

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: P256729

Luminaire Tested: **CST-8-3-D-U-T5R-7050-HSS-HM-EX120**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256729
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-7050-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 5000K 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: 24503 lumens
Efficiency: N/A
Efficacy: 108.4 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

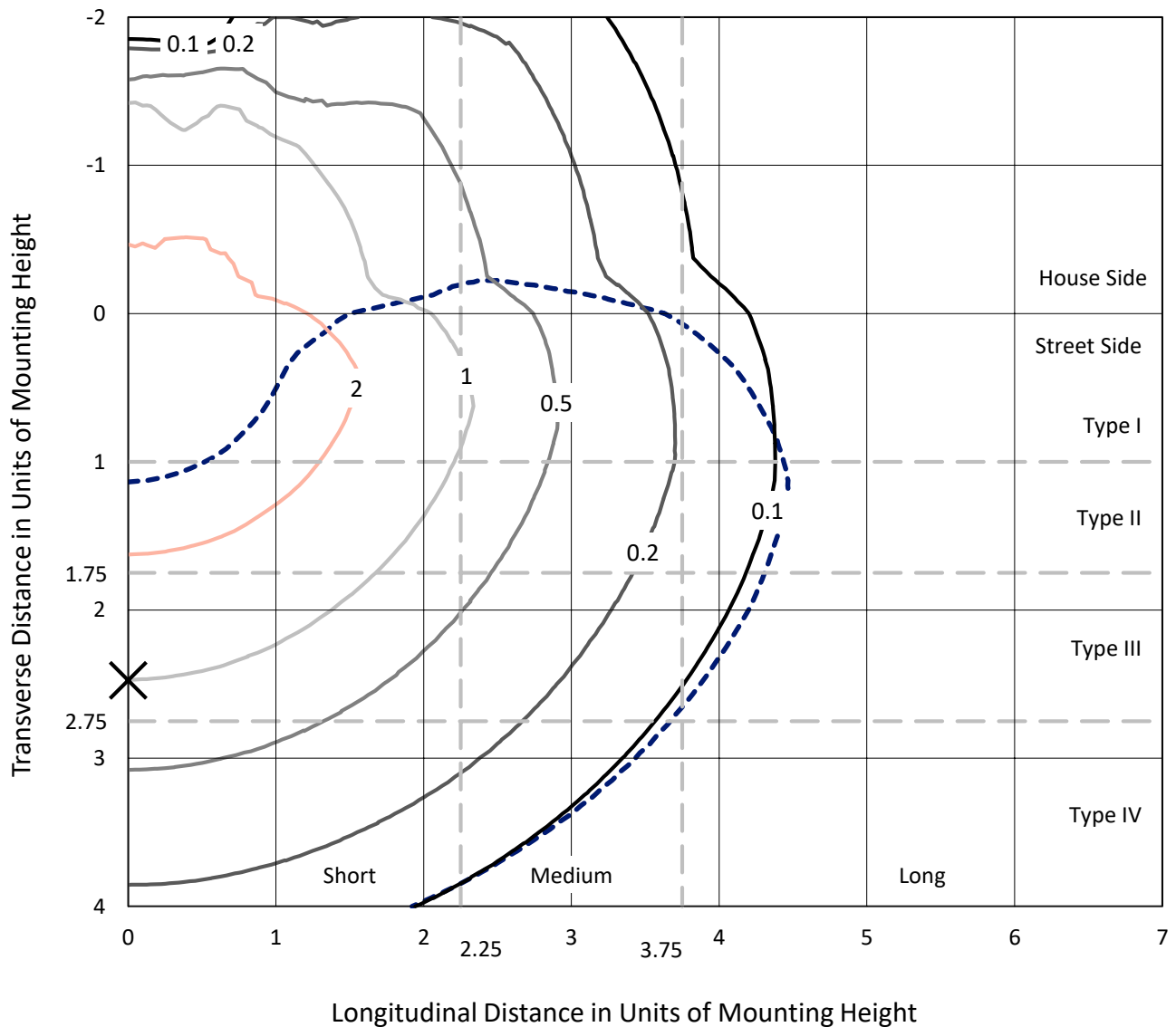


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

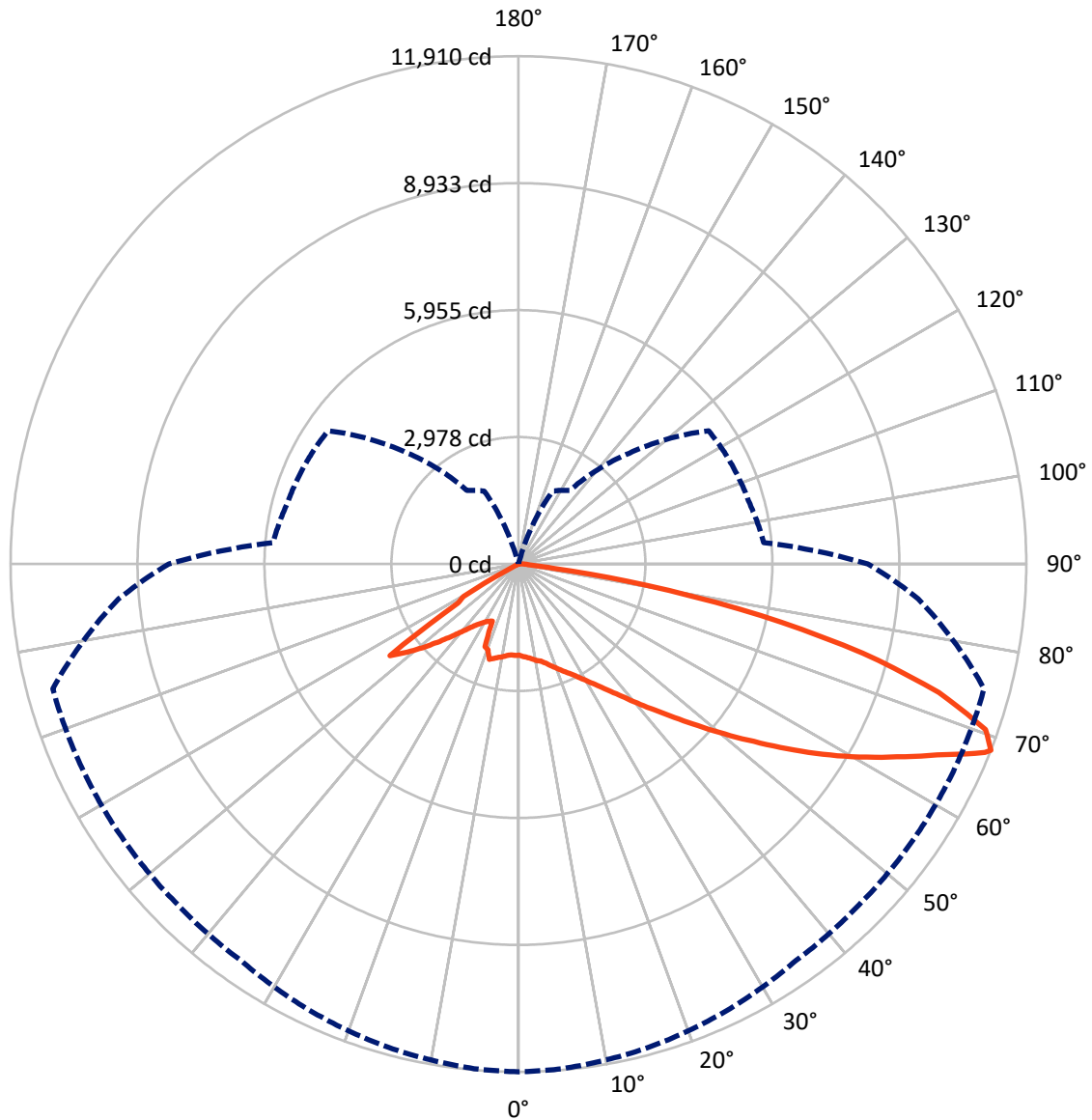


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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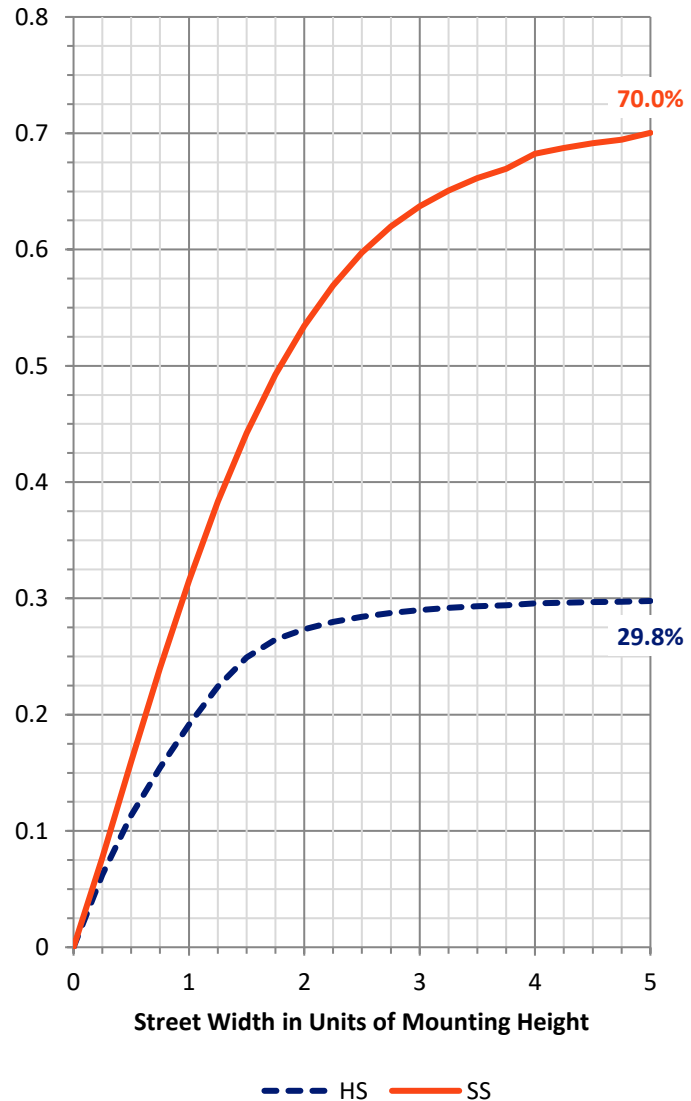
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7304.1	1.1	7305.2
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	17187.8	10.0	17197.8
	% Fixture	70.1	0.0	70.2
Total	Lumens	24491.8	11.1	24503.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.3	0.8
10°-20°	659.9	2.7
20°-30°	1130.3	4.6
30°-40°	1833.6	7.5
40°-50°	3092.3	12.6
50°-60°	5040.5	20.6
60°-70°	6760.1	27.6
70°-80°	5250.8	21.4
80°-90°	517.1	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°	24491.8	100.0
0°-180°	24503.0	100.0



