

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-05-LED-E1-SL3-7027-800-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-05-LED-E1-SL3-7027-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 800mA 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: 16205.5 lumens
Efficiency: N/A
Efficacy: 77.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 210
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

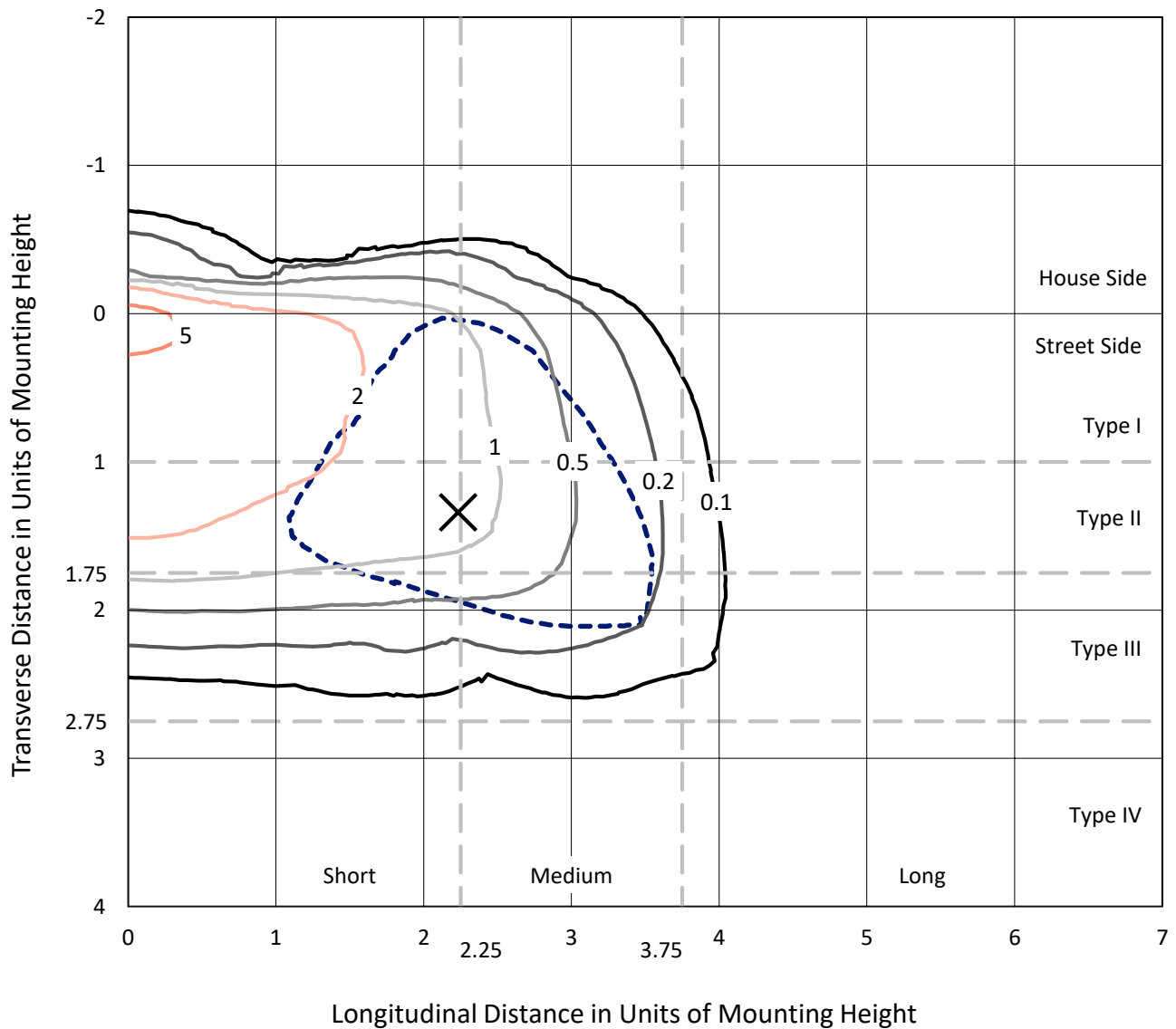


REPORT NUMBER: P299995

CATALOG NUMBER: GLNA-AF-05-LED-E1-SL3-7027-800-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

