

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: P591121

Luminaire Tested: **CTN-CA10-630-722-U-T1-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591121
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-CA10-630-722-U-T1-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (10) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 63918 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type I - Short
BUG Rating: B5 - U0 - G5

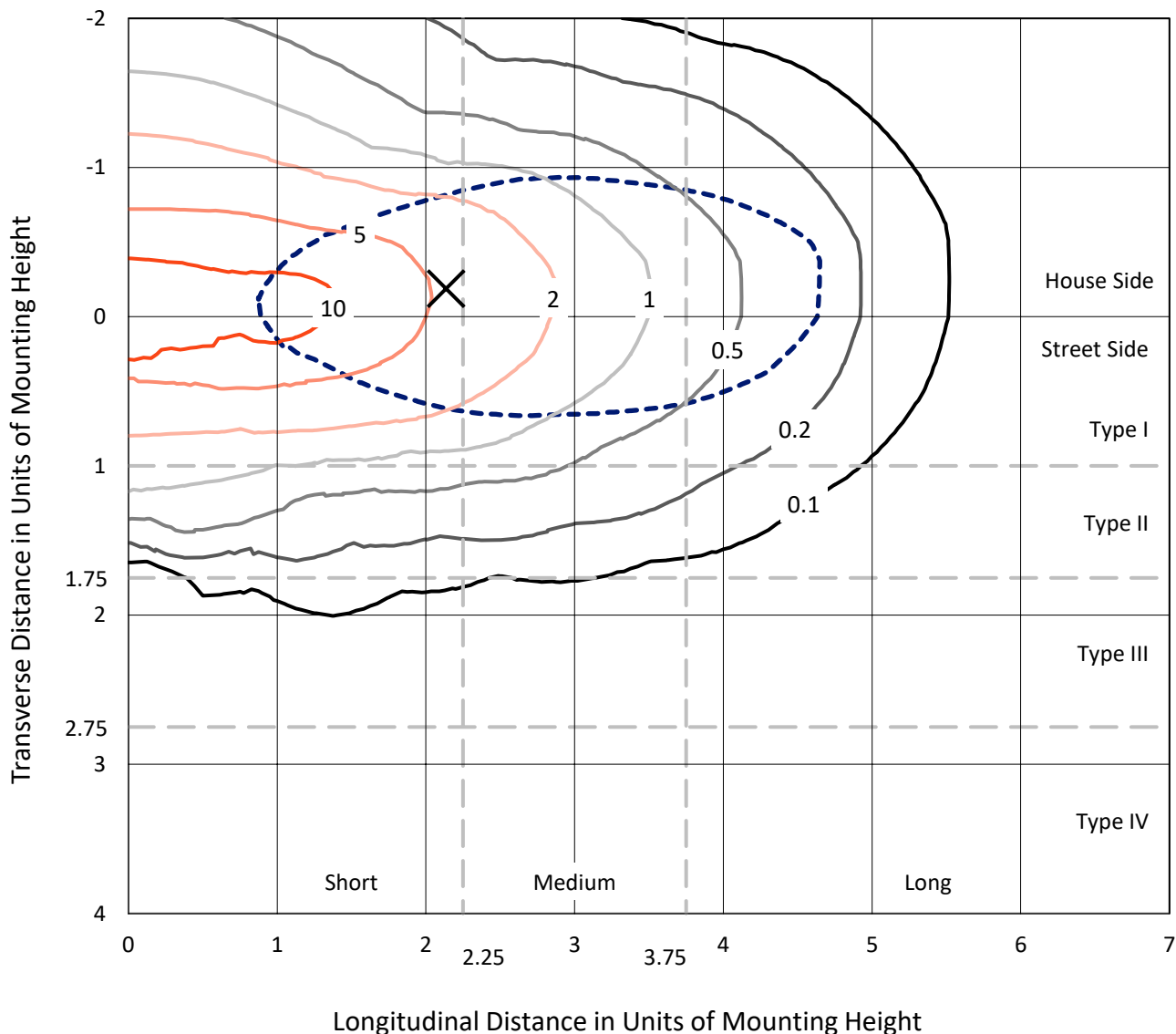
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

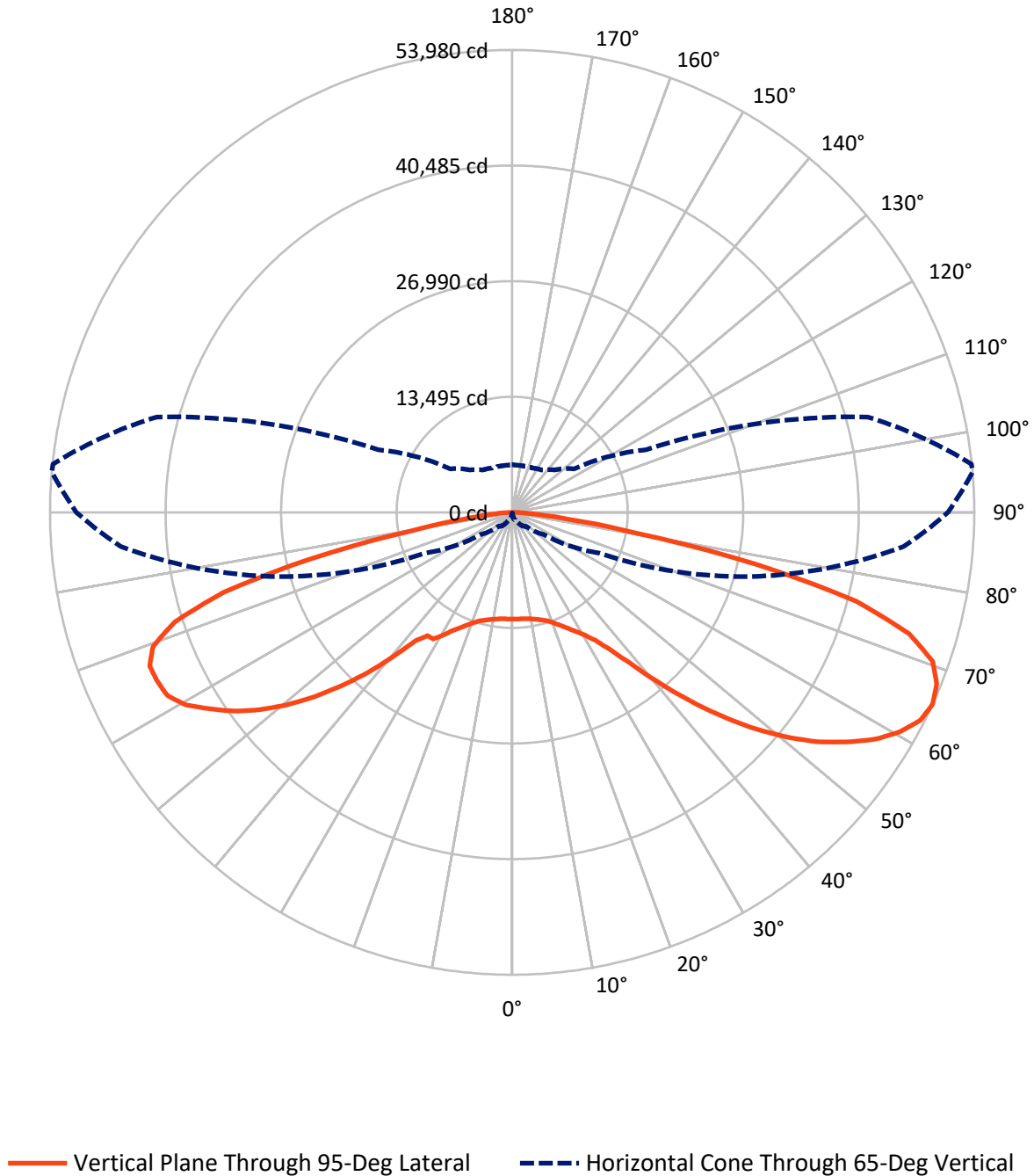
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.8 fc
 Type I - Short - N/A

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Luminous Intensity Polar Plot



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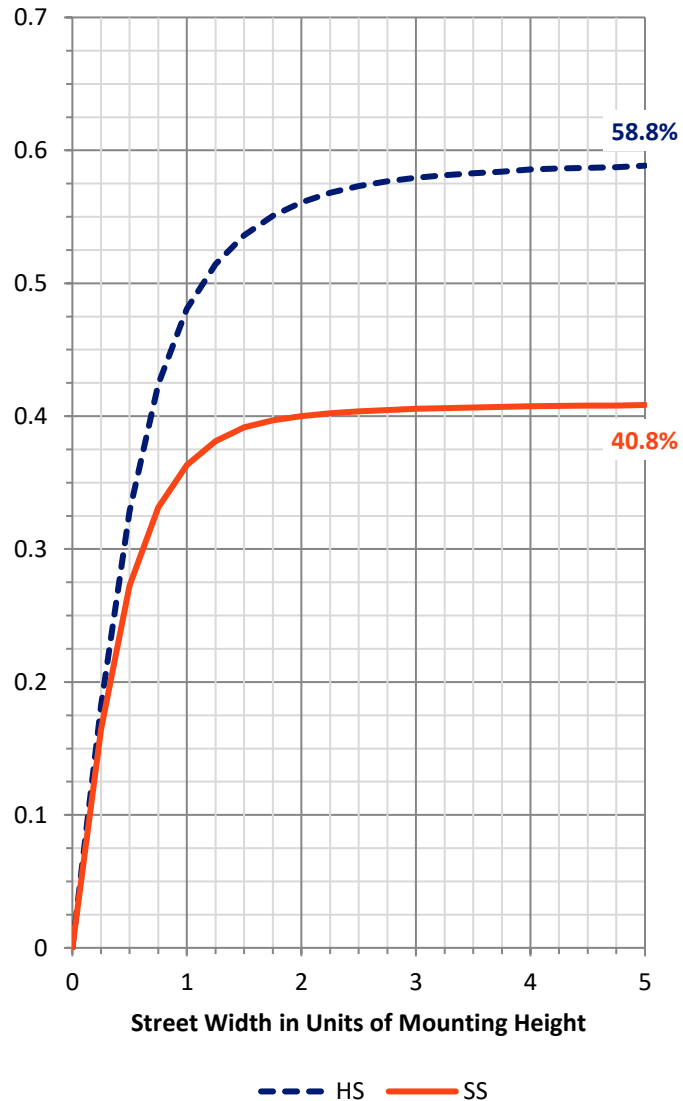
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	37899.6	0.0	37899.6
	% Fixture	59.3	0.0	59.3
Street Side	Lumens	26018.4	0.0	26018.4
	% Fixture	40.7	0.0	40.7
Total	Lumens	63918.0	0.0	63918.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1185.9	1.9
10°-20°	3415.1	5.3
20°-30°	5132.9	8.0
30°-40°	7156.5	11.2
40°-50°	10274.6	16.1
50°-60°	13097.5	20.5
60°-70°	13637.2	21.3
70°-80°	8781.6	13.7
80°-90°	1236.8	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°	63918.0	100.0
0°-180°	63918.0	100.0

