

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: McGRAW-EDISON

Report Number: P522134

Luminaire Tested: **CTN-CA10-310-730-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522134
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: McGRAW-EDISON
Catalog Number: CTN-CA10-310-730-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40284 lumens
Efficiency: N/A
Efficacy: 128.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B5 - U2 - G5

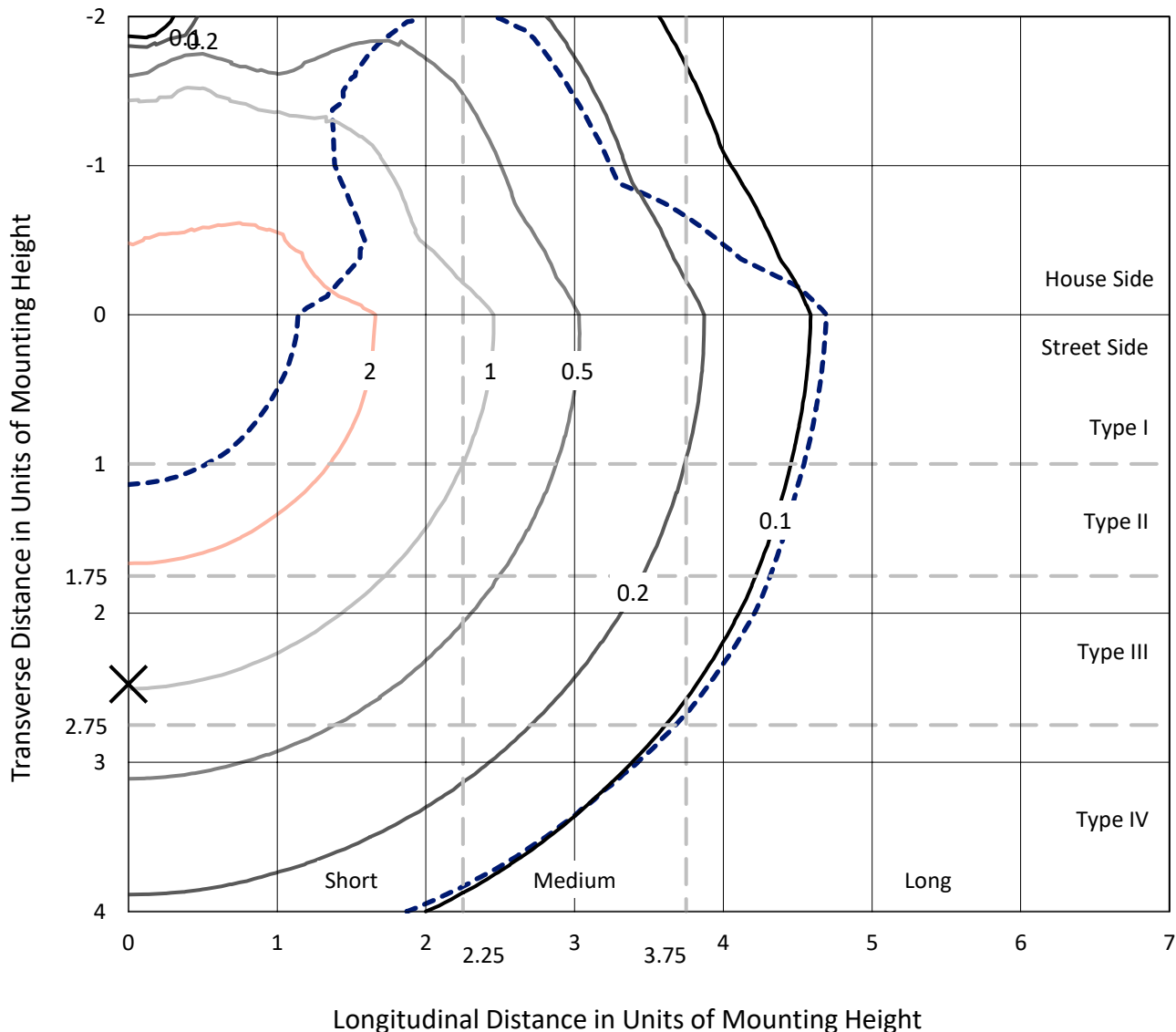
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

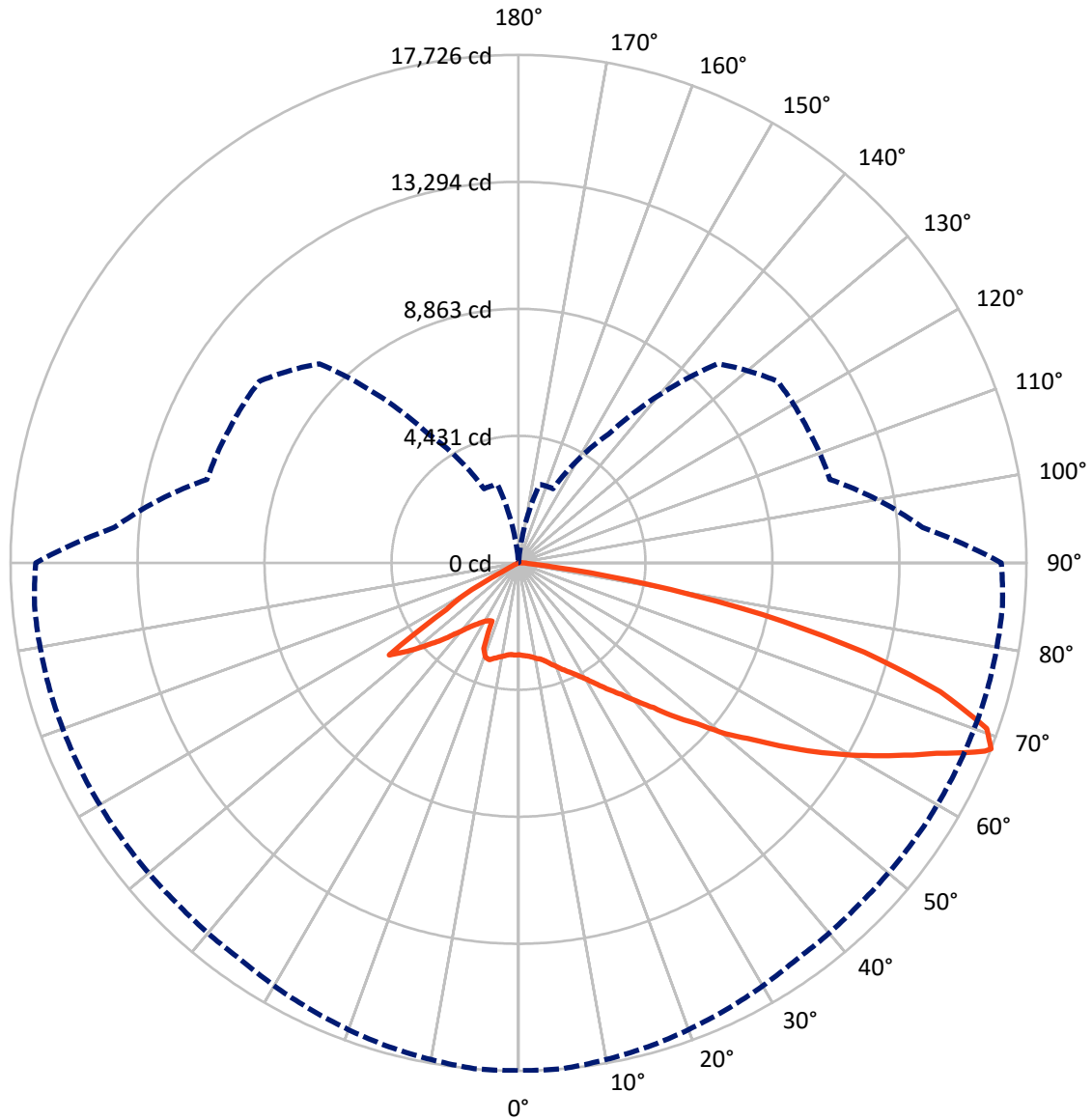
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.6 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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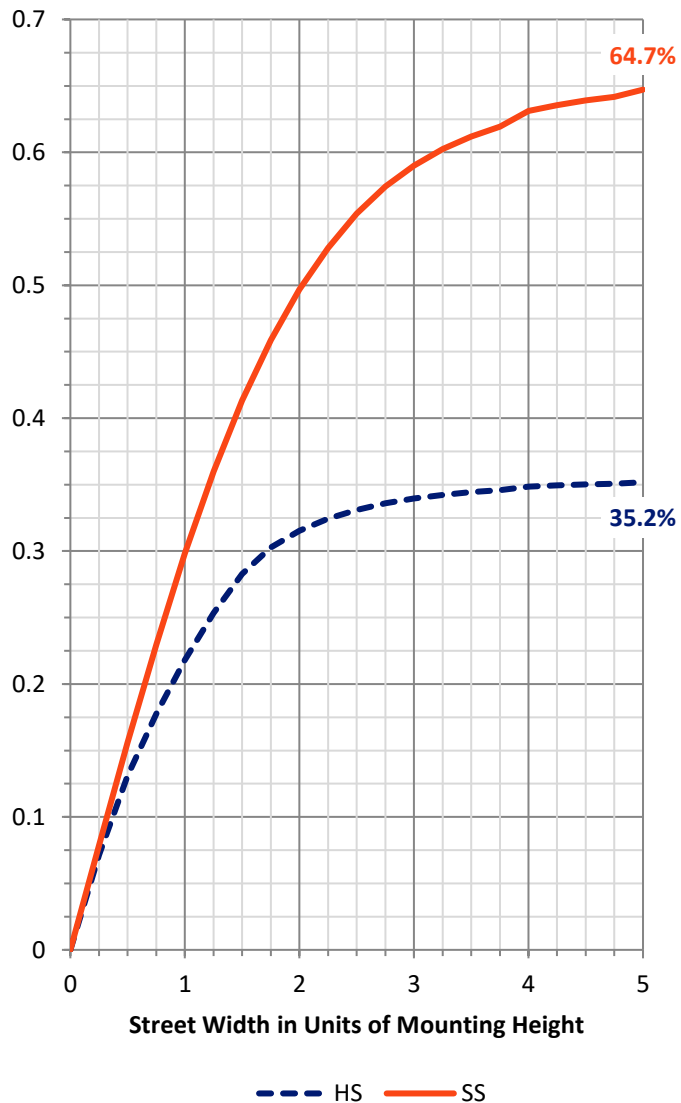
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14177.2	2.4	14179.6
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	26093.7	10.6	26104.3
	% Fixture	64.8	0.0	64.8
Total	Lumens	40270.9	13.0	40284.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.2	0.8
10°-20°	993.7	2.5
20°-30°	1773.9	4.4
30°-40°	2885.8	7.2
40°-50°	4928.1	12.2
50°-60°	8222.7	20.4
60°-70°	11439.5	28.4
70°-80°	8867.4	22.0
80°-90°	849.7	2.1
90°-100°	10.3	0.0
100°-110°	0.9	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°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	40270.9	100.0
0°-180°	40284.0	100.0

Coefficient of Utilization

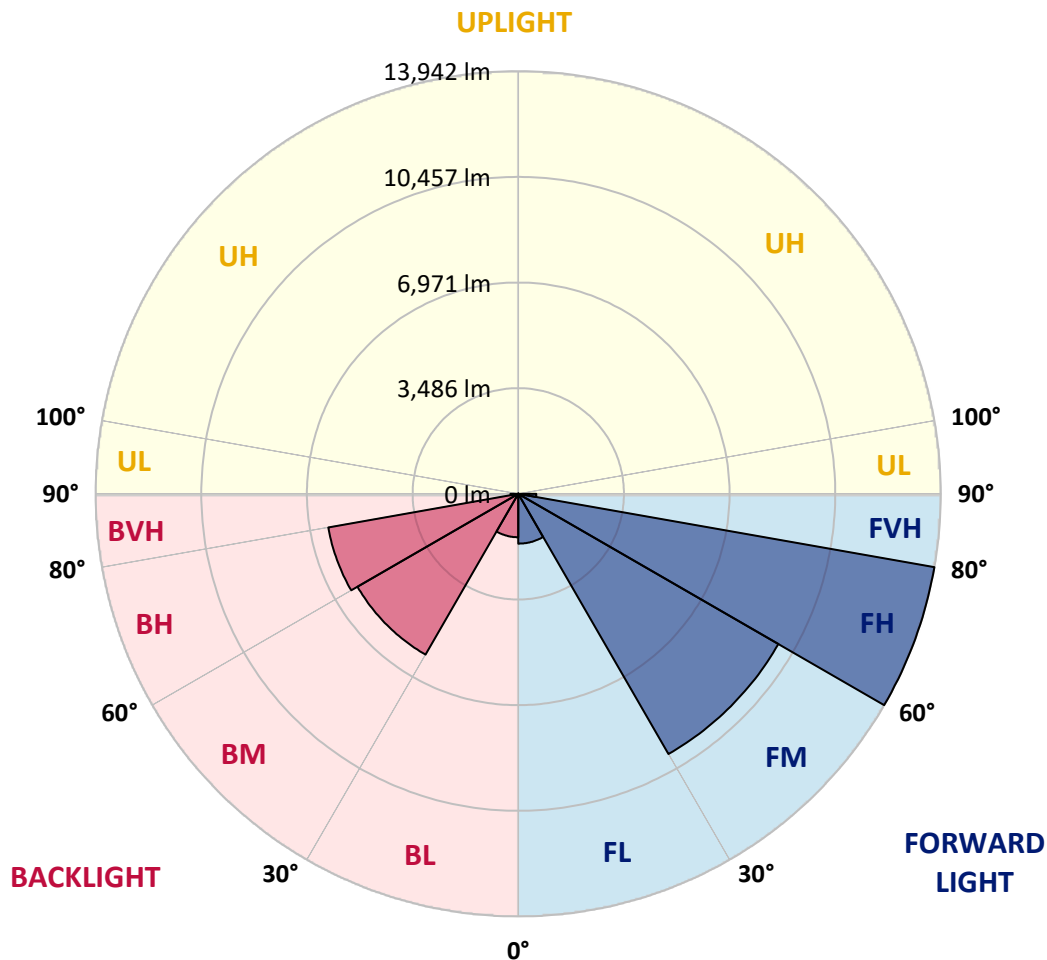


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1644.1	4.1			
