

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: P522207

Luminaire Tested: **CST-CA8-230-740-U-T5R-HSS-HM-EX120**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522207
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA8-230-740-U-T5R-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

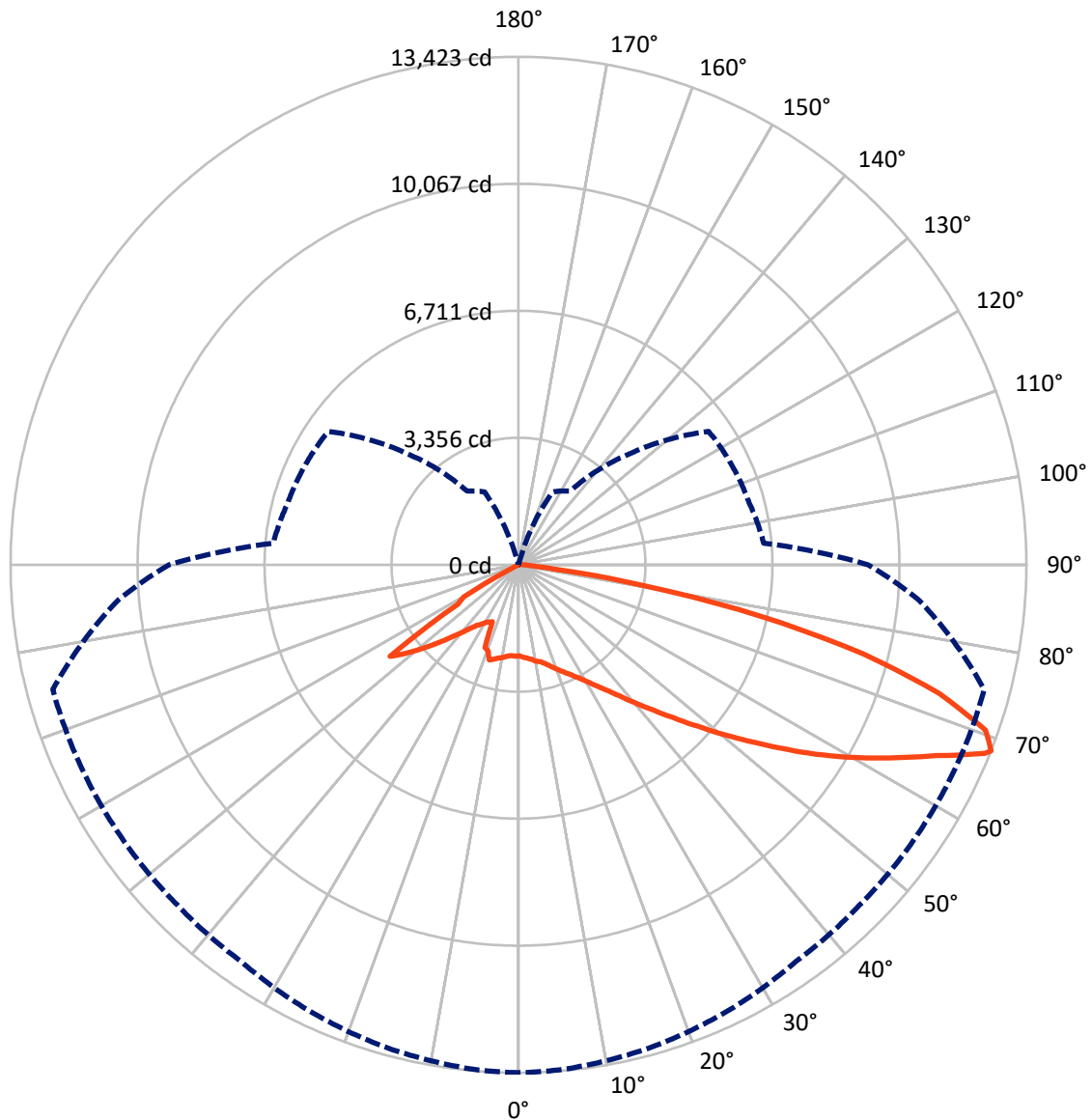
Lumens per Lamp: N/A
Luminaire Lumens: 27615 lumens
Efficiency: N/A
Efficacy: 120.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U2 - G4

Input Watts (W): 228.4
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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Luminous Intensity Polar Plot