Coefficient of Utilization

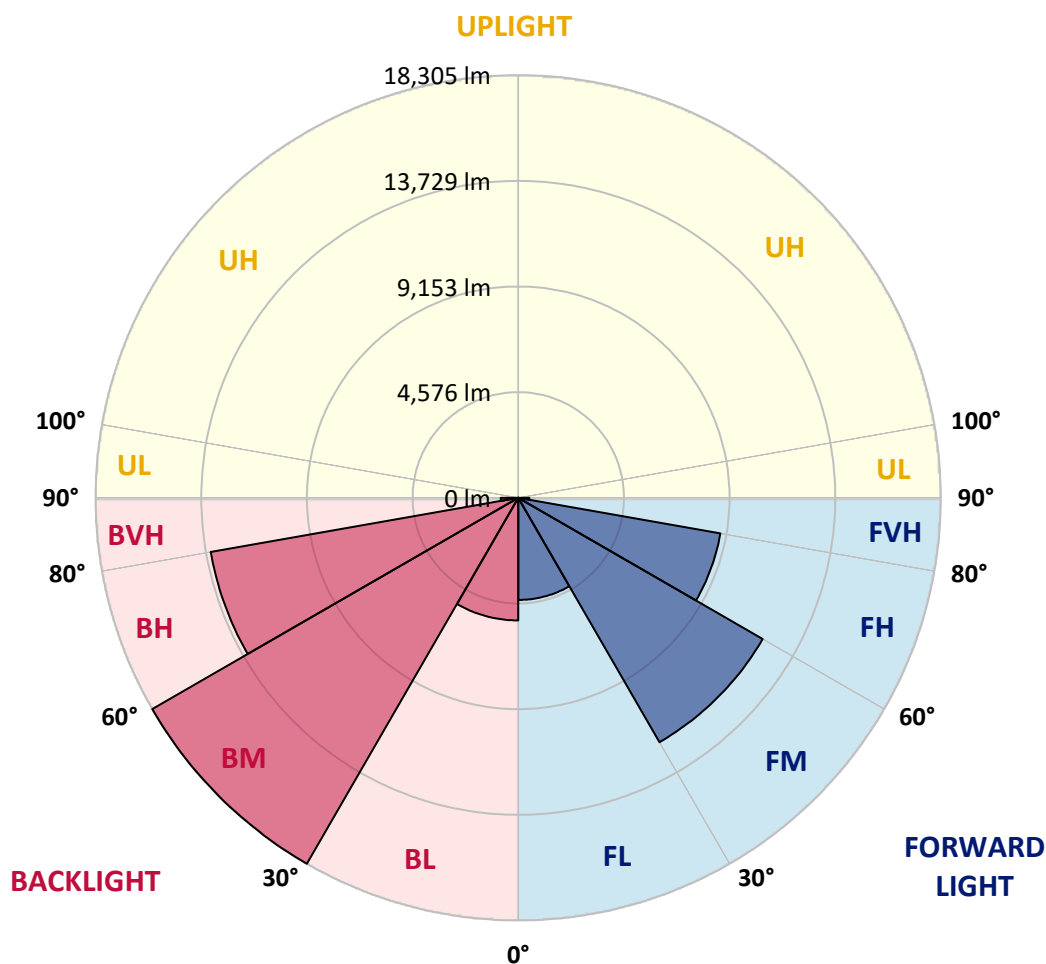


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4423.1	6.9			
FM (30°-60°)	12223.5	19.1			
FH (60°-80°)	8890.8	13.9			G4/12000
FVH (80°-90°)	480.9	0.8			G3/500
BL (0°-30°)	5310.7	8.3	B5		
BM (30°-60°)	18305.1	28.6	B5		
BH (60°-80°)	13528.0	21.2	B5		G5
BVH (80°-90°)	755.8	1.2			G5
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°	12457.4	12457.4	12457.4	12457.4	12457.4	12457.4	12457.4	12457.4	12457.4	12457.4	12457.4
2.5°	12494.5	12392.3	12413.2	12513.1	12329.5	12429.5	12355.1	12476.0	12445.7	12455.0	12513.1
5°	12390.0	12285.4	12324.9	12448.1	12276.1	12396.9	12341.2	12441.1	12431.8	12466.7	12503.8
7.5°	12294.7	12183.1	12234.2	12324.9	12231.9	12336.5	12306.3	12431.8	12427.1	12529.4	12555.0
10°	12187.8	12085.5	12129.7	12241.2	12164.5	12290.0	12315.6	12464.3	12513.1	12652.6	12664.2
12.5°	11999.5	11899.6	11920.5	12062.3	12073.9	12264.5	12352.8	12587.5	12638.6	12799.0	12806.0
15°	11325.5	11302.3	11499.8	11727.6	11820.5	12104.1	12399.3	12720.0	12796.7	12998.9	13019.8
17.5°	9429.0	9196.6	8848.0	9124.6	9733.5	10516.7	12287.7	12917.5	13059.3	13261.5	13324.3
20°	6324.0	6535.5	7323.3	7676.6	8218.1	9538.2	12259.8	13131.4	13438.1	13682.2	13800.7
22.5°	5224.7	5213.0	6156.6	7346.6	7771.9	8378.5	11269.7	13384.7	13893.7	14212.1	14360.8
