

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: P591265

Luminaire Tested: **CTN-CA8-330-727-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591265
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-330-727-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35231 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

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

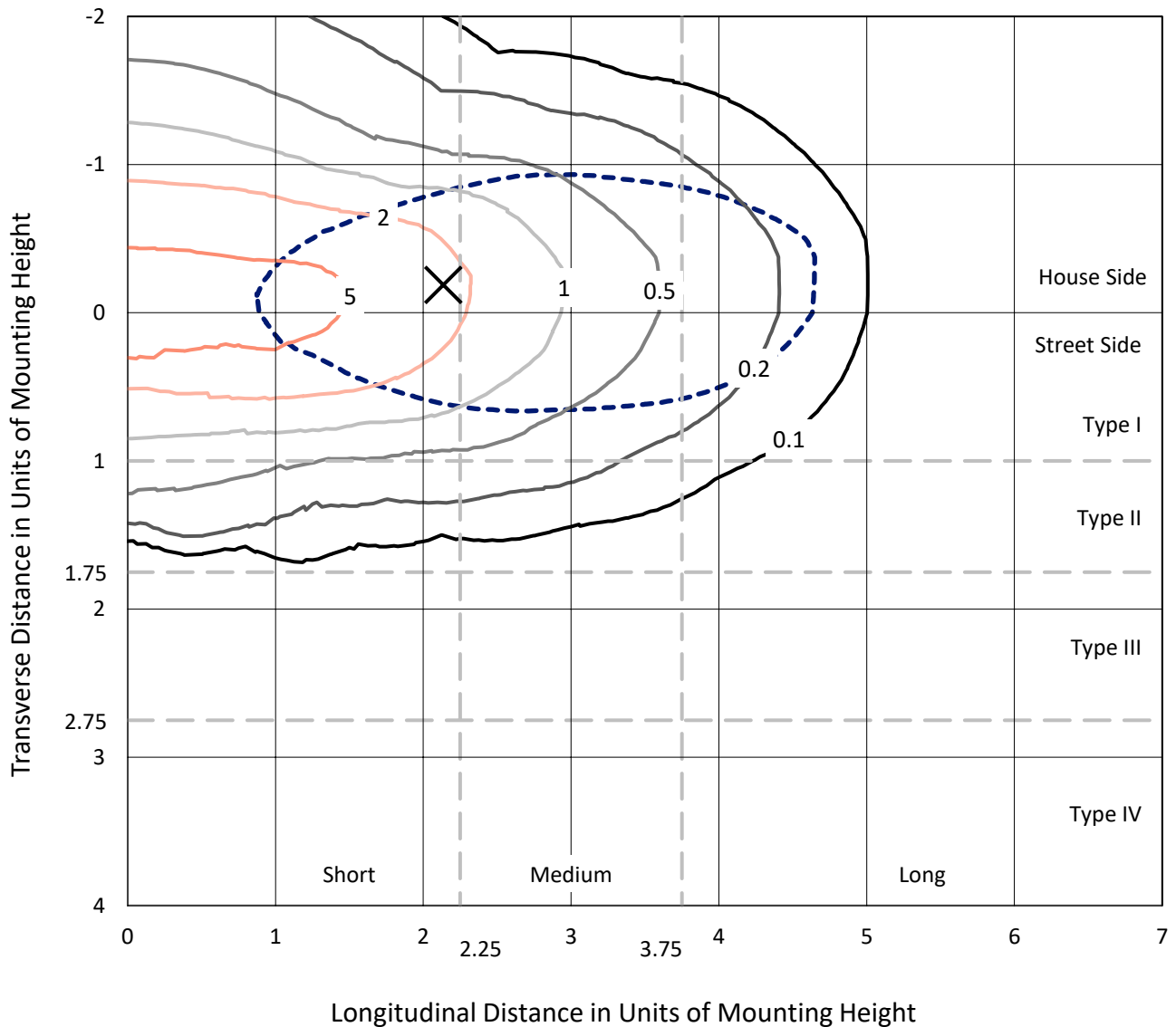




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Iso-Footcandle Lines of Horizontal Illumination

