

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: P299995

Luminaire Tested: **GLNA-AF-09-LED-E1-SL3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-09-LED-E1-SL3-7030-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39945.3 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

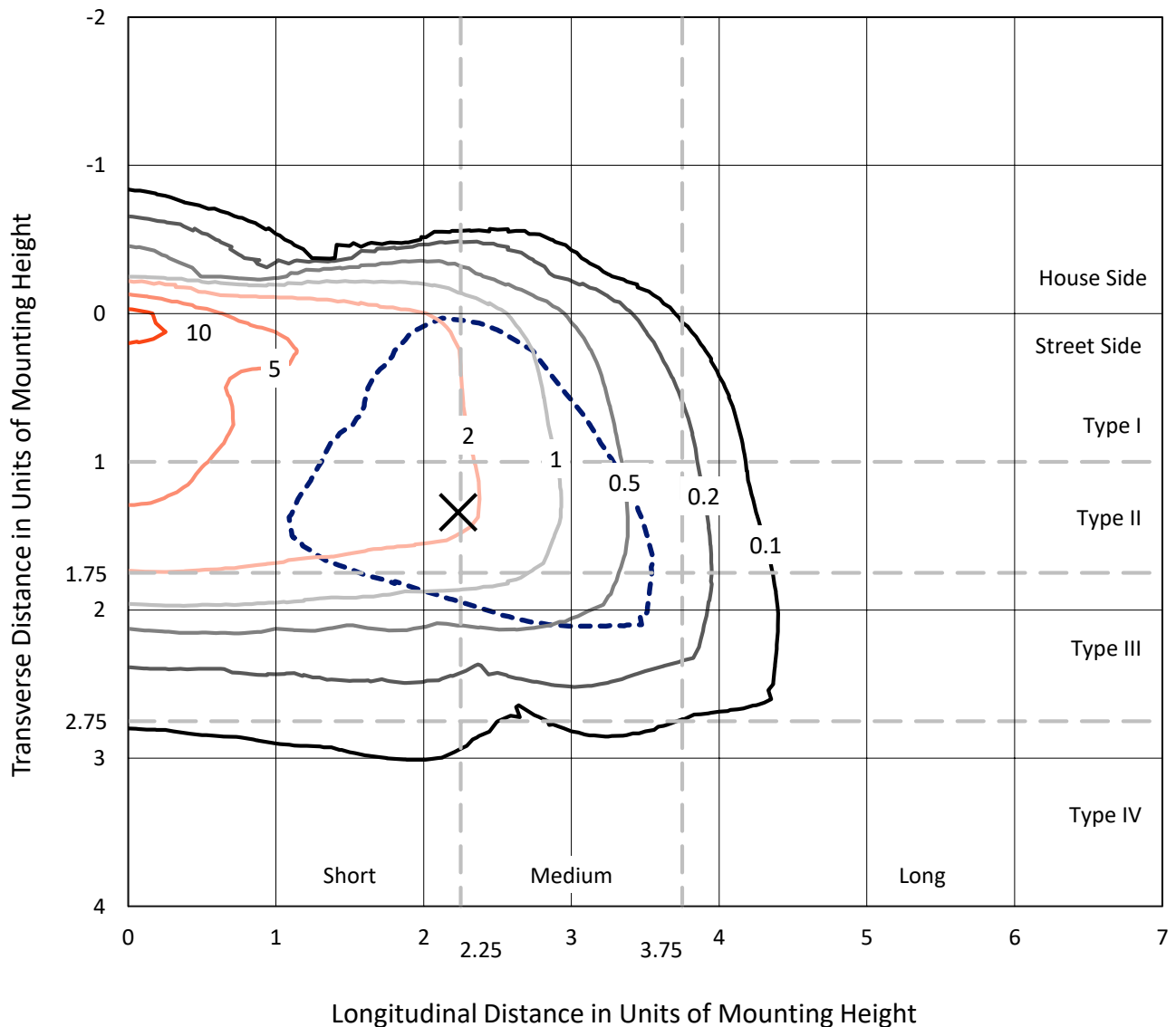
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

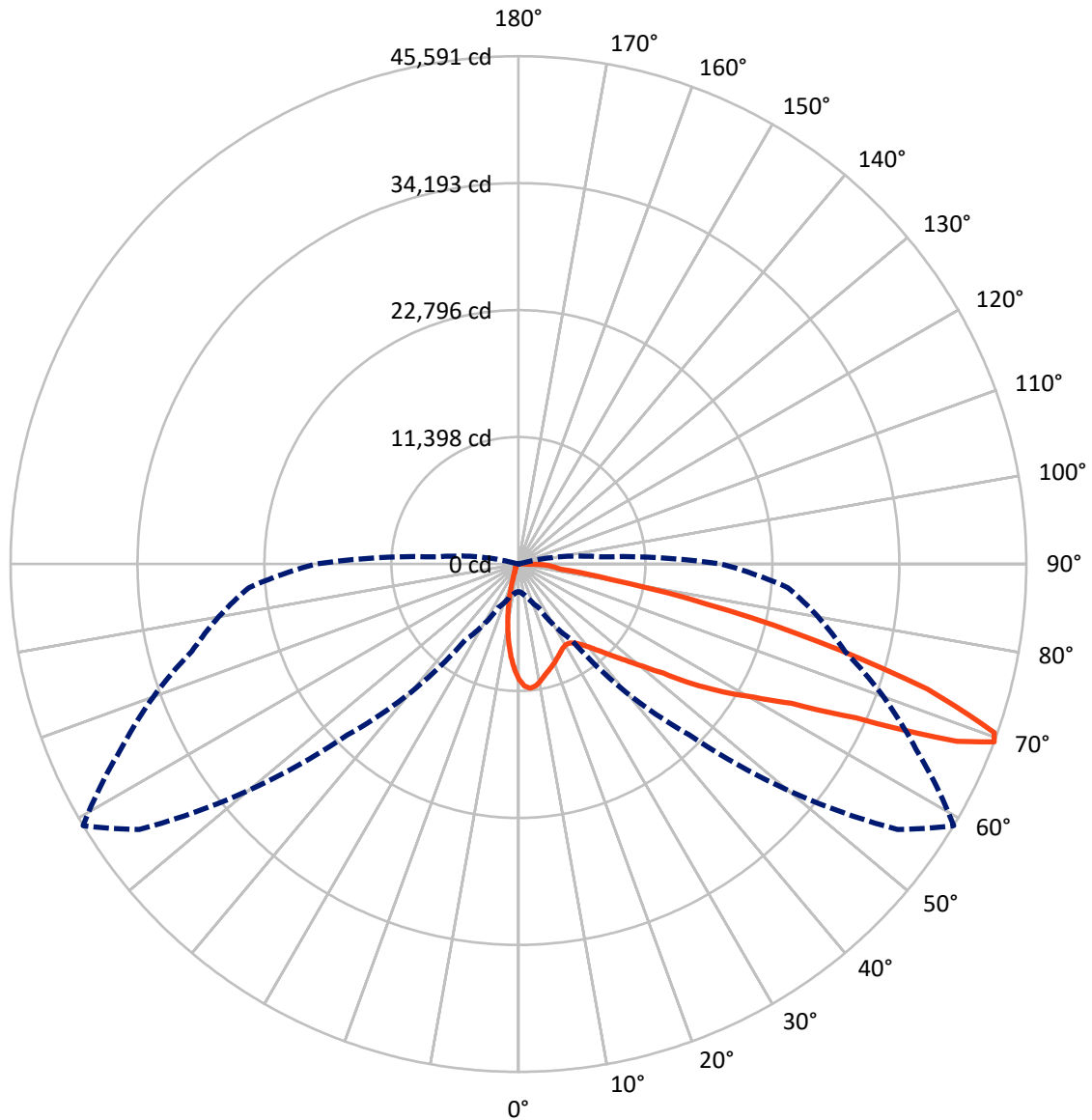
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.6 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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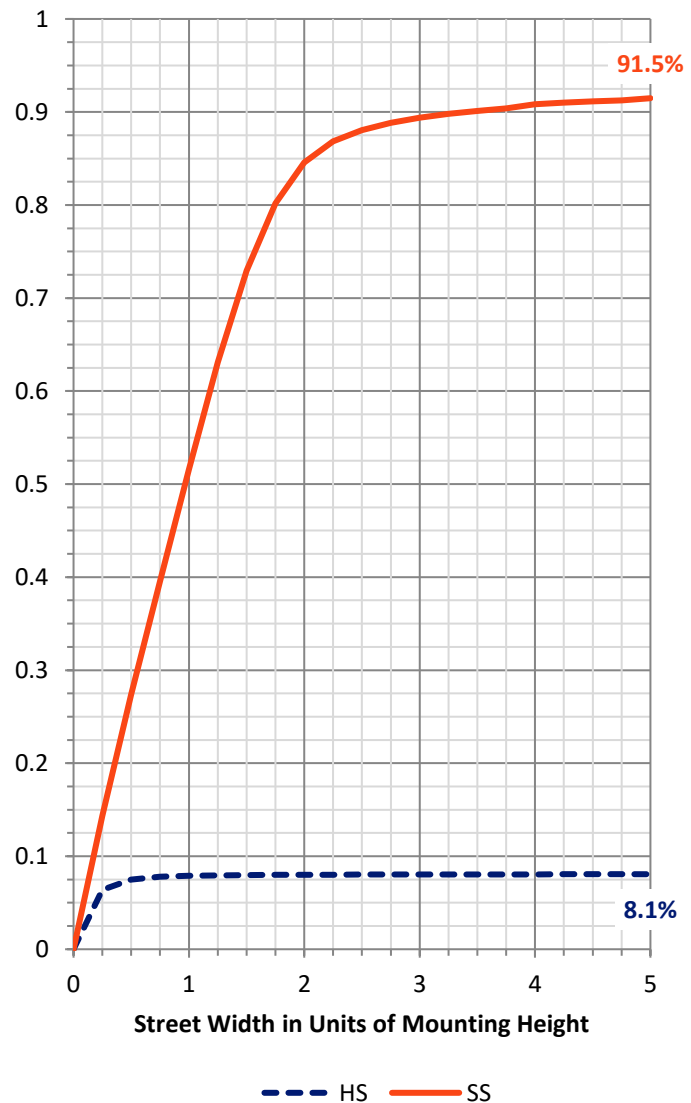
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3253.0	0.0	3253.0
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	36692.3	0.0	36692.3
	% Fixture	91.9	0.0	91.9
Total	Lumens	39945.3	0.0	39945.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	843.9	2.1
10°-20°	1743.8	4.4
20°-30°	2346.5	5.9
30°-40°	3407.0	8.5
40°-50°	5672.9	14.2
50°-60°	8849.7	22.2
60°-70°	10950.8	27.4
70°-80°	5549.8	13.9
80°-90°	580.7	1.5
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°	39945.3	100.0
0°-180°	39945.3	100.0



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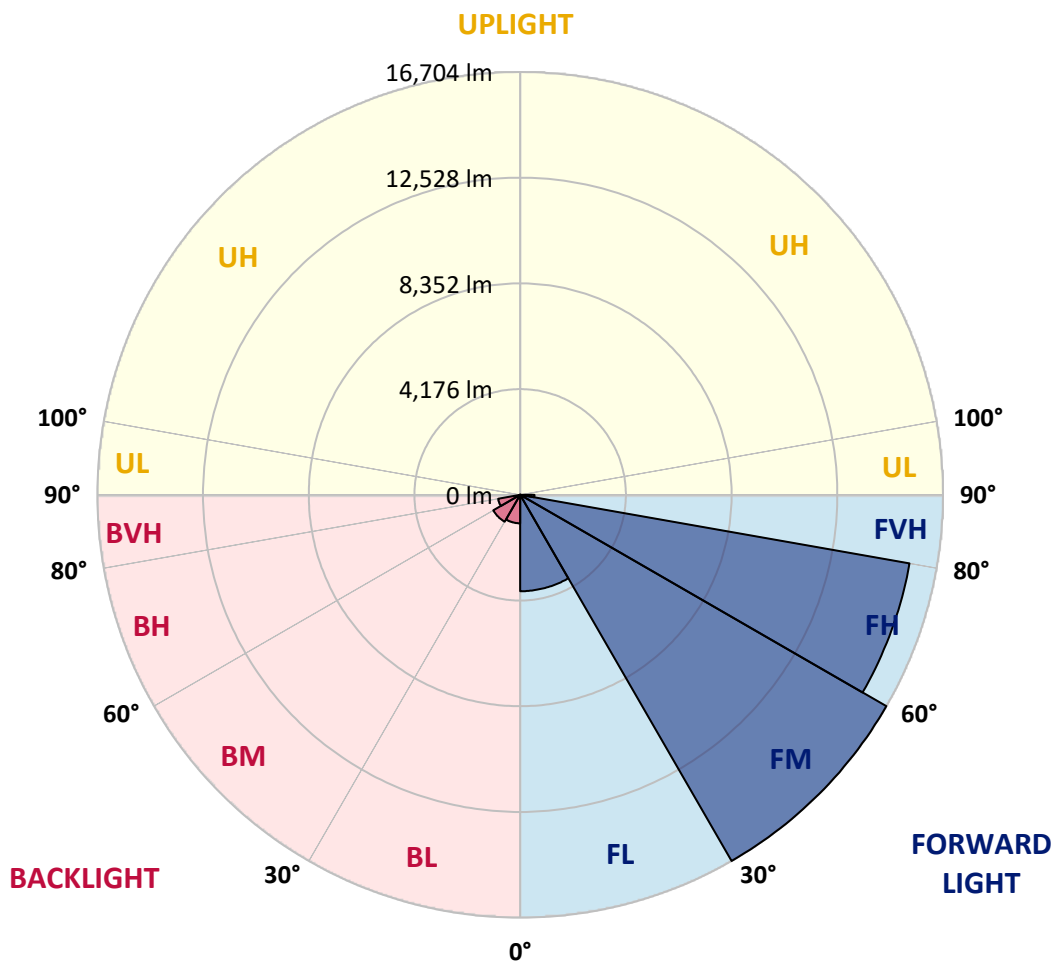
