

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: P579656

Luminaire Tested: **CTN-CA8-330-727-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579656
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-330-727-U-T5N-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 2700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28076 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U2 - G3

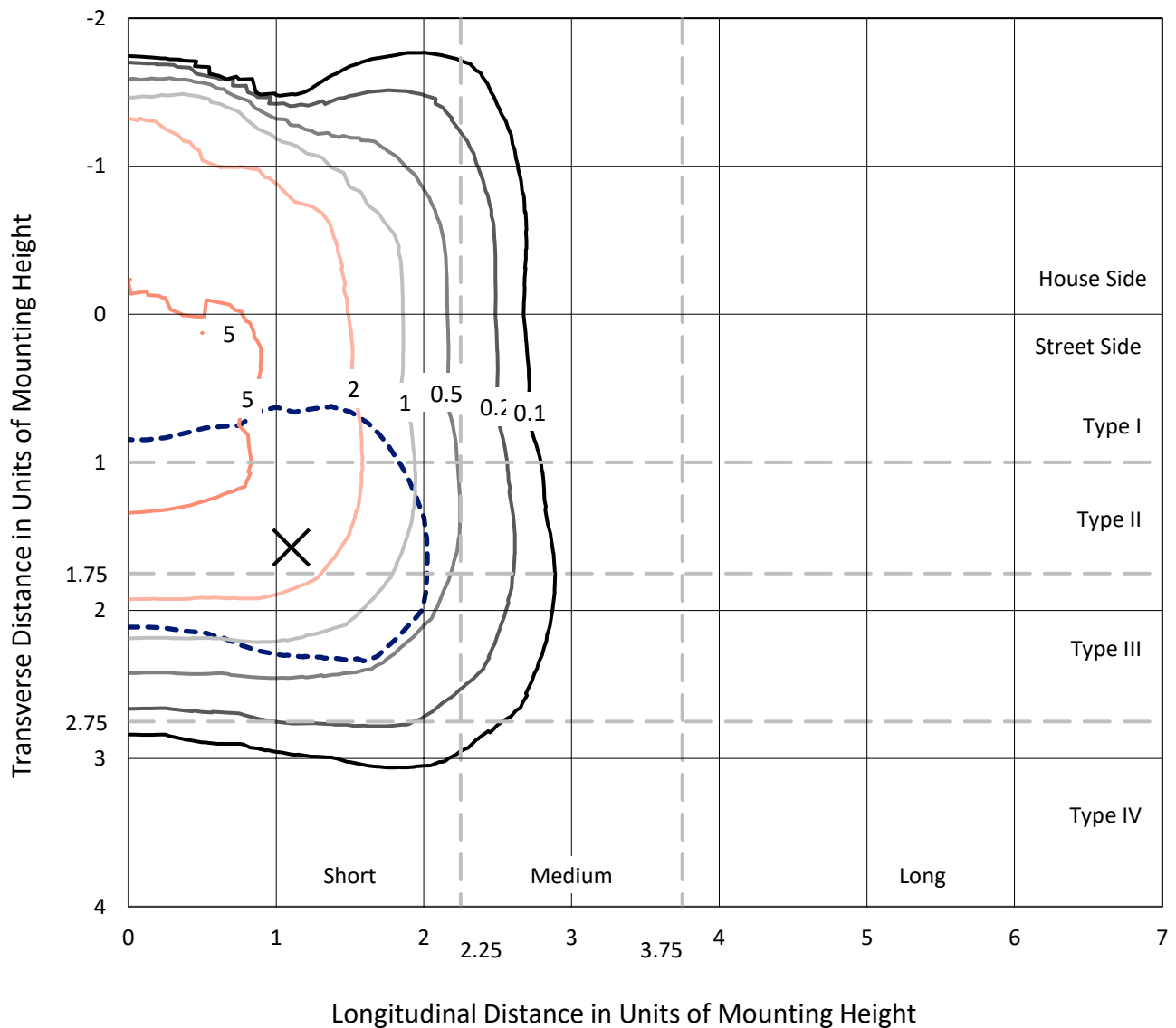
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

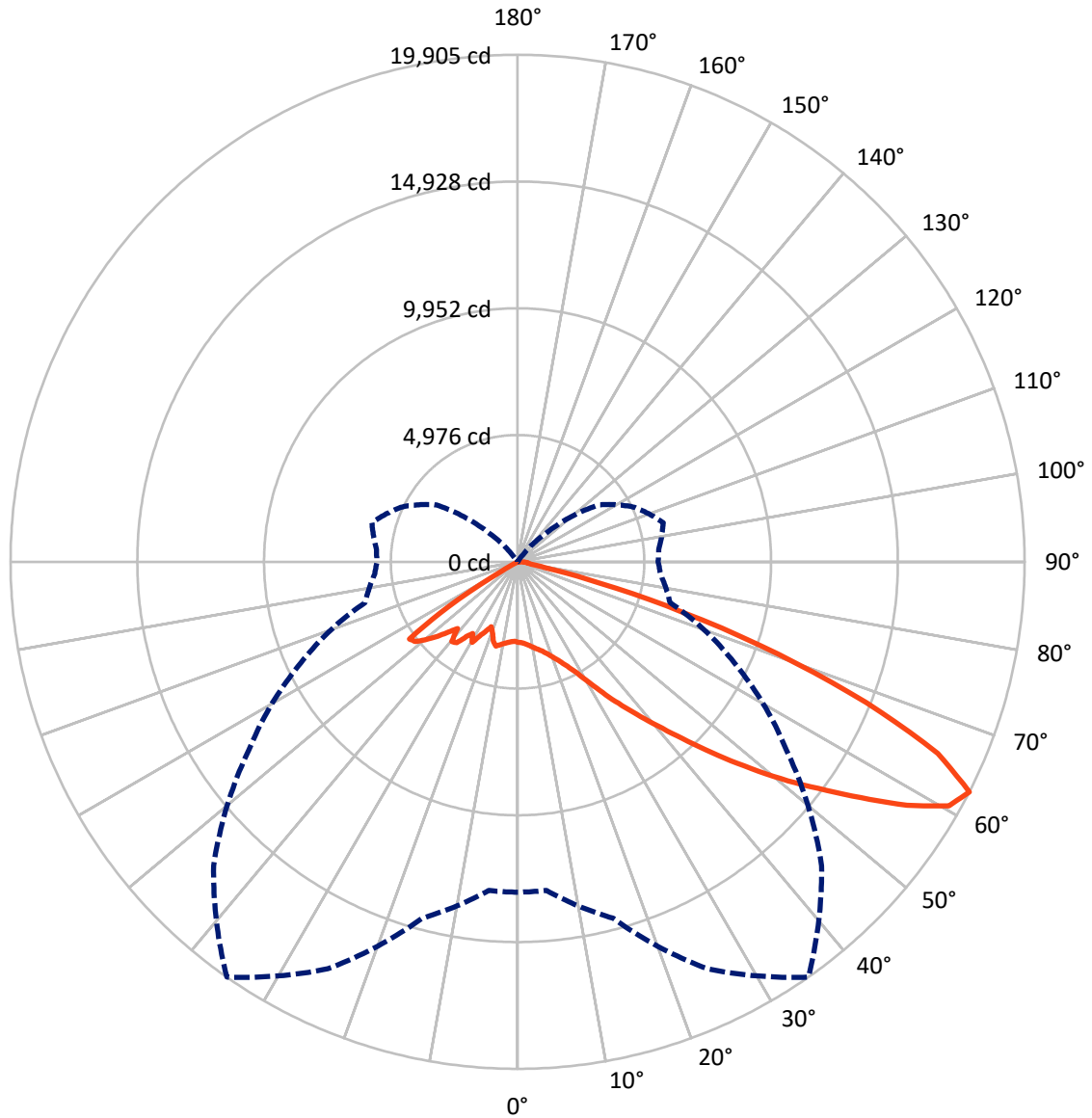
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical



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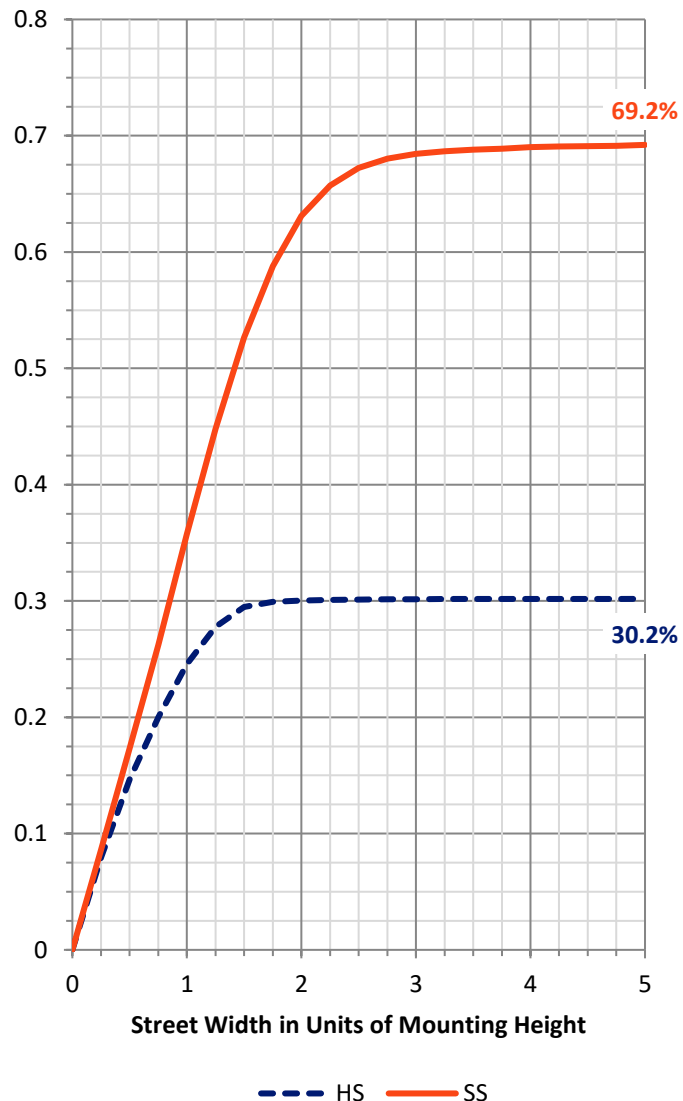
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8521.2	0.0	8521.2
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	19530.5	24.4	19554.8
	% Fixture	69.6	0.1	69.6
Total	Lumens	28051.6	24.4	28076.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	311.9	1.1
10°-20°	1001.2	3.6
20°-30°	1829.9	6.5
30°-40°	3487.2	12.4
40°-50°	5985.6	21.3
50°-60°	8029.8	28.6
60°-70°	6104.2	21.7
70°-80°	1155.8	4.1
80°-90°	146.0	0.5
90°-100°	21.5	0.1
100°-110°	2.9	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	28051.6	99.9
0°-180°	28076.0	100.0

Coefficient of Utilization



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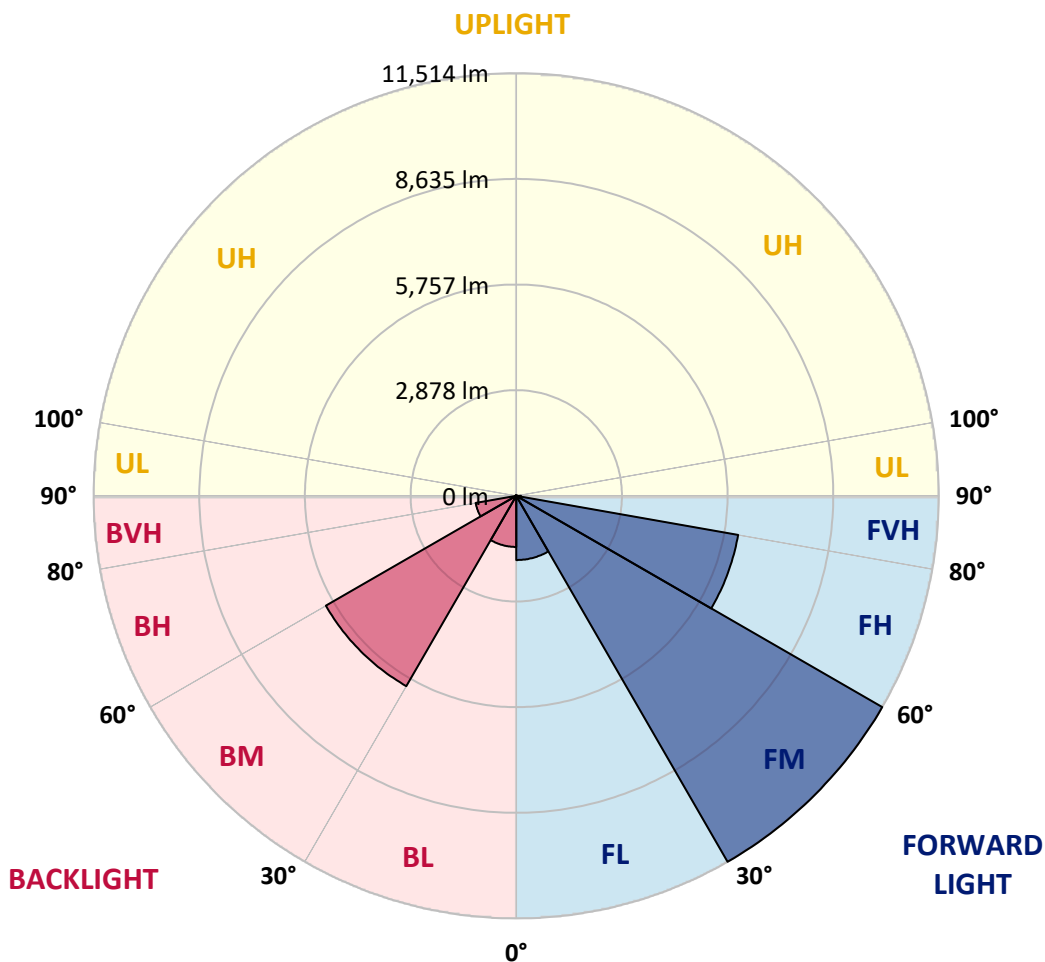