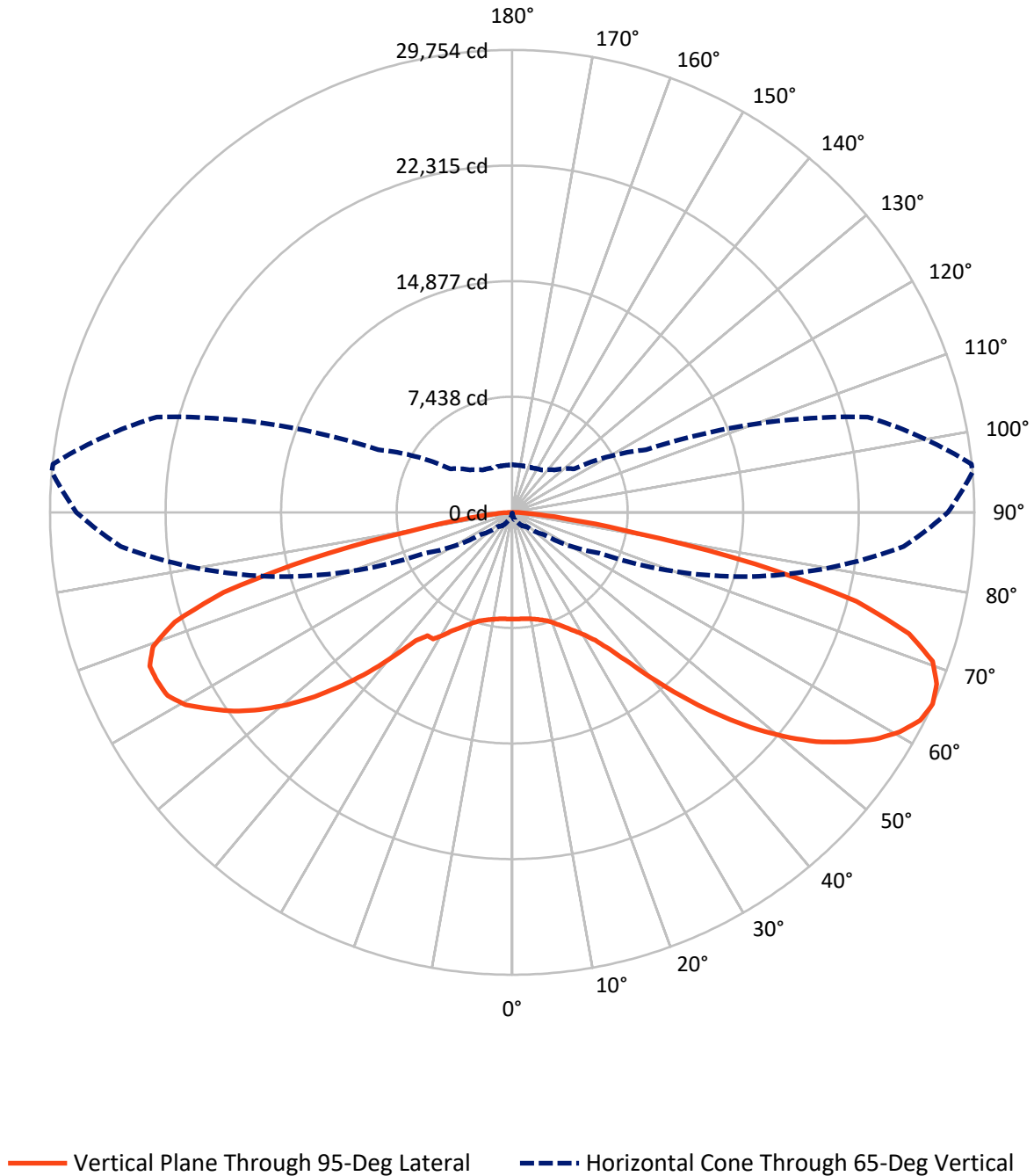
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.6 fc
 Type I - Short - N/A

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CATALOG NUMBER: CTN-CA8-330-727-U-T1-SSS-HM-EX90

