

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: P256691

Luminaire Tested: **CST-8-4-D-U-T5R-7030-HSS-HM-EX90**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P256691
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-8-4-D-U-T5R-7030-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K 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: 35813.9 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B5 - U1 - G5

Input Watts (W): 325
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

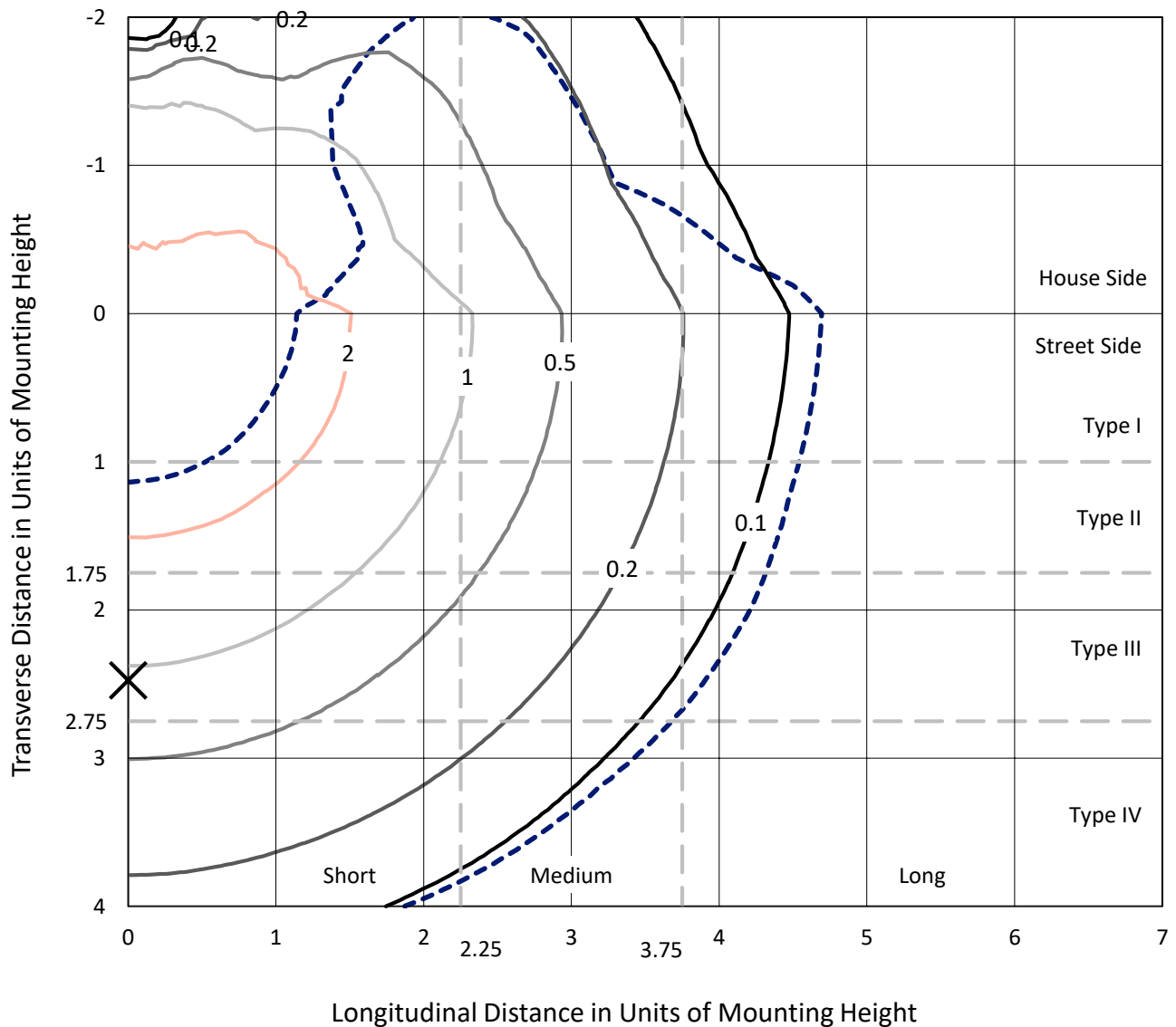


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

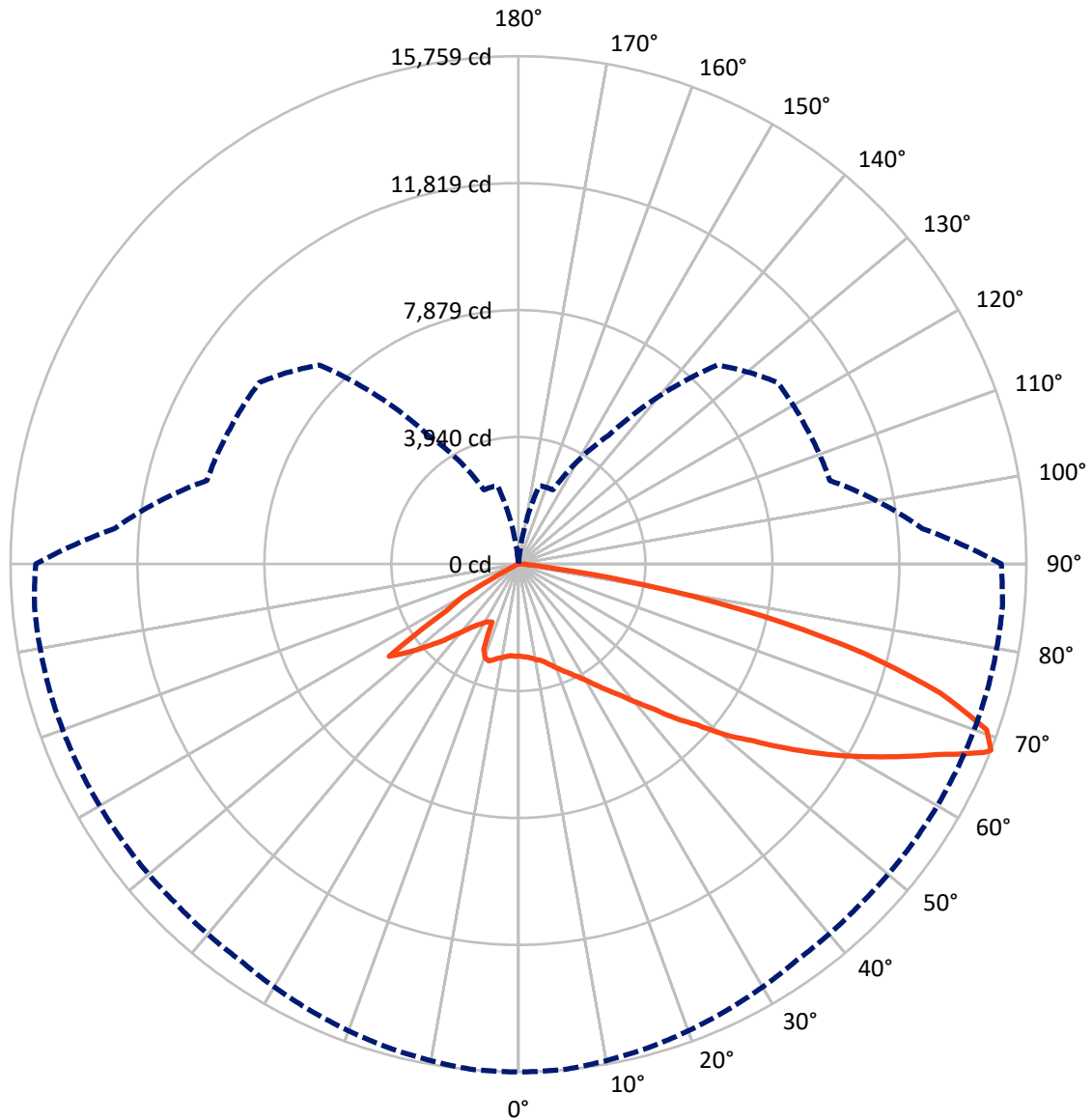


Based on 30 foot mounting height. Maximum calculated value = 3.2 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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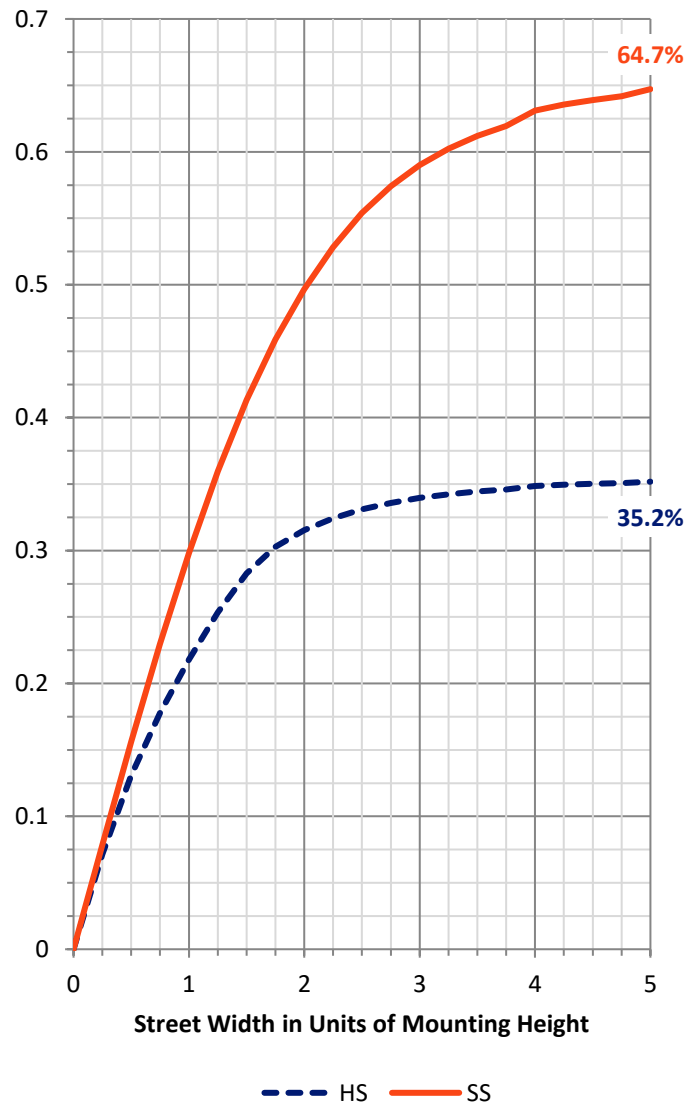
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12604.1	2.1	12606.2
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	23198.3	9.4	23207.7
	% Fixture	64.8	0.0	64.8
Total	Lumens	35802.4	11.5	35813.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.7	0.8
10°-20°	883.4	2.5
20°-30°	1577.1	4.4
30°-40°	2565.6	7.2
40°-50°	4381.3	12.2
50°-60°	7310.3	20.4
60°-70°	10170.1	28.4
70°-80°	7883.4	22.0
80°-90°	755.4	2.1
90°-100°	9.1	0.0
100°-110°	0.8	0.0
110°-120°	0.4	0.0
120°-130°	0.3	0.0
130°-140°	0.3	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	35802.4	100.0
0°-180°	35813.9	100.0