CATALOG NUMBER: CTN-CA8-330-727-U-T5N-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1750.2	6.2			
FM	(30°-60°)	11513.5	41.0			
FH	(60°-80°)	6137.9	21.9			G3/7500
FVH	(80°-90°)	128.9	0.5			G2/225
BL	(0°-30°)	1392.9	5.0	B3/2500		
BM	(30°-60°)	5989.0	21.3	B4/8500		
BH	(60°-80°)	1122.1	4.0	B3/2500		G3/2500
BVH	(80°-90°)	17.1	0.1			G1/100
UL	(90°-100°)	21.5	0.1		U2/50	
UH	(100°-180°)	2.9	0.0		U1/10	

BUG Rating: B4-U2-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3161.7	3161.7	3161.7	3161.7	3161.7	3161.7	3161.7	3161.7	3161.7	3161.7	3161.7
2.5°	3239.8	3216.0	3217.3	3238.5	3177.6	3200.1	3173.6	3200.1	3185.5	3196.1	3201.4
5°	3296.7	3272.9	3270.2	3292.7	3241.1	3257.0	3230.5	3249.0	3229.2	3242.4	3242.4
7.5°	3382.7	3358.9	3351.0	3368.2	3320.5	3332.4	3304.6	3315.2	3292.7	3309.9	3300.7
10°	3484.6	3458.2	3448.9	3458.2	3417.1	3423.7	3390.7	3402.6	3369.5	3389.3	3376.1
12.5°	3593.1	3558.7	3558.7	3566.7	3523.0	3524.3	3493.9	3500.5	3467.4	3488.6	3472.7
15°	3710.9	3672.6	3677.8	3685.8	3639.5	3647.4	3615.6	3626.2	3591.8	3613.0	3597.1
17.5°	3867.1	3826.1	3820.8	3844.6	3800.9	3815.5	3779.7	3793.0	3762.5	3769.2	3761.2
20°	4082.8	4031.2	4019.3	4051.1	4002.1	4012.7	3986.2	4012.7	3980.9	3933.3	3799.6
22.5°	4340.9	4295.9	4276.0	4297.2	4239.0	4257.5	4256.2	4298.5	4211.2	3910.8	3777.1
25°	4681.0	4650.6	4612.2	4614.8	4544.7	4572.5	4622.8	4655.9	4284.0	4020.6	4023.3
