

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: P191222

Luminaire Tested: **GLEON-AF-04-LED-E1-SL4-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191222
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-04-LED-E1-SL4-1200-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21868.7 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

Input Watts (W): 258
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

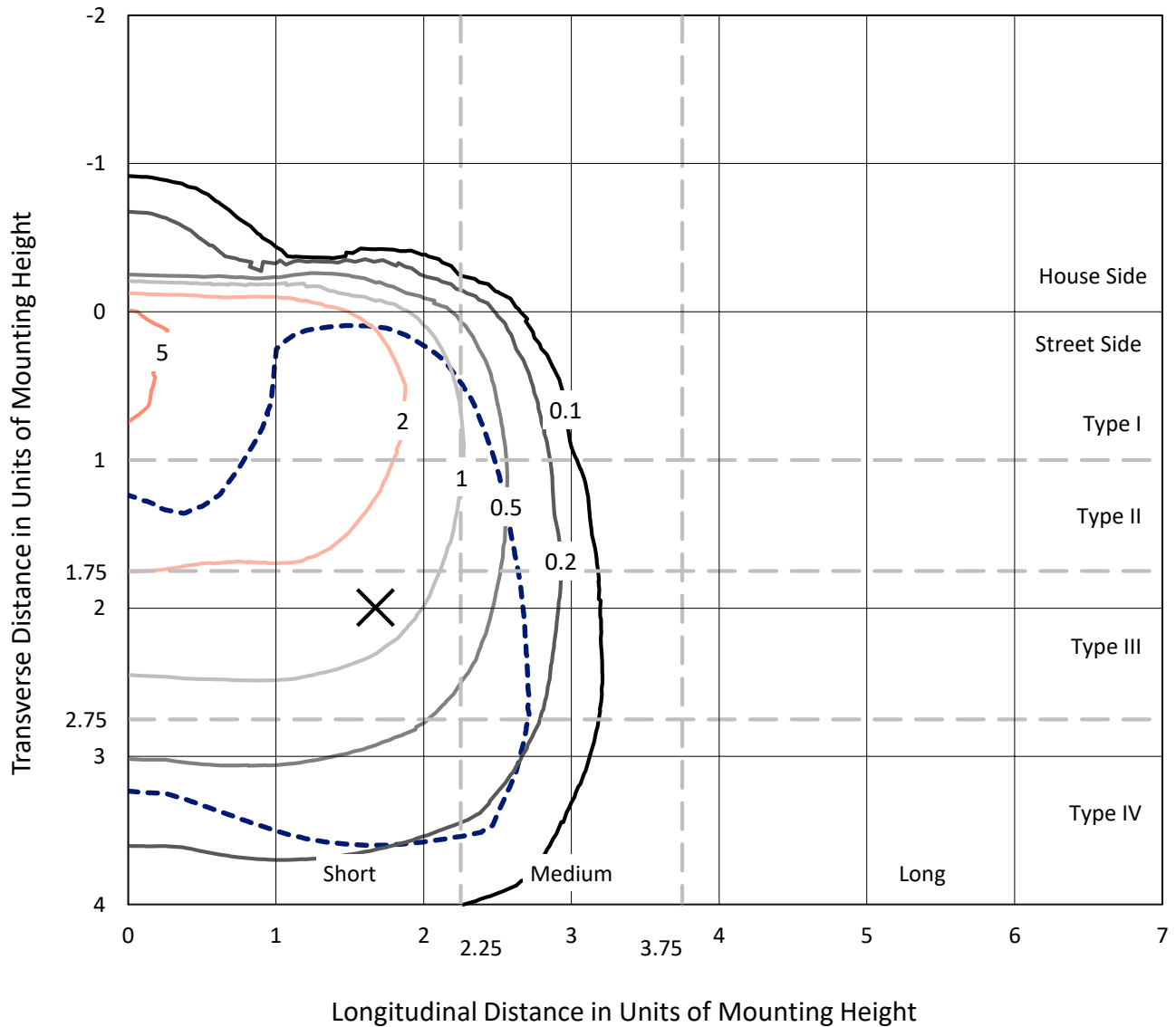


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

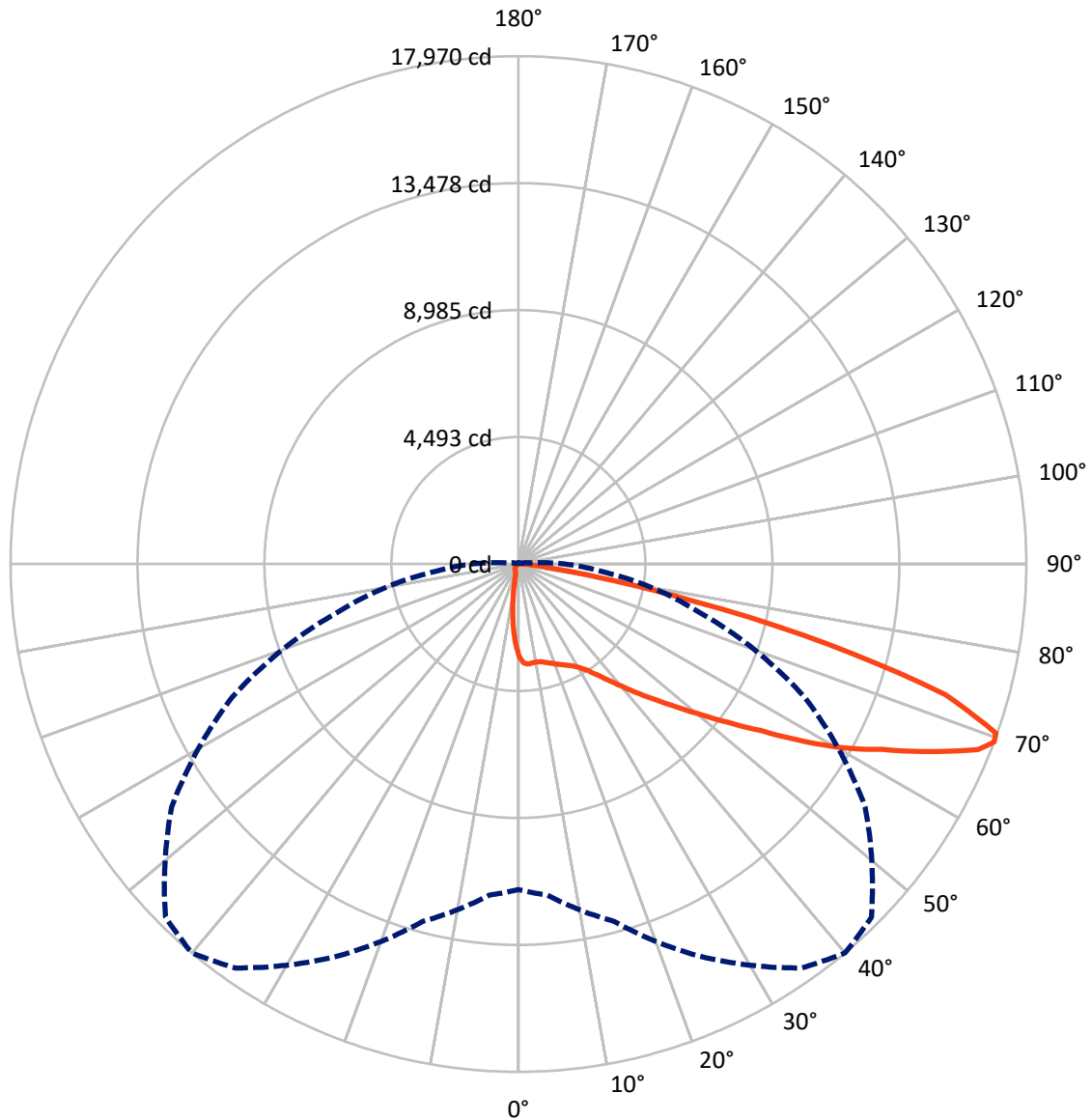


Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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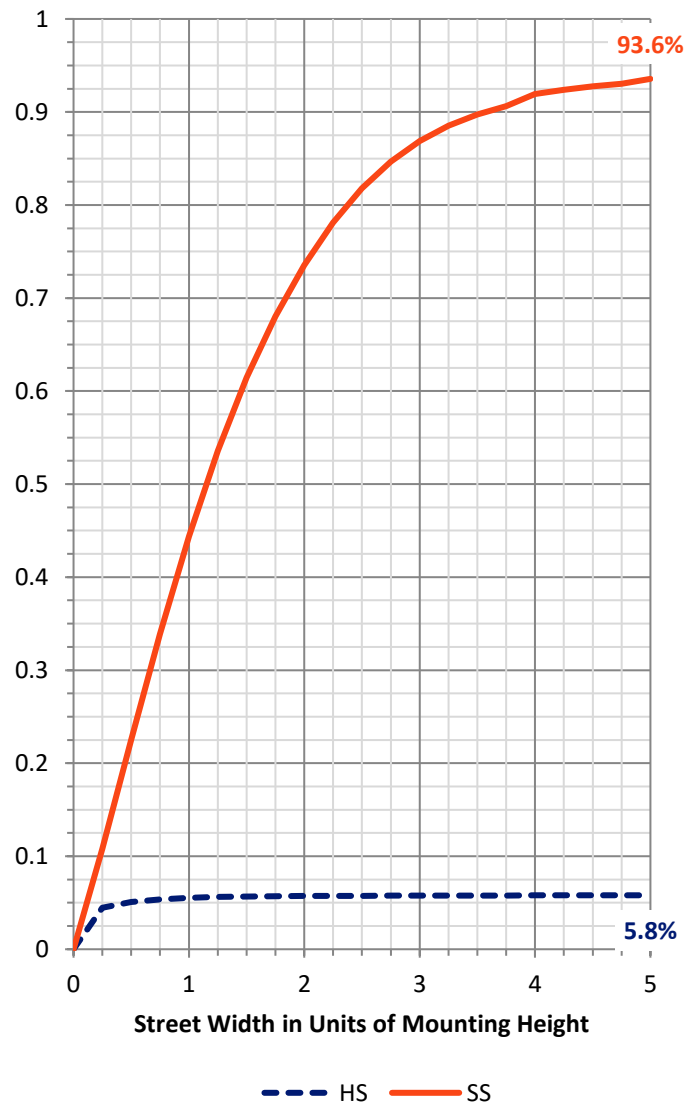
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1279.5	0.0	1279.5
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	20589.2	0.0	20589.2
	% Fixture	94.1	0.0	94.1
Total	Lumens	21868.7	0.0	21868.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.9	1.2
10°-20°	651.5	3.0
20°-30°	1097.3	5.0
30°-40°	1796.3	8.2
40°-50°	3110.3	14.2
50°-60°	4899.0	22.4
60°-70°	6397.8	29.3
70°-80°	3295.2	15.1
80°-90°	356.4	1.6
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°	21868.7	100.0
0°-180°	21868.7	100.0