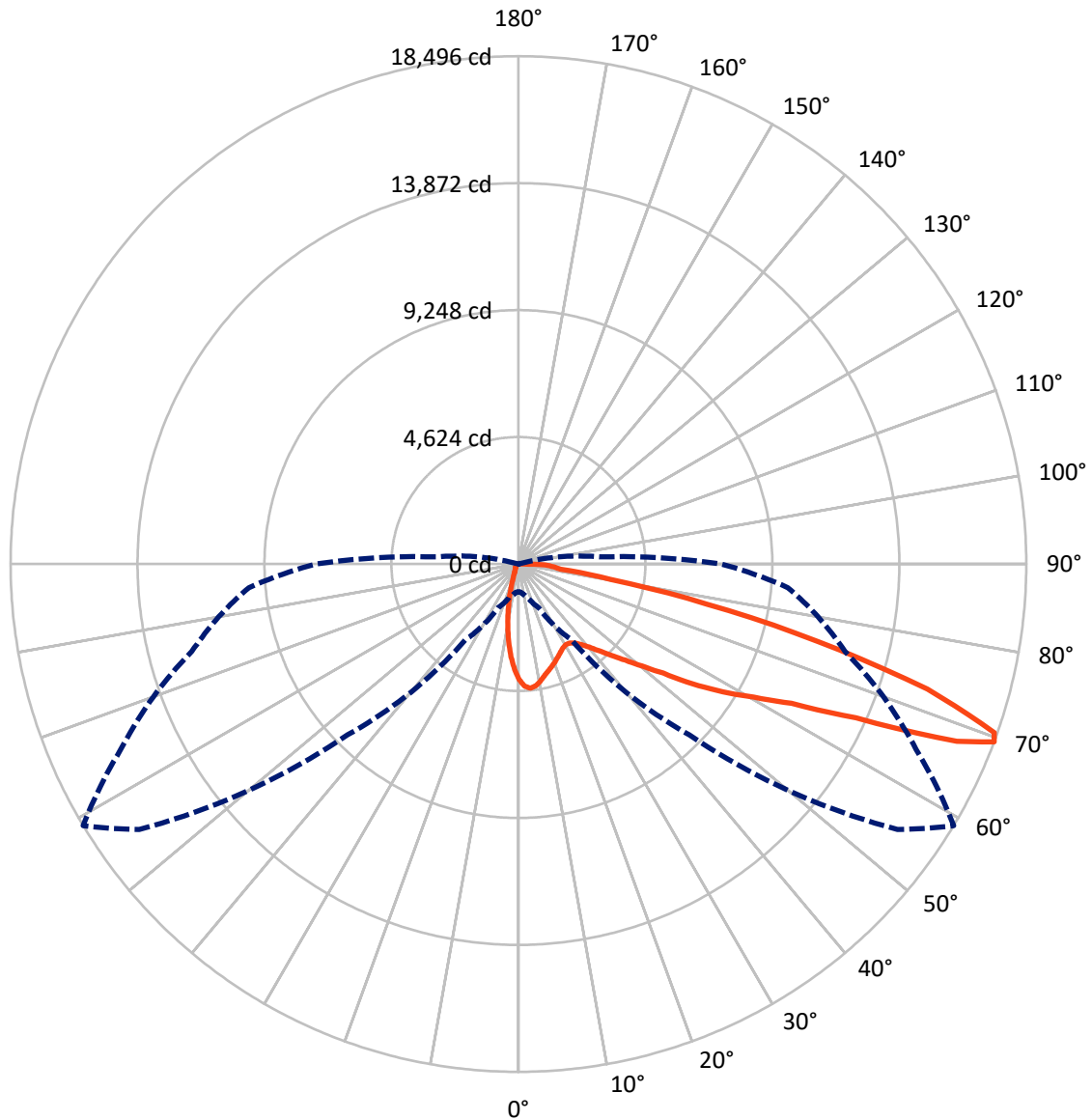


Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P299995

CATALOG NUMBER: GLNA-AF-05-LED-E1-SL3-7027-800-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P299995