27.5°	5135.0	5104.5	5051.6	5031.7	4929.8	4997.3	5075.4	4752.5	4460.0	4527.5	4490.4
30°	5714.6	5709.3	5602.1	5567.7	5456.5	5541.2	5473.8	4920.6	5021.1	5115.1	5058.2
32.5°	6486.2	6449.1	6294.3	6232.1	6115.6	6164.6	5569.0	5489.6	5639.2	5766.2	5706.7
35°	7419.2	7306.7	7149.2	7026.2	6823.7	6551.0	5931.7	6086.5	6310.2	6484.9	6196.4
37.5°	8503.1	8381.4	8135.2	7914.2	7595.2	6745.6	6478.2	6787.9	7068.5	6879.2	6213.6
40°	9618.8	9510.3	9278.6	8994.1	8455.5	7349.1	7141.3	7511.9	7830.8	6746.9	6416.0
42.5°	10726.5	10633.9	10447.2	10166.7	9473.2	8067.7	7867.9	8266.2	7965.8	7005.0	6994.4
45°	11843.5	11797.2	11585.4	11345.9	10678.9	8987.5	8681.8	8992.8	7665.4	7623.0	7597.9
47.5°	12748.7	12756.7	12682.5	12558.1	11965.2	9997.3	9598.9	8676.5	8030.6	8077.0	8088.9
50°	13681.7	13622.2	13618.2	13626.2	13378.7	11298.2	10223.6	8533.6	8508.4	8504.4	8493.8
52.5°	14429.5	14354.0	14510.2	14634.6	14781.5	12750.0	10129.6	9017.9	8873.7	8823.4	8515.0
55°	15038.3	15009.2	15263.3	15684.1	16337.9	14287.9	10960.7	9490.4	9201.9	8026.7	7240.5
57.5°	15407.5	15449.9	15973.9	16801.1	18025.3	15562.3	11928.2	9969.5	7878.4	7069.8	7019.5
60°	14700.8	14924.5	15816.5	17632.2	19451.9	16761.4	12648.1	10066.1	7089.7	6656.9	6556.3
62.5°	12971.1	12949.9	14482.4	17632.2	19904.6	16880.5	12875.8	9381.9	6193.7	5629.9	5517.4
65°	9180.7	9236.3	10873.4	15889.2	18132.5	15701.3	11876.6	7976.4	4940.4	4422.9	4270.7
67.5°	5681.5	5677.6	7280.3	11701.9	14760.3	13145.7	9998.6	6114.3	3429.0	2940.7	2775.3