25°	4852.8	4857.4	5029.4	6533.1	7586.0	8227.4	10351.7	13052.3	14393.4	14848.9	15025.5
27.5°	4557.6	4576.2	4722.6	5231.6	7427.9	8194.9	10377.3	12101.8	14920.9	15529.9	15734.4
30°	4322.9	4313.6	4490.2	4915.5	6182.2	8206.5	10498.1	12292.3	14430.6	16496.7	16610.6
32.5°	4127.7	4102.1	4281.1	4708.7	5399.0	8115.9	10679.4	12826.9	14084.3	17426.4	17870.3
35°	3939.4	3930.1	4088.2	4508.8	5213.0	6740.0	10890.9	13489.3	15209.1	17456.6	19599.4
37.5°	3793.0	3786.0	3911.5	4308.9	5045.7	6140.4	11065.2	14323.6	16673.3	18746.5	21031.1
40°	3674.5	3655.9	3755.8	4132.3	4855.1	6040.4	9638.2	15195.2	18460.6	21756.2	24498.7
42.5°	3574.5	3549.0	3646.6	3958.0	4671.5	5928.9	8950.2	16073.7	20561.6	25107.6	27871.0
45°	3437.4	3435.1	3535.0	3825.5	4476.3	5766.2	9015.3	14607.2	22922.9	28314.9	31413.0
47.5°	3367.7	3351.4	3425.8	3702.3	4292.7	5519.8	8952.6	13979.7	24731.1	31533.9	34864.3
50°	3258.4	3244.5	3316.5	3560.6	4111.4	5208.4	8724.8	14365.5	23241.3	34583.1	38108.8
52.5°	3063.2	2521.7	3209.6	3442.0	3916.2	4871.4	8292.5	14579.3	23820.1	37409.3	41130.2
55°	1203.9	1615.3	3072.5	3293.3	3716.3	4555.3	7637.1	14518.9	25735.1	39940.3	43733.2
57.5°	1048.2	1052.8	2040.6	2749.5	3479.2	4225.3	6837.6	14174.9	27424.8	42106.3	46268.9
60°	148.7	151.1	1034.2	1157.4	2282.3	3002.8	6024.2	13559.0	28426.5	44272.4	48455.9
62.5°	99.9	104.6	941.3	1050.5	2082.4	2663.5	5268.8	12464.3	28909.9	45587.9	50031.6