Coefficient of Utilization



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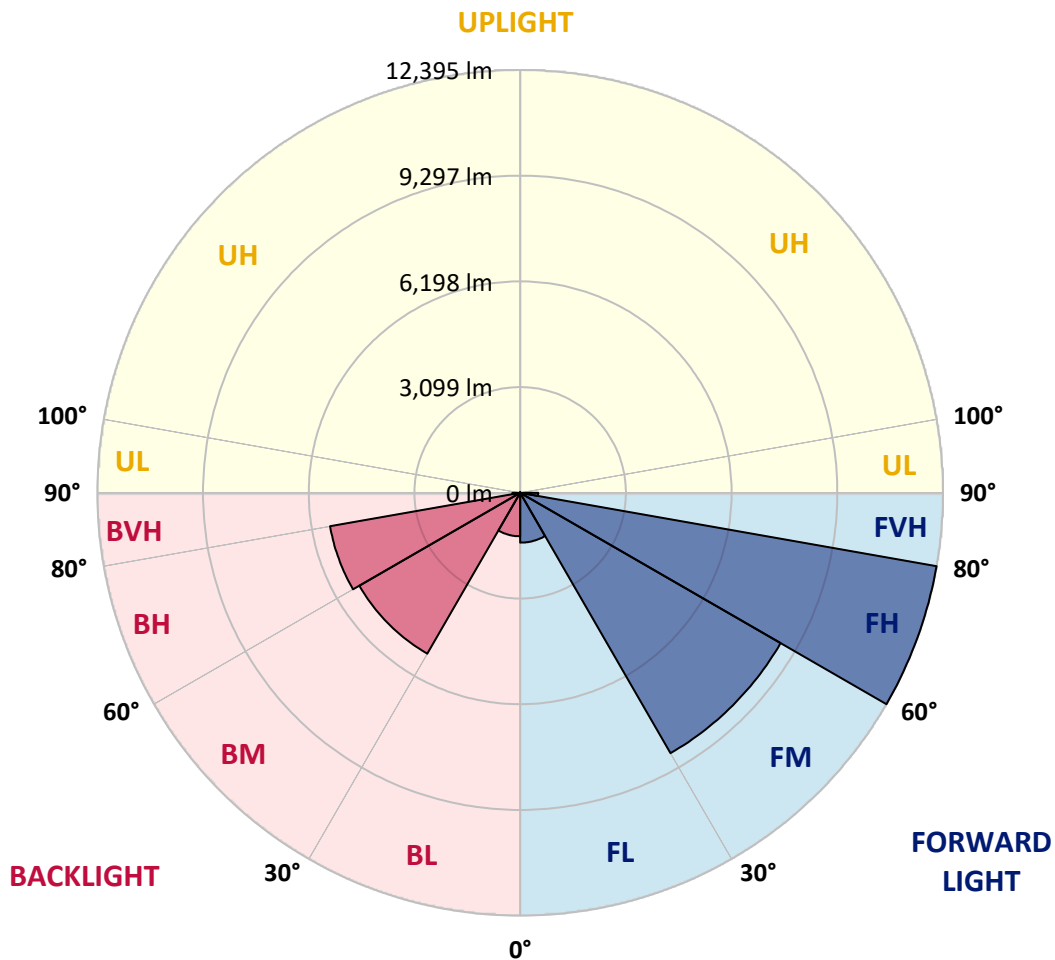
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1461.7	4.1			
FM	(30°-60°)	8812.8	24.6			
FH	(60°-80°)	12395.3	34.6			G5
FVH	(80°-90°)	528.5	1.5			G4/750
BL	(0°-30°)	1274.5	3.6	B3/2500		
BM	(30°-60°)	5444.4	15.2	B4/8500		
BH	(60°-80°)	5658.2	15.8	B5		G5
BVH	(80°-90°)	226.9	0.6			G3/500
UL	(90°-100°)	9.1	0.0		U1/10	
UH	(100°-180°)	2.1	0.0		U1/10	

