

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: P300921

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300921  
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: GLNA-AF-04-LED-E1-SL4-800  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18368.1 lumens  
Efficiency: N/A  
Efficacy: 107.4 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

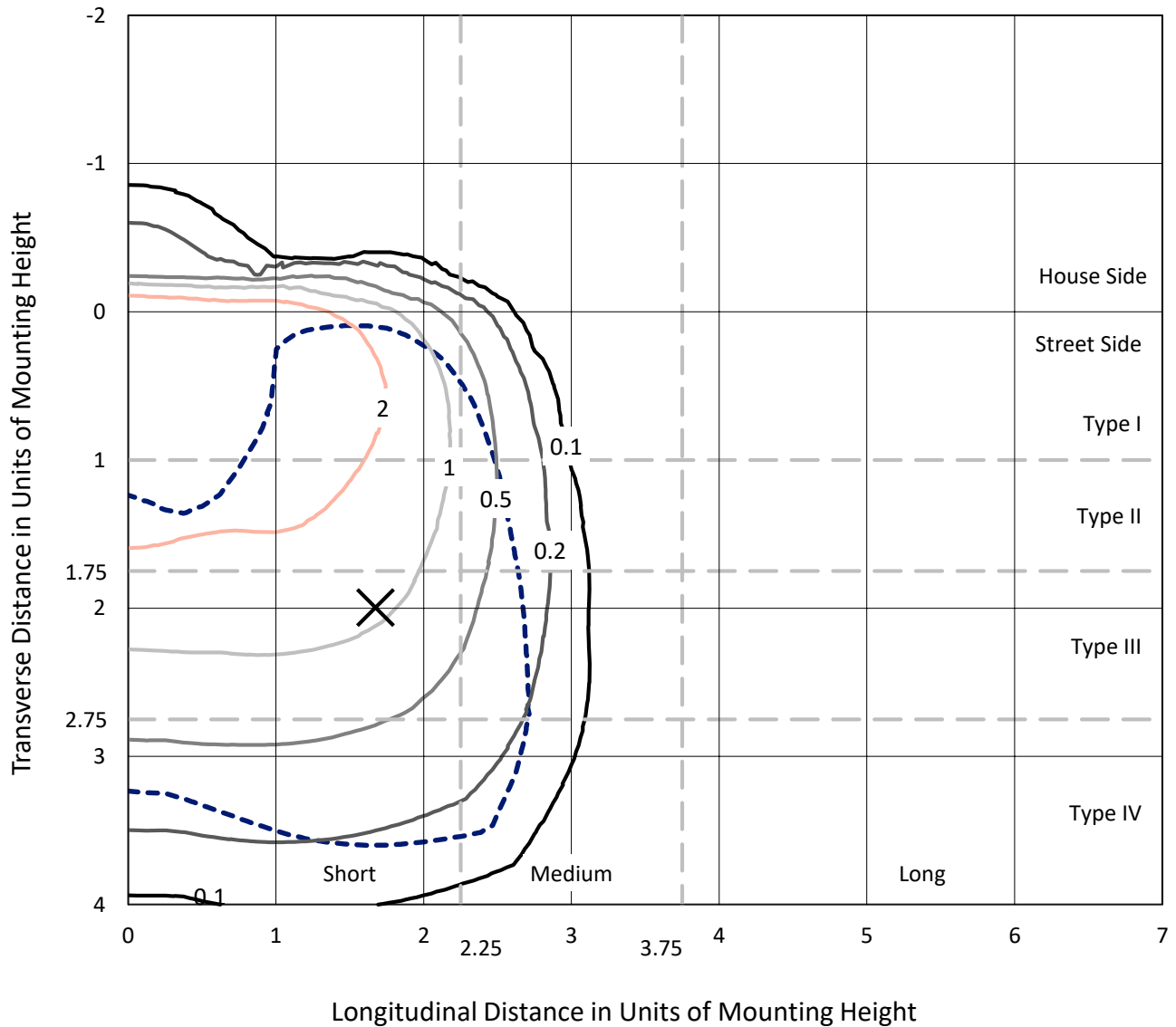
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