FM (30°-60°)	9912.7	24.6			
FH (60°-80°)	13942.4	34.6			G5
FVH (80°-90°)	594.5	1.5			G4/750
BL (0°-30°)	1433.6	3.6	B3/2500		
BM (30°-60°)	6123.9	15.2	B4/8500		
BH (60°-80°)	6364.4	15.8	B5		G5
BVH (80°-90°)	255.3	0.6			G3/500
UL (90°-100°)	10.3	0.0		U2/50	
UH (100°-180°)	2.8	0.0		U1/10	

BUG Rating: B5-U2-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3205.9	3205.9	3205.9	3205.9	3205.9	3205.9	3205.9	3205.9	3205.9	3205.9	3205.9
2.5°	3242.3	3237.8	3234.7	3254.4	3198.3	3221.1	3205.9	3225.6	3221.1	3230.2	3231.7
5°	3265.0	3257.5	3246.9	3268.1	3234.7	3249.9	3233.2	3242.3	3213.5	3237.8	3240.8
7.5°	3316.6	3295.4	3293.8	3299.9	3277.2	3287.8	3259.0	3269.6	3254.4	3245.3	3254.4
10°	3393.9	3375.7	3356.0	3368.1	3330.2	3343.9	3313.6	3322.6	3315.1	3295.4	3313.6
12.5°	3446.9	3453.0	3439.4	3448.5	3415.1	3403.0	3392.4	3390.9	3386.3	3357.5	3353.0
15°	3565.2	3568.2	3544.0	3550.0	3542.4	3536.4	3521.2	3509.1	3484.8	3466.6	3454.5
17.5°	3719.8	3703.1	3680.4	3686.4	3707.7	3680.4	3671.3	3648.5	3613.7	3583.4	3577.3
20°	3882.0	3871.4	3850.1	3862.3	3860.8	3842.6	3847.1	3809.2	3759.2	3733.4	3713.7
22.5°	4062.4	4047.2	4032.0	4054.8	4036.6	4024.5	4019.9	3994.1	3932.0	3903.2	3898.7
25°	4242.7	4235.2	4245.8	4238.2	4212.4	4203.3	4209.4	4200.3	4127.5	4092.7	4071.5
27.5°	4468.6	4450.4	4467.1	4458.0	4430.7	4432.2	4433.7	4435.2	4353.4	4307.9	4277.6
30°	4726.3	4720.2	4741.4	4712.6	4686.9	4703.5	4717.2	4686.9	4615.6	4548.9	4538.3
32.5°	5061.3	5023.4	5047.6	5011.3	4971.8	5011.3	5035.5	4974.9	4917.3	4832.4	4847.5