65°	72.0	74.4	853.0	950.6	1854.7	2363.6	4566.9	11274.4	28954.1	45892.4	50896.2
67.5°	67.4	69.7	785.6	876.2	1687.3	2098.7	3960.3	10226.2	27733.9	45983.0	50861.4
70°	69.7	69.7	715.8	792.5	1496.7	1819.8	3286.3	9182.7	24656.7	44797.7	49717.9
72.5°	69.7	72.0	625.2	697.2	1289.9	1540.9	2693.7	7465.1	19969.0	41441.6	46956.8
75°	69.7	72.0	492.7	576.4	1071.4	1236.4	2210.3	6019.5	15378.8	34973.6	41083.7
77.5°	72.0	72.0	362.6	441.6	827.4	929.7	1678.0	4625.0	11332.5	24243.0	28603.1
80°	72.0	76.7	255.7	325.4	611.2	671.7	1217.8	2951.7	6103.2	12294.7	14200.5
82.5°	74.4	76.7	190.6	244.0	423.0	483.4	743.7	1452.6	2821.5	5689.5	6444.8
85°	69.7	72.0	155.7	169.7	241.7	290.5	462.5	720.5	992.4	2238.1	2326.5
87.5°	48.8	46.5	48.8	55.8	79.0	127.8	218.5	244.0	239.4	602.0	699.6
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°	12457.4	12457.4	12457.4	12457.4	12457.4	12457.4	12457.4	12457.4	12457.4	12457.4	12457.4
2.5°	12478.3	12482.9	12464.3	12536.4	12464.3	12503.8	12399.3	12561.9	12545.7	12501.5	12557.3
5°	12476.0	12487.6	12482.9	12548.0	12457.4	12489.9	12385.3	12557.3	12499.2	12459.7	12527.1
7.5°	12531.7	12548.0	12541.0	12585.2	12480.6	12478.3	12376.0	12503.8	12448.1	12364.4	12448.1
10°	12654.9	12654.9	12634.0	12659.6	12508.5	12492.2	12320.2	12466.7	12371.4	12297.0	12399.3
12.5°	12813.0	12826.9	12773.4	12768.8	12559.6	12510.8	12294.7	12366.7	12229.6	12159.9	12259.8