70°	1962.7	2018.2	3274.2	6847.5	10865.5	10299.0	7482.7	3860.5	1807.8	1289.0	1087.9
72.5°	780.8	799.4	1175.2	3053.2	6787.9	6880.6	4547.3	1875.3	541.3	344.1	322.9
75°	510.8	513.5	563.8	1102.4	3294.0	3701.7	2112.2	538.6	251.5	230.3	225.0
77.5°	440.7	442.0	468.5	558.5	1073.3	1439.9	600.8	318.9	210.4	189.3	184.0
80°	408.9	410.3	423.5	480.4	517.5	491.0	320.3	256.7	177.3	168.1	166.8
82.5°	386.4	391.7	398.4	432.8	418.2	369.2	266.0	207.8	136.3	145.6	149.5
85°	356.0	361.3	365.3	385.1	349.4	270.0	206.5	156.2	87.3	95.3	94.0
87.5°	267.3	270.0	264.7	262.0	243.5	189.3	136.3	99.3	34.4	31.8	29.1
90°	128.4	127.1	121.8	112.5	97.9	76.8	56.9	31.8	14.6	6.6	2.6
92.5°	101.9	100.6	97.9	88.7	76.8	56.9	41.0	22.5	13.2	5.3	1.3
95°	68.8	66.2	63.5	56.9	47.6	34.4	23.8	15.9	10.6	4.0	1.3
97.5°	45.0	43.7	39.7	34.4	26.5	18.5	14.6	11.9	9.3	4.0	1.3
100°	27.8	27.8	25.1	19.9	13.2	10.6	9.3	9.3	6.6	2.6	0.0
102.5°	17.2	15.9	14.6	9.3	6.6	6.6	6.6	6.6	5.3	2.6	0.0
105°	9.3	9.3	6.6	5.3	4.0	2.6	4.0	5.3	4.0	1.3	0.0
107.5°	2.6	2.6	2.6	1.3	1.3	0.0	1.3	2.6	2.6	1.3	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.6	1.3	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	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	0.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3161.7	3161.7	3161.7	3161.7	3161.7	3161.7	3161.7	3161.7	3161.7	3161.7
