

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: P579617

Luminaire Tested: **CST-CA10-210-727-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579617
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA10-210-727-U-T5-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18226 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G3

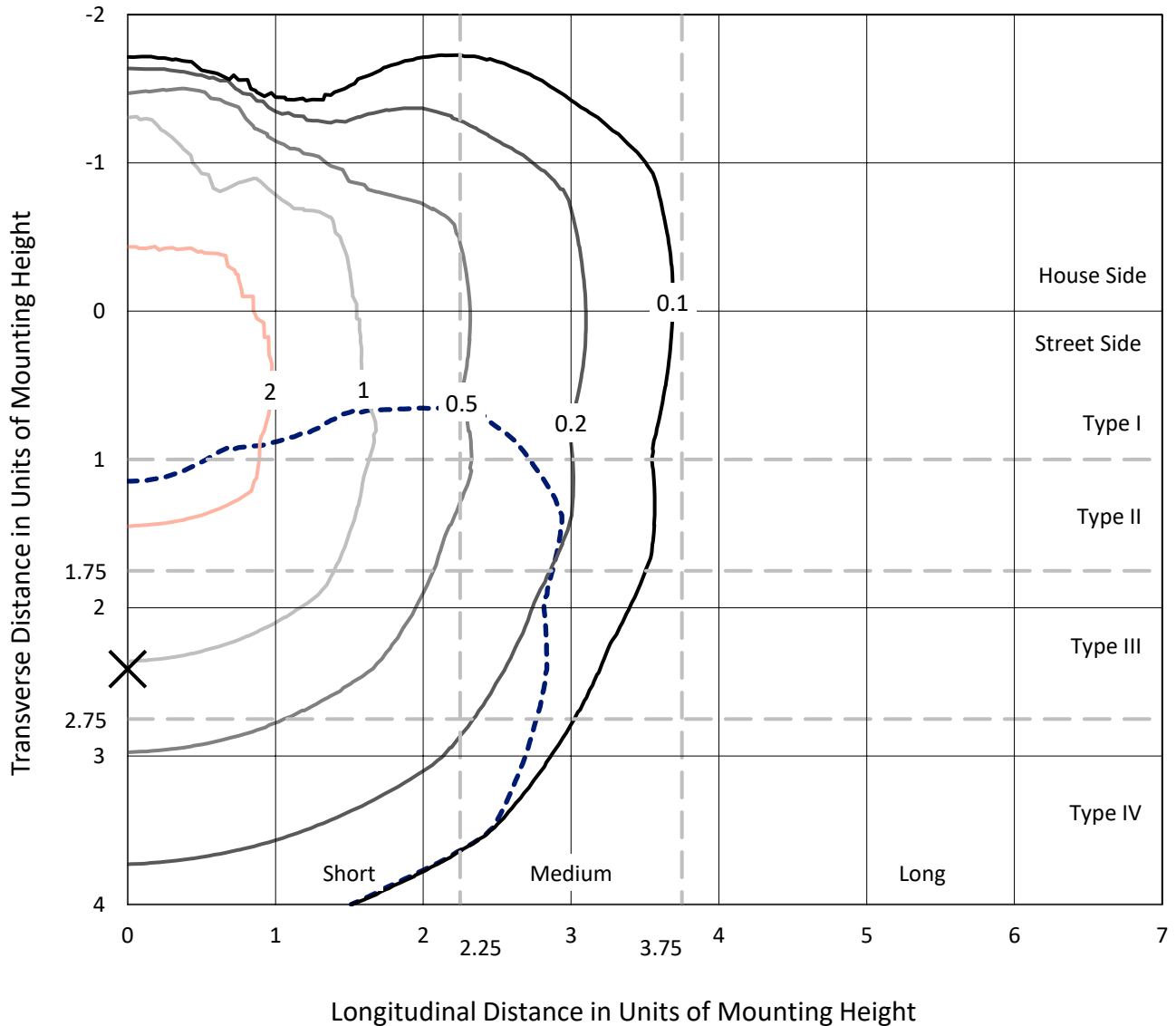
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

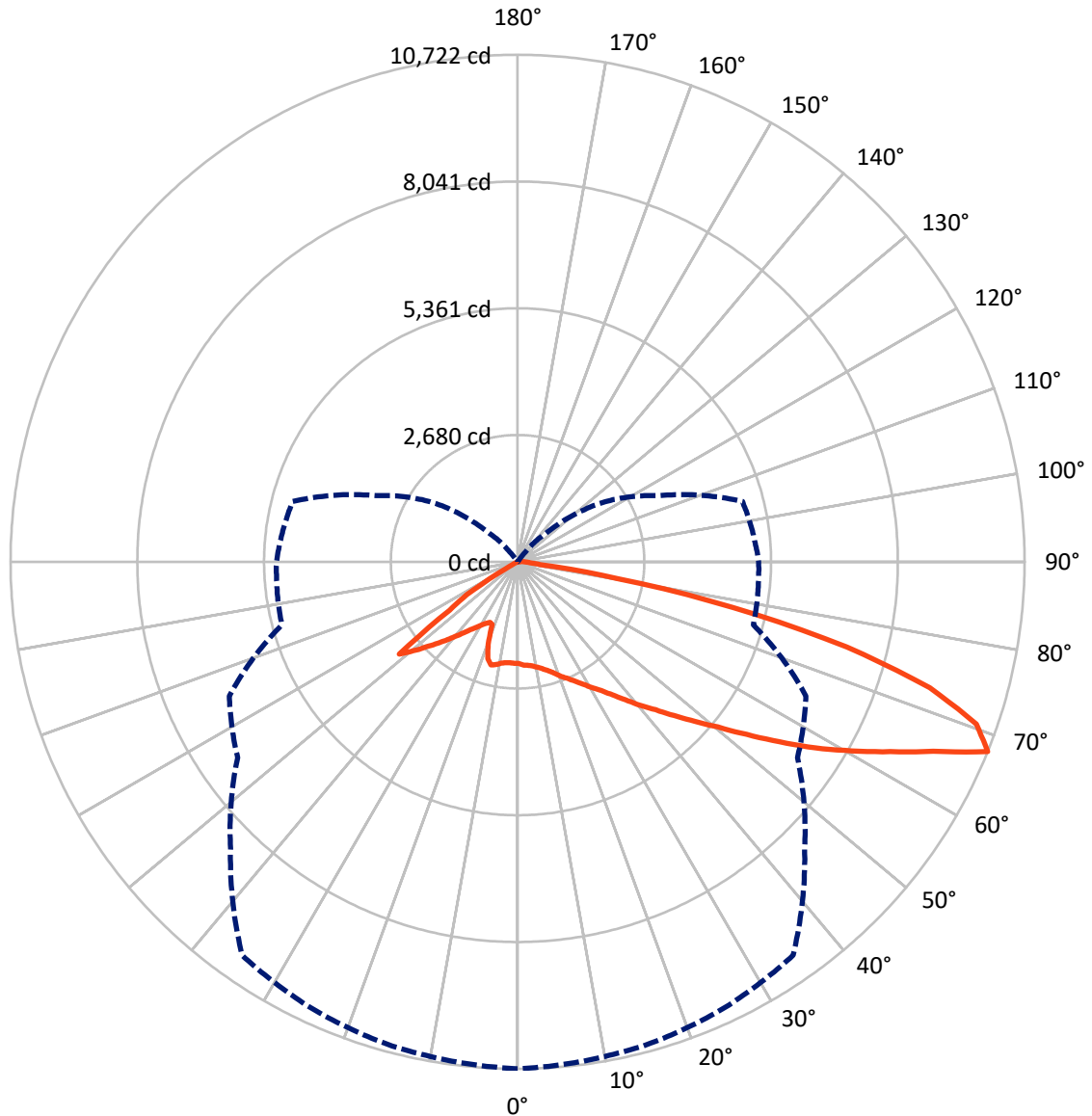
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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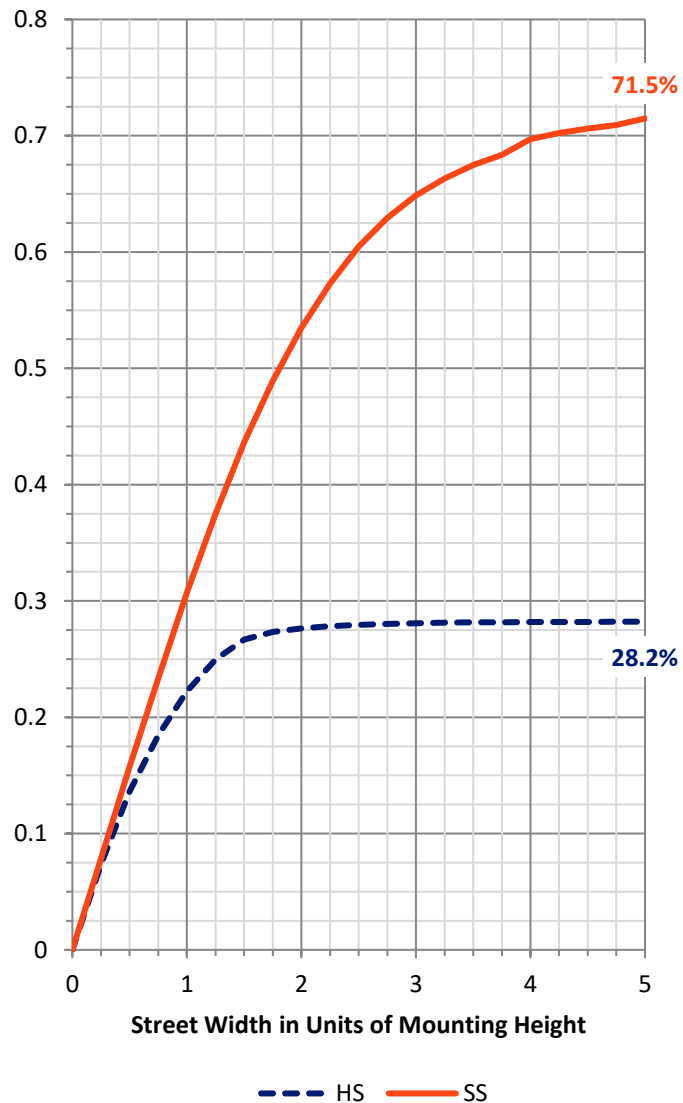
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5165.6	0.1	5165.7
	% Fixture	28.3	0.0	28.3
Street Side	Lumens	13037.1	23.2	13060.3
	% Fixture	71.5	0.1	71.7
Total	Lumens	18202.7	23.3	18226.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.0	1.1
10°-20°	637.3	3.5
20°-30°	1055.2	5.8
30°-40°	1661.1	9.1
40°-50°	2599.6	14.3
50°-60°	3753.4	20.6
60°-70°	4649.8	25.5
70°-80°	3386.4	18.6
80°-90°	253.0	1.4
90°-100°	19.9	0.1
100°-110°	3.3	0.0
110°-120°	0.1	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°	18202.7	99.9
0°-180°	18226.0	100.0

Coefficient of Utilization



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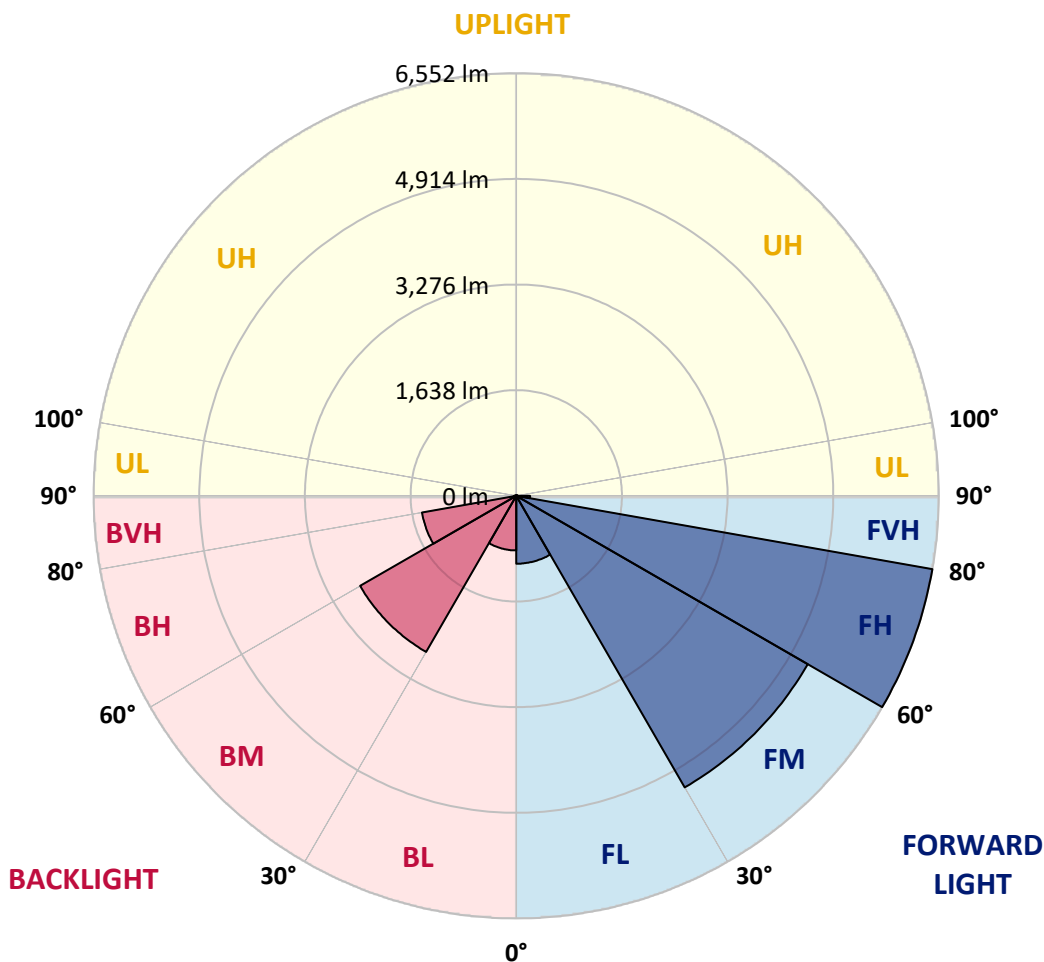
