

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: P256713

Luminaire Tested: **CST-8-3-D-U-T5R-7030-HSS-HM-EX120**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256713
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-8-3-D-U-T5R-7030-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 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: 23604 lumens
Efficiency: N/A
Efficacy: 104.4 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): 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

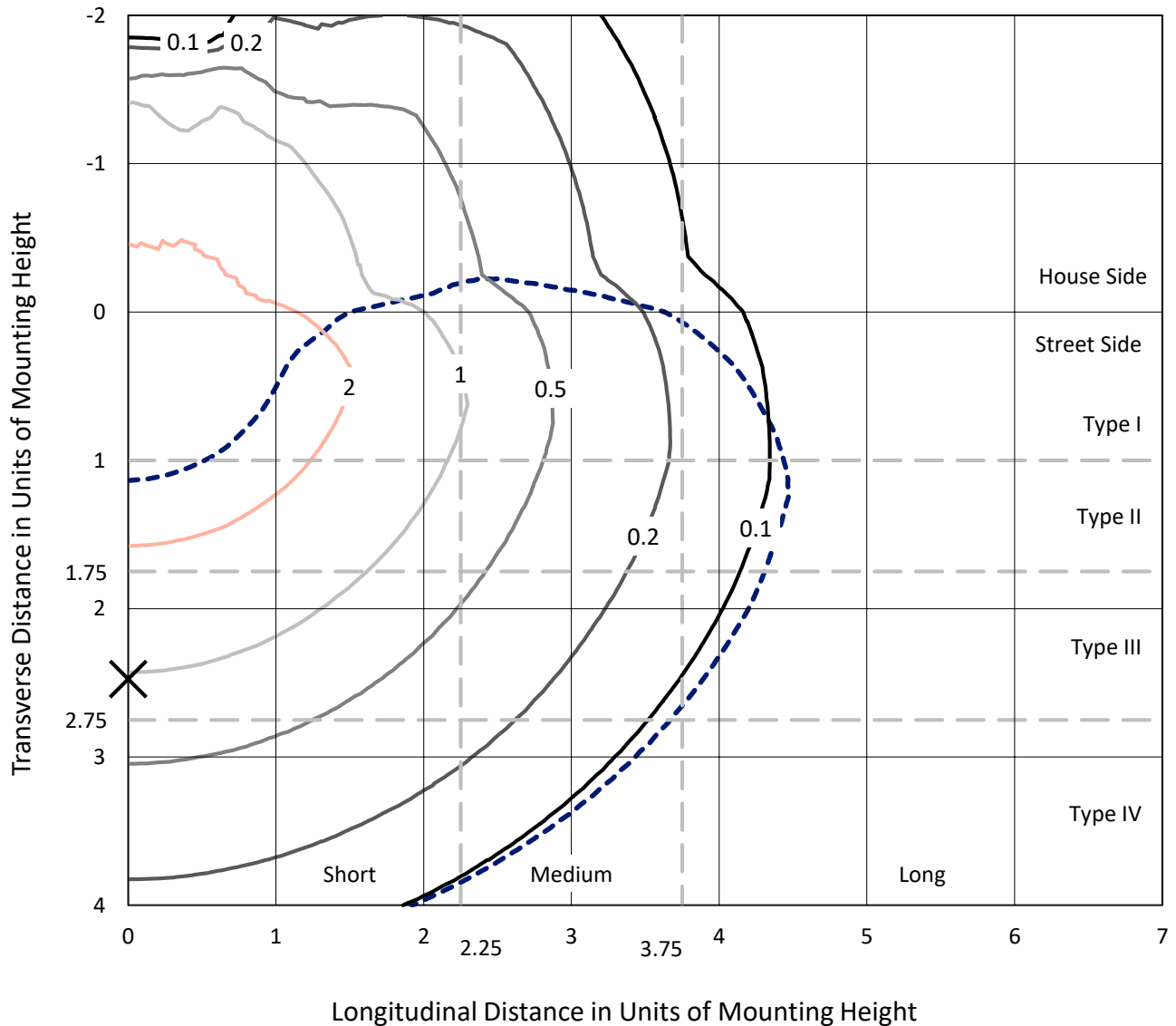


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

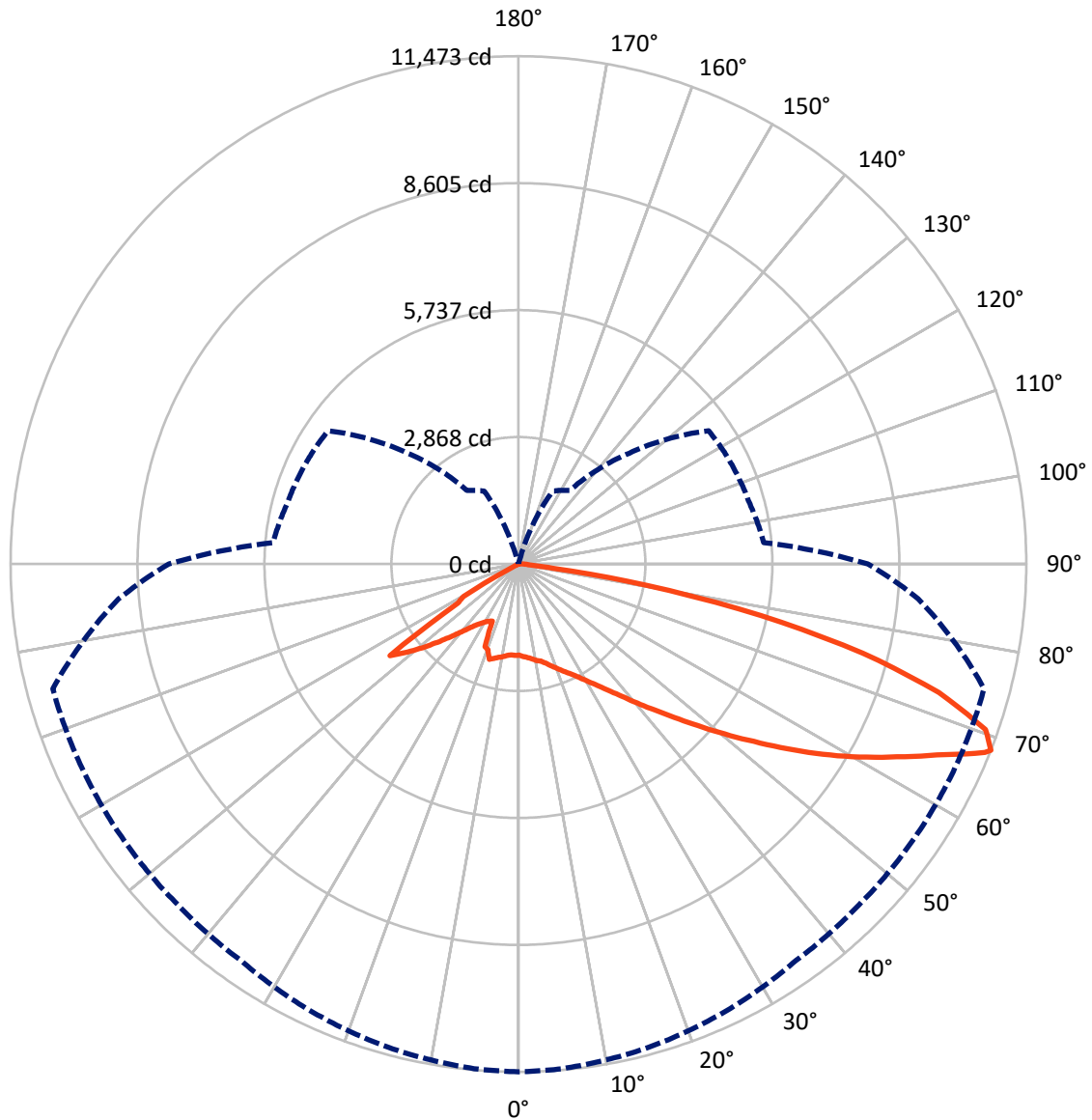


Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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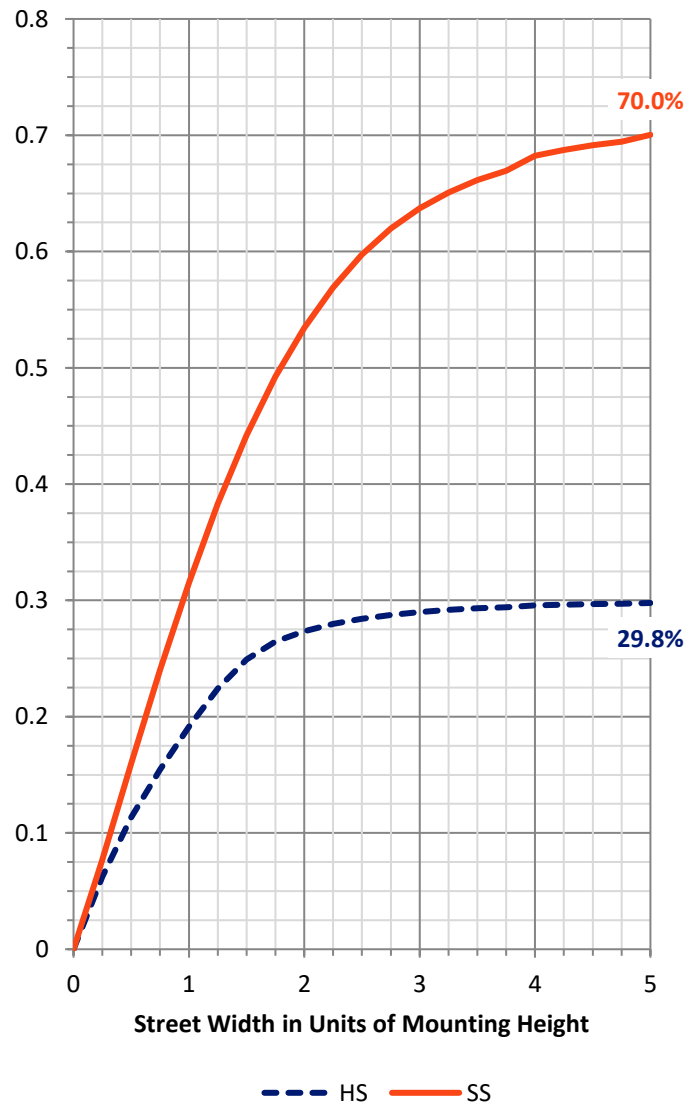
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7036.1	1.1	7037.2
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	16557.1	9.7	16566.8
	% Fixture	70.1	0.0	70.2
Total	Lumens	23593.2	10.8	23604.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.7	0.8
10°-20°	635.7	2.7
20°-30°	1088.8	4.6
30°-40°	1766.3	7.5
40°-50°	2978.8	12.6
50°-60°	4855.5	20.6
60°-70°	6512.1	27.6
70°-80°	5058.2	21.4
80°-90°	498.2	2.1
90°-100°	9.5	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°	23593.2	100.0
