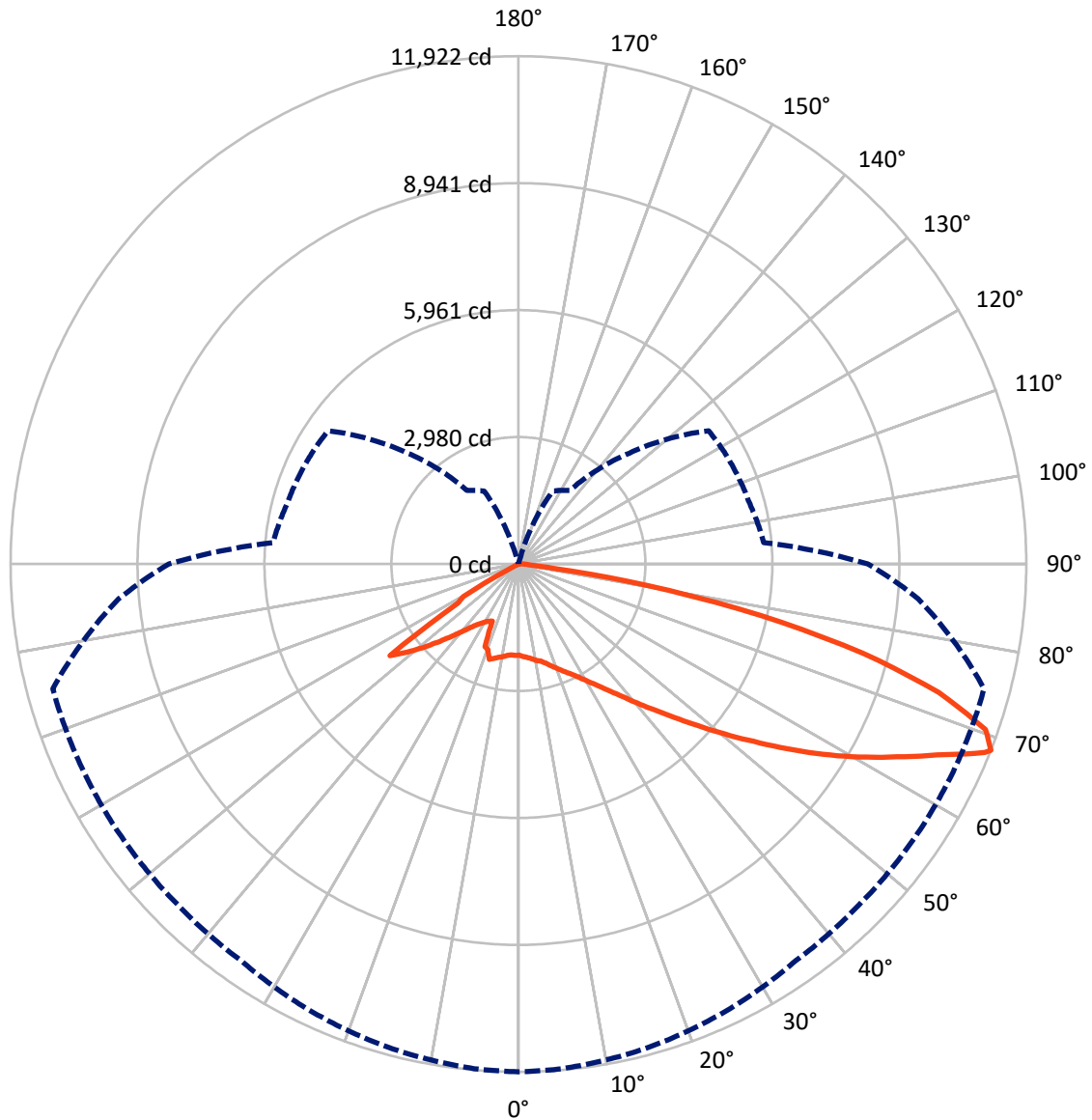


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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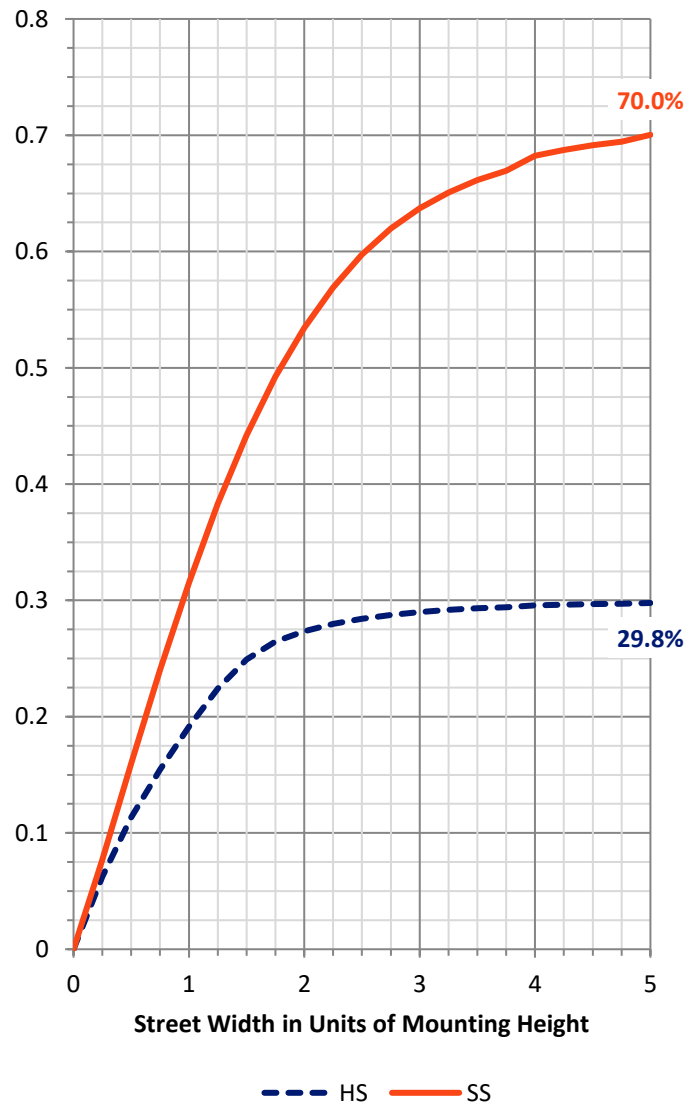
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7311.2	1.1	7312.3
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	17204.6	10.0	17214.6
	% Fixture	70.1	0.0	70.2
Total	Lumens	24515.8	11.2	24527.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.5	0.8
10°-20°	660.5	2.7
20°-30°	1131.4	4.6
30°-40°	1835.4	7.5
40°-50°	3095.3	12.6
50°-60°	5045.4	20.6
60°-70°	6766.7	27.6
70°-80°	5256.0	21.4
80°-90°	517.6	2.1
90°-100°	9.8	0.0
100°-110°	0.6	0.0
110°-120°	0.1	0.0
120°-130°	0.1	0.0
130°-140°	0.1	0.0
140°-150°	0.1	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	24515.8	100.0
0°-180°	24527.0	100.0



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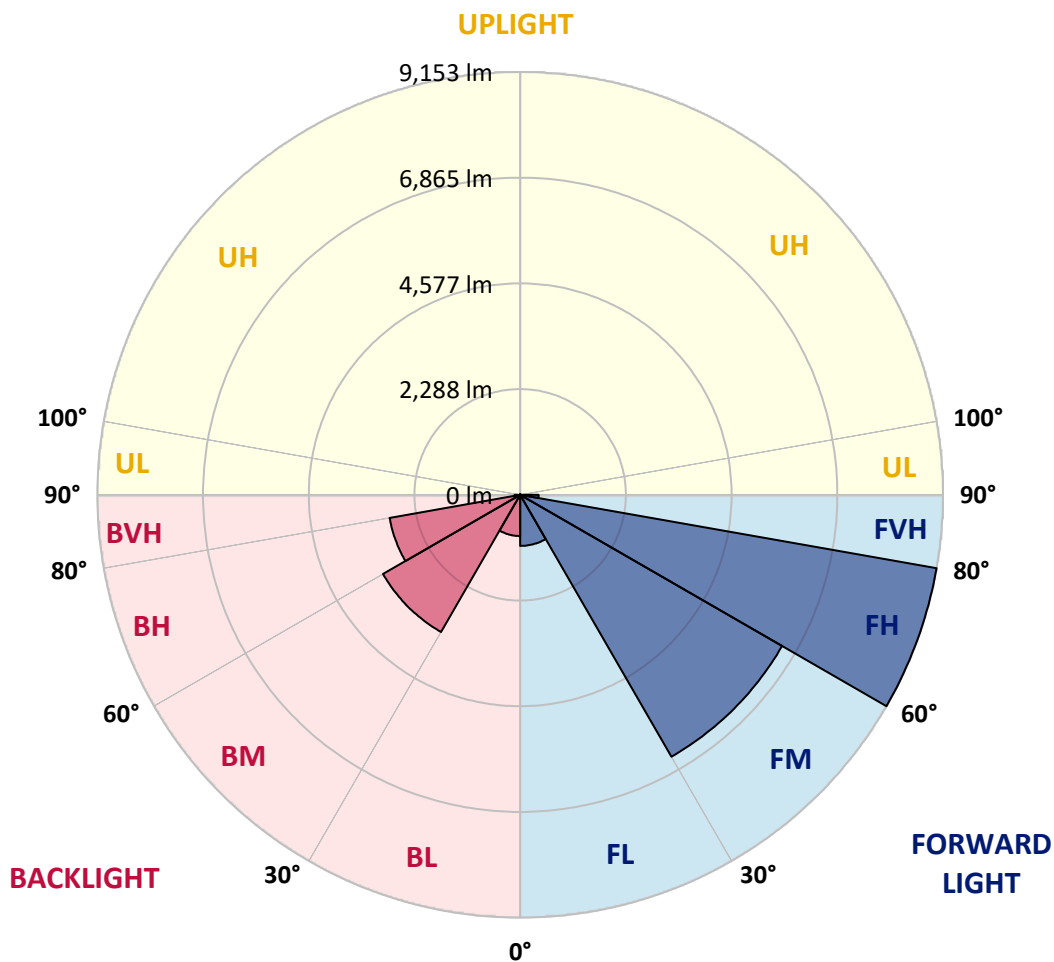
CATALOG NUMBER: CST-10-3-D-U-T5R-HSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1106.3	4.5			
FM	(30°-60°)	6547.1	26.7			
FH	(60°-80°)	9153.2	37.3			G4/12000
FVH	(80°-90°)	398.0	1.6			G3/500
BL	(0°-30°)	893.1	3.6	B2/1000		
BM	(30°-60°)	3428.9	14.0	B3/5000		
BH	(60°-80°)	2869.5	11.7	B4/5000		G4/5000
BVH	(80°-90°)	119.6	0.5			G2/225
UL	(90°-100°)	9.8	0.0		U1/10	
UH	(100°-180°)	1.1	0.0		U1/10	

BUG Rating: B4-U1-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2138.3	2138.3	2138.3	2138.3	2138.3	2138.3	2138.3	2138.3	2138.3	2138.3	2138.3
2.5°	2173.8	2167.7	2166.7	2178.9	2140.3	2159.6	2142.4	2156.6	2147.4	2154.5	2155.5
5°	2203.2	2192.1	2185.0	2199.2	2174.8	2183.9	2164.7	2170.8	2145.4	2159.6	2161.6