CATALOG NUMBER: CST-CA10-210-727-U-T5-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1052.7	5.8			
FM (30°-60°)	5219.4	28.6			
FH (60°-80°)	6551.6	35.9			G3/7500
FVH (80°-90°)	213.4	1.2			G2/225
BL (0°-30°)	846.8	4.6	B2/1000		
BM (30°-60°)	2794.7	15.3	B3/5000		
BH (60°-80°)	1484.5	8.1	B3/2500		G3/2500
BVH (80°-90°)	39.6	0.2			G1/100
UL (90°-100°)	19.9	0.1		U2/50	
UH (100°-180°)	3.4	0.0		U1/10	

BUG Rating: B3-U2-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2146.6	2146.6	2146.6	2146.6	2146.6	2146.6	2146.6	2146.6	2146.6	2146.6	2146.6
2.5°	2185.8	2174.0	2174.0	2186.7	2151.1	2162.1	2147.5	2160.3	2152.9	2156.6	2161.2
5°	2198.6	2184.9	2185.8	2201.4	2169.4	2178.5	2161.2	2167.6	2161.2	2163.9	2163.9
7.5°	2222.4	2210.5	2210.5	2219.6	2187.7	2190.4	2174.9	2174.9	2166.6	2173.0	2167.6
10°	2267.1	2254.3	2247.9	2252.5	2224.2	2220.5	2199.5	2199.5	2186.7	2196.8	2188.6
12.5°	2321.0	2302.7	2300.9	2301.8	2269.9	2263.5	2239.7	2240.6	2216.9	2230.6	2220.5
15°	2385.9	2363.0	2361.2	2364.9	2331.1	2319.2	2292.7	2292.7	2266.2	2273.5	2259.8
17.5°	2469.0	2442.5	2437.9	2444.3	2410.5	2399.6	2368.5	2363.0	2333.8	2328.3	2316.5
20°	2578.6	2548.5	2539.3	2553.0	2510.1	2500.0	2462.6	2450.7	2411.4	2346.6	2261.6
22.5°	2677.3	2653.5	2648.0	2657.2	2617.9	2607.8	2571.3	2546.6	2451.6	2321.0	2242.5
25°	2789.6	2780.5	2777.7	2772.3	2736.6	2719.3	2684.6	2649.9	2434.3	2255.3	2253.4