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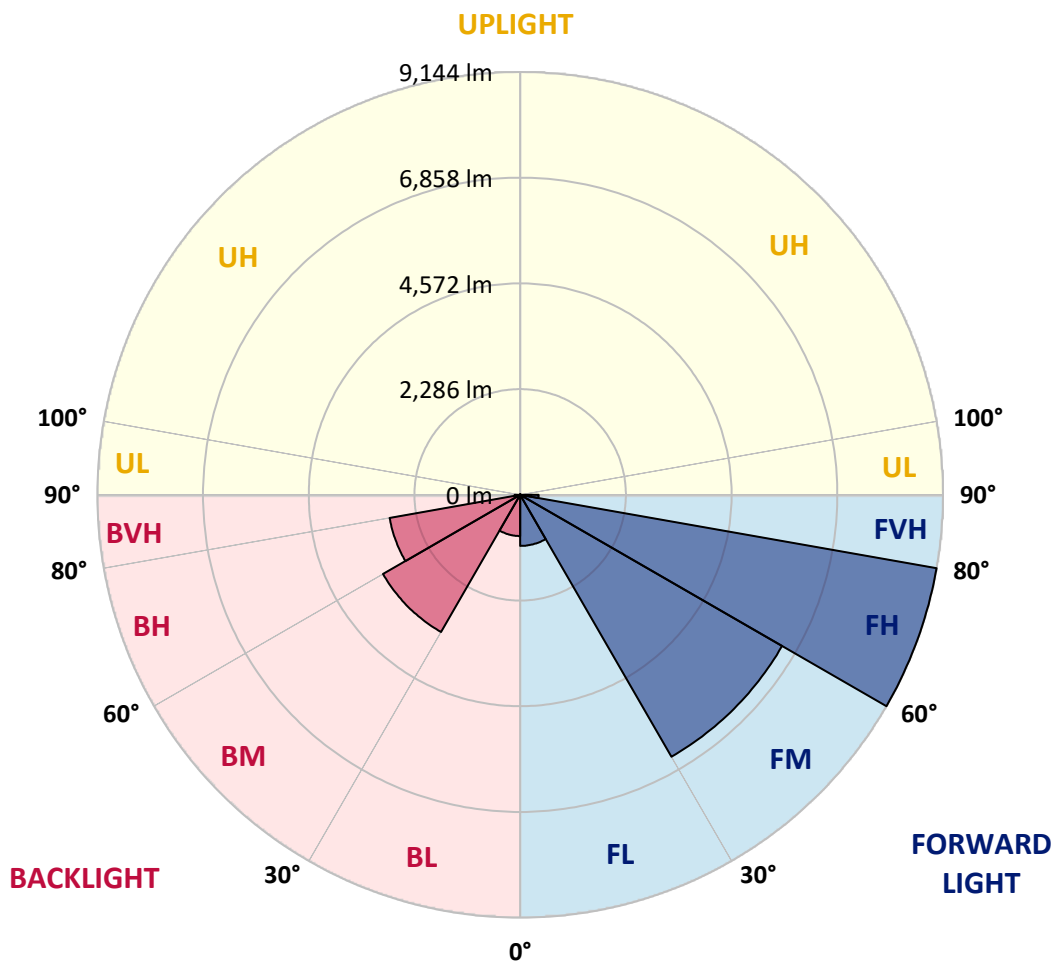
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1105.2	4.5			
FM	(30°-60°)	6540.7	26.7			
FH	(60°-80°)	9144.2	37.3			G4/12000
FVH	(80°-90°)	397.6	1.6			G3/500
BL	(0°-30°)	892.3	3.6	B2/1000		
BM	(30°-60°)	3425.6	14.0	B3/5000		
BH	(60°-80°)	2866.7	11.7	B4/5000		G4/5000
BVH	(80°-90°)	119.5	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°	2136.2	2136.2	2136.2	2136.2	2136.2	2136.2	2136.2	2136.2	2136.2	2136.2	2136.2
2.5°	2171.7	2165.6	2164.6	2176.7	2138.2	2157.5	2140.3	2154.4	2145.3	2152.4	2153.4
5°	2201.1	2189.9	2182.8	2197.0	2172.7	2181.8	2162.6	2168.6	2143.3	2157.5	2159.5
7.5°	2243.6	2225.4	2223.4	2227.4	2206.1	2213.2	2181.8	2188.9	2170.7	2162.6	2169.7
10°	2301.4	2284.2	2271.0	2280.1	2251.7	2255.8	2222.3	2223.4	2210.2	2195.0	2207.1
12.5°	2333.8	2335.8	2329.8	2336.9	2313.6	2300.4	2277.1	2269.0	2255.8	2237.5	2231.5
15°	2414.9	2410.8	2398.7	2409.8	2406.8	2394.6	2366.2	2348.0	2319.6	2309.5	2299.4
17.5°	2514.2	2501.0	2490.9	2505.1	2520.3	2494.9	2467.6	2442.3	2404.8	2384.5	2372.3
20°	2618.6	2609.5	2599.3	2621.6	2626.7	2607.4	2587.2	2549.7	2506.1	2479.7	2454.4
22.5°	2735.1	2716.9	2719.9	2749.3	2740.2	2731.1	2704.7	2674.3	2621.6	2588.2	2515.2