0°-180°	23604.0	100.0



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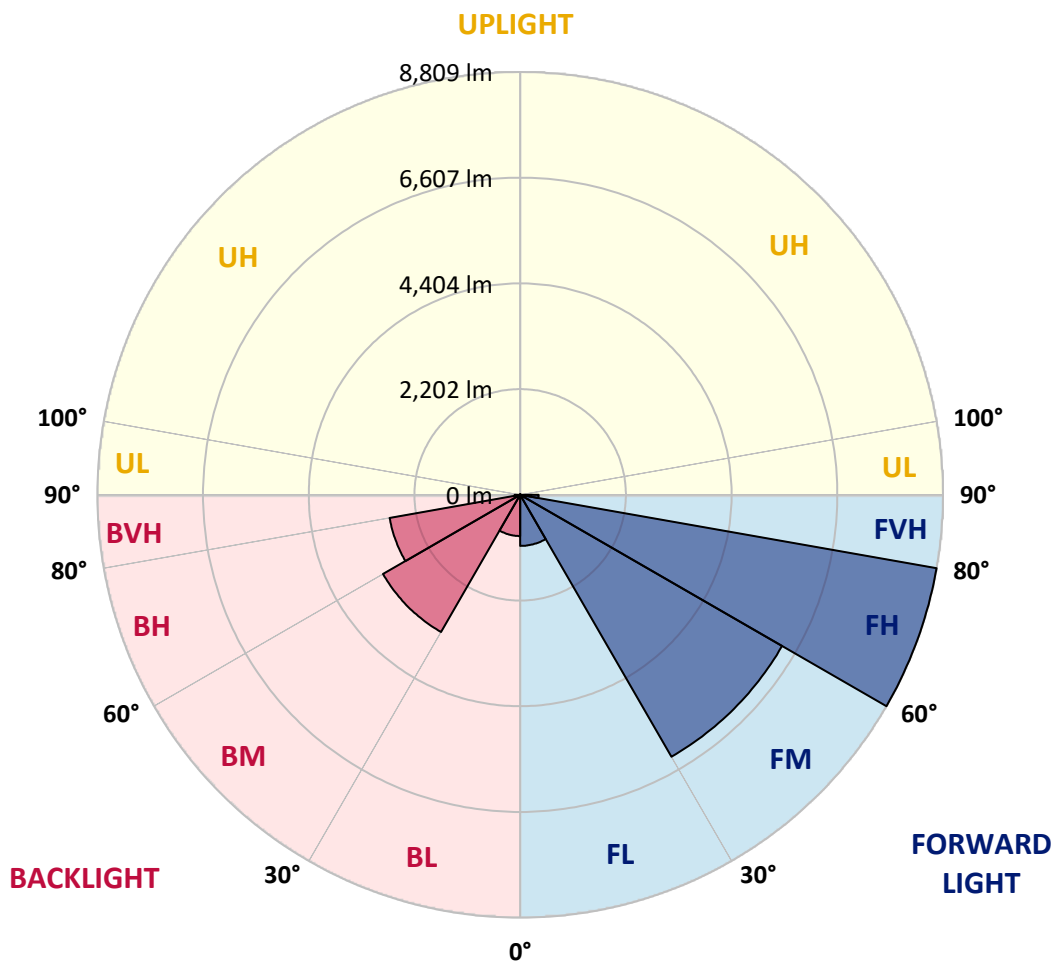
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1064.7	4.5			
FM	(30°-60°)	6300.7	26.7			
FH	(60°-80°)	8808.7	37.3			G4/12000
FVH	(80°-90°)	383.0	1.6			G3/500
BL	(0°-30°)	859.5	3.6	B2/1000		
BM	(30°-60°)	3299.9	14.0	B3/5000		
BH	(60°-80°)	2761.5	11.7	B4/5000		G4/5000
BVH	(80°-90°)	115.1	0.5			G2/225
UL	(90°-100°)	9.5	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°	2057.8	2057.8	2057.8	2057.8	2057.8	2057.8	2057.8	2057.8	2057.8	2057.8	2057.8
2.5°	2092.0	2086.1	2085.2	2096.9	2059.8	2078.3	2061.7	2075.4	2066.6	2073.5	2074.4
5°	2120.3	2109.6	2102.7	2116.4	2093.0	2101.8	2083.2	2089.1	2064.7	2078.3	2080.3
7.5°	2161.3	2143.7	2141.8	2145.7	2125.2	2132.0	2101.8	2108.6	2091.0	2083.2	2090.0
10°	2217.0	2200.4	2187.7	2196.5	2169.1	2173.0	2140.8	2141.8	2129.1	2114.5	2126.2
12.5°	2248.2	2250.1	2244.3	2251.1	2228.7	2216.0	2193.5	2185.7	2173.0	2155.5	2149.6
15°	2326.3	2322.4	2310.7	2321.4	2318.5	2306.8	2279.4	2261.9	2234.5	2224.8	2215.0
17.5°	2422.0	2409.3	2399.5	2413.2	2427.8	2403.4	2377.1	2352.6	2316.5	2297.0	2285.3
20°	2522.5	2513.7	2504.0	2525.4	2530.3	2511.8	2492.2	2456.1	2414.1	2388.8	2364.4
22.5°	2634.8	2617.2	2620.1	2648.4	2639.6	2630.9	2605.5	2576.2	2525.4	2493.2	2422.9