15°	13045.4	13054.7	12984.9	12940.8	12685.1	12578.2	12229.6	12215.7	12025.1	11957.7	12029.7
17.5°	13315.0	13312.6	13215.0	13196.4	12896.6	12647.9	12176.1	12032.0	11788.0	11711.3	11774.1
20°	13747.3	13721.7	13614.8	13507.9	13070.9	12692.1	12099.4	11797.3	11458.0	11348.7	11399.9
22.5°	14328.3	14319.0	14151.7	13842.5	13256.9	12733.9	11969.3	11511.4	11060.6	10863.0	10895.5
25°	14965.1	14958.1	14718.7	14256.2	13419.6	12764.1	11818.2	11190.7	10581.8	10282.0	10275.0
27.5°	15704.2	15685.6	15362.5	14702.5	13645.0	12773.4	11655.5	10851.4	10107.7	9733.5	9749.7
30°	16603.6	16571.1	16129.5	15197.5	13930.9	12801.3	11516.1	10470.2	9666.1	9268.6	9259.4
32.5°	17795.9	17749.4	17063.8	15848.3	14300.4	12871.1	11348.7	10093.7	9254.7	8855.0	8820.1
35°	19611.0	19515.8	18381.6	16680.3	14711.8	12917.5	11081.5	9735.8	8857.3	8480.8	8452.9
37.5°	22297.7	22137.4	20041.0	17554.2	15120.8	12908.2	10777.0	9350.0	8534.2	8169.3	8162.4
40°	25839.7	25588.7	22032.8	18490.8	15513.6	12857.1	10449.3	9006.0	8264.6	7950.9	7974.1
42.5°	29714.1	29449.1	24394.1	19443.7	15808.8	12699.1	10098.4	8680.6	8015.9	7764.9	7767.3
45°	33618.6	33372.3	27111.0	20340.8	15955.2	12401.6	9733.5	8371.5	7753.3	7534.8	7560.4
47.5°	37506.9	37325.6	29802.4	21098.5	15883.1	11934.4	9294.2	8078.7	7493.0	7314.1	7372.2
50°	41123.2	40930.3	32670.4	21726.0	15520.6	11283.7	8843.3	7790.5	7281.5	7125.8	7174.6