25°	2855.7	2845.6	2859.8	2872.9	2865.8	2846.6	2833.4	2811.1	2752.3	2711.8	2605.4
27.5°	3005.7	2989.5	3007.7	3012.8	3006.7	3001.6	2983.4	2966.2	2902.3	2856.7	2724.0
30°	3182.0	3162.8	3192.2	3185.1	3179.0	3183.0	3171.9	3134.4	3077.6	3015.8	2883.1
32.5°	3391.8	3366.5	3399.9	3384.7	3370.5	3398.9	3372.5	3337.1	3270.2	3198.2	3068.5
35°	3635.0	3636.0	3653.2	3627.9	3622.8	3653.2	3636.0	3592.4	3530.6	3455.6	3271.2
37.5°	3929.9	3921.8	3965.4	3953.2	3935.0	3975.5	3980.6	3925.8	3814.4	3740.4	3522.5
40°	4288.6	4286.6	4300.8	4302.8	4297.8	4317.0	4326.1	4253.2	4181.2	4069.7	3323.9
42.5°	4671.7	4679.8	4705.1	4686.9	4711.2	4736.5	4739.6	4678.8	4575.4	3904.6	3530.6
45°	5131.8	5157.1	5174.3	5170.3	5181.4	5217.9	5220.9	5188.5	5087.2	4229.9	3905.6
47.5°	5659.7	5684.1	5689.1	5721.6	5711.4	5763.1	5756.0	5757.0	5648.6	4682.8	4314.0
50°	6266.8	6277.9	6319.4	6337.7	6312.4	6382.3	6364.0	6386.3	6252.6	5201.7	4752.8
52.5°	6911.3	6930.5	6947.7	7016.7	6984.2	7045.0	7020.7	7072.4	6917.3	5729.7	5240.2
55°	7643.9	7647.0	7676.4	7746.3	7703.7	7776.7	7741.2	7760.5	7636.8	6313.4	5747.9
57.5°	8420.2	8410.1	8421.2	8476.9	8438.4	8493.2	8479.0	8497.2	8381.7	6927.5	6118.8
60°	9188.3	9173.1	9189.3	9226.8	9174.1	9268.4	9217.7	9234.9	9110.3	7554.8	6647.8
62.5°	9960.5	9949.4	9931.1	9968.6	9891.6	9940.3	9961.5	9933.2	9823.7	8122.3	7107.9
