

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: P522119

Luminaire Tested: **CST-CA10-210-740-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522119
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA10-210-740-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29553 lumens
Efficiency: N/A
Efficacy: 138.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U1 - G4

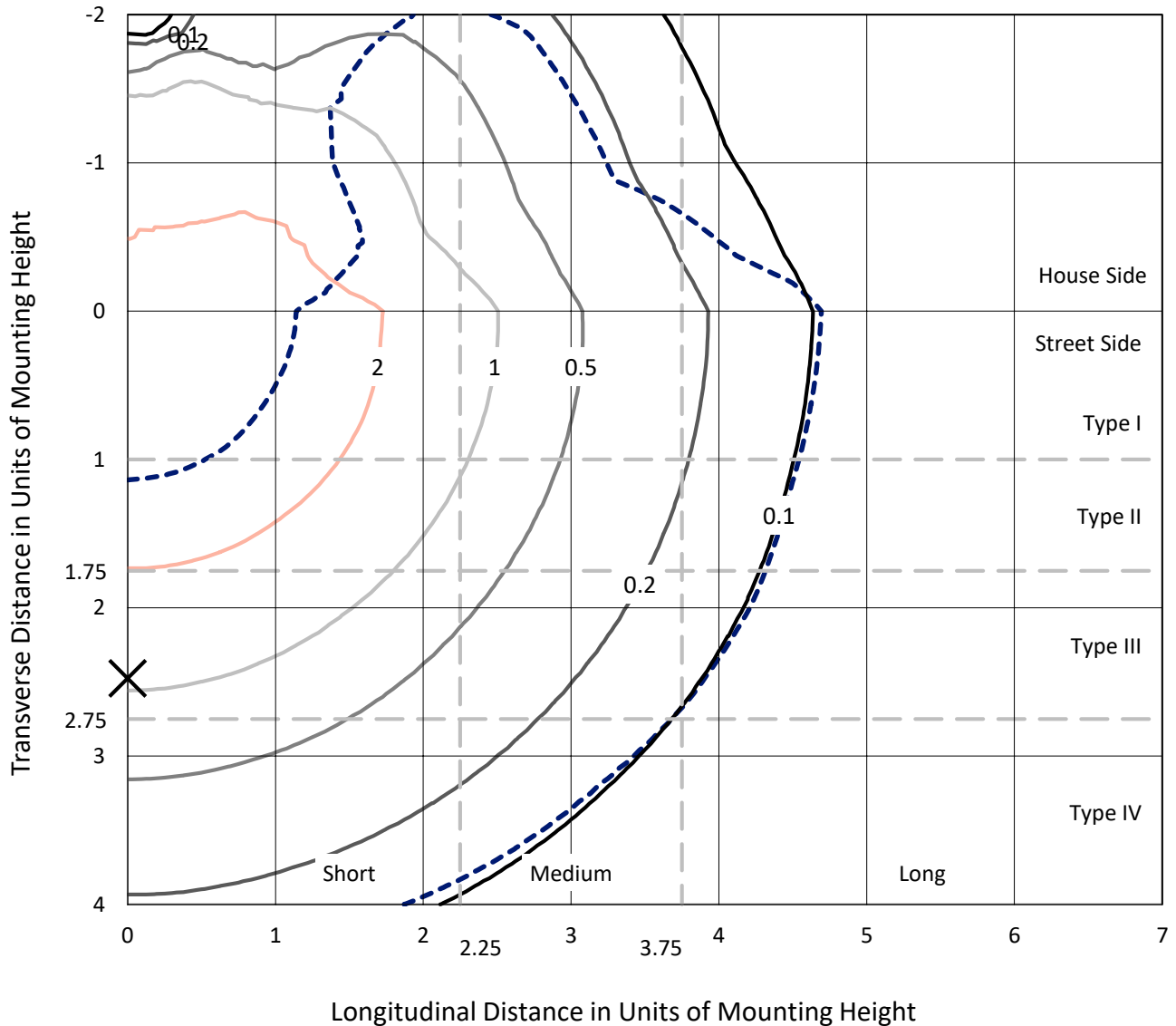
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

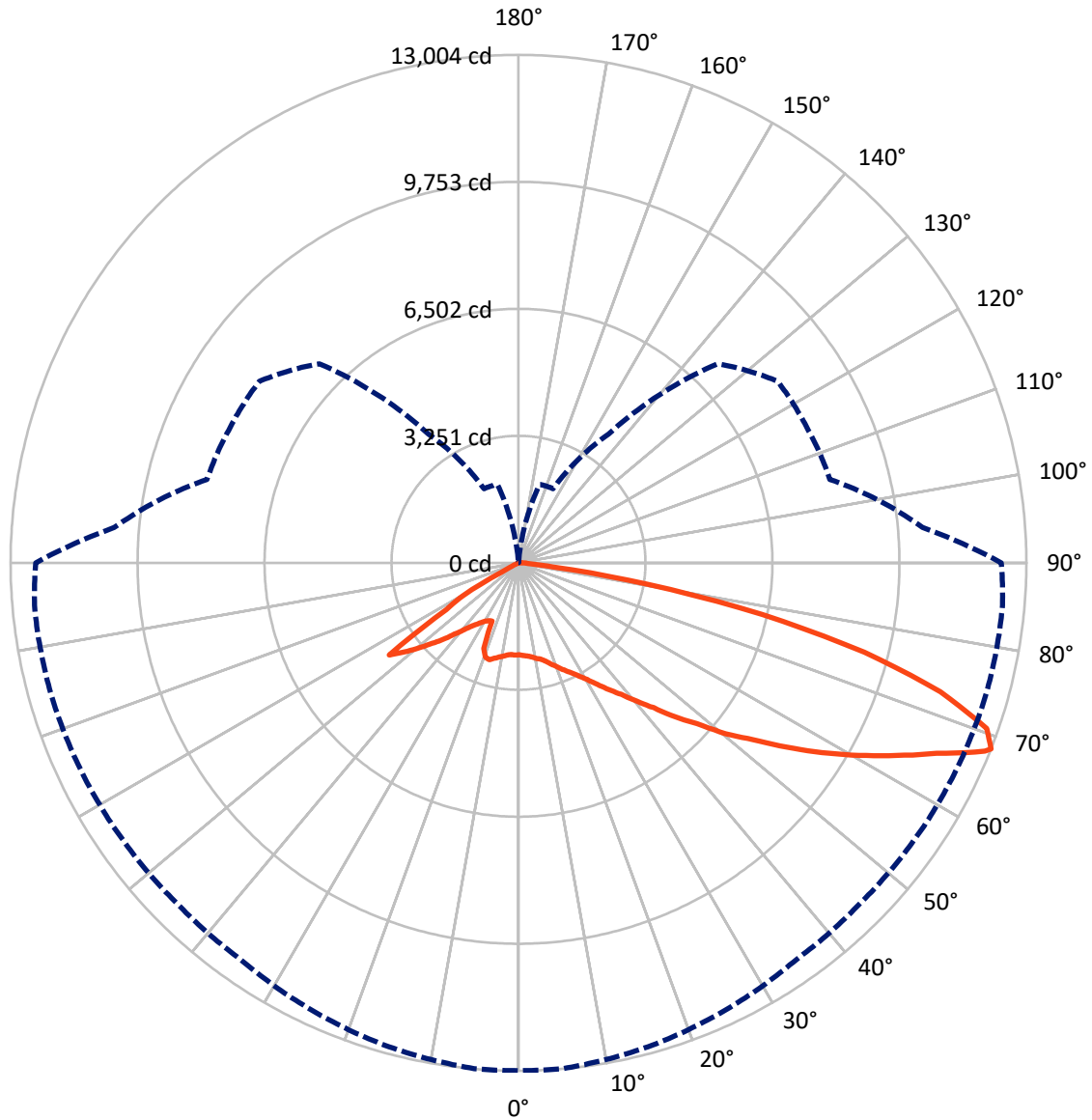
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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

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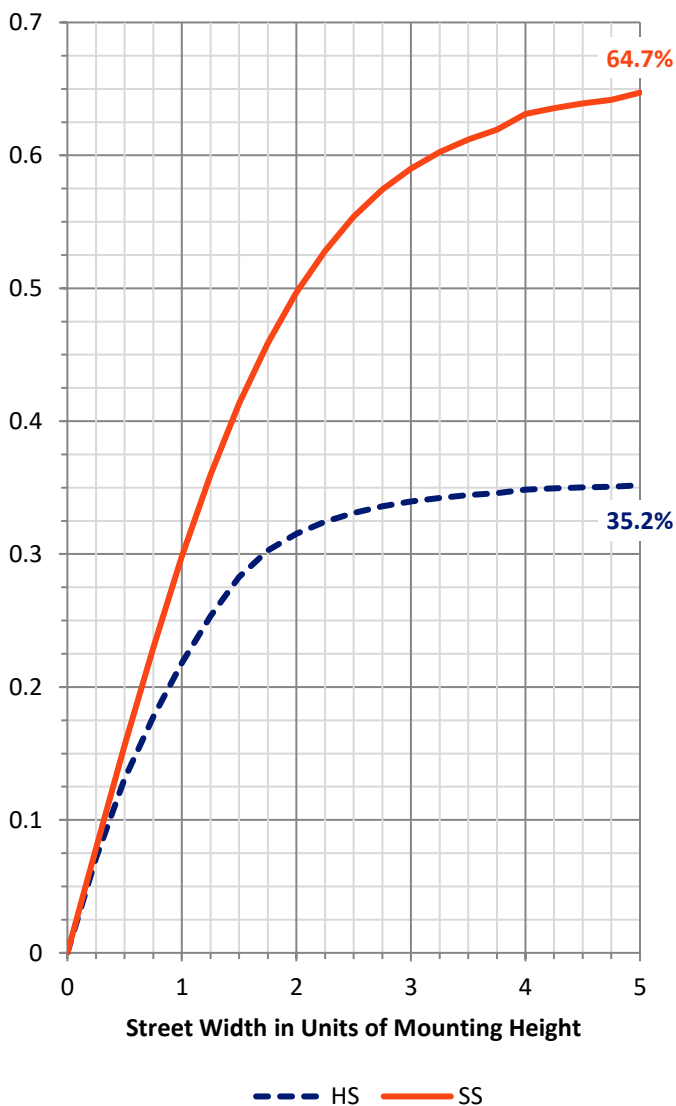
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10400.6	1.8	10402.4
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	19142.8	7.8	19150.6
	% Fixture	64.8	0.0	64.8
Total	Lumens	29543.4	9.5	29553.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.5	0.8
10°-20°	729.0	2.5
20°-30°	1301.4	4.4
30°-40°	2117.1	7.2
40°-50°	3615.3	12.2
50°-60°	6032.3	20.4
60°-70°	8392.2	28.4
70°-80°	6505.2	22.0
80°-90°	623.4	2.1
90°-100°	7.5	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°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.1	0.0
0°-90°	29543.4	100.0
0°-180°	29553.0	100.0

Coefficient of Utilization



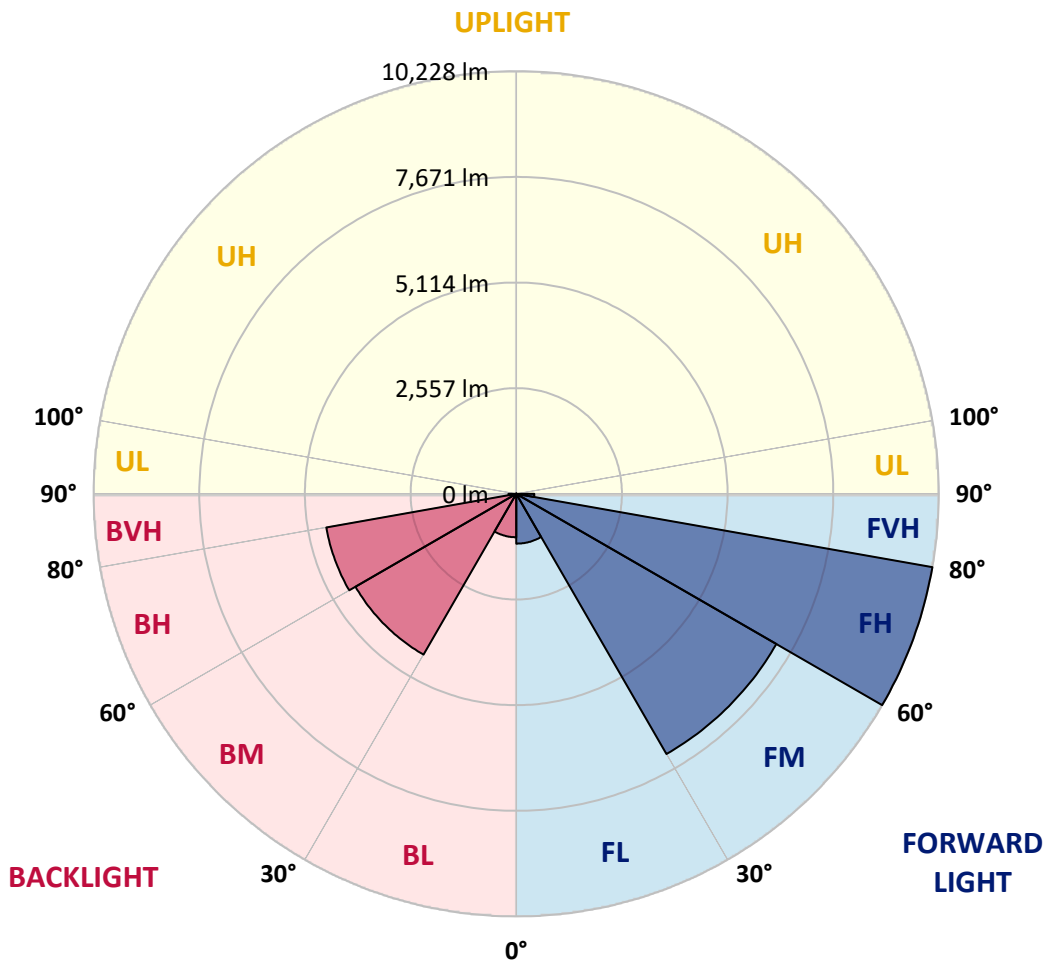
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1206.2	4.1			
FM (30°-60°)	7272.1	24.6			
