

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: P256704

Luminaire Tested: **CST-6-3-D-U-T5R-7050-HSS-HM-EX90**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256704
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-6-3-D-U-T5R-7050-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
(6) 70 CRI, 5000K LEDS AND TYPE V ROUND WITH EXTERNAL FIELD INSTALLED 90 DEGREE SHIELD - BLACK
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26846 lumens
Efficiency: N/A
Efficacy: 114.7 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): 234
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

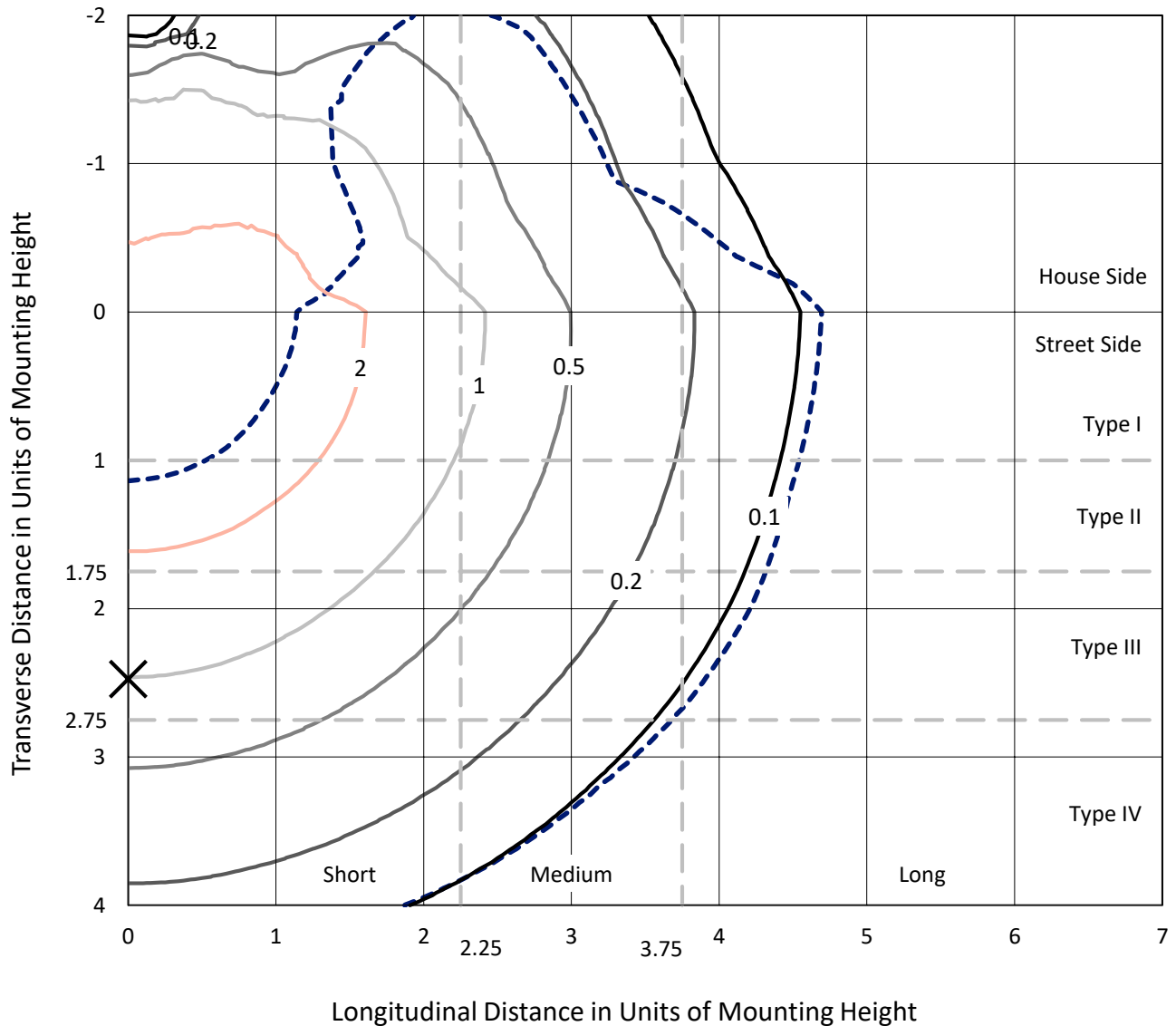


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

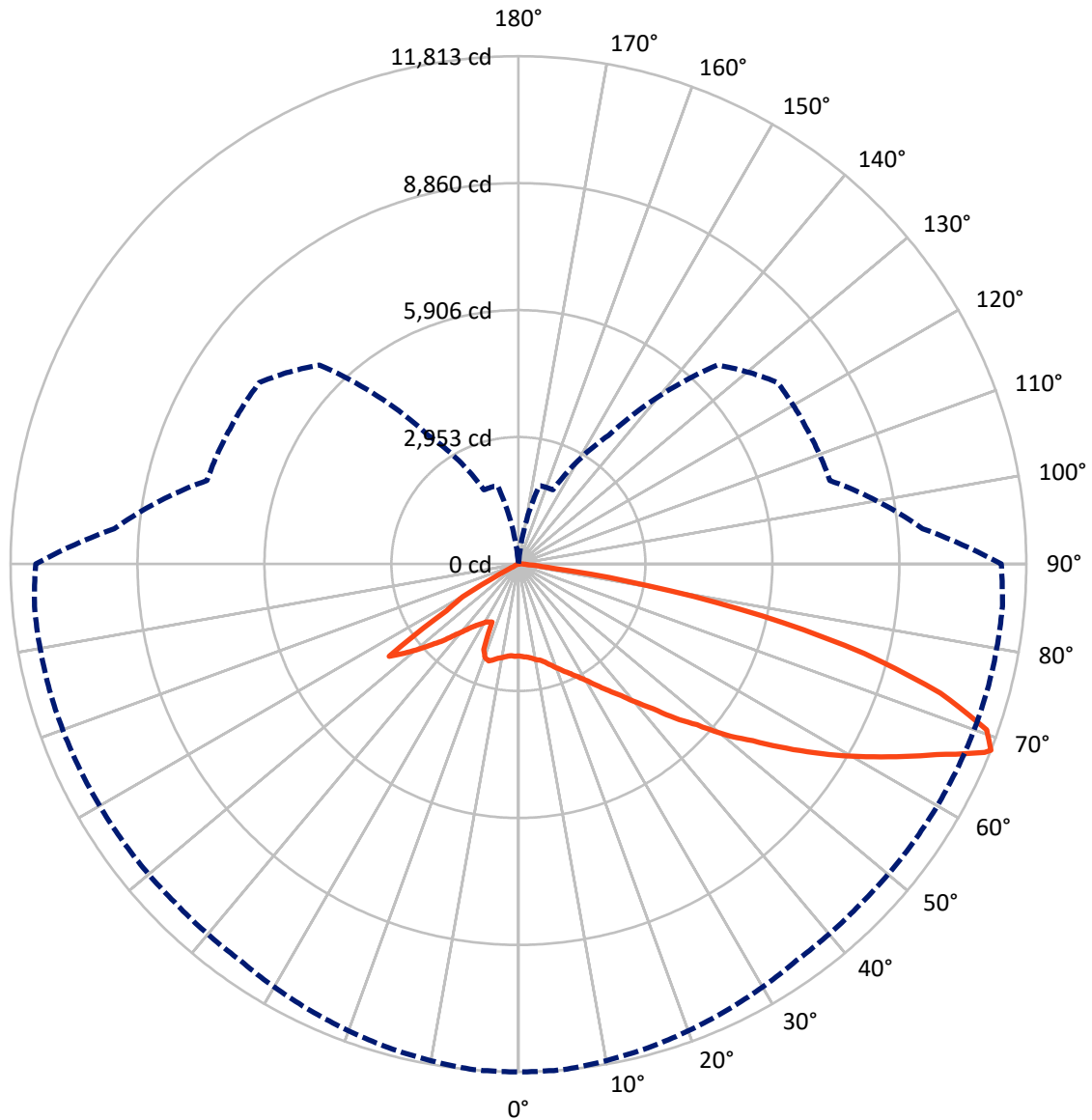


Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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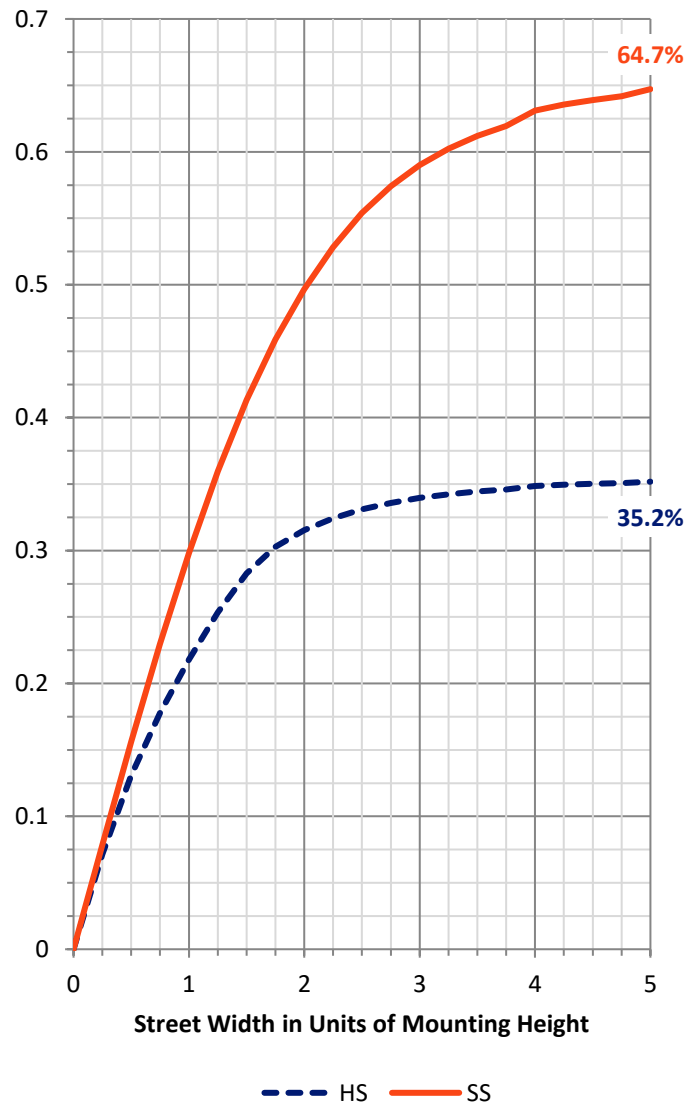
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9448.0	1.6	9449.6
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	17389.3	7.1	17396.4
	% Fixture	64.8	0.0	64.8
Total	Lumens	26837.3	8.7	26846.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.7	0.8
10°-20°	662.2	2.5
20°-30°	1182.2	4.4
30°-40°	1923.1	7.2
40°-50°	3284.2	12.2
50°-60°	5479.8	20.4
60°-70°	7623.5	28.4
70°-80°	5909.4	22.0
80°-90°	566.3	2.1
90°-100°	6.8	0.0
100°-110°	0.6	0.0
110°-120°	0.3	0.0
120°-130°	0.2	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	26837.3	100.0
0°-180°	26846.0	100.0



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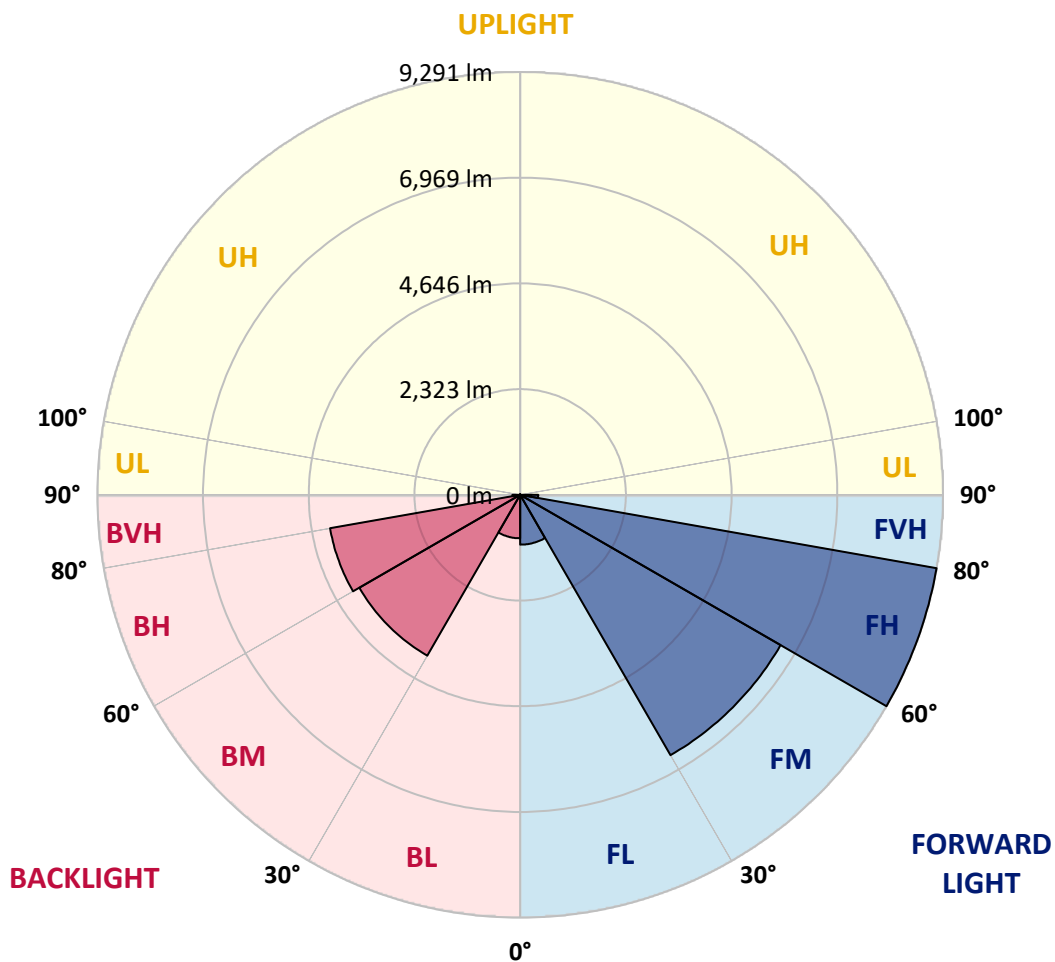