25°	2750.9	2741.2	2754.8	2767.5	2760.7	2742.1	2729.5	2708.0	2651.4	2612.3	2509.8
27.5°	2895.4	2879.8	2897.4	2902.2	2896.4	2891.5	2873.9	2857.3	2795.8	2751.9	2624.0
30°	3065.3	3046.7	3075.0	3068.2	3062.3	3066.2	3055.5	3019.4	2964.7	2905.2	2777.3
32.5°	3267.3	3242.9	3275.2	3260.5	3246.8	3274.2	3248.8	3214.6	3150.2	3080.9	2955.9
35°	3501.6	3502.6	3519.2	3494.8	3489.9	3519.2	3502.6	3460.6	3401.1	3328.8	3151.2
37.5°	3785.7	3777.9	3819.9	3808.2	3790.6	3829.6	3834.5	3781.8	3674.4	3603.2	3393.3
40°	4131.3	4129.3	4143.0	4145.0	4140.1	4158.6	4167.4	4097.1	4027.8	3920.4	3201.9
42.5°	4500.3	4508.1	4532.5	4514.9	4538.4	4562.8	4565.7	4507.1	4407.5	3761.3	3401.1
45°	4943.5	4967.9	4984.5	4980.6	4991.3	5026.5	5029.4	4998.2	4900.5	4074.7	3762.3
47.5°	5452.1	5475.5	5480.4	5511.6	5501.9	5551.7	5544.8	5545.8	5441.3	4511.0	4155.7
50°	6036.8	6047.6	6087.6	6105.2	6080.8	6148.1	6130.5	6152.0	6023.2	5010.8	4578.4
52.5°	6657.7	6676.2	6692.8	6759.2	6728.0	6786.6	6763.1	6812.9	6663.6	5519.4	5047.9
55°	7363.5	7366.4	7394.7	7462.1	7421.1	7491.4	7457.2	7475.8	7356.7	6081.7	5537.0
57.5°	8111.3	8101.5	8112.2	8165.9	8128.8	8181.5	8167.9	8185.4	8074.2	6673.3	5894.3
60°	8851.2	8836.6	8852.2	8888.3	8837.6	8928.3	8879.5	8896.1	8776.1	7277.6	6403.9
62.5°	9595.1	9584.3	9566.8	9602.9	9528.7	9575.6	9596.1	9568.7	9463.3	7824.3	6847.1