35°	5432.6	5420.5	5420.5	5373.5	5352.3	5414.5	5438.7	5379.6	5290.2	5215.9	5197.7
37.5°	5826.8	5838.9	5876.8	5857.1	5837.4	5875.3	5929.8	5851.0	5735.8	5657.0	5635.8
40°	6349.7	6380.0	6405.8	6380.0	6357.3	6381.5	6443.7	6340.6	6260.3	6217.8	6172.4
42.5°	6912.1	6963.6	6946.9	6950.0	6969.7	7004.5	7066.7	6972.7	6880.2	6878.7	6812.0
45°	7673.0	7673.0	7638.1	7671.5	7668.5	7754.9	7782.1	7730.6	7653.3	7630.6	7573.0
47.5°	8383.9	8458.2	8444.6	8493.1	8455.2	8527.9	8620.4	8576.4	8487.0	8406.7	8394.5
50°	9375.3	9357.1	9338.9	9411.6	9405.6	9455.6	9540.5	9513.2	9388.9	9297.9	9281.3
52.5°	10246.8	10342.3	10319.6	10428.7	10368.1	10439.4	10540.9	10536.4	10384.8	10295.3	10269.6
55°	11347.3	11411.0	11406.4	11518.6	11435.2	11529.2	11614.1	11623.2	11458.0	11330.6	11370.1
57.5°	12493.3	12546.3	12516.0	12608.5	12526.6	12655.5	12707.0	12673.6	12576.6	12416.0	12475.1
60°	13640.7	13686.2	13721.1	13728.6	13681.7	13757.4	13806.0	13834.8	13681.7	13498.2	13569.5
62.5°	14806.4	14857.9	14827.6	14839.7	14709.4	14812.4	14873.1	14880.7	14704.8	14542.6	14592.7
65°	16034.2	16105.4	15996.3	15923.5	15762.9	15761.3	15841.7	15855.3	15731.0	15615.8	15596.1
67.5°	17554.5	17586.4	17352.9	17108.9	16837.6	16778.4	16834.5	16866.4	16937.6	16934.6	16845.1
68°	17725.8	17719.8	17483.3	17192.3	16901.2	16833.0	16860.3	16901.2	16948.2	16957.3	16849.7
70°	17336.3	17262.0	17127.1	16760.3	16472.3	16293.4	16197.9	16273.7	16146.4	16147.9	15946.3
72.5°	15399.1	15390.0	15141.4	14959.5	14703.3	14406.2	14269.8	14268.3	14280.4	14192.5	13984.8
75°	12473.6	12485.7	12196.2	12070.4	11991.5	11935.5	11964.3	12053.7	12062.8	12061.3	11988.5