BUG Rating: B5-U1-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2850.2	2850.2	2850.2	2850.2	2850.2	2850.2	2850.2	2850.2	2850.2	2850.2	2850.2
2.5°	2882.5	2878.5	2875.8	2893.3	2843.5	2863.7	2850.2	2867.7	2863.7	2871.8	2873.1
5°	2902.7	2896.0	2886.6	2905.4	2875.8	2889.3	2874.4	2882.5	2856.9	2878.5	2881.2
7.5°	2948.6	2929.7	2928.4	2933.7	2913.5	2923.0	2897.4	2906.8	2893.3	2885.2	2893.3
10°	3017.3	3001.1	2983.6	2994.4	2960.7	2972.8	2945.9	2954.0	2947.2	2929.7	2945.9
12.5°	3064.5	3069.9	3057.7	3065.8	3036.2	3025.4	3015.9	3014.6	3010.6	2985.0	2980.9
15°	3169.6	3172.3	3150.7	3156.1	3149.4	3144.0	3130.5	3119.7	3098.2	3082.0	3071.2
17.5°	3307.0	3292.2	3272.0	3277.4	3296.2	3272.0	3263.9	3243.7	3212.7	3185.7	3180.4
20°	3451.2	3441.8	3422.9	3433.7	3432.4	3416.2	3420.2	3386.5	3342.1	3319.2	3301.6
22.5°	3611.6	3598.1	3584.6	3604.9	3588.7	3577.9	3573.9	3550.9	3495.7	3470.1	3466.0
25°	3772.0	3765.2	3774.7	3767.9	3745.0	3736.9	3742.3	3734.2	3669.5	3638.5	3619.7
27.5°	3972.7	3956.6	3971.4	3963.3	3939.1	3940.4	3941.8	3943.1	3870.3	3829.9	3803.0
30°	4201.8	4196.5	4215.3	4189.7	4166.8	4166.8	4193.8	4166.8	4103.5	4044.2	4034.7
32.5°	4499.7	4466.0	4487.5	4455.2	4420.2	4455.2	4476.8	4422.8	4371.6	4296.2	4309.7
35°	4829.8	4819.0	4819.0	4777.3	4758.4	4813.7	4835.2	4782.7	4703.2	4637.1	4620.9
37.5°	5180.2	5191.0	5224.7	5207.2	5189.6	5223.3	5271.8	5201.8	5099.3	5029.3	5010.4
40°	5645.1	5672.1	5695.0	5672.1	5651.9	5673.4	5728.7	5637.0	5565.6	5527.9	5487.5
42.5°	6145.1	6190.9	6176.1	6178.8	6196.3	6227.3	6282.5	6199.0	6116.8	6115.4	6056.2
45°	6821.6	6821.6	6790.6	6820.2	6817.5	6894.4	6918.6	6872.8	6804.1	6783.9	6732.7
47.5°	7453.6	7519.7	7507.5	7550.6	7517.0	7581.6	7663.8	7624.8	7545.3	7473.8	7463.1
50°	8335.0	8318.8	8302.6	8367.3	8361.9	8406.4	8481.8	8457.6	8347.1	8266.2	8251.4
52.5°	9109.8	9194.7	9174.5	9271.5	9217.6	9281.0	9371.3	9367.2	9232.5	9153.0	9130.0
55°	10088.2	10144.8	10140.8	10240.5	10166.4	10249.9	10325.4	10333.5	10186.6	10073.4	10108.4
57.5°	11107.0	11154.2	11127.2	11209.4	11136.6	11251.2	11297.0	11267.4	11181.1	11038.3	11090.8
60°	12127.1	12167.6	12198.5	12205.3	12163.5	12230.9	12274.0	12299.6	12163.5	12000.5	12063.8
62.5°	13163.4	13209.3	13182.3	13193.1	13077.2	13168.8	13222.7	13229.5	13073.1	12929.0	12973.4
65°	14255.0	14318.3	14221.3	14156.6	14013.8	14012.4	14083.9	14096.0	13985.5	13883.1	13865.5
67.5°	15606.7	15634.9	15427.4	15210.5	14969.2	14916.7	14966.5	14994.8	15058.2	15055.5	14976.0
68°	15758.9	15753.5	15543.3	15284.6	15025.8	14965.2	14989.4	15025.8	15067.6	15075.7	14980.0
70°	15412.6	15346.6	15226.6	14900.5	14644.5	14485.4	14400.5	14467.9	14354.7	14356.1	14176.8
72.5°	13690.4	13682.3	13461.3	13299.5	13071.8	12807.7	12686.4	12685.0	12695.8	12617.7	12433.0
75°	11089.5	11100.2	10842.9	10731.0	10660.9	10611.1	10636.7	10716.2	10724.3	10722.9	10658.2
77.5°	7733.9	7778.4	7709.7	7527.7	7723.1	7890.2	8212.3	8376.7	8324.2	8481.8	8581.6
80°	4053.6	4142.5	4145.2	4273.3	4430.9	4583.2	4860.8	5110.1	4926.9	4846.0	4762.4
82.5°	1066.0	1098.3	1146.8	1072.7	1095.6	1118.5	1334.1	1313.9	1212.8	1266.8	1347.6
85°	304.6	314.0	300.5	272.2	249.3	229.1	234.5	198.1	172.5	171.1	165.8
87.5°	214.3	230.4	203.5	175.2	157.7	146.9	141.5	119.9	97.0	84.9	67.4
90°	99.7	98.4	84.9	66.0	57.9	55.3	55.3	43.1	24.3	14.8	13.5
92.5°	41.8	43.1	35.0	28.3	24.3	18.9	14.8	9.4	5.4	2.7	1.3
95°	14.8	16.2	13.5	10.8	9.4	8.1	6.7	5.4	2.7	1.3	1.3
97.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	2.7	2.7	1.3	1.3
100°	0.0	0.0	0.0	1.3	2.7	2.7	2.7	2.7	1.3	1.3	1.3
102.5°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3
105°	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	1.3
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3