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3808.3	9.5			
FM	(30°-60°)	16703.9	41.8			
FH	(60°-80°)	15617.2	39.1			G5
FVH	(80°-90°)	562.8	1.4			G4/750
BL	(0°-30°)	1126.0	2.8	B3/2500		
BM	(30°-60°)	1225.7	3.1	B2/2500		
BH	(60°-80°)	883.4	2.2	B2/1000		G2/1000
BVH	(80°-90°)	17.9	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	10397.0	10397.0	10397.0	10397.0	10397.0	10397.0	10397.0	10397.0	10397.0	10397.0	10397.0
2.5°	11395.4	11391.3	11341.4	11318.8	11277.8	11192.3	11059.0	10989.2	10876.4	10679.4	10415.4
5°	11291.5	11346.2	11374.9	11377.7	11407.1	11374.9	11255.2	11197.1	11041.2	10724.6	10250.6
7.5°	10587.1	10606.9	10691.0	10762.9	10903.1	11036.4	11079.5	11054.2	10961.9	10623.3	9992.8
10°	9832.8	9852.6	9952.5	10046.8	10237.0	10442.1	10658.9	10704.7	10743.0	10478.4	9744.6
12.5°	9181.7	9202.2	9304.1	9427.9	9649.5	9902.5	10239.0	10313.5	10483.2	10340.9	9545.6
15°	8621.6	8630.5	8730.4	8883.6	9148.2	9473.1	9855.4	9975.0	10234.9	10243.8	9371.9
17.5°	8145.0	8167.5	8229.1	8375.4	8664.7	9066.8	9512.0	9683.7	9988.0	10162.4	9202.2
20°	7853.6	7876.2	7874.2	7955.5	8215.4	8644.2	9168.7	9373.9	9744.6	10079.0	9051.1
22.5°	7797.6	7797.6	7738.8	7727.1	7881.0	8240.0	8811.8	9062.1	9525.0	10042.7	8945.1
25°	7998.6	7989.1	7842.7	7723.0	7729.9	7943.9	8465.7	8763.9	9340.4	10067.4	8888.3