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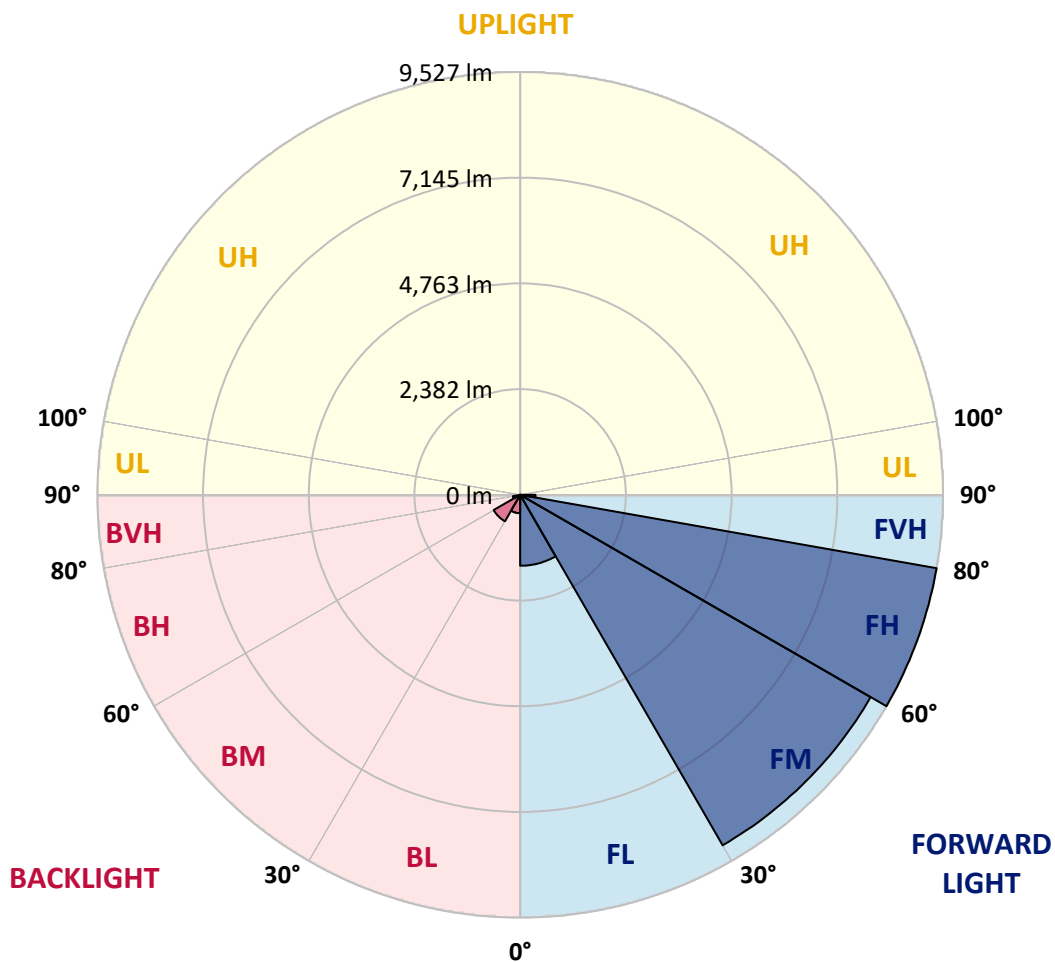
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1599.2	7.3			
FM	(30°-60°)	9117.8	41.7			
FH	(60°-80°)	9526.9	43.6			G4/12000
FVH	(80°-90°)	345.3	1.6			G3/500
BL	(0°-30°)	414.4	1.9	B1/500		
BM	(30°-60°)	687.7	3.1	B1/1000		
BH	(60°-80°)	166.1	0.8	B1/500		G1/500
BVH	(80°-90°)	11.2	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3267.3	3267.3	3267.3	3267.3	3267.3	3267.3	3267.3	3267.3	3267.3	3267.3	3267.3
2.5°	3587.5	3568.0	3556.3	3540.6	3521.1	3504.2	3497.7	3449.5	3404.0	3341.5	3269.9
5°	3653.9	3647.4	3626.6	3605.7	3582.3	3556.3	3542.0	3484.7	3419.6	3328.5	3203.5
7.5°	3660.4	3652.5	3626.6	3597.9	3565.4	3534.1	3509.4	3452.2	3392.2	3299.8	3147.5
10°	3650.0	3640.9	3621.3	3590.1	3549.7	3519.8	3495.1	3440.4	3389.6	3306.4	3137.1
12.5°	3638.2	3629.1	3620.0	3604.5	3569.3	3548.4	3527.6	3475.6	3430.0	3359.7	3174.8
15°	3650.0	3644.8	3655.2	3648.7	3629.1	3610.9	3590.1	3543.3	3501.6	3443.0	3243.9
17.5°	3699.5	3699.5	3732.0	3735.9	3717.7	3691.6	3661.8	3614.8	3579.7	3530.2	3325.8
20°	3815.3	3811.4	3853.0	3860.8	3816.6	3776.2	3732.0	3674.7	3647.4	3616.1	3406.5
22.5°	4014.5	3996.3	4021.0	4013.1	3926.0	3863.5	3808.8	3738.5	3724.2	3709.8	3496.3