2.5°	3194.8	3169.6	3176.3	3151.1	3147.1	3120.7	3165.7	3168.3	3156.4	3169.6
5°	3235.8	3205.4	3217.3	3186.8	3181.6	3147.1	3182.9	3178.9	3169.6	3180.2
7.5°	3294.0	3263.6	3270.2	3234.5	3227.9	3189.5	3223.9	3210.7	3198.8	3213.3
10°	3374.8	3340.4	3345.7	3303.3	3298.0	3253.0	3292.7	3272.9	3255.7	3275.5
12.5°	3474.0	3429.0	3423.7	3378.7	3374.8	3332.4	3373.5	3353.6	3336.4	3368.2
15°	3587.9	3528.3	3520.4	3463.4	3456.8	3413.2	3452.9	3423.7	3410.5	3451.5
17.5°	3740.0	3529.6	3411.8	3328.5	3280.8	3257.0	3328.5	3425.1	3396.0	3397.3
20°	3677.8	3451.5	3294.0	3222.6	3171.0	2940.7	2623.1	2714.4	2899.7	2991.0
22.5°	3659.3	3579.9	3515.1	3394.6	2882.5	2752.8	2771.3	2750.1	2400.7	2267.1
25°	4014.0	3922.7	3782.4	3151.1	3002.9	2973.8	2984.4	2619.1	2355.7	2394.1
27.5°	4467.9	4374.0	3681.8	3328.5	3299.3	3261.0	3051.9	2595.3	2631.0	2668.1
30°	5039.7	4546.0	3839.3	3730.8	3676.5	3636.8	2861.3	2898.3	2957.9	3004.2
32.5°	5596.8	4531.5	4290.6	4155.6	4088.1	3317.9	3233.2	3319.2	3380.1	3415.8
35°	5603.5	5050.3	4796.2	4622.8	4194.0	3566.7	3644.8	3789.0	3938.6	3966.4
37.5°	5755.6	5637.9	5346.7	5128.3	3119.4	3980.9	4153.0	4318.4	4467.9	4477.2
40°	6361.8	6234.7	5962.1	5481.7	3444.9	4060.3	4712.8	4899.4	5025.1	5018.5
42.5°	6966.6	6879.2	6596.0	4871.6	3881.7	3517.7	5300.4	5423.5	5502.9	5558.5
45°	7575.4	7488.0	6531.2	5349.4	4401.8	3852.5	5157.5	5854.9	5942.3	5970.0
47.5°	8050.5	7834.8	5984.6	5983.3	5051.6	4281.3	4258.8	6244.0	6320.8	6300.9