27.5°	2928.4	2923.9	2911.1	2906.5	2867.2	2856.3	2810.6	2586.8	2372.2	2359.4	2352.1
30°	3080.1	3070.9	3058.2	3059.1	3032.6	3012.5	2903.8	2531.1	2491.8	2491.8	2472.6
32.5°	3248.1	3238.1	3225.3	3228.1	3217.1	3199.7	2872.7	2678.2	2648.0	2656.2	2632.5
35°	3456.4	3440.0	3435.4	3446.4	3447.3	3334.9	2927.5	2878.2	2854.5	2849.0	2759.5
37.5°	3699.4	3685.7	3702.1	3727.7	3698.5	3369.6	3145.8	3130.3	3106.6	2974.1	2762.2
40°	3990.8	3966.1	3986.2	4002.6	3983.5	3576.1	3375.1	3380.6	3359.6	2966.8	2732.1
42.5°	4279.4	4255.7	4273.0	4314.1	4306.8	3831.8	3654.6	3666.5	3454.6	2984.2	2965.9
45°	4636.6	4628.3	4622.9	4656.7	4685.0	4137.8	3986.2	3985.3	3387.0	3260.0	3243.6
47.5°	5041.2	5030.2	5033.0	5075.9	5118.8	4503.2	4378.1	4010.9	3561.5	3574.2	3559.6
50°	5492.4	5480.6	5516.2	5578.3	5600.2	4913.3	4759.9	3941.4	3925.0	3938.7	3914.0
52.5°	6065.2	6038.7	6093.5	6160.2	6188.5	5398.4	4780.9	4351.6	4324.2	4326.9	4248.3
55°	6716.4	6695.4	6744.7	6819.6	6861.7	5940.0	5217.5	4750.7	4734.3	4268.4	3843.7
57.5°	7424.3	7400.6	7466.4	7488.3	7499.2	6499.9	5656.9	5183.7	4422.8	3897.6	3873.8
60°	8118.5	8093.0	8176.1	8179.7	8211.7	7059.0	6074.3	5601.1	4261.1	4191.7	4171.6
62.5°	8847.5	8815.5	8888.6	8885.8	8822.8	7570.5	6488.1	6002.1	4549.8	4495.0	4463.9
65°	9656.8	9633.0	9684.2	9601.9	9476.8	8099.4	6917.4	6438.7	4885.9	4875.9	4868.6