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

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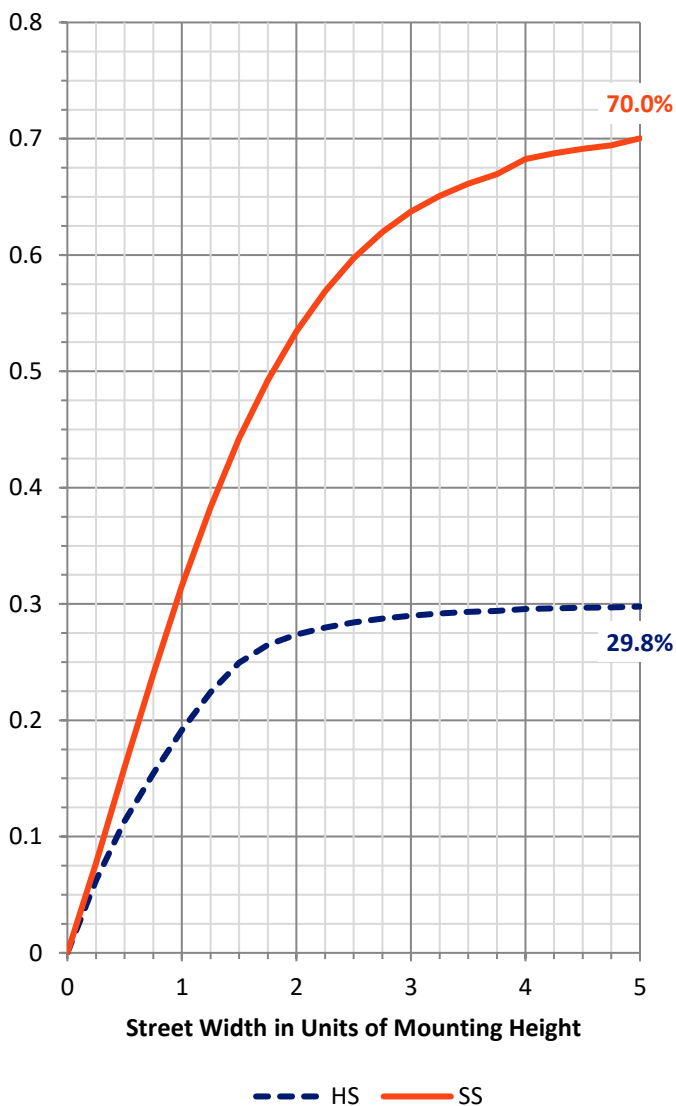
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8231.7	1.2	8233.0
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	19370.7	11.3	19382.0
	% Fixture	70.1	0.0	70.2
Total	Lumens	27602.4	12.5	27615.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.7	0.8
10°-20°	743.7	2.7
20°-30°	1273.8	4.6
30°-40°	2066.5	7.5
40°-50°	3485.0	12.6
50°-60°	5680.6	20.6
60°-70°	7618.6	27.6
70°-80°	5917.7	21.4
80°-90°	582.8	2.1
90°-100°	11.1	0.0
100°-110°	0.6	0.0
110°-120°	0.2	0.0
120°-130°	0.1	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	27602.4	100.0
0°-180°	27615.0	100.0