65°	10393.6	10382.9	10318.4	10340.9	10208.1	10185.7	10193.5	10202.3	10132.0	8366.0	7333.2
67.5°	11364.0	11348.3	11227.3	11075.0	10883.7	10841.7	10845.6	10869.0	10878.8	9063.1	7902.4
68°	11473.3	11445.0	11310.3	11133.6	10933.5	10884.6	10879.8	10884.6	10889.5	9068.9	7896.5
70°	11194.1	11183.4	11080.9	10867.1	10662.1	10544.9	10443.4	10439.5	10392.6	8605.2	7460.1
72.5°	9933.8	9920.2	9798.1	9646.8	9519.9	9336.4	9204.6	9212.4	9135.3	7605.6	6529.8
75°	8039.0	8038.0	7891.6	7764.7	7766.7	7753.0	7709.1	7786.2	7706.1	6450.7	5569.2
77.5°	5602.4	5621.9	5612.2	5538.0	5642.4	5786.9	5944.1	6092.5	6046.6	5095.8	4440.7
80°	2926.7	2981.3	3174.6	3183.4	3256.6	3397.2	3504.6	3604.1	3611.0	2891.5	2565.5
82.5°	778.0	794.6	860.0	841.5	835.6	863.9	887.4	890.3	892.2	753.6	703.8
85°	242.1	248.9	241.1	230.4	213.8	195.2	190.4	155.2	123.0	101.5	88.8
87.5°	171.8	183.5	166.0	156.2	138.6	131.8	118.1	92.7	72.2	50.8	34.2
90°	88.8	90.8	81.0	69.3	64.4	60.5	51.7	37.1	18.5	9.8	8.8
92.5°	44.9	45.9	40.0	34.2	29.3	25.4	19.5	10.7	5.9	2.9	1.0
95°	17.6	18.5	16.6	14.6	11.7	8.8	7.8	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	2.9	2.0	1.0
100°	0.0	0.0	0.0	1.0	2.0	2.9	2.9	2.9	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°	2057.8	2057.8	2057.8	2057.8	2057.8	2057.8	2057.8	2057.8	2057.8	2057.8
