

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: P256714

Luminaire Tested: **CST-10-3-D-U-T5R-7030-HSS-HM-EX120**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256714
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-7030-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 3000K 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: 23868 lumens
Efficiency: N/A
Efficacy: 112.6 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

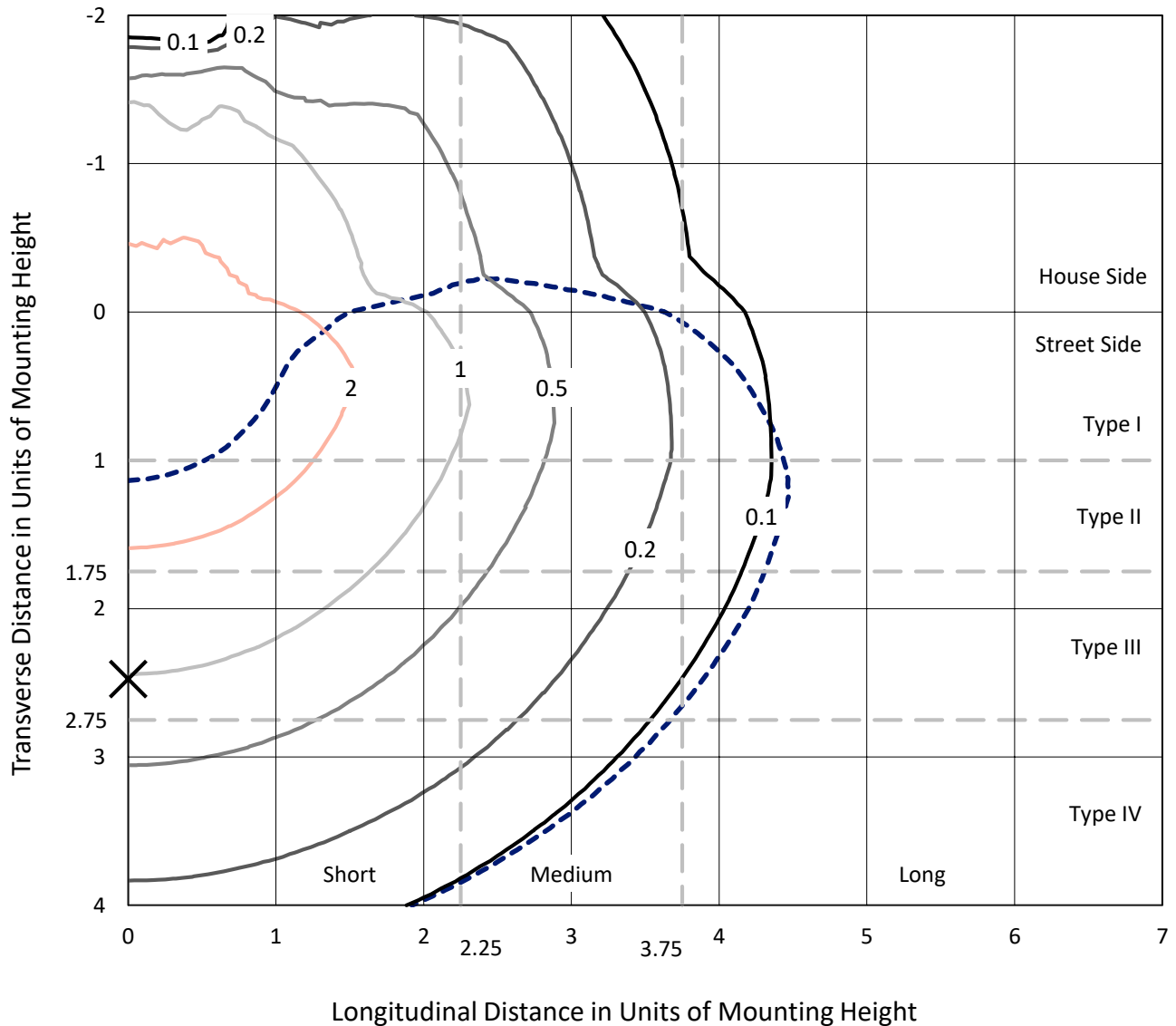


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

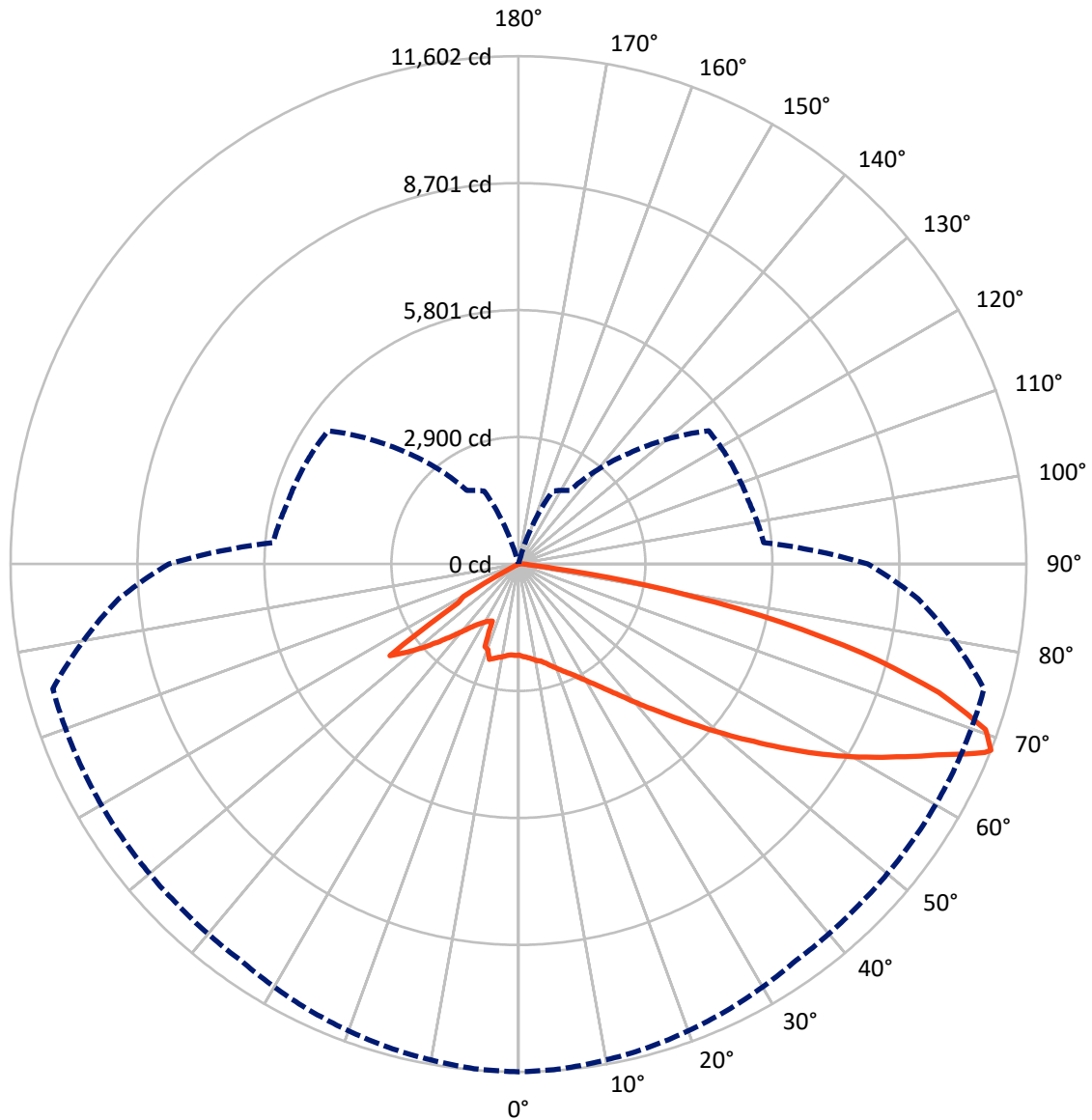


Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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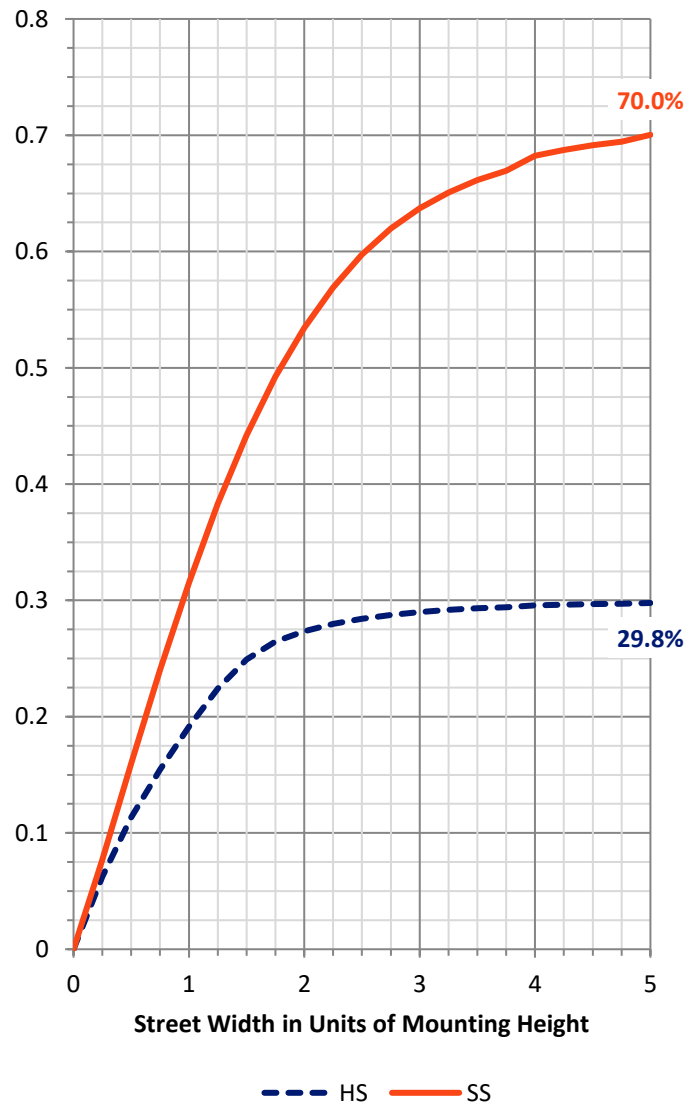
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7114.8	1.1	7115.9
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	16742.3	9.8	16752.1
	% Fixture	70.1	0.0	70.2
Total	Lumens	23857.1	10.9	23868.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.0	0.8
10°-20°	642.8	2.7
20°-30°	1101.0	4.6
30°-40°	1786.1	7.5
40°-50°	3012.1	12.6
50°-60°	4909.8	20.6
60°-70°	6584.9	27.6
70°-80°	5114.8	21.4
80°-90°	503.7	2.1
90°-100°	9.6	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°	23857.1	100.0
0°-180°	23868.0	100.0