Luminous Intensity Polar Plot



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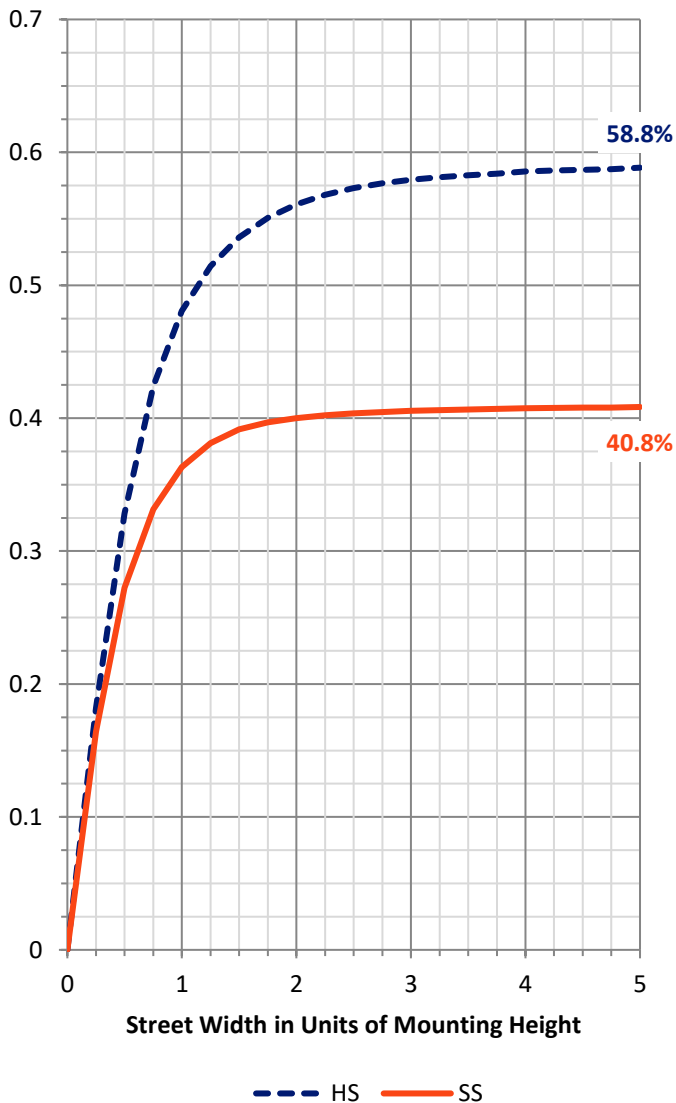
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	20889.9	0.0	20889.9
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	14341.1	0.0	14341.1
	% Fixture	40.7	0.0	40.7
Total	Lumens	35231.0	0.0	35231.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	653.7	1.9
10°-20°	1882.3	5.3
20°-30°	2829.2	8.0
30°-40°	3944.6	11.2
40°-50°	5663.3	16.1
50°-60°	7219.2	20.5
60°-70°	7516.7	21.3
70°-80°	4840.3	13.7
80°-90°	681.7	1.9
90°-100°	0.0	0.0
100°-110°	0.0	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°	35231.0	100.0
0°-180°	35231.0	100.0