25°	4273.5	4263.0	4280.0	4203.2	4049.7	3965.0	3899.9	3820.5	3820.5	3834.8	3597.9
27.5°	4649.7	4610.6	4553.4	4418.0	4187.6	4079.5	4009.3	3924.7	3946.7	4000.1	3732.0
30°	5035.0	4992.0	4860.6	4652.3	4355.5	4242.3	4160.2	4071.8	4123.8	4221.4	3911.7
32.5°	5415.1	5366.9	5180.8	4917.8	4596.3	4483.1	4403.7	4306.0	4393.3	4557.2	4174.6
35°	5783.5	5740.5	5525.8	5215.9	4916.5	4822.8	4750.0	4665.4	4777.3	5006.3	4545.6
37.5°	6197.4	6150.6	5888.9	5553.1	5305.7	5238.1	5184.7	5100.1	5295.3	5631.1	5062.4
40°	6706.4	6627.0	6274.3	5939.7	5756.1	5723.6	5687.2	5675.4	5978.7	6443.5	5750.9
42.5°	7289.5	7159.4	6677.7	6347.1	6250.8	6274.3	6265.2	6317.2	6833.9	7453.6	6589.2
45°	7872.7	7704.8	7126.9	6781.9	6795.0	6876.9	6927.7	7136.0	7905.3	8612.1	7491.4
47.5°	8367.4	8202.0	7557.8	7251.8	7408.0	7569.4	7707.4	8101.9	9006.5	9752.4	8192.9
50°	8790.4	8634.2	8014.6	7768.6	8120.1	8380.4	8604.2	9188.8	10191.0	10620.7	8685.0
52.5°	9136.7	9032.6	8488.4	8360.9	8933.6	9315.0	9643.1	10343.4	11240.3	11326.2	9067.7
55°	9473.9	9399.6	8997.4	9065.1	9889.1	10408.4	10823.7	11568.2	12143.7	11914.5	9434.8
57.5°	9861.8	9794.0	9578.0	9958.0	11145.3	11798.7	12251.7	12653.9	12939.0	12515.9	9781.0
60°	10257.4	10218.5	10223.6	10950.0	12587.5	13215.0	13464.9	13569.0	13720.0	13082.2	9800.6