52.5°	44474.6	44216.7	35742.9	22088.6	14867.5	10598.1	8445.9	7537.2	7077.0	6921.3	6972.4
55°	47321.7	47310.1	38555.1	22118.8	13847.2	9896.2	8062.4	7244.3	6877.1	6749.3	6760.9
57.5°	49987.5	50092.1	40974.5	21751.6	12638.6	9245.4	7623.2	6942.2	6647.0	6514.5	6526.2
60°	52023.4	52153.6	42615.3	20682.5	11351.1	8527.3	7151.4	6621.5	6361.2	6235.7	6272.8
62.5°	53485.3	53318.0	43484.6	19148.5	10061.2	7755.6	6640.1	6212.4	6005.6	5928.9	5931.2
65°	53980.4	53926.9	42975.6	17259.0	8843.3	6995.6	6035.8	5703.4	5575.6	5522.1	5561.7
67.5°	53473.7	53506.2	40993.1	15653.0	7685.9	6138.0	5357.1	5143.3	5078.2	5075.9	5117.7
70°	52086.2	51830.5	36881.7	14370.1	6600.5	5185.1	4627.4	4525.1	4504.2	4555.3	4590.2
72.5°	48460.5	48088.7	30585.6	12327.2	5066.6	3813.9	3504.8	3644.2	3639.6	3667.5	3700.0
75°	41516.0	40537.6	23957.2	9814.8	3753.5	2698.3	2338.1	2333.4	2326.5	2563.5	2649.5
77.5°	29098.2	28445.1	17686.7	7474.4	2496.1	1615.3	1603.7	1729.2	1750.1	1594.4	1624.6
80°	14597.9	14883.8	10207.6	4618.1	1659.4	1138.8	1194.6	1176.0	1192.3	1210.9	1222.5
82.5°	6728.4	6872.5	4885.3	2249.8	1069.1	864.6	818.1	890.1	922.7	920.4	913.4
85°	2386.9	2400.8	1545.5	964.5	655.4	562.4	571.7	664.7	701.9	669.4	653.1
87.5°	692.6	657.7	316.1	285.9	302.1	299.8	309.1	327.7	353.3	348.6	323.1
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)