CATALOG NUMBER: GLNA-AF-05-LED-E1-SL3-7027-800-HSS

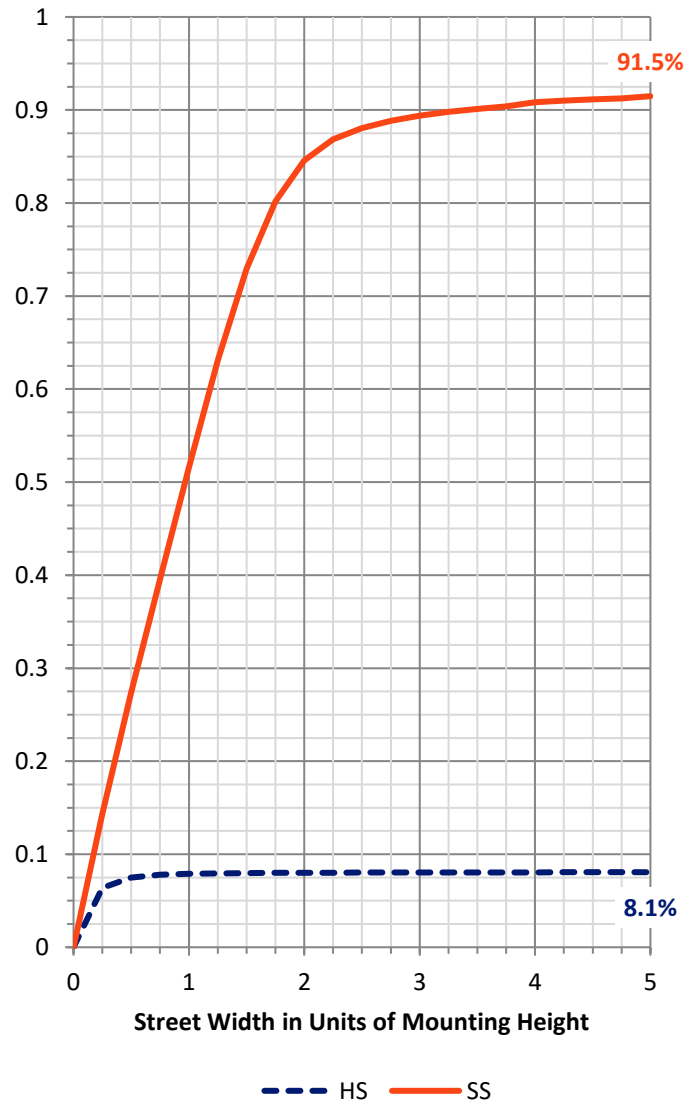
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1319.7	0.0	1319.7
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	14885.8	0.0	14885.8
	% Fixture	91.9	0.0	91.9
Total	Lumens	16205.5	0.0	16205.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	342.4	2.1
10°-20°	707.5	4.4
20°-30°	952.0	5.9
30°-40°	1382.2	8.5
40°-50°	2301.5	14.2
50°-60°	3590.3	22.2
60°-70°	4442.7	27.4
70°-80°	2251.5	13.9
80°-90°	235.6	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°	16205.5	100.0
0°-180°	16205.5	100.0