62.5°	10635.0	10709.2	10961.6	12053.8	13968.6	14450.3	14576.5	14679.3	14502.4	13172.0	9054.6
65°	11274.1	11395.2	11997.9	13531.3	15487.7	16003.2	16133.4	15780.7	14625.9	12010.9	7365.0
67.5°	11586.6	11807.8	12883.0	14908.5	16961.2	17534.0	17485.8	15852.2	13125.2	9158.8	4726.5
69°	11521.4	11757.0	13087.3	15330.2	17450.7	17970.1	17664.2	14976.1	11181.7	6634.8	2901.5
70°	11263.7	11501.9	12982.0	15314.6	17513.2	17924.6	17333.6	13894.4	9454.3	4851.4	1814.6
72.5°	9406.1	9611.9	11525.3	13842.4	16133.4	15798.9	14501.0	9626.2	4606.8	1321.2	408.8
75°	5790.0	5904.6	8269.7	10428.0	12185.3	11326.2	9661.3	4788.9	1373.3	373.6	226.5
77.5°	3059.0	3111.1	4527.4	6146.7	7724.3	6391.4	4951.7	1867.9	632.6	234.4	164.0
80°	1808.1	1847.1	2438.1	2810.4	3342.8	2792.1	1979.9	1146.8	453.0	147.1	145.8
82.5°	1034.8	1059.6	1767.8	1562.0	1317.4	1124.6	985.4	1086.9	272.1	98.9	151.0
85°	380.1	385.3	994.5	1188.5	783.6	466.1	489.5	900.8	72.9	62.5	118.5
87.5°	177.1	173.1	511.6	727.6	458.2	295.5	381.4	197.8	28.6	40.3	32.5
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°	3267.3	3267.3	3267.3	3267.3	3267.3	3267.3	3267.3	3267.3	3267.3	3267.3	3267.3
2.5°	3228.2	3180.0	3092.9	3003.1	2911.9	2841.7	2772.6	2718.0	2699.8	2665.9	2668.5