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1095.7	4.1			
FM	(30°-60°)	6606.0	24.6			
FH	(60°-80°)	9291.5	34.6			G4/12000
FVH	(80°-90°)	396.2	1.5			G3/500
BL	(0°-30°)	955.4	3.6	B2/1000		
BM	(30°-60°)	4081.1	15.2	B3/5000		
BH	(60°-80°)	4241.4	15.8	B4/5000		G4/5000
BVH	(80°-90°)	170.1	0.6			G2/225
UL	(90°-100°)	6.8	0.0		U1/10	
UH	(100°-180°)	1.6	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°	2136.5	2136.5	2136.5	2136.5	2136.5	2136.5	2136.5	2136.5	2136.5	2136.5	2136.5
2.5°	2160.7	2157.7	2155.7	2168.8	2131.4	2146.6	2136.5	2149.6	2146.6	2152.7	2153.7
5°	2175.9	2170.8	2163.8	2177.9	2155.7	2165.8	2154.7	2160.7	2141.5	2157.7	2159.7
7.5°	2210.2	2196.1	2195.1	2199.1	2184.0	2191.0	2171.8	2178.9	2168.8	2162.8	2168.8
10°	2261.7	2249.6	2236.5	2244.6	2219.3	2228.4	2208.2	2214.3	2209.2	2196.1	2208.2
12.5°	2297.1	2301.1	2292.1	2298.1	2275.9	2267.8	2260.7	2259.7	2256.7	2237.5	2234.5
15°	2375.9	2377.9	2361.8	2365.8	2360.7	2356.7	2346.6	2338.5	2322.4	2310.2	2302.2
17.5°	2478.9	2467.8	2452.7	2456.7	2470.9	2452.7	2446.6	2431.5	2408.2	2388.0	2384.0
20°	2587.0	2579.9	2565.8	2573.9	2572.9	2560.8	2563.8	2538.5	2505.2	2488.0	2474.9
22.5°	2707.2	2697.1	2687.0	2702.2	2690.1	2682.0	2678.9	2661.8	2620.4	2601.2	2598.1
25°	2827.4	2822.4	2829.5	2824.4	2807.2	2801.2	2805.2	2799.2	2750.7	2727.4	2713.3
27.5°	2978.0	2965.8	2976.9	2970.9	2952.7	2953.7	2954.7	2955.7	2901.2	2870.9	2850.7
30°	3149.7	3145.6	3159.8	3140.6	3123.4	3134.5	3143.6	3123.4	3075.9	3031.5	3024.4