FH (60°-80°)	10228.4	34.6			G4/12000
FVH (80°-90°)	436.1	1.5			G3/500
BL (0°-30°)	1051.7	3.6	B3/2500		
BM (30°-60°)	4492.6	15.2	B3/5000		
BH (60°-80°)	4669.0	15.8	B4/5000		G4/5000
BVH (80°-90°)	187.3	0.6			G2/225
UL (90°-100°)	7.5	0.0		U1/10	
UH (100°-180°)	2.0	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°	2351.9	2351.9	2351.9	2351.9	2351.9	2351.9	2351.9	2351.9	2351.9	2351.9	2351.9
2.5°	2378.6	2375.3	2373.0	2387.5	2346.4	2363.0	2351.9	2366.4	2363.0	2369.7	2370.8
5°	2395.3	2389.7	2381.9	2397.5	2373.0	2384.2	2371.9	2378.6	2357.5	2375.3	2377.5
7.5°	2433.1	2417.5	2416.4	2420.9	2404.2	2412.0	2390.8	2398.6	2387.5	2380.8	2387.5
10°	2489.8	2476.5	2462.0	2470.9	2443.1	2453.1	2430.9	2437.5	2432.0	2417.5	2430.9
12.5°	2528.7	2533.2	2523.2	2529.8	2505.4	2496.5	2488.7	2487.6	2484.3	2463.1	2459.8
15°	2615.5	2617.7	2599.9	2604.3	2598.8	2594.3	2583.2	2574.3	2556.5	2543.2	2534.3
17.5°	2728.9	2716.7	2700.0	2704.4	2720.0	2700.0	2693.3	2676.6	2651.1	2628.8	2624.4
20°	2847.9	2840.1	2824.5	2833.4	2832.3	2819.0	2822.3	2794.5	2757.8	2738.9	2724.4
22.5°	2980.2	2969.1	2958.0	2974.7	2961.3	2952.4	2949.1	2930.2	2884.6	2863.5	2860.1
25°	3112.5	3107.0	3114.8	3109.2	3090.3	3083.6	3088.1	3081.4	3028.0	3002.5	2986.9
27.5°	3278.2	3264.9	3277.1	3270.4	3250.4	3251.5	3252.7	3253.8	3193.7	3160.4	3138.1
30°	3467.3	3462.8	3478.4	3457.3	3438.4	3450.6	3460.6	3438.4	3386.1	3337.2	3329.4
32.5°	3713.0	3685.2	3703.0	3676.3	3647.4	3676.3	3694.1	3649.6	3607.4	3545.1	3556.2
35°	3985.5	3976.6	3976.6	3942.1	3926.5	3972.1	3989.9	3946.6	3880.9	3826.5	3813.1