67.5°	10721.8	10675.2	10572.0	10396.6	10157.3	8584.4	7224.3	6726.5	5159.0	5112.5	5097.8
70°	10293.4	10238.6	10160.0	9967.3	9723.4	8128.6	6731.0	6291.7	4823.8	4825.6	4790.9
72.5°	9114.2	9019.2	8945.2	8674.8	8540.5	7099.2	5865.1	5460.5	4172.5	4250.2	4233.7
75°	7189.6	7092.8	6971.3	6865.3	6850.7	5758.2	4728.8	4437.4	3326.7	3383.3	3424.4
77.5°	4660.3	4624.7	4778.1	4677.7	4768.1	3965.2	3377.9	3127.6	2292.7	2436.1	2416.9
80°	2132.9	2091.7	2338.4	2269.0	2302.7	1947.4	1650.6	1585.7	1037.7	1045.0	1066.9
82.5°	482.3	465.8	483.2	443.9	433.0	366.3	322.4	292.3	183.6	194.6	204.6
85°	264.0	264.0	260.3	242.1	207.3	170.8	135.2	104.1	56.6	62.1	61.2
87.5°	185.4	180.9	179.9	160.8	137.9	116.9	93.2	66.7	32.0	21.9	20.1
90°	127.0	125.1	118.7	106.9	92.3	75.8	56.6	32.9	13.7	6.4	4.6
92.5°	92.3	90.4	85.9	75.8	63.0	51.2	37.5	21.9	11.0	4.6	0.9
95°	61.2	60.3	57.5	49.3	41.1	32.9	23.7	13.7	9.1	3.7	0.9
97.5°	42.0	41.1	38.4	32.9	26.5	21.0	14.6	10.0	7.3	2.7	0.9
100°	28.3	27.4	25.6	21.0	16.4	12.8	9.1	7.3	5.5	2.7	0.9
102.5°	18.3	17.4	15.5	12.8	9.1	7.3	6.4	5.5	3.7	1.8	0.9
105°	11.0	10.0	8.2	6.4	5.5	4.6	4.6	3.7	2.7	0.9	0.9
107.5°	5.5	4.6	3.7	3.7	3.7	2.7	2.7	2.7	1.8	0.9	0.0
110°	0.9	0.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.9	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
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°	2146.6	2146.6	2146.6	2146.6	2146.6	2146.6	2146.6	2146.6	2146.6	2146.6