7.5°	2245.8	2227.6	2225.5	2229.6	2208.3	2215.4	2183.9	2191.0	2172.8	2164.7	2171.8
10°	2303.6	2286.4	2273.2	2282.3	2253.9	2258.0	2224.5	2225.5	2212.4	2197.1	2209.3
12.5°	2336.1	2338.1	2332.0	2339.1	2315.8	2302.6	2279.3	2271.2	2258.0	2239.7	2233.7
15°	2417.3	2413.2	2401.0	2412.2	2409.1	2397.0	2368.6	2350.3	2321.9	2311.8	2301.6
17.5°	2516.7	2503.5	2493.3	2507.5	2522.7	2497.4	2470.0	2444.6	2407.1	2386.8	2374.7
20°	2621.1	2612.0	2601.9	2624.2	2629.3	2610.0	2589.7	2552.2	2508.5	2482.2	2456.8
22.5°	2737.8	2719.5	2722.6	2752.0	2742.9	2733.7	2707.4	2676.9	2624.2	2590.7	2517.7
25°	2858.5	2848.4	2862.6	2875.8	2868.7	2849.4	2836.2	2813.9	2755.0	2714.5	2608.0
27.5°	3008.6	2992.4	3010.7	3015.7	3009.6	3004.6	2986.3	2969.1	2905.2	2859.5	2726.6
30°	3185.1	3165.9	3195.3	3188.2	3182.1	3186.1	3175.0	3137.5	3080.7	3018.8	2885.9
32.5°	3395.1	3369.8	3403.2	3388.0	3373.8	3402.2	3375.8	3340.3	3273.4	3201.4	3071.5
35°	3638.6	3639.6	3656.8	3631.5	3626.4	3656.8	3639.6	3596.0	3534.1	3459.0	3274.4
37.5°	3933.7	3925.6	3969.2	3957.1	3938.8	3979.4	3984.5	3929.7	3818.1	3744.1	3526.0
40°	4292.8	4290.8	4305.0	4307.0	4302.0	4321.2	4330.4	4257.3	4185.3	4073.7	3327.1
42.5°	4676.3	4684.4	4709.7	4691.5	4715.8	4741.2	4744.2	4683.4	4579.9	3908.4	3534.1
45°	5136.8	5162.2	5179.4	5175.3	5186.5	5223.0	5226.1	5193.6	5092.2	4234.0	3909.4
47.5°	5665.3	5689.6	5694.7	5727.2	5717.0	5768.7	5761.6	5762.7	5654.1	4687.4	4318.2
50°	6272.9	6284.0	6325.6	6343.9	6318.5	6388.5	6370.3	6392.6	6258.7	5206.8	4757.4
52.5°	6918.0	6937.3	6954.6	7023.5	6991.1	7051.9	7027.6	7079.3	6924.1	5735.3	5245.3
55°	7651.4	7654.5	7683.9	7753.9	7711.3	7784.3	7748.8	7768.1	7644.3	6319.6	5753.5