27.5°	8423.3	8411.7	8226.4	7998.6	7815.3	7813.3	8203.8	8524.5	9193.4	10185.0	8910.9
30°	9010.1	9006.0	8804.9	8517.7	8186.0	7881.0	8113.5	8404.8	9098.3	10397.0	8962.9
32.5°	9651.6	9644.7	9493.6	9191.3	8770.7	8186.0	8208.6	8452.7	9125.7	10679.4	9089.4
35°	10332.0	10320.4	10254.7	9990.8	9527.8	8748.2	8520.4	8709.9	9297.3	11102.1	9337.7
37.5°	11067.9	11079.5	11126.7	10873.6	10388.1	9536.7	9042.2	9170.8	9642.7	11675.8	9741.8
40°	12154.5	12152.5	12168.2	11835.9	11368.8	10500.9	9771.2	9812.3	10221.2	12437.0	10356.6
42.5°	14126.2	13988.7	13570.9	12893.1	12423.3	11603.3	10691.0	10648.0	10928.4	13378.7	11217.0
45°	16776.2	16482.1	15398.2	14099.5	13498.4	12845.9	11822.2	11684.7	11863.2	14510.5	12279.0
47.5°	19054.9	18749.9	17216.6	15355.1	14639.1	14024.9	13148.2	12900.0	12958.8	15777.7	13624.9
50°	19829.7	19680.6	18341.6	16448.6	15743.5	15509.0	14686.9	14384.0	14300.6	17243.3	15185.5
52.5°	19560.9	19550.0	18657.5	17157.8	16755.7	17045.0	16622.3	16272.2	15965.1	18788.8	16773.5
55°	19129.4	19186.2	18786.1	17778.8	17765.1	18447.6	19269.6	18978.3	18088.5	20467.1	18142.6
57.5°	17939.5	18180.9	18714.3	18953.7	19509.0	20207.2	21474.4	21646.1	20593.6	21752.1	19278.5
60°	14555.6	15086.3	16830.2	19122.6	21756.9	23496.0	24135.4	24281.7	22648.6	22820.3	20812.4