65°	10789.5	10778.3	10711.4	10734.8	10596.9	10573.6	10581.7	10590.9	10517.9	8684.7	7612.5
67.5°	11796.8	11780.6	11654.9	11496.8	11298.2	11254.6	11258.7	11283.0	11293.1	9408.2	8203.3
68°	11910.3	11880.9	11741.0	11557.6	11349.9	11299.2	11294.1	11299.2	11304.3	9414.3	8197.2
70°	11620.4	11609.3	11502.9	11281.0	11068.2	10946.5	10841.2	10837.1	10788.5	8933.0	7744.3
72.5°	10312.2	10298.0	10171.3	10014.2	9882.5	9692.0	9555.2	9563.3	9483.2	7895.3	6778.5
75°	8345.2	8344.2	8192.2	8060.4	8062.5	8048.3	8002.7	8082.7	7999.6	6696.4	5781.3
77.5°	5815.8	5836.1	5825.9	5748.9	5857.3	6007.3	6170.5	6324.5	6276.9	5289.9	4609.9
80°	3038.1	3094.9	3295.5	3304.6	3380.6	3526.6	3638.0	3741.4	3748.5	3001.6	2663.2
82.5°	807.7	824.9	892.8	873.5	867.5	896.8	921.2	924.2	926.2	782.3	730.6
85°	251.3	258.4	250.3	239.2	221.9	202.7	197.6	161.1	127.7	105.4	92.2
87.5°	178.4	190.5	172.3	162.1	143.9	136.8	122.6	96.3	75.0	52.7	35.5
90°	92.2	94.2	84.1	72.0	66.9	62.8	53.7	38.5	19.3	10.1	9.1
92.5°	46.6	47.6	41.5	35.5	30.4	26.3	20.3	11.1	6.1	3.0	1.0
95°	18.2	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°	2136.2	2136.2	2136.2	2136.2	2136.2	2136.2	2136.2	2136.2	2136.2	2136.2
2.5°	2148.4	2142.3	2145.3	2120.0	2126.1	2109.9	2144.3	2135.2	2131.1	2145.3