2.5°	2069.5	2063.7	2066.6	2042.2	2048.1	2032.5	2065.6	2056.9	2053.0	2066.6
5°	2074.4	2053.0	2070.5	2053.9	2056.9	2034.4	2061.7	2051.0	2050.0	2057.8
7.5°	2076.4	2065.6	2082.2	2054.9	2063.7	2054.9	2075.4	2064.7	2074.4	2081.3
10°	2103.7	2097.9	2095.9	2086.1	2093.0	2073.5	2098.8	2098.8	2103.7	2122.3
12.5°	2143.7	2135.9	2131.0	2113.5	2120.3	2114.5	2135.0	2138.9	2147.6	2155.5
15°	2198.4	2184.7	2179.9	2164.2	2169.1	2168.1	2182.8	2183.8	2203.3	2202.3
17.5°	2268.7	2249.2	2255.0	2243.3	2244.3	2236.5	2228.7	2228.7	2246.2	2250.1
20°	2352.6	2241.4	2094.9	2012.9	1998.3	2009.0	2051.0	2120.3	2033.4	2057.8
22.5°	2201.3	2100.8	2094.0	2075.4	2063.7	1802.1	1734.7	1713.2	1825.5	2018.8
25°	2220.9	2177.9	2165.2	2141.8	1796.2	1793.3	1773.8	1741.5	1423.3	1416.5
27.5°	2324.3	2282.4	2261.9	1876.3	1868.4	1867.5	1838.2	1515.1	1441.8	1451.6
30°	2445.4	2396.6	2029.5	1971.0	1964.1	1948.5	1780.6	1496.5	1495.5	1496.5
32.5°	2585.0	2422.9	2088.1	2085.2	2089.1	2041.2	1577.5	1571.7	1570.7	1580.5
35°	2776.3	2248.2	2234.5	2249.2	2228.7	1765.0	1672.2	1669.3	1670.3	1665.4
37.5°	2649.4	2423.9	2421.0	2421.0	2373.1	1806.0	1787.4	1801.1	1799.1	1792.3
40°	2703.1	2636.7	2619.1	2613.3	2006.1	1948.5	1937.8	1955.3	1958.3	1963.1
42.5°	2963.7	2903.2	2894.4	2825.1	2182.8	2164.2	2131.0	2149.6	2147.6	2153.5
45°	3283.9	3242.9	3204.9	2449.3	2421.0	2397.6	2363.4	2384.9	2390.7	2386.8