37.5°	4274.6	4283.5	4311.3	4296.8	4282.4	4310.2	4350.2	4292.4	4207.9	4150.1	4134.5
40°	4658.2	4680.5	4699.4	4680.5	4663.8	4681.6	4727.2	4651.6	4592.6	4561.5	4528.1
42.5°	5070.8	5108.6	5096.4	5098.6	5113.1	5138.6	5184.2	5115.3	5047.5	5046.3	4997.4
45°	5629.0	5629.0	5603.5	5627.9	5625.7	5689.1	5709.1	5671.3	5614.6	5597.9	5555.6
47.5°	6150.6	6205.1	6195.1	6230.6	6202.8	6256.2	6324.1	6291.8	6226.2	6167.3	6158.4
50°	6877.8	6864.5	6851.2	6904.5	6900.1	6936.8	6999.1	6979.0	6887.8	6821.1	6808.9
52.5°	7517.3	7587.3	7570.6	7650.7	7606.2	7658.5	7733.0	7729.6	7618.4	7552.8	7533.9
55°	8324.6	8371.3	8367.9	8450.2	8389.1	8458.0	8520.3	8527.0	8405.8	8312.3	8341.3
57.5°	9165.3	9204.2	9181.9	9249.8	9189.7	9284.3	9322.1	9297.6	9226.4	9108.6	9151.9
60°	10007.1	10040.4	10066.0	10071.6	10037.1	10092.7	10128.3	10149.4	10037.1	9902.5	9954.8
62.5°	10862.2	10900.0	10877.8	10886.7	10791.0	10866.7	10911.1	10916.7	10787.7	10668.7	10705.4
65°	11762.9	11815.2	11735.1	11681.8	11563.9	11562.8	11621.7	11631.7	11540.5	11456.0	11441.6
67.5°	12878.3	12901.6	12730.4	12551.4	12352.3	12308.9	12350.1	12373.4	12425.7	12423.5	12357.9
68°	13004.0	12999.5	12826.0	12612.5	12399.0	12349.0	12369.0	12399.0	12433.5	12440.2	12361.2
70°	12718.2	12663.7	12564.7	12295.6	12084.3	11953.1	11883.0	11938.6	11845.2	11846.3	11698.4
72.5°	11297.0	11290.3	11108.0	10974.5	10786.6	10568.6	10468.6	10467.4	10476.3	10411.8	10259.5
75°	9150.8	9159.7	8947.3	8855.0	8797.2	8756.0	8777.2	8842.8	8849.5	8848.3	8795.0