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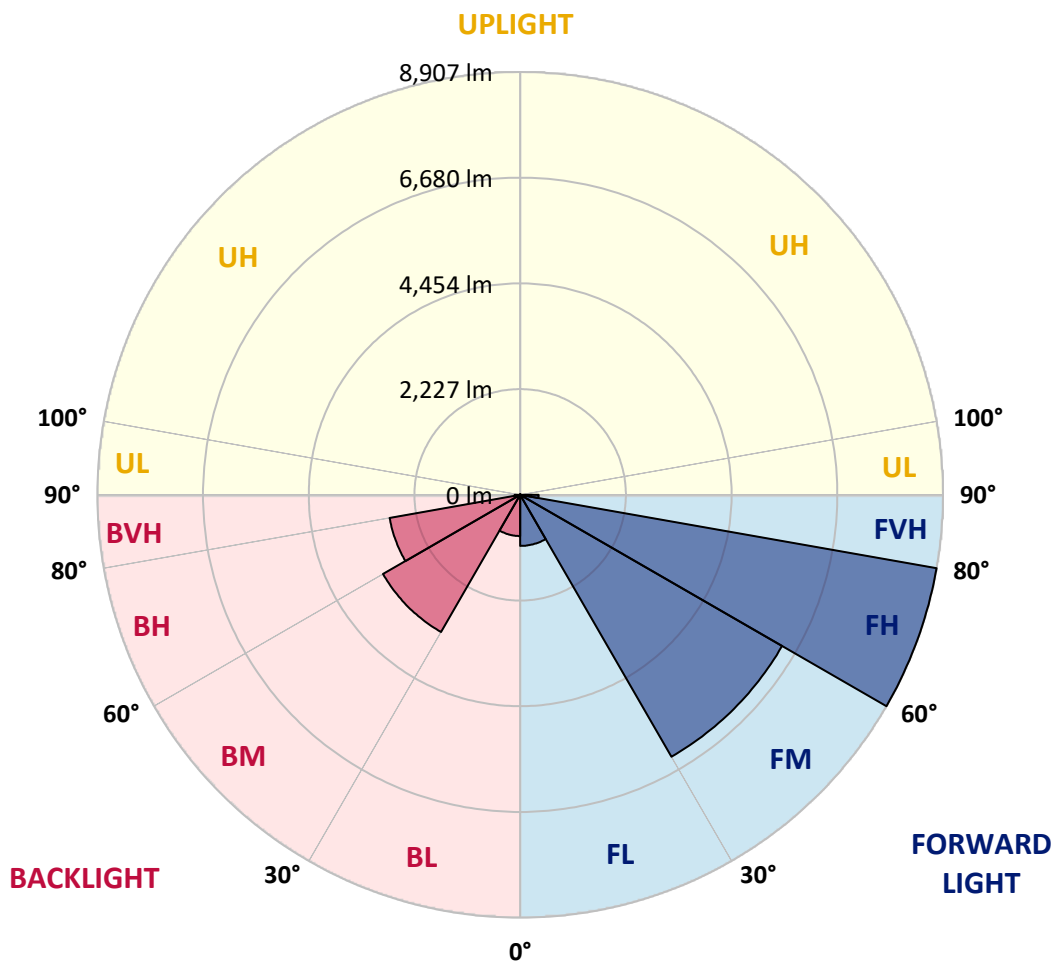
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1076.6	4.5			
FM	(30°-60°)	6371.2	26.7			
FH	(60°-80°)	8907.3	37.3			G4/12000
FVH	(80°-90°)	387.3	1.6			G3/500
BL	(0°-30°)	869.2	3.6	B2/1000		
BM	(30°-60°)	3336.8	14.0	B3/5000		
BH	(60°-80°)	2792.4	11.7	B4/5000		G4/5000
BVH	(80°-90°)	116.4	0.5			G2/225
UL	(90°-100°)	9.6	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°	2080.8	2080.8	2080.8	2080.8	2080.8	2080.8	2080.8	2080.8	2080.8	2080.8	2080.8
2.5°	2115.4	2109.5	2108.5	2120.3	2082.8	2101.6	2084.8	2098.6	2089.7	2096.6	2097.6
5°	2144.0	2133.2	2126.3	2140.1	2116.4	2125.3	2106.5	2112.4	2087.8	2101.6	2103.6
7.5°	2185.5	2167.7	2165.7	2169.7	2149.0	2155.9	2125.3	2132.2	2114.4	2106.5	2113.4
10°	2241.7	2225.0	2212.1	2221.0	2193.4	2197.3	2164.8	2165.7	2152.9	2138.1	2149.9
12.5°	2273.3	2275.3	2269.4	2276.3	2253.6	2240.8	2218.1	2210.2	2197.3	2179.6	2173.6
15°	2352.3	2348.4	2336.5	2347.4	2344.4	2332.6	2304.9	2287.2	2259.5	2249.6	2239.8
17.5°	2449.0	2436.2	2426.3	2440.2	2455.0	2430.3	2403.6	2379.0	2342.4	2322.7	2310.8
20°	2550.7	2541.8	2532.0	2553.7	2558.6	2539.9	2520.1	2483.6	2441.1	2415.5	2390.8
22.5°	2664.2	2646.5	2649.4	2678.1	2669.2	2660.3	2634.6	2605.0	2553.7	2521.1	2450.0