62.5°	10332.0	10873.6	13085.3	16963.6	21790.4	27816.7	28099.1	27523.3	24912.3	24404.2	23457.7
65°	5484.0	5902.5	7709.3	12244.8	18892.8	28819.9	35031.6	33315.1	28905.4	27518.5	26875.0
67.5°	2805.3	2931.8	3650.5	5992.8	12988.2	25598.9	41245.3	42453.7	35788.0	30609.0	26710.2
69°	2482.5	2557.0	3033.7	4332.4	8316.6	21682.3	41548.3	45591.3	39391.3	30351.1	24272.8
70°	2403.1	2468.8	2902.4	3921.4	6500.9	18182.9	40389.1	45315.7	40312.5	29371.1	22452.4
72.5°	2040.0	2096.1	2584.4	3465.2	5283.6	9025.8	32809.0	38399.7	36174.4	24467.1	16251.7
75°	1364.3	1549.7	2480.4	3248.4	4915.0	5127.7	21630.3	27749.0	25777.4	16502.6	8465.7
77.5°	327.6	352.2	700.3	2584.4	4495.1	4512.9	11124.6	17250.1	14070.1	5882.0	2001.0
80°	176.4	169.6	196.3	512.9	4185.3	4235.3	5008.0	8373.4	5023.8	975.9	659.3
82.5°	124.5	117.6	126.5	214.7	1317.1	3857.8	3623.2	3790.0	2082.4	374.8	296.1
85°	45.1	43.1	69.8	194.2	413.1	2217.8	3722.3	3126.0	1687.1	171.7	216.8
87.5°	15.7	13.7	27.4	106.0	126.5	944.4	2297.1	2362.8	664.0	103.9	101.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	10397.0	10397.0	10397.0	10397.0	10397.0	10397.0	10397.0	10397.0	10397.0	10397.0	10397.0
2.5°	10304.7	10164.5	9907.3	9642.7	9398.5	9105.1	8958.1	8813.8	8752.9	8730.4	8624.4