57.5°	8428.4	8418.3	8429.5	8485.2	8446.7	8501.5	8487.3	8505.5	8389.9	6934.3	6124.8
60°	9197.3	9182.1	9198.3	9235.9	9183.1	9277.5	9226.7	9244.0	9119.2	7562.2	6654.3
62.5°	9970.3	9959.1	9940.9	9978.4	9901.3	9950.0	9971.3	9942.9	9833.3	8130.2	7114.8
65°	10800.0	10788.9	10721.9	10745.3	10607.3	10584.0	10592.1	10601.2	10528.2	8693.2	7620.0
67.5°	11808.3	11792.1	11666.3	11508.1	11309.3	11265.6	11269.7	11294.0	11304.2	9417.5	8211.4
68°	11921.9	11892.5	11752.5	11568.9	11361.0	11310.3	11305.2	11310.3	11315.3	9423.5	8205.3
70°	11631.8	11620.7	11514.2	11292.0	11079.0	10957.3	10851.8	10847.7	10799.0	8941.7	7751.8
72.5°	10322.3	10308.1	10181.3	10024.0	9892.2	9701.5	9564.5	9572.7	9492.5	7903.0	6785.1
75°	8353.4	8352.4	8200.2	8068.3	8070.4	8056.2	8010.5	8090.6	8007.5	6703.0	5787.0
77.5°	5821.5	5841.8	5831.6	5754.5	5863.1	6013.2	6176.5	6330.7	6283.0	5295.0	4614.4
80°	3041.1	3097.9	3298.7	3307.9	3384.0	3530.0	3641.6	3745.1	3752.2	3004.6	2665.8
82.5°	808.5	825.7	893.7	874.4	868.3	897.7	922.1	925.1	927.1	783.1	731.4
85°	251.6	258.7	250.6	239.4	222.1	202.9	197.8	161.3	127.8	105.5	92.3
87.5°	178.5	190.7	172.4	162.3	144.0	136.9	122.7	96.4	75.1	52.7	35.5
90°	92.3	94.3	84.2	72.0	66.9	62.9	53.8	38.5	19.3	10.1	9.1
92.5°	46.7	47.7	41.6	35.5	30.4	26.4	20.3	11.2	6.1	3.0	1.0
95°	18.3	19.3	17.2	15.2	12.2	9.1	8.1	6.1	4.1	2.0	1.0
97.5°	6.1	6.1	6.1	5.1	5.1	5.1	5.1	4.1	3.0	2.0	1.0
100°	0.0	0.0	0.0	1.0	2.0	3.0	3.0	3.0	2.0	1.0	1.0
102.5°	0.0	0.0	0.0	0.0	0.0	1.0	2.0	2.0	2.0	1.0	1.0
105°	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0