25°	2781.7	2771.8	2785.7	2798.5	2791.6	2772.8	2760.0	2738.3	2681.0	2641.5	2537.9
27.5°	2927.8	2912.0	2929.8	2934.7	2928.8	2923.8	2906.1	2889.3	2827.1	2782.7	2653.4
30°	3099.6	3080.8	3109.4	3102.5	3096.6	3100.5	3089.7	3053.2	2997.9	2937.7	2808.4
32.5°	3303.9	3279.2	3311.8	3297.0	3283.2	3310.8	3285.1	3250.6	3185.4	3115.3	2989.0
35°	3540.8	3541.8	3558.6	3533.9	3529.0	3558.6	3541.8	3499.3	3439.1	3366.1	3186.4
37.5°	3828.1	3820.2	3862.6	3850.8	3833.0	3872.5	3877.4	3824.1	3715.5	3643.5	3431.2
40°	4177.5	4175.5	4189.3	4191.3	4186.4	4205.1	4214.0	4142.9	4072.9	3964.3	3237.8
42.5°	4550.6	4558.5	4583.2	4565.4	4589.1	4613.8	4616.8	4557.5	4456.8	3803.4	3439.1
45°	4998.8	5023.5	5040.2	5036.3	5047.1	5082.7	5085.6	5054.1	4955.3	4120.2	3804.4
47.5°	5513.1	5536.8	5541.7	5573.3	5563.4	5613.8	5606.8	5607.8	5502.2	4561.5	4202.2
50°	6104.3	6115.2	6155.7	6173.4	6148.8	6216.9	6199.1	6220.8	6090.5	5066.9	4629.6
52.5°	6732.2	6750.9	6767.7	6834.8	6803.2	6862.5	6838.8	6889.1	6738.1	5581.2	5104.4
55°	7445.8	7448.8	7477.4	7545.5	7504.1	7575.2	7540.6	7559.4	7438.9	6149.8	5598.9
57.5°	8202.0	8192.1	8203.0	8257.3	8219.7	8273.1	8259.2	8277.0	8164.5	6748.0	5960.2
60°	8950.2	8935.4	8951.2	8987.7	8936.4	9028.2	8978.8	8995.6	8874.2	7359.0	6475.5
62.5°	9702.4	9691.5	9673.8	9710.3	9635.3	9682.7	9703.4	9675.7	9569.1	7911.8	6923.7