77.5°	8699.2	8749.2	8671.9	8467.3	8687.1	8875.0	9237.3	9422.2	9363.1	9540.5	9652.6
80°	4559.5	4659.6	4662.6	4806.6	4984.0	5155.3	5467.5	5747.9	5541.8	5450.8	5356.9
82.5°	1199.0	1235.4	1290.0	1206.6	1232.3	1258.1	1500.6	1477.9	1364.2	1424.9	1515.8
85°	342.6	353.2	338.0	306.2	280.4	257.7	263.8	222.8	194.0	192.5	186.4
87.5°	241.0	259.2	228.9	197.1	177.3	165.2	159.2	134.9	109.1	95.5	75.8
90°	112.2	110.7	95.5	74.3	65.2	62.1	62.1	48.5	27.3	16.7	15.2
92.5°	47.0	48.5	39.4	31.8	27.3	21.2	16.7	10.6	6.1	3.0	1.5
95°	16.7	18.2	15.2	12.1	10.6	9.1	7.6	6.1	3.0	1.5	1.5
97.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	3.0	3.0	1.5	1.5
100°	0.0	0.0	0.0	1.5	3.0	3.0	3.0	3.0	1.5	1.5	1.5
102.5°	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
105°	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5



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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	1.5	1.5	1.5	1.5
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5
145°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
150°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
160°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
165°	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
167.5°	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
170°	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
172.5°	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
175°	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