32.5°	3372.9	3347.7	3363.8	3339.6	3313.3	3339.6	3355.8	3315.3	3277.0	3220.4	3230.5
35°	3620.4	3612.3	3612.3	3581.0	3566.9	3608.3	3624.5	3585.1	3525.5	3476.0	3463.8
37.5°	3883.1	3891.1	3916.4	3903.3	3890.1	3915.4	3951.7	3899.2	3822.4	3769.9	3755.8
40°	4231.6	4251.8	4268.9	4251.8	4236.6	4252.8	4294.2	4225.5	4172.0	4143.7	4113.4
42.5°	4606.3	4640.7	4629.6	4631.6	4644.7	4668.0	4709.4	4646.7	4585.1	4584.1	4539.7
45°	5113.4	5113.4	5090.2	5112.4	5110.4	5168.0	5186.2	5151.8	5100.3	5085.1	5046.8
47.5°	5587.2	5636.7	5627.6	5659.9	5634.7	5683.2	5744.8	5715.5	5655.9	5602.4	5594.3
50°	6247.8	6235.7	6223.6	6272.1	6268.0	6301.4	6358.0	6339.8	6256.9	6196.3	6185.2
52.5°	6828.7	6892.3	6877.2	6949.9	6909.5	6957.0	7024.7	7021.6	6920.6	6861.0	6843.8
55°	7562.1	7604.5	7601.5	7676.2	7620.7	7683.3	7739.8	7745.9	7635.8	7550.9	7577.2
57.5°	8325.7	8361.1	8340.9	8402.5	8348.0	8433.8	8468.2	8446.0	8381.3	8274.2	8313.6
60°	9090.4	9120.7	9144.0	9149.0	9117.7	9168.2	9200.5	9219.7	9117.7	8995.5	9043.0
62.5°	9867.2	9901.6	9881.4	9889.5	9802.6	9871.3	9911.7	9916.7	9799.6	9691.5	9724.8
65°	10685.5	10733.0	10660.2	10611.7	10504.7	10503.6	10557.2	10566.3	10483.4	10406.7	10393.5
67.5°	11698.7	11719.9	11564.3	11401.7	11220.9	11181.5	11218.8	11240.1	11287.5	11285.5	11225.9
68°	11812.8	11808.8	11651.2	11457.2	11263.3	11217.8	11236.0	11263.3	11294.6	11300.7	11228.9
70°	11553.2	11503.7	11413.8	11169.3	10977.4	10858.2	10794.6	10845.1	10760.2	10761.2	10626.9
72.5°	10262.2	10256.2	10090.5	9969.3	9798.6	9600.6	9509.7	9508.6	9516.7	9458.1	9319.7