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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	1.0	1.0	1.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
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	1.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
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°	2138.3	2138.3	2138.3	2138.3	2138.3	2138.3	2138.3	2138.3	2138.3	2138.3
2.5°	2150.5	2144.4	2147.4	2122.1	2128.2	2111.9	2146.4	2137.3	2133.2	2147.4
5°	2155.5	2133.2	2151.5	2134.2	2137.3	2114.0	2142.4	2131.2	2130.2	2138.3
7.5°	2157.6	2146.4	2163.7	2135.3	2144.4	2135.3	2156.6	2145.4	2155.5	2162.6
10°	2186.0	2179.9	2177.9	2167.7	2174.8	2154.5	2180.9	2180.9	2186.0	2205.2
12.5°	2227.6	2219.5	2214.4	2196.1	2203.2	2197.1	2218.4	2222.5	2231.6	2239.7
15°	2284.4	2270.2	2265.1	2248.9	2253.9	2252.9	2268.1	2269.2	2289.4	2288.4
17.5°	2357.4	2337.1	2343.2	2331.0	2332.0	2323.9	2315.8	2315.8	2334.1	2338.1
20°	2444.6	2329.0	2176.8	2091.6	2076.4	2087.6	2131.2	2203.2	2112.9	2138.3
22.5°	2287.4	2182.9	2175.8	2156.6	2144.4	1872.5	1802.5	1780.2	1896.9	2097.7
25°	2307.7	2263.1	2249.9	2225.5	1866.4	1863.4	1843.1	1809.6	1479.0	1471.9
27.5°	2415.2	2371.6	2350.3	1949.6	1941.5	1940.5	1910.1	1574.3	1498.2	1508.4
30°	2541.0	2490.3	2108.9	2048.0	2040.9	2024.7	1850.2	1555.0	1554.0	1555.0
32.5°	2686.1	2517.7	2169.7	2166.7	2170.8	2121.1	1639.2	1633.1	1632.1	1642.3
35°	2884.9	2336.1	2321.9	2337.1	2315.8	1834.0	1737.6	1734.6	1735.6	1730.5
37.5°	2753.0	2518.7	2515.6	2515.6	2465.9	1876.6	1857.3	1871.5	1869.5	1862.4
40°	2808.8	2739.8	2721.6	2715.5	2084.5	2024.7	2013.5	2031.8	2034.8	2039.9