REPORT NUMBER: P299995

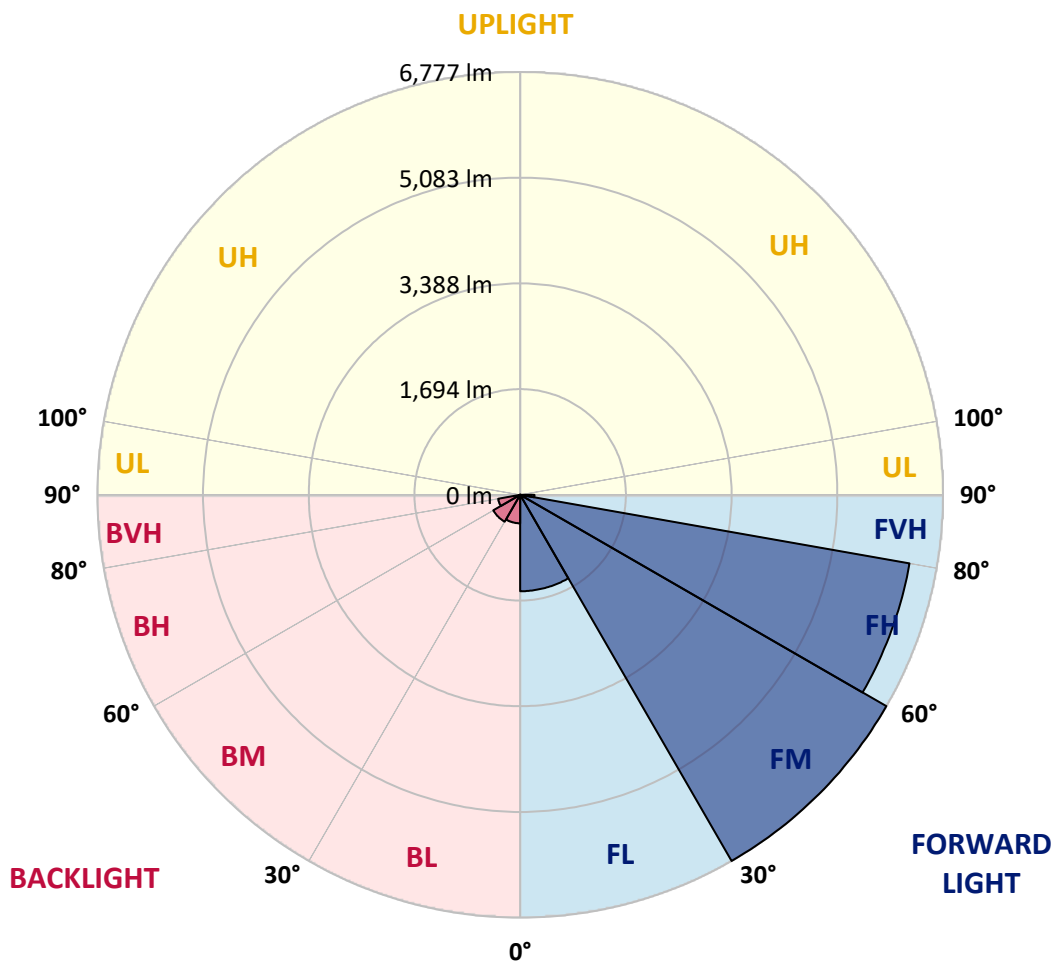
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1545.0	9.5			
FM	(30°-60°)	6776.7	41.8			
FH	(60°-80°)	6335.8	39.1			G3/7500
FVH	(80°-90°)	228.3	1.4			G3/500
BL	(0°-30°)	456.8	2.8	B1/500		
BM	(30°-60°)	497.3	3.1	B1/1000		
BH	(60°-80°)	358.4	2.2	B1/500		G1/500
BVH	(80°-90°)	7.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	4218.0	4218.0	4218.0	4218.0	4218.0	4218.0	4218.0	4218.0	4218.0	4218.0	4218.0
2.5°	4623.1	4621.4	4601.1	4592.0	4575.3	4540.7	4486.6	4458.3	4412.5	4332.6	4225.5
5°	4580.9	4603.1	4614.7	4615.8	4627.8	4614.7	4566.2	4542.6	4479.3	4350.9	4158.6
7.5°	4295.1	4303.2	4337.3	4366.4	4423.3	4477.4	4494.9	4484.6	4447.2	4309.8	4054.0
10°	3989.1	3997.1	4037.6	4075.9	4153.1	4236.3	4324.2	4342.8	4358.4	4251.0	3953.3
12.5°	3725.0	3733.3	3774.6	3824.8	3914.7	4017.4	4153.9	4184.1	4252.9	4195.2	3872.6
15°	3497.7	3501.3	3541.9	3604.0	3711.4	3843.2	3998.3	4046.8	4152.2	4155.8	3802.1
17.5°	3304.4	3313.5	3338.5	3397.9	3515.2	3678.4	3859.0	3928.6	4052.1	4122.8	3733.3
20°	3186.2	3195.3	3194.5	3227.5	3332.9	3506.9	3719.7	3802.9	3953.3	4089.0	3672.0
22.5°	3163.4	3163.4	3139.6	3134.8	3197.3	3342.9	3574.9	3676.4	3864.2	4074.3	3629.0
25°	3245.0	3241.1	3181.7	3133.2	3136.0	3222.8	3434.5	3555.4	3789.3	4084.3	3605.9
27.5°	3417.3	3412.6	3337.4	3245.0	3170.6	3169.8	3328.2	3458.3	3729.7	4132.0	3615.1
30°	3655.3	3653.7	3572.1	3455.6	3321.0	3197.3	3291.6	3409.8	3691.1	4218.0	3636.2
32.5°	3915.6	3912.8	3851.5	3728.9	3558.2	3321.0	3330.2	3429.2	3702.2	4332.6	3687.5
35°	4191.6	4186.9	4160.3	4053.2	3865.4	3549.1	3456.7	3533.5	3771.9	4504.0	3788.2
37.5°	4490.2	4494.9	4514.0	4411.4	4214.4	3869.0	3668.4	3720.5	3912.0	4736.8	3952.2
40°	4931.0	4930.2	4936.6	4801.7	4612.2	4260.2	3964.1	3980.8	4146.7	5045.6	4201.6
42.5°	5730.9	5675.1	5505.6	5230.7	5040.1	4707.4	4337.3	4319.8	4433.6	5427.6	4550.6
45°	6806.0	6686.7	6246.9	5720.1	5476.2	5211.5	4796.2	4740.4	4812.8	5886.8	4981.5
47.5°	7730.4	7606.7	6984.7	6229.5	5939.0	5689.8	5334.1	5233.4	5257.3	6400.9	5527.5