65°	10509.9	10499.0	10433.9	10456.6	10322.3	10299.6	10307.5	10316.4	10245.3	8459.6	7415.2
67.5°	11491.1	11475.3	11352.9	11198.9	11005.4	10963.0	10966.9	10990.6	11000.5	9164.4	7990.7
68°	11601.6	11573.0	11436.8	11258.1	11055.7	11006.4	11001.4	11006.4	11011.3	9170.3	7984.8
70°	11319.3	11308.4	11204.8	10988.6	10781.3	10662.9	10560.2	10556.3	10508.9	8701.5	7543.6
72.5°	10044.9	10031.1	9907.7	9754.7	9626.4	9440.8	9307.6	9315.4	9237.5	7690.7	6602.8
75°	8128.9	8127.9	7979.9	7851.6	7853.5	7839.7	7795.3	7873.3	7792.3	6522.9	5631.5
77.5°	5665.1	5684.8	5675.0	5599.9	5705.6	5851.6	6010.6	6160.6	6114.2	5152.8	4490.4
80°	2959.4	3014.7	3210.1	3219.0	3293.0	3435.2	3543.8	3644.4	3651.4	2923.8	2594.2
82.5°	786.7	803.5	869.7	850.9	845.0	873.6	897.3	900.3	902.2	762.1	711.7
85°	244.8	251.7	243.8	233.0	216.2	197.4	192.5	157.0	124.4	102.7	89.8
87.5°	173.7	185.6	167.8	157.9	140.2	133.3	119.4	93.8	73.0	51.3	34.5
90°	89.8	91.8	81.9	70.1	65.1	61.2	52.3	37.5	18.8	9.9	8.9
92.5°	45.4	46.4	40.5	34.5	29.6	25.7	19.7	10.9	5.9	3.0	1.0
95°	17.8	18.8	16.8	14.8	11.8	8.9	7.9	5.9	3.9	2.0	1.0
97.5°	5.9	5.9	5.9	4.9	4.9	4.9	4.9	3.9	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°	2080.8	2080.8	2080.8	2080.8	2080.8	2080.8	2080.8	2080.8	2080.8	2080.8
2.5°	2092.7	2086.8	2089.7	2065.1	2071.0	2055.2	2088.7	2079.9	2075.9	2089.7