75°	8312.6	8320.7	8127.8	8043.9	7991.4	7954.0	7973.2	8032.8	8038.9	8037.8	7989.4
77.5°	5797.3	5830.6	5779.1	5642.8	5789.2	5914.5	6155.9	6279.2	6239.8	6358.0	6432.7
80°	3038.6	3105.2	3107.3	3203.2	3321.4	3435.6	3643.6	3830.5	3693.1	3632.5	3569.9
82.5°	799.0	823.3	859.6	804.1	821.3	838.4	1000.1	984.9	909.1	949.6	1010.2
85°	228.3	235.4	225.3	204.1	186.9	171.7	175.8	148.5	129.3	128.3	124.2
87.5°	160.6	172.7	152.5	131.3	118.2	110.1	106.1	89.9	72.7	63.6	50.5
90°	74.8	73.7	63.6	49.5	43.4	41.4	41.4	32.3	18.2	11.1	10.1
92.5°	31.3	32.3	26.3	21.2	18.2	14.1	11.1	7.1	4.0	2.0	1.0
95°	11.1	12.1	10.1	8.1	7.1	6.1	5.1	4.0	2.0	1.0	1.0
97.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	1.0	1.0
100°	0.0	0.0	0.0	1.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0
102.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	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	1.0	1.0	1.0	1.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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	0.0	1.0	1.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	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	1.0	1.0	1.0	1.0	1.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0
165°	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
167.5°	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0
170°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
172.5°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
175°	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