50°	8044.8	7984.3	7441.1	6673.1	6387.0	6291.9	5958.4	5835.5	5801.6	6995.5	6160.7
52.5°	7935.7	7931.3	7569.2	6960.8	6797.7	6915.0	6743.6	6601.5	6476.9	7622.5	6804.9
55°	7760.7	7783.7	7621.4	7212.7	7207.2	7484.1	7817.6	7699.4	7338.4	8303.4	7360.3
57.5°	7277.9	7375.9	7592.3	7689.4	7914.7	8197.9	8712.0	8781.7	8354.7	8824.7	7821.2
60°	5905.1	6120.4	6827.9	7757.9	8826.6	9532.2	9791.6	9850.9	9188.4	9258.0	8443.5
62.5°	4191.6	4411.4	5308.6	6882.0	8840.2	11285.1	11399.6	11166.0	10106.7	9900.6	9516.6
65°	2224.8	2394.6	3127.6	4967.6	7664.7	11692.1	14212.1	13515.7	11726.7	11164.1	10903.0
67.5°	1138.1	1189.4	1481.0	2431.2	5269.2	10385.3	16732.9	17223.2	14518.9	12417.9	10836.1
69°	1007.1	1037.4	1230.7	1757.6	3374.0	8796.4	16855.9	18496.1	15980.8	12313.3	9847.3
70°	974.9	1001.6	1177.5	1590.9	2637.4	7376.7	16385.6	18384.3	16354.5	11915.7	9108.8
72.5°	827.6	850.4	1048.5	1405.8	2143.5	3661.7	13310.4	15578.5	14675.7	9926.1	6593.2
75°	553.5	628.7	1006.3	1317.9	1994.0	2080.3	8775.3	11257.6	10457.7	6695.0	3434.5
77.5°	132.9	142.9	284.1	1048.5	1823.6	1830.9	4513.2	6998.3	5708.1	2386.3	811.8
80°	71.6	68.8	79.6	208.1	1698.0	1718.2	2031.7	3397.0	2038.1	395.9	267.5
82.5°	50.5	47.7	51.3	87.1	534.4	1565.1	1469.9	1537.6	844.8	152.0	120.1
85°	18.3	17.5	28.3	78.8	167.6	899.8	1510.1	1268.2	684.5	69.6	87.9
87.5°	6.4	5.5	11.1	43.0	51.3	383.2	931.9	958.6	269.4	42.2	41.3
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°	4218.0	4218.0	4218.0	4218.0	4218.0	4218.0	4218.0	4218.0	4218.0	4218.0	4218.0
2.5°	4180.5	4123.7	4019.3	3912.0	3812.9	3693.9	3634.2	3575.7	3551.0	3541.9	3498.9
5°	4059.6	3963.3	3741.6	3518.8	3313.5	3095.4	2951.7	2836.3	2768.3	2735.3	2683.2
7.5°	3904.8	3747.2	3410.6	3067.1	2747.3	2432.1	2198.5	2018.7	1894.9	1835.6	1781.5
10°	3754.4	3544.6	3066.3	2598.0	2163.5	1745.7	1423.0	1189.4	1040.1	971.3	927.5
12.5°	3619.8	3347.6	2733.7	2140.8	1595.3	1106.2	778.0	592.1	499.4	467.2	451.7
15°	3499.7	3166.2	2419.3	1706.3	1080.4	632.3	425.3	362.1	347.4	347.4	345.4