5°	2097.6	2075.9	2093.7	2076.9	2079.9	2057.2	2084.8	2073.9	2073.0	2080.8
7.5°	2099.6	2088.7	2105.5	2077.9	2086.8	2077.9	2098.6	2087.8	2097.6	2104.5
10°	2127.2	2121.3	2119.3	2109.5	2116.4	2096.6	2122.3	2122.3	2127.2	2146.0
12.5°	2167.7	2159.8	2154.9	2137.1	2144.0	2138.1	2158.8	2162.8	2171.7	2179.6
15°	2223.0	2209.2	2204.2	2188.4	2193.4	2192.4	2207.2	2208.2	2227.9	2226.9
17.5°	2294.1	2274.3	2280.2	2268.4	2269.4	2261.5	2253.6	2253.6	2271.4	2275.3
20°	2379.0	2266.4	2118.4	2035.4	2020.6	2031.5	2073.9	2144.0	2056.2	2080.8
22.5°	2226.0	2124.3	2117.4	2098.6	2086.8	1822.2	1754.1	1732.4	1845.9	2041.4
25°	2245.7	2202.3	2189.4	2165.7	1816.3	1813.3	1793.6	1761.0	1439.2	1432.3
27.5°	2350.3	2307.9	2287.2	1897.2	1889.3	1888.4	1858.7	1532.0	1458.0	1467.8
30°	2472.7	2423.4	2052.2	1993.0	1986.1	1970.3	1800.5	1513.3	1512.3	1513.3
32.5°	2613.9	2450.0	2111.4	2108.5	2112.4	2064.1	1595.2	1589.3	1588.3	1598.1
35°	2807.4	2273.3	2259.5	2274.3	2253.6	1784.7	1690.9	1688.0	1689.0	1684.0
37.5°	2679.0	2451.0	2448.1	2448.1	2399.7	1826.2	1807.4	1821.2	1819.3	1812.4
40°	2733.3	2666.2	2648.4	2642.5	2028.5	1970.3	1959.4	1977.2	1980.2	1985.1
42.5°	2996.9	2935.7	2926.8	2856.7	2207.2	2188.4	2154.9	2173.6	2171.7	2177.6
45°	3320.7	3279.2	3240.7	2476.7	2448.1	2424.4	2389.8	2411.5	2417.5	2413.5