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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	1.3	1.3	1.3	1.3
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
145°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
150°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
160°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
165°	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	1.3
167.5°	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	1.3
170°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3
172.5°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3
175°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3
177.5°	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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°	2850.2	2850.2	2850.2	2850.2	2850.2	2850.2	2850.2	2850.2	2850.2	2850.2
2.5°	2870.4	2863.7	2861.0	2827.3	2836.7	2816.5	2863.7	2850.2	2847.5	2866.4
5°	2877.1	2846.1	2865.0	2843.5	2848.8	2819.2	2856.9	2840.8	2842.1	2851.5
7.5°	2881.2	2863.7	2882.5	2844.8	2859.6	2848.8	2875.8	2859.6	2875.8	2883.9
10°	2921.6	2913.5	2900.1	2889.3	2900.1	2874.4	2908.1	2905.4	2914.9	2939.1
12.5°	2976.9	2967.4	2954.0	2935.1	2943.2	2933.7	2959.3	2962.0	2979.6	2991.7
15°	3059.1	3046.9	3040.2	3021.3	3024.0	3017.3	3032.1	3034.8	3069.9	3065.8
17.5°	3175.0	3161.5	3166.9	3149.4	3142.6	3126.5	3099.5	3090.1	3131.8	3144.0
20°	3301.6	3286.8	3293.6	3278.7	3153.4	2898.7	3069.9	3187.1	3098.2	3091.4
22.5°	3445.8	3429.7	3435.1	3412.1	3257.2	2780.1	2419.0	2389.3	2728.9	2866.4
25°	3604.9	3583.3	3580.6	3550.9	3041.6	2517.3	2476.9	2424.3	2176.4	1979.6
27.5°	3801.6	3769.3	3753.1	3305.7	3020.0	2615.7	2555.1	2367.7	2007.9	2020.1
30°	4014.5	3967.4	3664.1	3369.0	3177.7	2731.6	2650.7	2075.3	2078.0	2072.6
32.5°	4257.1	4152.0	3590.0	3563.1	3366.3	2855.6	2200.6	2176.4	2179.1	2187.2
35°	4575.1	3854.2	3839.3	3840.7	3596.8	2762.6	2331.4	2308.5	2311.1	2316.5
37.5°	4642.5	4154.7	4157.4	4126.4	3842.0	2524.1	2490.4	2489.0	2483.6	2478.3
40°	4696.4	4533.4	4494.3	4444.4	3561.7	2718.1	2707.3	2699.3	2703.3	2714.1
42.5°	5118.2	4995.6	4957.9	4898.6	3653.4	3011.9	2976.9	2967.4	2978.2	2972.8
45°	5678.8	5576.4	5502.3	4529.3	4036.1	3331.3	3303.0	3290.9	3294.9	3328.6
47.5°	6271.8	6211.1	5984.7	4893.2	4482.1	3708.6	3680.3	3661.5	3668.2	3660.1
50°	6917.3	6862.0	5540.0	5441.6	4975.4	4115.6	4073.8	4067.1	4069.8	4068.4
52.5°	7618.0	6463.1	6139.7	6037.3	5495.5	4541.4	4526.6	4490.2	4498.3	4490.2
55°	8440.1	6808.1	6800.0	6680.1	6080.4	5036.0	5018.5	4967.3	4645.2	4926.9
57.5°	9220.3	7467.1	7467.1	7351.2	6678.7	5527.9	5499.6	5461.9	3301.6	2662.9
60°	10074.7	8127.4	8108.6	8012.9	7255.5	5996.9	4874.3	4863.5	1994.5	2001.2
62.5°	10813.2	8716.3	8750.0	8661.1	7810.7	4490.2	2258.6	2212.8	196.8	303.2
65°	11640.6	9367.2	9407.7	9316.0	8411.8	4762.4	2451.3	2428.4	44.5	40.4
67.5°	12578.6	10016.8	9925.1	9824.1	8763.5	4903.9	2547.0	2526.8	12.1	8.1
68°	12586.7	10003.3	9884.7	9816.0	8729.8	4877.0	2538.9	2520.0	12.1	8.1
70°	11939.8	9499.3	9380.7	9398.2	8312.0	4664.1	2433.8	2398.7	12.1	8.1
72.5°	10475.0	8453.5	8320.1	8225.8	7371.4	4146.6	2181.8	2115.7	12.1	8.1
75°	8962.9	7163.9	6942.9	6735.3	5930.8	3393.3	1789.6	1715.5	12.1	8.1
77.5°	7064.2	5460.5	5146.5	5010.4	4456.5	2506.6	1330.1	1249.2	12.1	6.7
80°	3904.0	3133.2	2866.4	2782.8	2548.3	1472.9	762.7	714.2	10.8	6.7
82.5°	1009.4	757.4	660.3	637.4	598.3	349.0	186.0	176.5	9.4	5.4
85°	144.2	106.5	117.2	138.8	133.4	90.3	64.7	55.3	8.1	4.0
87.5°	75.5	63.3	74.1	83.6	84.9	52.6	27.0	14.8	4.0	0.0
90°	12.1	12.1	13.5	14.8	14.8	6.7	5.4	0.0	0.0	0.0
92.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.3	2.7	1.3	1.3	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°	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.3	1.3	1.3	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)