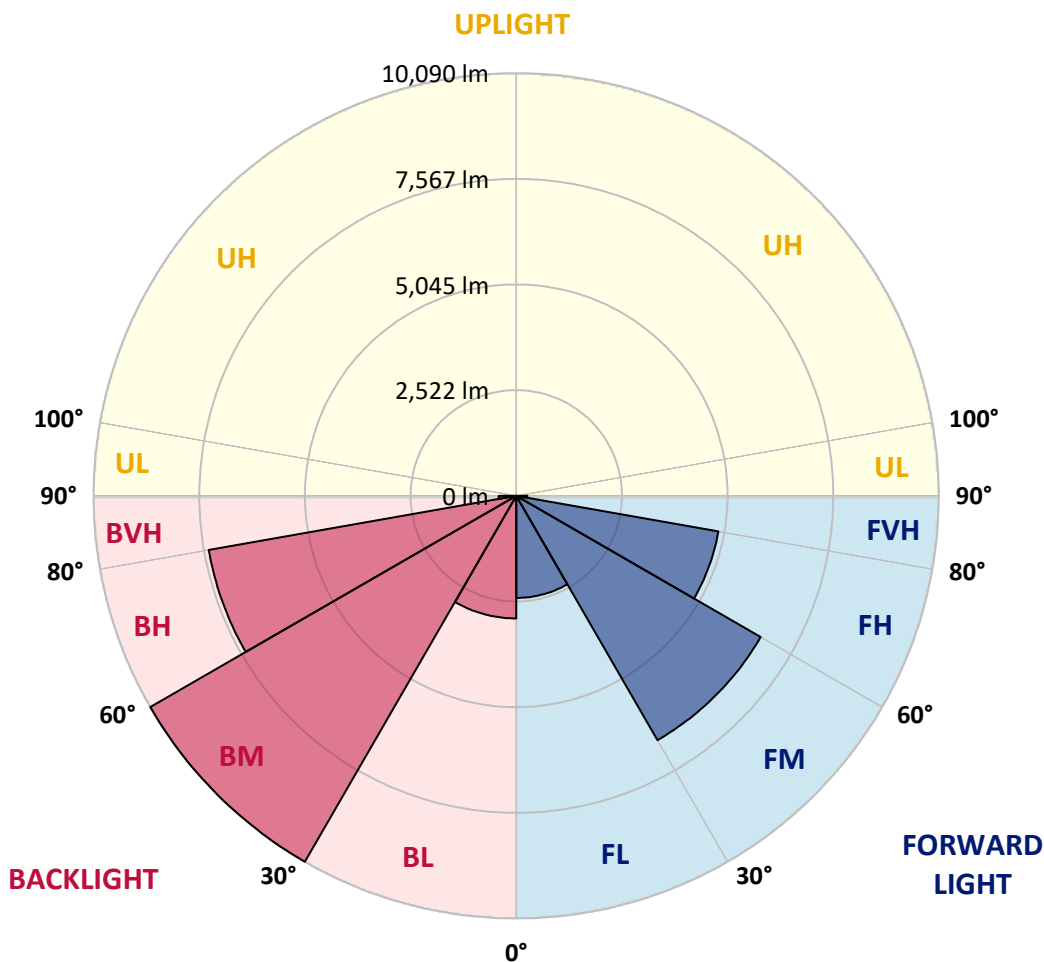


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2438.0	6.9			
FM (30°-60°)	6737.5	19.1			
FH (60°-80°)	4900.5	13.9			G2/5000
FVH (80°-90°)	265.1	0.8			G3/500
BL (0°-30°)	2927.2	8.3	B4/5000		
BM (30°-60°)	10089.6	28.6	B5		
BH (60°-80°)	7456.5	21.2	B5		G5
BVH (80°-90°)	416.6	1.2			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5
 Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6866.4	6866.4	6866.4	6866.4	6866.4	6866.4	6866.4	6866.4	6866.4	6866.4	6866.4
2.5°	6886.9	6830.5	6842.0	6897.1	6795.9	6851.0	6810.0	6876.6	6860.0	6865.1	6897.1
5°	6829.2	6771.6	6793.4	6861.3	6766.5	6833.1	6802.3	6857.4	6852.3	6871.5	6892.0
7.5°	6776.7	6715.2	6743.4	6793.4	6742.1	6799.8	6783.1	6852.3	6849.7	6906.1	6920.2
10°	6717.8	6661.4	6685.8	6747.2	6705.0	6774.1	6788.2	6870.2	6897.1	6974.0	6980.4
12.5°	6614.0	6558.9	6570.5	6648.6	6655.0	6760.1	6808.7	6938.1	6966.3	7054.7	7058.5
15°	6242.5	6229.7	6338.6	6464.1	6515.4	6671.7	6834.4	7011.1	7053.4	7164.9	7176.4
17.5°	5197.2	5069.1	4876.9	5029.4	5365.0	5796.7	6772.9	7120.0	7198.2	7309.6	7344.2
20°	3485.7	3602.3	4036.6	4231.3	4529.8	5257.4	6757.5	7237.9	7407.0	7541.5	7606.8
22.5°	2879.8	2873.4	3393.5	4049.4	4283.8	4618.2	6211.8	7377.5	7658.1	7833.6	7915.6
25°	2674.8	2677.4	2772.2	3601.0	4181.3	4534.9	5705.8	7194.3	7933.5	8184.6	8281.9
27.5°	2512.1	2522.4	2603.1	2883.6	4094.2	4517.0	5719.8	6670.4	8224.3	8559.9	8672.6
30°	2382.7	2377.6	2475.0	2709.4	3407.6	4523.4	5786.5	6775.4	7954.0	9092.8	9155.6
32.5°	2275.1	2261.0	2359.7	2595.4	2975.9	4473.4	5886.4	7070.1	7763.1	9605.2	9849.9
35°	2171.4	2166.2	2253.4	2485.2	2873.4	3715.0	6003.0	7435.2	8383.1	9621.9	10803.0
37.5°	2090.7	2086.8	2156.0	2375.1	2781.1	3384.5	6099.0	7895.1	9190.2	10332.9	11592.1
40°	2025.3	2015.1	2070.2	2277.7	2676.1	3329.4	5312.5	8375.4	10175.3	11991.8	13503.5
42.5°	1970.2	1956.1	2010.0	2181.6	2574.9	3267.9	4933.3	8859.7	11333.4	13839.1	15362.2
45°	1894.7	1893.4	1948.5	2108.6	2467.3	3178.3	4969.2	8051.3	12634.9	15606.9	17314.6
47.5°	1856.2	1847.3	1888.3	2040.7	2366.1	3042.5	4934.6	7705.5	13631.6	17381.2	19216.9
50°	1796.0	1788.3	1828.0	1962.6	2266.2	2870.8	4809.0	7918.1	12810.4	19061.9	21005.2