5°	3129.3	3040.8	2858.5	2673.7	2481.1	2322.2	2172.5	2051.5	1992.9	1933.1	1933.1
7.5°	3043.4	2914.5	2629.5	2328.7	2017.7	1756.0	1520.4	1343.3	1245.7	1167.6	1166.4
10°	3010.9	2836.4	2438.1	2007.2	1573.8	1217.1	937.2	757.6	665.1	605.3	602.7
12.5°	3025.2	2809.1	2291.0	1710.5	1166.4	782.4	542.8	427.0	387.9	369.7	369.7
15°	3066.8	2801.2	2143.9	1420.2	824.0	489.5	360.6	329.3	326.7	326.7	326.7
17.5°	3117.5	2803.9	1992.9	1137.7	561.0	350.2	311.1	307.2	309.9	309.9	309.9
20°	3169.6	2805.1	1830.2	876.1	395.7	304.6	292.9	291.5	294.2	294.2	295.5
22.5°	3233.4	2811.7	1667.5	654.8	326.7	287.7	278.5	278.5	279.9	279.9	278.5
25°	3306.4	2824.7	1498.3	485.5	298.1	276.0	268.1	266.9	268.1	266.9	265.6
27.5°	3397.4	2842.9	1309.5	380.1	285.1	264.2	257.8	257.8	256.5	255.1	253.8
30°	3512.0	2863.8	1097.3	322.8	272.1	253.8	247.3	246.0	244.7	242.1	242.1
32.5°	3686.4	2909.3	887.7	292.9	257.8	239.5	234.4	234.4	231.7	229.1	227.8
35°	3954.6	2999.1	700.3	274.7	242.1	223.9	217.4	217.4	214.8	213.5	212.2
37.5°	4325.5	3135.9	544.1	257.8	226.5	206.9	200.5	199.2	196.5	194.0	192.6
40°	4818.9	3305.1	428.3	242.1	210.8	190.1	184.8	182.3	177.1	173.1	173.1
42.5°	5438.5	3497.7	347.6	225.2	192.6	174.4	170.5	166.6	157.5	153.6	152.3
45°	6086.8	3670.9	294.2	205.7	174.4	158.8	156.2	149.7	138.0	134.1	134.1