5°	2153.4	2131.1	2149.4	2132.2	2135.2	2111.9	2140.3	2129.1	2128.1	2136.2
7.5°	2155.5	2144.3	2161.5	2133.2	2142.3	2133.2	2154.4	2143.3	2153.4	2160.5
10°	2183.8	2177.8	2175.7	2165.6	2172.7	2152.4	2178.8	2178.8	2183.8	2203.1
12.5°	2225.4	2217.3	2212.2	2194.0	2201.1	2195.0	2216.3	2220.3	2229.4	2237.5
15°	2282.1	2267.9	2262.9	2246.7	2251.7	2250.7	2265.9	2266.9	2287.2	2286.2
17.5°	2355.1	2334.8	2340.9	2328.8	2329.8	2321.7	2313.6	2313.6	2331.8	2335.8
20°	2442.3	2326.7	2174.7	2089.6	2074.4	2085.5	2129.1	2201.1	2110.9	2136.2
22.5°	2285.2	2180.8	2173.7	2154.4	2142.3	1870.7	1800.8	1778.5	1895.0	2095.7
25°	2305.4	2260.9	2247.7	2223.4	1864.6	1861.6	1841.3	1807.9	1477.5	1470.4
27.5°	2412.9	2369.3	2348.0	1947.7	1939.6	1938.6	1908.2	1572.8	1496.8	1506.9
30°	2538.5	2487.9	2106.8	2046.0	2038.9	2022.7	1848.4	1553.5	1552.5	1553.5
32.5°	2683.4	2515.2	2167.6	2164.6	2168.6	2119.0	1637.6	1631.5	1630.5	1640.7
35°	2882.1	2333.8	2319.6	2334.8	2313.6	1832.2	1735.9	1732.9	1733.9	1728.8
37.5°	2750.3	2516.2	2513.2	2513.2	2463.5	1874.8	1855.5	1869.7	1867.7	1860.6
40°	2806.1	2737.1	2718.9	2712.8	2082.5	2022.7	2011.6	2029.8	2032.8	2037.9
42.5°	3076.6	3013.8	3004.7	2932.7	2265.9	2246.7	2212.2	2231.5	2229.4	2235.5
45°	3409.0	3366.5	3326.9	2542.6	2513.2	2488.9	2453.4	2475.7	2481.8	2477.7