42.5°	3079.6	3016.7	3007.6	2935.6	2268.1	2248.9	2214.4	2233.7	2231.6	2237.7
45°	3412.4	3369.8	3330.2	2545.1	2515.6	2491.3	2455.8	2478.1	2484.2	2480.1
47.5°	3799.8	3753.2	3467.1	2798.7	2797.6	2778.4	2738.8	2757.1	2754.0	2754.0
50°	4189.4	4138.6	3149.6	3121.2	3111.1	3080.7	3048.2	3051.2	3052.3	3062.4
52.5°	4624.5	3696.4	3486.4	3429.6	3437.7	3417.4	3386.0	2563.3	3370.8	3379.9
55°	4322.2	3868.8	3856.7	3781.6	3800.9	3774.5	3754.2	2528.8	3352.5	3704.5
57.5°	4273.6	4241.1	4231.0	4153.9	4178.2	3927.7	4115.3	2767.2	2318.9	1694.0
60°	4645.8	4611.3	4605.3	4537.3	4535.3	3121.2	3741.0	1897.9	1483.0	1493.2
62.5°	5007.0	4951.2	4966.4	4886.2	3444.8	1902.0	1676.8	42.6	68.0	72.0
65°	5409.7	5316.3	5331.6	5257.5	3553.4	2005.4	1812.7	22.3	19.3	18.3
67.5°	5797.1	5633.8	5555.7	5477.6	3690.3	2111.9	1888.8	6.1	0.0	0.0
68°	5777.9	5605.4	5525.3	5451.2	3676.1	2108.9	1884.7	6.1	0.0	0.0
70°	5452.3	5297.1	5221.0	5164.2	3509.7	2036.9	1808.6	6.1	0.0	0.0
72.5°	4766.5	4680.3	4631.6	4581.9	3118.2	1821.8	1622.0	6.1	0.0	0.0
75°	4050.4	4026.1	3995.6	3886.1	2598.8	1491.1	1332.9	6.1	0.0	0.0
77.5°	3209.5	3208.5	3134.4	3005.6	1956.7	1094.5	982.9	5.1	0.0	0.0
80°	1735.6	1891.8	1835.0	1769.1	1109.7	595.4	567.0	4.1	0.0	0.0
82.5°	487.9	461.5	443.3	414.9	233.3	129.8	126.8	4.1	0.0	0.0
85°	68.0	75.1	83.2	94.3	53.8	34.5	30.4	2.0	0.0	0.0
87.5°	38.5	43.6	53.8	55.8	20.3	16.2	5.1	0.0	0.0	0.0
90°	8.1	9.1	10.1	10.1	4.1	4.1	0.0	0.0	0.0	0.0
92.5°	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.0	1.0	1.0	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°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.0	1.0	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)