77.5°	6381.9	6418.6	6361.9	6211.7	6373.0	6510.9	6776.6	6912.3	6868.9	6999.1	7081.3
80°	3345.0	3418.3	3420.6	3526.2	3656.3	3782.0	4011.1	4216.8	4065.5	3998.8	3929.9
82.5°	879.6	906.3	946.3	885.2	904.1	923.0	1100.9	1084.2	1000.8	1045.3	1112.0
85°	251.3	259.1	248.0	224.6	205.7	189.0	193.5	163.5	142.3	141.2	136.8
87.5°	176.8	190.2	167.9	144.6	130.1	121.2	116.8	99.0	80.1	70.1	55.6
90°	82.3	81.2	70.1	54.5	47.8	45.6	45.6	35.6	20.0	12.2	11.1
92.5°	34.5	35.6	28.9	23.4	20.0	15.6	12.2	7.8	4.4	2.2	1.1
95°	12.2	13.3	11.1	8.9	7.8	6.7	5.6	4.4	2.2	1.1	1.1
97.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.2	2.2	1.1	1.1
100°	0.0	0.0	0.0	1.1	2.2	2.2	2.2	2.2	1.1	1.1	1.1
102.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
105°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1



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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	1.1	1.1	1.1	1.1
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
145°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
150°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
160°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
165°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
167.5°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
170°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
172.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
175°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