52.5°	1688.4	1389.9	1769.1	1897.2	2158.6	2685.1	4570.8	8036.0	13129.4	20619.6	22670.6
55°	663.6	890.3	1693.5	1815.2	2048.4	2510.8	4209.5	8002.7	14185.0	22014.7	24105.4
57.5°	577.7	580.3	1124.8	1515.5	1917.7	2328.9	3768.8	7813.1	15116.3	23208.6	25503.0
60°	82.0	83.3	570.1	638.0	1258.0	1655.1	3320.5	7473.6	15668.4	24402.6	26708.4
62.5°	55.1	57.6	518.8	579.0	1147.8	1468.1	2904.1	6870.2	15934.9	25127.6	27577.0
65°	39.7	41.0	470.1	523.9	1022.3	1302.8	2517.2	6214.3	15959.2	25295.4	28053.5
67.5°	37.2	38.4	433.0	483.0	930.0	1156.8	2182.9	5636.6	15286.7	25345.4	28034.3
70°	38.4	38.4	394.6	436.8	825.0	1003.1	1811.4	5061.4	13590.6	24692.1	27404.0
72.5°	38.4	39.7	344.6	384.3	711.0	849.3	1484.7	4114.7	11006.7	22842.2	25882.2
75°	38.4	39.7	271.6	317.7	590.6	681.5	1218.3	3317.9	8476.6	19277.1	22645.0
77.5°	39.7	39.7	199.8	243.4	456.1	512.4	924.9	2549.3	6246.4	13362.5	15765.8
80°	39.7	42.3	140.9	179.3	336.9	370.2	671.3	1626.9	3364.0	6776.7	7827.2
82.5°	41.0	42.3	105.0	134.5	233.1	266.5	409.9	800.7	1555.2	3136.0	3552.3
85°	38.4	39.7	85.8	93.5	133.2	160.1	254.9	397.1	547.0	1233.6	1282.3
87.5°	26.9	25.6	26.9	30.7	43.6	70.5	120.4	134.5	131.9	331.8	385.6
90°	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°	96°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6866.4	6866.4	6866.4	6866.4	6866.4	6866.4	6866.4	6866.4	6866.4	6866.4	6866.4
2.5°	6877.9	6880.5	6870.2	6909.9	6870.2	6892.0	6834.4	6924.0	6915.1	6890.7	6921.5
5°	6876.6	6883.0	6880.5	6916.3	6866.4	6884.3	6826.7	6921.5	6889.4	6867.7	6904.8
7.5°	6907.4	6916.3	6912.5	6936.8	6879.2	6877.9	6821.5	6892.0	6861.3	6815.1	6861.3
10°	6975.3	6975.3	6963.7	6977.8	6894.6	6885.6	6790.8	6871.5	6819.0	6778.0	6834.4
12.5°	7062.4	7070.1	7040.6	7038.0	6922.7	6895.8	6776.7	6816.4	6740.8	6702.4	6757.5
15°	7190.5	7195.6	7157.2	7132.8	6991.9	6933.0	6740.8	6733.2	6628.1	6591.0	6630.7
17.5°	7339.1	7337.8	7284.0	7273.8	7108.5	6971.4	6711.4	6632.0	6497.4	6455.2	6489.8
20°	7577.4	7563.3	7504.3	7445.4	7204.6	6995.8	6669.1	6502.6	6315.5	6255.3	6283.5
22.5°	7897.6	7892.5	7800.3	7629.9	7307.1	7018.8	6597.4	6345.0	6096.5	5987.6	6005.5
25°	8248.6	8244.8	8112.8	7857.9	7396.7	7035.5	6514.1	6168.2	5832.6	5667.3	5663.5