17.5°	3385.9	2988.4	2115.8	1298.4	678.1	386.8	323.5	315.2	315.2	318.8	318.8
20°	3276.9	2818.8	1822.5	931.9	427.0	306.9	292.4	290.5	292.4	296.9	296.9
22.5°	3183.4	2664.9	1548.7	639.5	317.1	276.6	269.4	266.6	267.5	270.2	272.2
25°	3113.8	2534.7	1290.4	433.4	273.0	251.9	243.9	239.2	235.6	235.6	237.2
27.5°	3069.9	2424.9	1040.1	315.2	245.5	229.2	216.1	208.9	200.6	196.2	197.8
30°	3037.7	2320.3	805.4	257.5	220.0	203.4	187.0	175.1	163.1	157.6	159.5
32.5°	3025.8	2235.9	602.1	227.2	197.0	178.7	158.4	142.9	130.1	125.4	126.5
35°	3058.0	2169.1	440.9	205.3	178.7	155.6	132.9	115.4	105.4	102.7	103.5
37.5°	3142.3	2133.3	329.9	187.0	162.3	136.5	111.0	94.3	87.9	87.9	88.8
40°	3301.6	2132.4	265.0	174.2	147.6	118.2	91.6	79.6	76.0	78.0	78.8
42.5°	3534.4	2181.0	230.8	162.3	134.8	100.7	76.0	67.7	66.9	68.8	69.6
45°	3852.3	2269.8	212.5	152.0	121.0	84.3	64.1	58.5	58.5	61.3	62.4
47.5°	4241.8	2399.9	197.0	142.1	107.1	70.5	54.9	51.3	52.2	54.9	55.8
50°	4711.0	2564.1	181.4	131.0	97.1	58.5	47.7	44.9	45.8	49.4	50.5
52.5°	5245.4	2785.0	168.7	121.0	84.3	48.6	40.2	38.6	40.2	44.1	44.9
55°	5703.4	2982.8	153.1	112.6	67.7	40.2	33.0	33.0	35.0	39.4	40.2
57.5°	6144.3	3189.8	139.3	97.1	53.3	32.2	27.5	28.3	31.1	35.8	36.6
60°	6791.3	3540.7	122.9	81.6	40.2	25.5	23.0	23.9	27.5	32.2	33.0
62.5°	7890.0	4075.1	106.3	67.7	31.1	20.3	18.3	20.3	24.7	30.2	31.1
65°	8881.6	4292.3	87.1	56.9	23.9	15.5	15.5	18.3	23.9	29.4	30.2
67.5°	8328.9	3613.2	67.7	44.9	18.3	11.9	12.8	17.5	23.0	29.4	30.2
69°	7365.9	2954.5	57.7	35.8	15.5	11.1	11.9	17.5	23.0	28.3	29.4
70°	6615.4	2494.5	51.3	30.2	13.9	11.1	11.9	16.4	23.0	28.3	29.4
72.5°	4430.8	1347.0	41.3	21.9	12.8	10.0	10.0	16.4	21.9	27.5	28.3
75°	1904.1	372.1	33.0	15.5	11.1	9.2	9.2	15.5	21.1	26.6	28.3
77.5°	348.2	94.3	26.6	13.9	11.1	9.2	8.3	14.7	20.3	25.5	26.6
80°	138.4	46.6	21.1	11.9	10.0	8.3	7.2	13.9	19.1	24.7	25.5
82.5°	83.5	26.6	17.5	11.1	10.0	7.2	6.4	11.9	18.3	23.9	24.7
85°	67.7	18.3	13.9	11.1	9.2	7.2	5.5	11.1	16.4	23.0	23.9
87.5°	33.0	12.8	12.8	10.0	9.2	7.2	5.5	10.0	15.5	21.9	23.0
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)