5°	10006.5	9769.2	9222.8	8673.6	8167.5	7630.0	7275.8	6991.3	6823.7	6742.3	6613.8
7.5°	9624.9	9236.4	8406.9	7560.3	6771.8	5994.9	5419.0	4975.9	4670.9	4524.5	4391.2
10°	9254.2	8737.2	7558.2	6403.8	5332.9	4303.0	3507.6	2931.8	2563.9	2394.3	2286.2
12.5°	8922.5	8251.7	6738.2	5276.8	3932.3	2726.6	1917.6	1459.4	1231.0	1151.6	1113.4
15°	8626.4	7804.4	5963.4	4205.8	2663.0	1558.6	1048.4	892.5	856.2	856.2	851.4
17.5°	8346.0	7366.0	5215.2	3200.5	1671.4	953.3	797.4	776.9	776.9	785.8	785.8
20°	8077.3	6948.2	4492.4	2297.1	1052.5	756.4	720.8	716.0	720.8	731.7	731.7
22.5°	7846.8	6568.6	3817.4	1576.3	781.7	681.8	664.0	657.2	659.3	666.1	670.9
25°	7675.2	6247.9	3180.7	1068.2	672.9	621.0	601.1	589.5	580.6	580.6	584.7
27.5°	7567.1	5977.1	2563.9	776.9	605.2	564.9	532.7	515.0	494.4	483.5	487.6
30°	7487.8	5719.3	1985.3	634.6	542.3	501.3	460.9	431.5	402.1	388.4	393.2
32.5°	7458.4	5511.4	1484.0	560.1	485.6	440.4	390.5	352.2	320.7	309.1	311.8
35°	7537.7	5346.6	1086.7	506.1	440.4	383.7	327.6	284.5	259.9	253.0	255.1
37.5°	7745.6	5258.3	813.1	460.9	400.1	336.5	273.6	232.5	216.8	216.8	218.8
40°	8138.1	5256.3	653.1	429.5	363.8	291.3	225.7	196.3	187.4	192.2	194.2
42.5°	8711.9	5376.0	569.0	400.1	332.4	248.2	187.4	166.9	164.8	169.6	171.7
45°	9495.6	5594.8	523.8	374.8	298.2	207.9	158.0	144.3	144.3	151.1	153.9