Coefficient of Utilization



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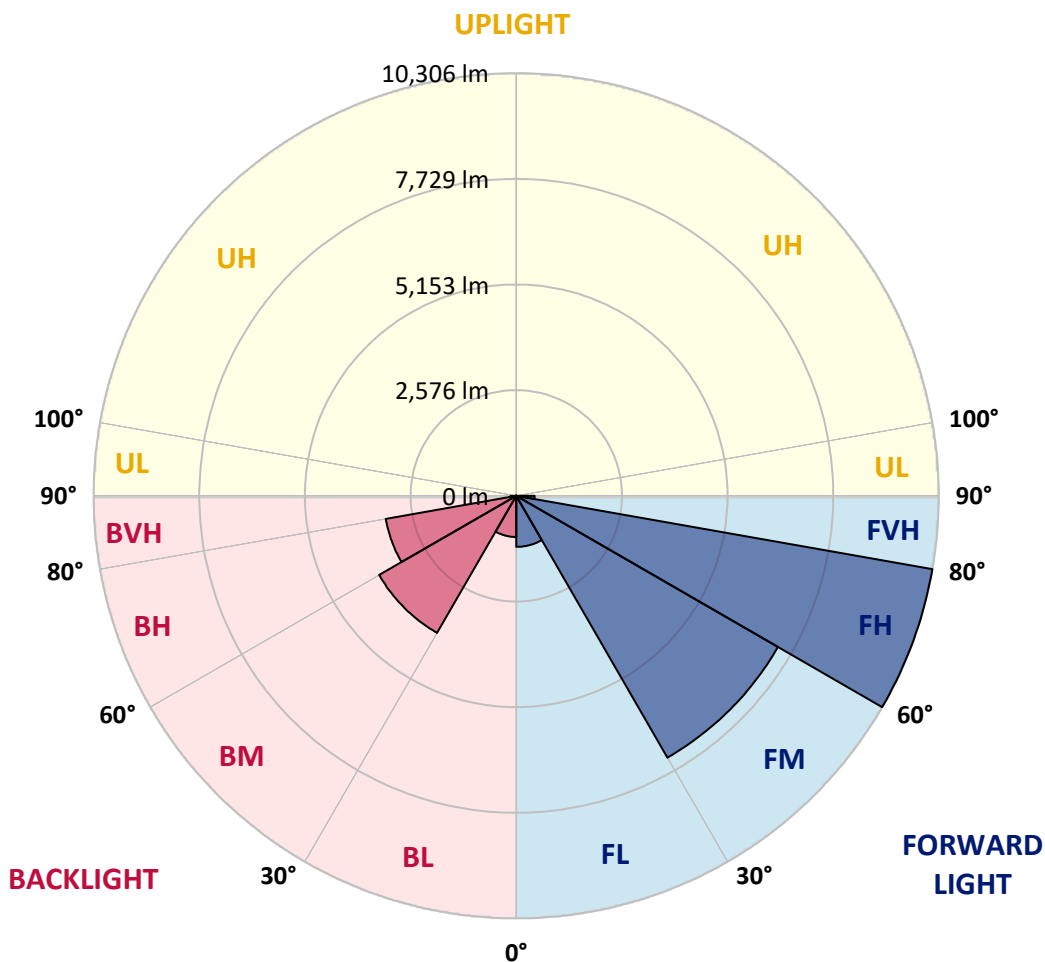
CATALOG NUMBER: CST-CA8-230-740-U-T5R-HSS-HM-EX120

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1245.6	4.5			
FM (30°-60°)	7371.4	26.7			
FH (60°-80°)	10305.6	37.3			G4/12000
FVH (80°-90°)	448.1	1.6			G3/500
BL (0°-30°)	1005.6	3.6	B3/2500		
BM (30°-60°)	3860.7	14.0	B3/5000		
BH (60°-80°)	3230.8	11.7	B4/5000		G4/5000
BVH (80°-90°)	134.7	0.5			G2/225
UL (90°-100°)	11.1	0.0		U2/50	
UH (100°-180°)	1.5	0.0		U1/10	