177.5°	0.0	0.0	0.0	0.0	1.0	1.0	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°	2136.5	2136.5	2136.5	2136.5	2136.5	2136.5	2136.5	2136.5	2136.5	2136.5
2.5°	2151.6	2146.6	2144.6	2119.3	2126.4	2111.2	2146.6	2136.5	2134.5	2148.6
5°	2156.7	2133.5	2147.6	2131.4	2135.5	2113.3	2141.5	2129.4	2130.4	2137.5
7.5°	2159.7	2146.6	2160.7	2132.4	2143.6	2135.5	2155.7	2143.6	2155.7	2161.7
10°	2190.0	2184.0	2173.9	2165.8	2173.9	2154.7	2179.9	2177.9	2185.0	2203.2
12.5°	2231.4	2224.4	2214.3	2200.1	2206.2	2199.1	2218.3	2220.3	2233.5	2242.6
15°	2293.1	2284.0	2278.9	2264.8	2266.8	2261.7	2272.9	2274.9	2301.1	2298.1
17.5°	2379.9	2369.8	2373.9	2360.7	2355.7	2343.6	2323.4	2316.3	2347.6	2356.7
20°	2474.9	2463.8	2468.8	2457.7	2363.8	2172.9	2301.1	2389.0	2322.4	2317.3
22.5°	2583.0	2570.9	2574.9	2557.7	2441.6	2084.0	1813.2	1791.0	2045.6	2148.6
25°	2702.2	2686.0	2684.0	2661.8	2279.9	1887.0	1856.7	1817.3	1631.4	1483.9
27.5°	2849.7	2825.4	2813.3	2477.9	2263.8	1960.7	1915.3	1774.9	1505.1	1514.2
30°	3009.3	2973.9	2746.6	2525.4	2382.0	2047.6	1987.0	1555.6	1557.7	1553.6
32.5°	3191.1	3112.3	2691.1	2670.9	2523.4	2140.5	1649.6	1631.4	1633.4	1639.5
35°	3429.5	2889.1	2877.9	2879.0	2696.1	2070.8	1747.6	1730.4	1732.4	1736.5
37.5°	3480.0	3114.3	3116.3	3093.1	2880.0	1892.0	1866.8	1865.8	1861.7	1857.7
40°	3520.4	3398.2	3368.9	3331.5	2669.9	2037.5	2029.4	2023.4	2026.4	2034.5
42.5°	3836.6	3744.7	3716.4	3671.9	2738.5	2257.7	2231.4	2224.4	2232.5	2228.4
45°	4256.8	4180.0	4124.5	3395.1	3025.4	2497.1	2475.9	2466.8	2469.8	2495.1
47.5°	4701.3	4655.8	4486.1	3667.9	3359.8	2780.0	2758.7	2744.6	2749.7	2743.6