177.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	2351.9	2351.9	2351.9	2351.9	2351.9	2351.9	2351.9	2351.9	2351.9	2351.9
2.5°	2368.6	2363.0	2360.8	2333.0	2340.8	2324.1	2363.0	2351.9	2349.7	2365.3
5°	2374.2	2348.6	2364.2	2346.4	2350.8	2326.3	2357.5	2344.1	2345.2	2353.0
7.5°	2377.5	2363.0	2378.6	2347.5	2359.7	2350.8	2373.0	2359.7	2373.0	2379.7
10°	2410.9	2404.2	2393.1	2384.2	2393.1	2371.9	2399.7	2397.5	2405.3	2425.3
12.5°	2456.5	2448.7	2437.5	2422.0	2428.7	2420.9	2442.0	2444.2	2458.7	2468.7
15°	2524.3	2514.3	2508.7	2493.1	2495.4	2489.8	2502.0	2504.3	2533.2	2529.8
17.5°	2619.9	2608.8	2613.2	2598.8	2593.2	2579.9	2557.6	2549.9	2584.3	2594.3
20°	2724.4	2712.2	2717.8	2705.5	2602.1	2392.0	2533.2	2629.9	2556.5	2551.0
22.5°	2843.4	2830.1	2834.5	2815.6	2687.8	2294.1	1996.1	1971.6	2251.8	2365.3
25°	2974.7	2956.9	2954.6	2930.2	2509.8	2077.3	2043.9	2000.5	1795.9	1633.6
27.5°	3137.0	3110.3	3097.0	2727.8	2492.0	2158.4	2108.4	1953.8	1656.9	1666.9
30°	3312.7	3273.8	3023.6	2780.0	2622.1	2254.1	2187.3	1712.5	1714.7	1710.3
32.5°	3512.9	3426.1	2962.4	2940.2	2777.8	2356.4	1815.9	1795.9	1798.1	1804.8
35°	3775.3	3180.4	3168.1	3169.3	2968.0	2279.6	1923.8	1904.9	1907.1	1911.6
37.5°	3830.9	3428.4	3430.6	3405.0	3170.4	2082.8	2055.0	2053.9	2049.5	2045.0
40°	3875.4	3740.8	3708.6	3667.4	2939.1	2242.9	2234.0	2227.4	2230.7	2239.6
42.5°	4223.4	4122.3	4091.1	4042.2	3014.7	2485.4	2456.5	2448.7	2457.6	2453.1
45°	4686.0	4601.5	4540.4	3737.5	3330.5	2748.9	2725.6	2715.6	2718.9	2746.7
47.5°	5175.3	5125.3	4938.5	4037.7	3698.6	3060.3	3036.9	3021.4	3026.9	3020.2