BUG Rating: B4-U2-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2407.5	2407.5	2407.5	2407.5	2407.5	2407.5	2407.5	2407.5	2407.5	2407.5	2407.5
2.5°	2447.5	2440.6	2439.5	2453.2	2409.8	2431.5	2412.1	2428.1	2417.8	2425.8	2426.9
5°	2480.6	2468.0	2460.1	2476.0	2448.6	2458.9	2437.2	2444.1	2415.5	2431.5	2433.8
7.5°	2528.6	2508.0	2505.7	2510.3	2486.3	2494.3	2458.9	2466.9	2446.3	2437.2	2445.2
10°	2593.7	2574.3	2559.4	2569.7	2537.7	2542.3	2504.6	2505.7	2490.9	2473.8	2487.5
12.5°	2630.2	2632.5	2625.7	2633.7	2607.4	2592.5	2566.3	2557.1	2542.3	2521.7	2514.9
15°	2721.6	2717.0	2703.3	2715.9	2712.5	2698.7	2666.8	2646.2	2614.2	2602.8	2591.4
17.5°	2833.5	2818.7	2807.2	2823.2	2840.4	2811.8	2781.0	2752.4	2710.2	2687.3	2673.6
20°	2951.2	2940.9	2929.5	2954.6	2960.3	2938.6	2915.7	2873.5	2824.4	2794.7	2766.1
22.5°	3082.5	3061.9	3065.4	3098.5	3088.2	3077.9	3048.2	3014.0	2954.6	2916.9	2834.7
25°	3218.4	3207.0	3223.0	3237.8	3229.8	3208.1	3193.3	3168.1	3101.9	3056.2	2936.3
27.5°	3387.4	3369.2	3389.7	3395.4	3388.6	3382.9	3362.3	3342.9	3270.9	3219.5	3069.9
30°	3586.2	3564.5	3597.6	3589.6	3582.7	3587.3	3574.7	3532.5	3468.5	3398.8	3249.2
32.5°	3822.6	3794.0	3831.7	3814.6	3798.6	3830.6	3800.9	3760.9	3685.5	3604.4	3458.2
35°	4096.7	4097.8	4117.2	4088.7	4083.0	4117.2	4097.8	4048.7	3979.0	3894.5	3686.7
37.5°	4429.0	4419.9	4469.0	4455.3	4434.7	4480.4	4486.1	4424.4	4298.8	4215.4	3969.9
40°	4833.3	4831.0	4847.0	4849.3	4843.6	4865.3	4875.6	4793.3	4712.2	4586.6	3746.0
42.5°	5265.0	5274.2	5302.7	5282.1	5309.6	5338.1	5341.5	5273.0	5156.5	4400.5	3979.0
45°	5783.5	5812.1	5831.5	5826.9	5839.5	5880.6	5884.0	5847.5	5733.3	4767.1	4401.6
47.5°	6378.6	6406.0	6411.7	6448.2	6436.8	6495.0	6487.0	6488.2	6366.0	5277.6	4861.9
50°	7062.7	7075.2	7122.0	7142.6	7114.1	7192.9	7172.3	7197.4	7046.7	5862.3	5356.4
52.5°	7789.0	7810.7	7830.1	7907.8	7871.3	7939.8	7912.4	7970.6	7795.9	6457.4	5905.7
55°	8614.8	8618.2	8651.3	8730.1	8682.1	8764.4	8724.4	8746.1	8606.8	7115.2	6477.9
57.5°	9489.6	9478.2	9490.7	9553.6	9510.2	9571.8	9555.8	9576.4	9446.2	7807.3	6895.9
60°	10355.3	10338.2	10356.4	10398.7	10339.3	10445.5	10388.4	10407.8	10267.4	8514.3	7492.1
62.5°	11225.6	11213.0	11192.4	11234.7	11147.9	11202.7	11226.7	11194.7	11071.4	9153.8	8010.6
65°	12159.8	12147.2	12071.9	12098.1	11942.8	11916.5	11925.7	11935.9	11853.7	9787.7	8579.4
67.5°	13295.0	13276.8	13135.1	12957.0	12733.1	12684.0	12688.6	12716.0	12727.4	10603.1	9245.2
68°	13422.9	13389.8	13232.2	13025.5	12791.4	12734.3	12728.6	12734.3	12740.0	10610.0	9238.3
70°	13096.3	13083.7	12963.8	12713.7	12473.9	12336.8	12218.0	12213.5	12158.6	10067.5	8727.8
72.5°	11621.9	11605.9	11463.1	11286.1	11137.6	10922.9	10768.7	10777.9	10687.6	8898.0	7639.4
75°	9405.1	9403.9	9232.6	9084.2	9086.4	9070.4	9019.1	9109.3	9015.6	7546.9	6515.6
77.5°	6554.4	6577.3	6565.9	6479.1	6601.3	6770.3	6954.2	7127.8	7074.1	5961.7	5195.3
80°	3424.0	3487.9	3714.1	3724.3	3810.0	3974.5	4100.1	4216.6	4224.6	3382.9	3001.4
82.5°	910.2	929.7	1006.2	984.5	977.6	1010.7	1038.2	1041.6	1043.9	881.7	823.4
85°	283.2	291.2	282.1	269.5	250.1	228.4	222.7	181.6	143.9	118.8	103.9
87.5°	201.0	214.7	194.2	182.7	162.2	154.2	138.2	108.5	84.5	59.4	40.0
90°	103.9	106.2	94.8	81.1	75.4	70.8	60.5	43.4	21.7	11.4	10.3
92.5°	52.5	53.7	46.8	40.0	34.3	29.7	22.8	12.6	6.9	3.4	1.1
95°	20.6	21.7	19.4	17.1	13.7	10.3	9.1	6.9	4.6	2.3	1.1
97.5°	6.9	6.9	6.9	5.7	5.7	5.7	5.7	4.6	3.4	2.3	1.1
100°	0.0	0.0	0.0	1.1	2.3	3.4	3.4	3.4	2.3	1.1	1.1
102.5°	0.0	0.0	0.0	0.0	0.0	1.1	2.3	2.3	2.3	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	0.0	1.1	1.1	1.1