47.5°	3656.9	3611.9	3336.7	2693.3	2692.4	2673.8	2635.7	2653.3	2650.4	2650.4
50°	4031.7	3982.9	3031.1	3003.8	2994.0	2964.7	2933.5	2936.4	2937.4	2947.2
52.5°	4450.5	3557.3	3355.2	3300.5	3308.3	3288.8	3258.6	2466.9	3243.9	3252.7
55°	4159.6	3723.2	3711.5	3639.3	3657.8	3632.4	3612.9	2433.7	3226.3	3565.1
57.5°	4112.7	4081.5	4071.7	3997.5	4021.0	3779.9	3960.4	2663.1	2231.6	1630.3
60°	4471.0	4437.8	4432.0	4366.5	4364.6	3003.8	3600.2	1826.5	1427.2	1437.0
62.5°	4818.5	4764.8	4779.5	4702.4	3315.2	1830.4	1613.7	41.0	65.4	69.3
65°	5206.1	5116.3	5130.9	5059.7	3419.6	1930.0	1744.5	21.5	18.5	17.6
67.5°	5579.0	5421.8	5346.7	5271.5	3551.4	2032.5	1817.7	5.9	0.0	0.0
68°	5560.4	5394.5	5317.4	5246.1	3537.8	2029.5	1813.8	5.9	0.0	0.0
70°	5247.1	5097.7	5024.5	4969.8	3377.7	1960.2	1740.6	5.9	0.0	0.0
72.5°	4587.2	4504.2	4457.3	4409.5	3000.8	1753.3	1560.9	5.9	0.0	0.0
75°	3898.0	3874.5	3845.3	3739.8	2501.0	1435.0	1282.7	5.9	0.0	0.0
77.5°	3088.7	3087.7	3016.5	2892.5	1883.1	1053.3	945.9	4.9	0.0	0.0
80°	1670.3	1820.6	1765.9	1702.5	1068.0	573.0	545.7	3.9	0.0	0.0
82.5°	469.6	444.2	426.6	399.3	224.5	125.0	122.0	3.9	0.0	0.0
85°	65.4	72.2	80.0	90.8	51.7	33.2	29.3	2.0	0.0	0.0
87.5°	37.1	42.0	51.7	53.7	19.5	15.6	4.9	0.0	0.0	0.0
90°	7.8	8.8	9.8	9.8	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)