177.5°	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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°	3205.9	3205.9	3205.9	3205.9	3205.9	3205.9	3205.9	3205.9	3205.9	3205.9
2.5°	3228.7	3221.1	3218.1	3180.2	3190.8	3168.0	3221.1	3205.9	3202.9	3224.1
5°	3236.2	3201.4	3222.6	3198.3	3204.4	3171.1	3213.5	3195.3	3196.8	3207.4
7.5°	3240.8	3221.1	3242.3	3199.9	3216.5	3204.4	3234.7	3216.5	3234.7	3243.8
10°	3286.3	3277.2	3262.0	3249.9	3262.0	3233.2	3271.1	3268.1	3278.7	3306.0
12.5°	3348.4	3337.8	3322.6	3301.4	3310.5	3299.9	3328.7	3331.7	3351.4	3365.1
15°	3440.9	3427.2	3419.7	3398.4	3401.5	3393.9	3410.6	3413.6	3453.0	3448.5
17.5°	3571.2	3556.1	3562.1	3542.4	3534.9	3516.7	3486.4	3475.7	3522.7	3536.4
20°	3713.7	3697.0	3704.6	3688.0	3547.0	3260.5	3453.0	3584.9	3484.8	3477.3
22.5°	3875.9	3857.7	3863.8	3838.0	3663.7	3127.1	2720.9	2687.5	3069.5	3224.1
25°	4054.8	4030.5	4027.5	3994.1	3421.2	2831.5	2786.0	2726.9	2448.0	2226.7
27.5°	4276.1	4239.7	4221.5	3718.3	3396.9	2942.2	2874.0	2663.3	2258.5	2272.2
30°	4515.6	4462.5	4121.5	3789.5	3574.3	3072.5	2981.6	2334.3	2337.4	2331.3
32.5°	4788.4	4670.2	4038.1	4007.8	3786.5	3212.0	2475.3	2448.0	2451.1	2460.2
35°	5146.2	4335.2	4318.5	4320.0	4045.7	3107.4	2622.3	2596.6	2599.6	2605.7
37.5°	5221.9	4673.2	4676.3	4641.4	4321.6	2839.1	2801.2	2799.7	2793.6	2787.6
40°	5282.6	5099.2	5055.2	4999.1	4006.3	3057.4	3045.3	3036.2	3040.7	3052.8
42.5°	5757.0	5619.1	5576.6	5510.0	4109.3	3387.8	3348.4	3337.8	3349.9	3343.9
45°	6387.6	6272.4	6189.0	5094.6	4539.8	3747.1	3715.2	3701.6	3706.1	3744.0
47.5°	7054.6	6986.3	6731.7	5503.9	5041.6	4171.5	4139.7	4118.4	4126.0	4116.9