50°	5185.2	5143.7	4152.8	4079.0	3729.5	3085.0	3053.7	3048.7	3050.7	3049.7
52.5°	5710.4	4844.7	4602.3	4525.5	4119.4	3404.2	3393.1	3365.9	3371.9	3365.9
55°	6326.6	5103.3	5097.3	5007.4	4557.8	3775.0	3761.8	3723.5	3482.0	3693.1
57.5°	6911.5	5597.3	5597.3	5510.4	5006.4	4143.7	4122.5	4094.2	2474.9	1996.1
60°	7552.0	6092.3	6078.1	6006.4	5438.7	4495.2	3653.8	3645.7	1495.0	1500.1
62.5°	8105.5	6533.7	6559.0	6492.3	5854.9	3365.9	1693.0	1658.7	147.5	227.3
65°	8725.8	7021.6	7051.9	6983.2	6305.4	3569.9	1837.5	1820.3	33.3	30.3
67.5°	9428.8	7508.5	7439.8	7364.1	6569.1	3676.0	1909.2	1894.1	9.1	6.1
68°	9434.9	7498.4	7409.5	7358.0	6543.8	3655.8	1903.1	1889.0	9.1	6.1
70°	8950.0	7120.6	7031.7	7044.9	6230.7	3496.2	1824.3	1798.1	9.1	6.1
72.5°	7852.0	6336.7	6236.7	6166.0	5525.6	3108.3	1635.4	1586.0	9.1	6.1
75°	6718.6	5370.0	5204.3	5048.8	4445.7	2543.6	1341.5	1285.9	9.1	6.1
77.5°	5295.3	4093.2	3857.8	3755.8	3340.6	1878.9	997.0	936.4	9.1	5.1
80°	2926.4	2348.6	2148.6	2086.0	1910.2	1104.1	571.8	535.4	8.1	5.1
82.5°	756.6	567.7	495.0	477.8	448.5	261.6	139.4	132.3	7.1	4.0
85°	108.1	79.8	87.9	104.0	100.0	67.7	48.5	41.4	6.1	3.0
87.5°	56.6	47.5	55.6	62.6	63.6	39.4	20.2	11.1	3.0	0.0
90°	9.1	9.1	10.1	11.1	11.1	5.1	4.0	0.0	0.0	0.0
92.5°	1.0	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	1.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.0	2.0	1.0	1.0	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	1.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.0	1.0	1.0	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)