2.5°	2156.6	2142.0	2150.2	2137.4	2134.7	2121.0	2142.9	2145.6	2143.8	2147.5
5°	2159.3	2143.8	2152.9	2137.4	2137.4	2122.8	2143.8	2143.8	2138.3	2140.2
7.5°	2166.6	2151.1	2157.5	2140.2	2141.1	2123.7	2149.3	2146.6	2142.0	2148.4
10°	2187.7	2170.3	2169.4	2152.9	2156.6	2138.3	2170.3	2170.3	2165.7	2177.6
12.5°	2221.5	2195.9	2191.3	2171.2	2178.5	2163.0	2202.3	2204.1	2205.0	2224.2
15°	2257.1	2226.0	2230.6	2206.8	2204.1	2195.9	2231.5	2229.7	2228.8	2255.3
17.5°	2307.3	2161.2	2137.4	2121.0	2117.3	2097.2	2130.1	2193.1	2160.3	2142.0
20°	2227.8	2151.1	2057.0	2025.1	2018.7	1844.2	1706.3	1768.4	1852.4	1859.7
22.5°	2155.7	2128.3	2121.0	2070.7	1792.1	1733.7	1739.2	1716.3	1517.2	1430.4
25°	2245.2	2221.5	2190.4	1883.5	1817.7	1796.7	1790.3	1556.5	1399.4	1409.4
27.5°	2344.8	2318.3	2047.9	1888.1	1902.7	1873.4	1729.1	1452.3	1443.2	1460.6
30°	2469.0	2257.1	1998.6	1989.4	2003.1	1965.7	1536.4	1516.3	1513.5	1531.8
32.5°	2610.6	2176.7	2130.1	2130.1	2123.7	1719.1	1618.6	1604.9	1612.2	1631.4
35°	2557.6	2302.7	2297.3	2320.1	2166.6	1763.8	1750.1	1726.4	1731.9	1738.3
37.5°	2499.1	2510.1	2512.8	2501.0	1580.2	1891.7	1880.7	1876.2	1870.7	1872.5
40°	2716.5	2723.8	2721.1	2612.4	1705.4	1916.4	2028.7	2020.5	2019.6	2030.5
42.5°	2970.5	2990.6	2975.0	2304.6	1872.5	1611.3	2199.5	2195.0	2193.1	2216.0