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
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	1.1
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	1.1	1.1	1.1
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	1.1	1.1	1.1	1.1
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
165°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
170°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
175°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	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°	2407.5	2407.5	2407.5	2407.5	2407.5	2407.5	2407.5	2407.5	2407.5	2407.5
2.5°	2421.2	2414.4	2417.8	2389.2	2396.1	2377.8	2416.7	2406.4	2401.8	2417.8
5°	2426.9	2401.8	2422.4	2402.9	2406.4	2380.1	2412.1	2399.5	2398.4	2407.5
7.5°	2429.2	2416.7	2436.1	2404.1	2414.4	2404.1	2428.1	2415.5	2426.9	2434.9
10°	2461.2	2454.3	2452.1	2440.6	2448.6	2425.8	2455.5	2455.5	2461.2	2482.9
12.5°	2508.0	2498.9	2493.2	2472.6	2480.6	2473.8	2497.7	2502.3	2512.6	2521.7
15°	2572.0	2556.0	2550.3	2532.0	2537.7	2536.6	2553.7	2554.8	2577.7	2576.5
17.5°	2654.2	2631.4	2638.2	2624.5	2625.7	2616.5	2607.4	2607.4	2627.9	2632.5
20°	2752.4	2622.2	2450.9	2355.0	2337.9	2350.4	2399.5	2480.6	2379.0	2407.5
22.5°	2575.4	2457.8	2449.8	2428.1	2414.4	2108.3	2029.5	2004.4	2135.7	2361.8
25°	2598.2	2548.0	2533.1	2505.7	2101.4	2098.0	2075.2	2037.5	1665.2	1657.2
27.5°	2719.3	2670.2	2646.2	2195.1	2186.0	2184.8	2150.5	1772.5	1686.9	1698.3
30°	2860.9	2803.8	2374.4	2305.9	2297.9	2279.6	2083.2	1750.8	1749.7	1750.8
32.5°	3024.2	2834.7	2442.9	2439.5	2444.1	2388.1	1845.6	1838.8	1837.6	1849.0
35°	3248.1	2630.2	2614.2	2631.4	2607.4	2064.9	1956.4	1953.0	1954.1	1948.4
37.5°	3099.6	2835.8	2832.4	2832.4	2776.4	2112.9	2091.2	2107.1	2104.9	2096.9
40°	3162.4	3084.8	3064.2	3057.4	2347.0	2279.6	2267.0	2287.6	2291.0	2296.7
42.5°	3467.4	3396.6	3386.3	3305.2	2553.7	2532.0	2493.2	2514.9	2512.6	2519.4
45°	3842.0	3794.0	3749.5	2865.5	2832.4	2805.0	2765.0	2790.1	2797.0	2792.4
47.5°	4278.3	4225.7	3903.7	3151.0	3149.9	3128.2	3083.6	3104.2	3100.8	3100.8
50°	4716.8	4659.7	3546.2	3514.2	3502.8	3468.5	3432.0	3435.4	3436.5	3448.0
52.5°	5206.8	4161.8	3925.4	3861.4	3870.5	3847.7	3812.3	2886.1	3795.2	3805.4
55°	4866.4	4355.9	4342.2	4257.7	4279.4	4249.7	4226.9	2847.2	3774.6	4170.9
57.5°	4811.6	4775.1	4763.6	4676.8	4704.3	4422.2	4633.4	3115.6	2610.8	1907.3
60°	5230.8	5191.9	5185.1	5108.6	5106.3	3514.2	4212.0	2136.8	1669.7	1681.2
62.5°	5637.3	5574.5	5591.7	5501.4	3878.5	2141.4	1887.9	48.0	76.5	81.1
65°	6090.7	5985.7	6002.8	5919.4	4000.7	2257.9	2040.9	25.1	21.7	20.6
67.5°	6527.0	6343.1	6255.2	6167.3	4154.9	2377.8	2126.6	6.9	0.0	0.0
68°	6505.3	6311.2	6220.9	6137.6	4138.9	2374.4	2122.0	6.9	0.0	0.0
70°	6138.7	5964.0	5878.3	5814.4	3951.6	2293.3	2036.3	6.9	0.0	0.0
72.5°	5366.7	5269.6	5214.8	5158.8	3510.8	2051.2	1826.2	6.9	0.0	0.0
75°	4560.4	4532.9	4498.7	4375.3	2926.0	1678.9	1500.7	6.9	0.0	0.0
77.5°	3613.6	3612.4	3529.0	3384.0	2203.1	1232.3	1106.7	5.7	0.0	0.0
80°	1954.1	2130.0	2066.0	1991.8	1249.4	670.4	638.4	4.6	0.0	0.0
82.5°	549.3	519.6	499.1	467.1	262.7	146.2	142.8	4.6	0.0	0.0
85°	76.5	84.5	93.7	106.2	60.5	38.8	34.3	2.3	0.0	0.0
87.5°	43.4	49.1	60.5	62.8	22.8	18.3	5.7	0.0	0.0	0.0
90°	9.1	10.3	11.4	11.4	4.6	4.6	0.0	0.0	0.0	0.0
92.5°	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.1	1.1	1.1	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°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.1	1.1	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)