47.5°	3796.1	3749.5	3463.7	2795.9	2794.9	2775.7	2736.1	2754.4	2751.3	2751.3
50°	4185.3	4134.6	3146.6	3118.2	3108.0	3077.6	3045.2	3048.3	3049.3	3059.4
52.5°	4620.0	3692.8	3483.0	3426.2	3434.4	3414.1	3382.7	2560.8	3367.5	3376.6
55°	4318.0	3865.0	3852.9	3777.9	3797.1	3770.8	3750.5	2526.4	3349.2	3700.9
57.5°	4269.4	4236.9	4226.8	4149.8	4174.1	3923.8	4111.3	2764.5	2316.6	1692.3
60°	4641.3	4606.8	4600.8	4532.9	4530.8	3118.2	3737.4	1896.0	1481.6	1491.7
62.5°	5002.1	4946.3	4961.5	4881.5	3441.4	1900.1	1675.1	42.6	67.9	72.0
65°	5404.4	5311.1	5326.3	5252.4	3549.9	2003.5	1810.9	22.3	19.3	18.2
67.5°	5791.5	5628.3	5550.3	5472.3	3686.7	2109.9	1886.9	6.1	0.0	0.0
68°	5772.2	5599.9	5519.9	5445.9	3672.5	2106.8	1882.9	6.1	0.0	0.0
70°	5446.9	5291.9	5215.9	5159.1	3506.3	2034.9	1806.9	6.1	0.0	0.0
72.5°	4761.9	4675.7	4627.1	4577.4	3115.1	1820.0	1620.4	6.1	0.0	0.0
75°	4046.4	4022.1	3991.7	3882.3	2596.3	1489.7	1331.6	6.1	0.0	0.0
77.5°	3206.3	3205.3	3131.3	3002.7	1954.8	1093.4	982.0	5.1	0.0	0.0
80°	1733.9	1890.0	1833.2	1767.3	1108.6	594.9	566.5	4.1	0.0	0.0
82.5°	487.4	461.1	442.8	414.5	233.1	129.7	126.7	4.1	0.0	0.0
85°	67.9	75.0	83.1	94.2	53.7	34.5	30.4	2.0	0.0	0.0
87.5°	38.5	43.6	53.7	55.7	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)