50°	7780.6	7718.5	6231.5	6120.8	5596.4	4629.3	4582.3	4574.7	4577.7	4576.2
52.5°	8568.8	7269.8	6906.0	6790.8	6181.5	5108.3	5091.6	5050.7	5059.8	5050.7
55°	9493.5	7657.8	7648.8	7513.8	6839.3	5664.6	5644.9	5587.3	5225.0	5541.8
57.5°	10371.1	8399.1	8399.1	8268.7	7512.3	6217.8	6186.0	6143.6	3713.7	2995.2
60°	11332.2	9141.8	9120.6	9013.0	8161.1	6745.3	5482.7	5470.5	2243.4	2251.0
62.5°	12162.8	9804.2	9842.1	9742.1	8785.6	5050.7	2540.5	2489.0	221.3	341.1
65°	13093.5	10536.4	10581.8	10478.8	9461.7	5356.9	2757.2	2731.5	50.0	45.5
67.5°	14148.5	11267.0	11163.9	11050.2	9857.3	5516.0	2864.9	2842.1	13.6	9.1
68°	14157.6	11251.8	11118.4	11041.1	9819.4	5485.7	2855.8	2834.6	13.6	9.1
70°	13430.0	10684.9	10551.5	10571.2	9349.5	5246.2	2737.5	2698.1	13.6	9.1
72.5°	11782.4	9508.6	9358.6	9252.5	8291.5	4664.1	2454.1	2379.8	13.6	9.1
75°	10081.6	8058.0	7809.4	7576.0	6671.1	3816.8	2013.0	1929.6	13.6	9.1
77.5°	7945.9	6142.0	5788.9	5635.8	5012.8	2819.4	1496.1	1405.2	13.6	7.6
80°	4391.3	3524.2	3224.1	3130.1	2866.4	1656.8	857.9	803.4	12.1	7.6
82.5°	1135.3	851.9	742.7	717.0	673.0	392.6	209.2	198.6	10.6	6.1
85°	162.2	119.7	131.9	156.1	150.1	101.6	72.8	62.1	9.1	4.5
87.5°	84.9	71.2	83.4	94.0	95.5	59.1	30.3	16.7	4.5	0.0
90°	13.6	13.6	15.2	16.7	16.7	7.6	6.1	0.0	0.0	0.0
92.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.5	3.0	1.5	1.5	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°	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.5	1.5	1.5	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)