47.5°	10455.8	5915.5	485.6	350.1	264.0	173.7	135.4	126.5	128.6	135.4	137.5
50°	11612.2	6320.4	447.3	322.8	239.4	144.3	117.6	110.8	112.8	121.7	124.5
52.5°	12929.4	6864.8	415.8	298.2	207.9	119.7	99.2	95.1	99.2	108.7	110.8
55°	14058.5	7352.4	377.5	277.7	166.9	99.2	81.4	81.4	86.2	97.1	99.2
57.5°	15145.1	7862.5	343.3	239.4	131.3	79.3	67.7	69.8	76.6	88.2	90.3
60°	16739.9	8727.6	303.0	201.1	99.2	62.9	56.8	58.8	67.7	79.3	81.4
62.5°	19448.1	10044.8	261.9	166.9	76.6	49.9	45.1	49.9	60.9	74.5	76.6
65°	21892.3	10580.3	214.7	140.2	58.8	38.3	38.3	45.1	58.8	72.5	74.5
67.5°	20530.0	8906.1	166.9	110.8	45.1	29.4	31.5	43.1	56.8	72.5	74.5
69°	18156.3	7282.6	142.2	88.2	38.3	27.4	29.4	43.1	56.8	69.8	72.5
70°	16306.4	6148.7	126.5	74.5	34.2	27.4	29.4	40.3	56.8	69.8	72.5
72.5°	10921.5	3320.2	101.9	54.0	31.5	24.6	24.6	40.3	54.0	67.7	69.8
75°	4693.4	917.1	81.4	38.3	27.4	22.6	22.6	38.3	52.0	65.7	69.8
77.5°	858.3	232.5	65.7	34.2	27.4	22.6	20.5	36.2	49.9	62.9	65.7
80°	341.3	114.9	52.0	29.4	24.6	20.5	17.8	34.2	47.2	60.9	62.9
82.5°	205.8	65.7	43.1	27.4	24.6	17.8	15.7	29.4	45.1	58.8	60.9
85°	166.9	45.1	34.2	27.4	22.6	17.8	13.7	27.4	40.3	56.8	58.8
87.5°	81.4	31.5	31.5	24.6	22.6	17.8	13.7	24.6	38.3	54.0	56.8
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)