50°	8489.9	6994.4	6469.0	6191.1	5723.9	4685.0	4528.8	5254.1	6663.5	6634.4
52.5°	7724.9	6787.9	6884.5	5631.2	6263.8	5086.0	4833.2	4711.5	6054.7	6834.3
55°	6908.4	7040.7	7309.4	6187.1	4544.7	5215.7	5091.3	4849.1	4085.5	3438.3
57.5°	7050.0	7247.2	7260.4	6701.9	4703.5	3258.3	4172.8	3652.7	2308.1	2313.4
60°	6577.5	6834.3	5307.0	4467.9	2529.1	678.9	66.2	58.2	402.3	489.7
62.5°	5561.1	5918.4	5066.1	3892.2	1622.5	25.1	6.6	1.3	0.0	0.0
65°	4306.5	4736.6	4281.3	3358.9	1439.9	7.9	0.0	0.0	0.0	0.0
67.5°	2840.1	3227.9	3253.0	2809.7	1200.4	4.0	0.0	0.0	0.0	0.0
70°	1189.8	1675.5	2024.9	2088.4	943.6	1.3	0.0	0.0	0.0	0.0
72.5°	344.1	532.0	974.1	1254.6	599.5	0.0	0.0	0.0	0.0	0.0
75°	229.0	244.8	281.9	565.1	299.1	0.0	0.0	0.0	0.0	0.0
77.5°	189.3	193.2	161.5	154.8	86.0	0.0	0.0	0.0	0.0	0.0
80°	172.0	169.4	129.7	91.3	31.8	0.0	0.0	0.0	0.0	0.0
82.5°	158.8	150.9	94.0	47.6	21.2	0.0	0.0	0.0	0.0	0.0
85°	107.2	105.9	42.4	29.1	4.0	0.0	0.0	0.0	0.0	0.0
87.5°	29.1	37.1	9.3	4.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	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°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	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
120°	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
125°	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
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	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)