27.5°	8656.0	8645.7	8467.7	8103.9	7521.0	7040.6	6424.4	5981.2	5571.2	5365.0	5374.0
30°	9151.8	9133.8	8890.4	8376.7	7678.6	7056.0	6347.6	5771.1	5327.9	5108.8	5103.7
32.5°	9808.9	9783.3	9405.4	8735.4	7882.2	7094.4	6255.3	5563.6	5101.1	4880.8	4861.6
35°	10809.4	10756.9	10131.8	9194.0	8109.0	7120.0	6108.0	5366.3	4882.0	4674.5	4659.1
37.5°	12290.3	12201.9	11046.4	9675.7	8334.5	7114.9	5940.2	5153.6	4704.0	4502.9	4499.0
40°	14242.6	14104.3	12144.3	10192.0	8550.9	7086.7	5759.6	4964.0	4555.4	4382.4	4395.3
42.5°	16378.1	16232.1	13445.8	10717.2	8713.6	6999.6	5566.1	4784.7	4418.3	4280.0	4281.2
45°	18530.3	18394.5	14943.3	11211.7	8794.3	6835.6	5365.0	4614.3	4273.6	4153.1	4167.2
47.5°	20673.4	20573.5	16426.8	11629.3	8754.6	6578.1	5122.9	4452.9	4130.1	4031.4	4063.5
50°	22666.7	22560.4	18007.6	11975.2	8554.8	6219.5	4874.4	4294.1	4013.5	3927.7	3954.6
52.5°	24514.0	24371.8	19701.1	12175.0	8194.8	5841.5	4655.3	4154.4	3900.8	3814.9	3843.1
55°	26083.3	26076.9	21251.2	12191.7	7632.4	5454.7	4443.9	3993.0	3790.6	3720.1	3726.5
57.5°	27552.6	27610.3	22584.8	11989.3	6966.3	5096.0	4201.8	3826.5	3663.8	3590.8	3597.2
60°	28674.8	28746.6	23489.2	11400.0	6256.6	4700.1	3941.8	3649.7	3506.2	3437.0	3457.5
62.5°	29480.6	29388.4	23968.3	10554.5	5545.6	4274.8	3659.9	3424.2	3310.2	3267.9	3269.2
65°	29753.5	29724.0	23687.7	9513.0	4874.4	3855.9	3326.9	3143.7	3073.2	3043.8	3065.5
67.5°	29474.2	29492.1	22595.0	8627.8	4236.4	3383.2	2952.8	2834.9	2799.1	2797.8	2820.9
70°	28709.4	28568.5	20328.8	7920.7	3638.2	2858.0	2550.6	2494.2	2482.7	2510.8	2530.1
72.5°	26711.0	26506.0	16858.5	6794.6	2792.7	2102.2	1931.8	2008.7	2006.1	2021.5	2039.4
75°	22883.2	22343.9	13205.0	5409.8	2068.9	1487.3	1288.7	1286.2	1282.3	1413.0	1460.4
77.5°	16038.6	15678.7	9748.7	4119.8	1375.8	890.3	883.9	953.1	964.6	878.8	895.4
80°	8046.2	8203.8	5626.3	2545.4	914.7	627.7	658.5	648.2	657.2	667.4	673.8
82.5°	3708.6	3788.0	2692.7	1240.0	589.3	476.5	450.9	490.6	508.6	507.3	503.4
85°	1315.6	1323.3	851.9	531.6	361.3	310.0	315.1	366.4	386.9	368.9	360.0
87.5°	381.8	362.5	174.2	157.6	166.5	165.3	170.4	180.6	194.7	192.2	178.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)