45°	3256.4	3275.5	2949.5	2468.1	2050.6	1667.9	2211.4	2381.3	2395.0	2415.1
47.5°	3566.0	3562.4	2722.0	2719.3	2259.8	1825.0	1838.7	2604.2	2627.0	2634.3
50°	3922.3	3336.7	2980.5	2880.0	2496.4	2001.3	1949.3	2389.5	2893.7	2901.0
52.5°	3846.4	3301.1	3277.4	2526.5	2708.3	2195.9	2144.7	2131.0	2999.7	3176.0
55°	3585.2	3612.6	3578.8	2772.3	1985.8	2369.4	2337.5	2323.8	2231.5	1766.6
57.5°	3875.7	3883.9	3854.7	2997.9	2019.6	1477.0	2300.9	1973.9	1282.5	1276.1
60°	4177.1	4190.8	2870.9	2202.3	1294.3	494.2	117.8	124.2	354.4	311.5
62.5°	4464.8	4478.5	3039.0	2012.3	817.5	36.5	23.7	16.4	18.3	18.3
65°	4840.3	4845.7	3252.7	2130.1	849.5	9.1	2.7	0.0	0.0	0.0
67.5°	5034.8	4922.5	3306.6	2184.0	872.3	5.5	1.8	0.0	0.0	0.0
70°	4740.7	4620.1	3078.2	2047.0	813.0	4.6	0.9	0.0	0.0	0.0
72.5°	4177.1	4118.6	2763.1	1815.0	719.8	2.7	0.9	0.0	0.0	0.0
75°	3461.9	3384.2	2290.9	1512.6	595.6	1.8	0.0	0.0	0.0	0.0
77.5°	2462.6	2471.7	1596.7	1102.5	405.6	1.8	0.0	0.0	0.0	0.0
80°	1077.8	1102.5	699.7	506.0	143.4	0.9	0.0	0.0	0.0	0.0
82.5°	205.5	189.1	91.3	72.2	18.3	0.0	0.0	0.0	0.0	0.0
85°	67.6	74.0	33.8	27.4	8.2	0.0	0.0	0.0	0.0	0.0
87.5°	23.7	30.1	10.0	8.2	1.8	0.0	0.0	0.0	0.0	0.0
90°	3.7	3.7	0.0	0.0	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
110°	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°
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)