47.5°	6554.1	3711.2	259.0	187.4	157.5	141.9	140.6	128.9	118.5	115.9	114.6
50°	6845.7	3631.8	230.4	169.2	141.9	126.2	122.3	108.0	101.6	98.9	97.6
52.5°	7042.2	3489.9	206.9	153.6	127.6	111.9	102.8	92.4	87.3	84.6	84.6
55°	7199.7	3289.4	183.5	139.3	115.9	100.2	87.3	79.4	74.2	71.6	71.6
57.5°	7244.0	3017.4	160.1	127.6	104.1	88.5	74.2	68.9	62.5	61.2	61.2
60°	6922.5	2526.6	141.9	113.2	93.7	76.8	65.1	58.6	52.1	50.7	49.5
62.5°	6075.1	1955.2	125.0	100.2	82.0	66.4	56.0	48.2	43.0	43.0	43.0
65°	4634.1	1310.8	109.4	87.3	71.6	56.0	48.2	39.1	36.4	36.4	37.7
67.5°	2773.9	713.3	93.7	74.2	61.2	46.9	40.3	33.9	32.5	33.9	33.9
69°	1625.9	419.1	84.6	66.4	53.4	41.6	35.2	30.0	32.5	33.9	33.9
70°	1003.6	282.4	78.2	59.8	48.2	37.7	32.5	28.6	31.2	32.5	32.5
72.5°	279.9	145.8	62.5	46.9	39.1	31.2	26.1	26.1	30.0	31.2	31.2
75°	182.3	108.0	48.2	35.2	30.0	24.8	22.1	24.8	28.6	30.0	30.0
77.5°	151.0	88.5	39.1	28.6	24.8	23.4	20.9	22.1	26.1	27.3	27.3
80°	138.0	62.5	31.2	26.1	22.1	20.9	19.5	18.2	23.4	24.8	24.8
82.5°	131.4	49.5	27.3	23.4	20.9	18.2	16.9	18.2	20.9	22.1	23.4
85°	82.0	32.5	24.8	22.1	18.2	16.9	16.9	16.9	19.5	20.9	20.9
87.5°	30.0	26.1	22.1	18.2	15.7	15.7	15.7	15.7	16.9	19.5	19.5
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)