50°	5708.0	5662.4	4571.5	4490.3	4105.6	3396.1	3361.6	3356.1	3358.3	3357.2
52.5°	6286.2	5333.2	5066.4	4981.8	4534.8	3747.5	3735.3	3705.2	3711.9	3705.2
55°	6964.6	5617.9	5611.3	5512.3	5017.4	4155.6	4141.2	4098.9	3833.1	4065.5
57.5°	7608.4	6161.7	6161.7	6066.1	5511.2	4561.5	4538.2	4507.0	2724.4	2197.4
60°	8313.5	6706.6	6691.0	6612.1	5987.1	4948.5	4022.2	4013.3	1645.8	1651.3
62.5°	8922.8	7192.5	7220.3	7146.9	6445.3	3705.2	1863.7	1825.9	162.4	250.2
65°	9605.6	7729.6	7763.0	7687.4	6941.2	3929.9	2022.8	2003.9	36.7	33.4
67.5°	10379.6	8265.6	8190.0	8106.6	7231.5	4046.6	2101.7	2085.0	10.0	6.7
68°	10386.3	8254.5	8156.7	8099.9	7203.7	4024.4	2095.0	2079.5	10.0	6.7
70°	9852.5	7838.6	7740.8	7755.2	6858.9	3848.7	2008.3	1979.4	10.0	6.7
72.5°	8643.7	6975.7	6865.6	6787.8	6082.7	3421.7	1800.4	1745.9	10.0	6.7
75°	7396.0	5911.5	5729.1	5557.9	4894.0	2800.1	1476.8	1415.6	10.0	6.7
77.5°	5829.2	4505.9	4246.8	4134.5	3677.4	2068.4	1097.6	1030.8	10.0	5.6
80°	3221.5	2585.4	2365.3	2296.3	2102.8	1215.4	629.4	589.4	8.9	5.6
82.5°	832.9	625.0	544.9	526.0	493.7	288.0	153.5	145.7	7.8	4.4
85°	119.0	87.8	96.7	114.5	110.1	74.5	53.4	45.6	6.7	3.3
87.5°	62.3	52.3	61.2	68.9	70.1	43.4	22.2	12.2	3.3	0.0
90°	10.0	10.0	11.1	12.2	12.2	5.6	4.4	0.0	0.0	0.0
92.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.1	2.2	1.1	1.1	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°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.1	1.1	1.1	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)