47.5°	3697.8	3652.3	3374.0	2723.5	2722.5	2703.7	2665.2	2683.0	2680.0	2680.0
50°	4076.8	4027.4	3065.0	3037.4	3027.5	2997.9	2966.3	2969.3	2970.2	2980.1
52.5°	4500.3	3597.1	3392.7	3337.5	3345.3	3325.6	3295.0	2494.5	3280.2	3289.1
55°	4206.1	3764.9	3753.0	3680.0	3698.7	3673.1	3653.3	2460.9	3262.4	3605.0
57.5°	4158.7	4127.1	4117.3	4042.3	4065.9	3822.1	4004.7	2692.9	2256.6	1648.5
60°	4521.0	4487.4	4481.5	4415.4	4413.4	3037.4	3640.5	1846.9	1443.2	1453.0
62.5°	4872.4	4818.1	4832.9	4755.0	3352.3	1850.8	1631.7	41.5	66.1	70.1
65°	5264.3	5173.5	5188.3	5116.2	3457.9	1951.5	1764.0	21.7	18.8	17.8
67.5°	5641.4	5482.5	5406.5	5330.4	3591.1	2055.2	1838.0	5.9	0.0	0.0
68°	5622.6	5454.8	5376.8	5304.8	3577.3	2052.2	1834.1	5.9	0.0	0.0
70°	5305.8	5154.7	5080.7	5025.4	3415.4	1982.1	1760.0	5.9	0.0	0.0
72.5°	4638.5	4554.6	4507.2	4458.8	3034.4	1772.9	1578.4	5.9	0.0	0.0
75°	3941.6	3917.9	3888.3	3781.7	2529.0	1451.1	1297.1	5.9	0.0	0.0
77.5°	3123.2	3122.3	3050.2	2924.8	1904.2	1065.1	956.5	4.9	0.0	0.0
80°	1689.0	1841.0	1785.7	1721.5	1079.9	579.4	551.8	3.9	0.0	0.0
82.5°	474.8	449.1	431.4	403.7	227.0	126.4	123.4	3.9	0.0	0.0
85°	66.1	73.0	80.9	91.8	52.3	33.6	29.6	2.0	0.0	0.0
87.5°	37.5	42.4	52.3	54.3	19.7	15.8	4.9	0.0	0.0	0.0
90°	7.9	8.9	9.9	9.9	3.9	3.9	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)