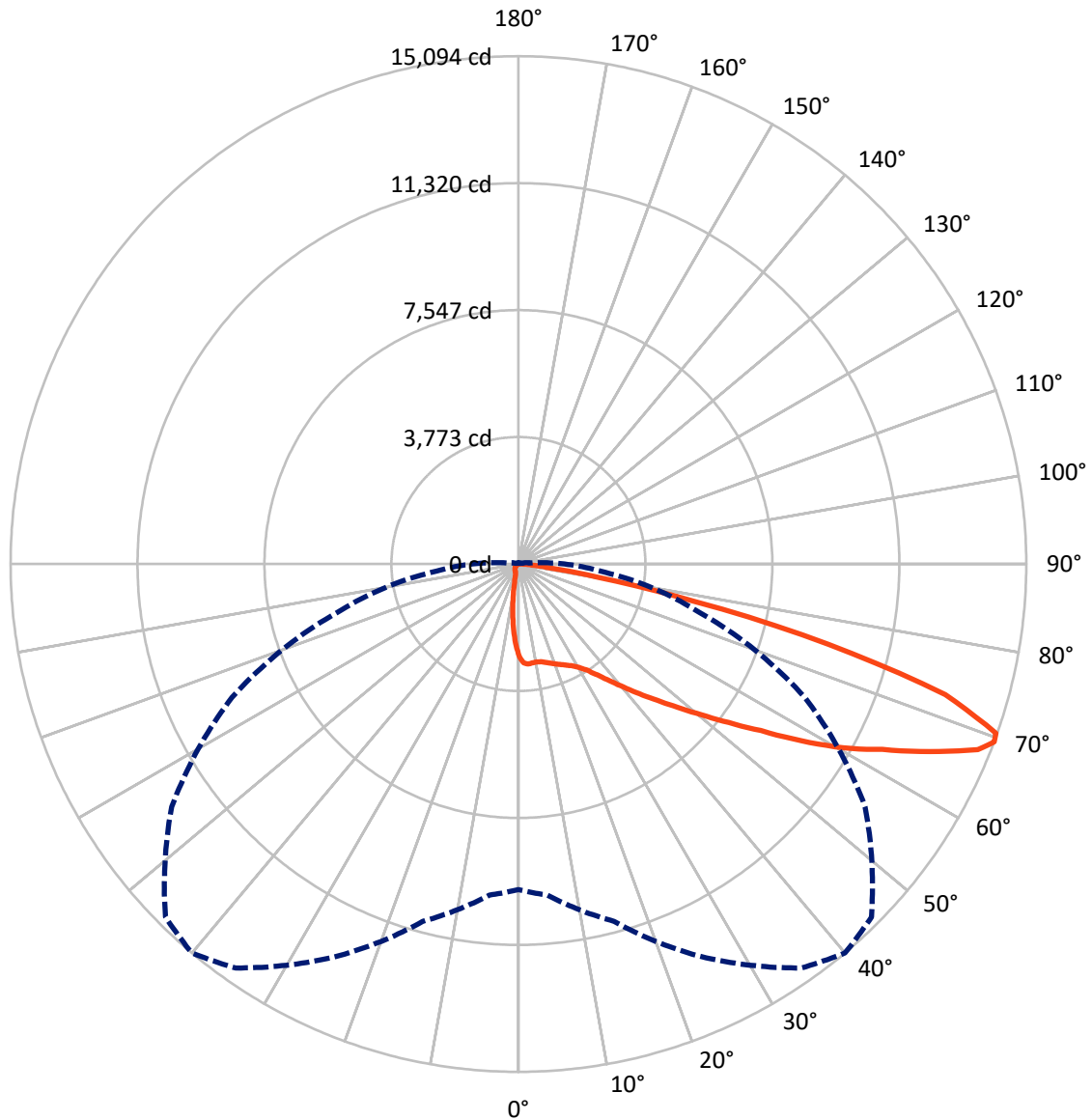
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 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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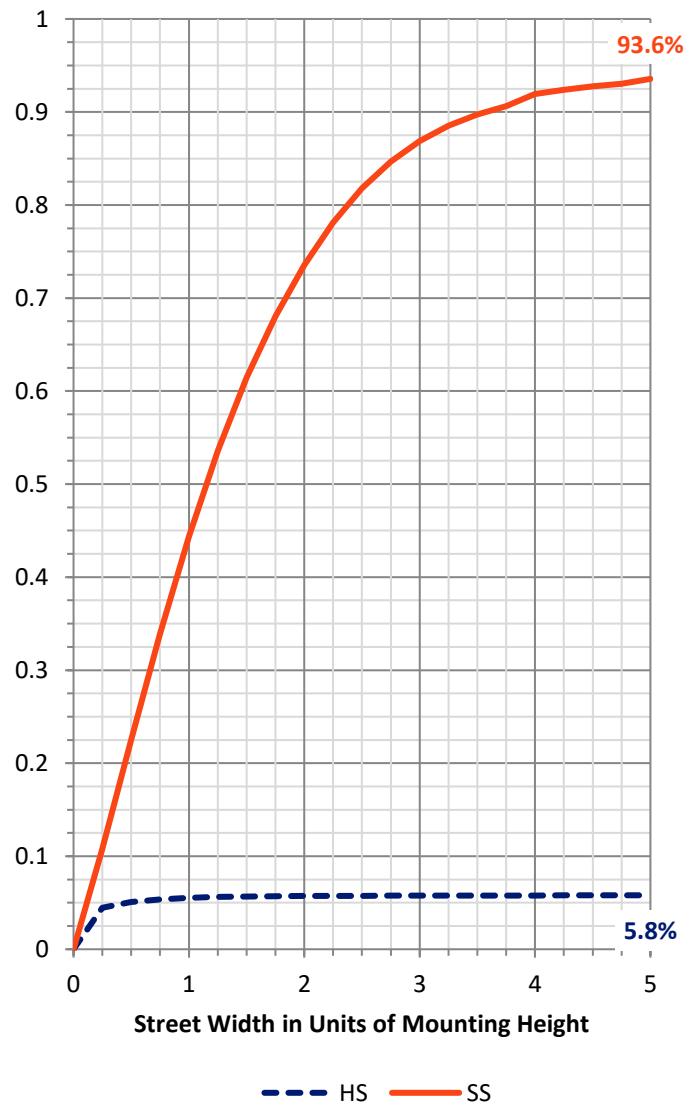
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1074.6	0.0	1074.6
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	17293.4	0.0	17293.4
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	18368.1	0.0	18368.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	222.5	1.2
10°-20°	547.2	3.0
20°-30°	921.6	5.0
30°-40°	1508.8	8.2
40°-50°	2612.4	14.2
50°-60°	4114.8	22.4
60°-70°	5373.7	29.3
70°-80°	2767.7	15.1
80°-90°	299.4	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°	18368.1	100.0
0°-180°	18368.1	100.0



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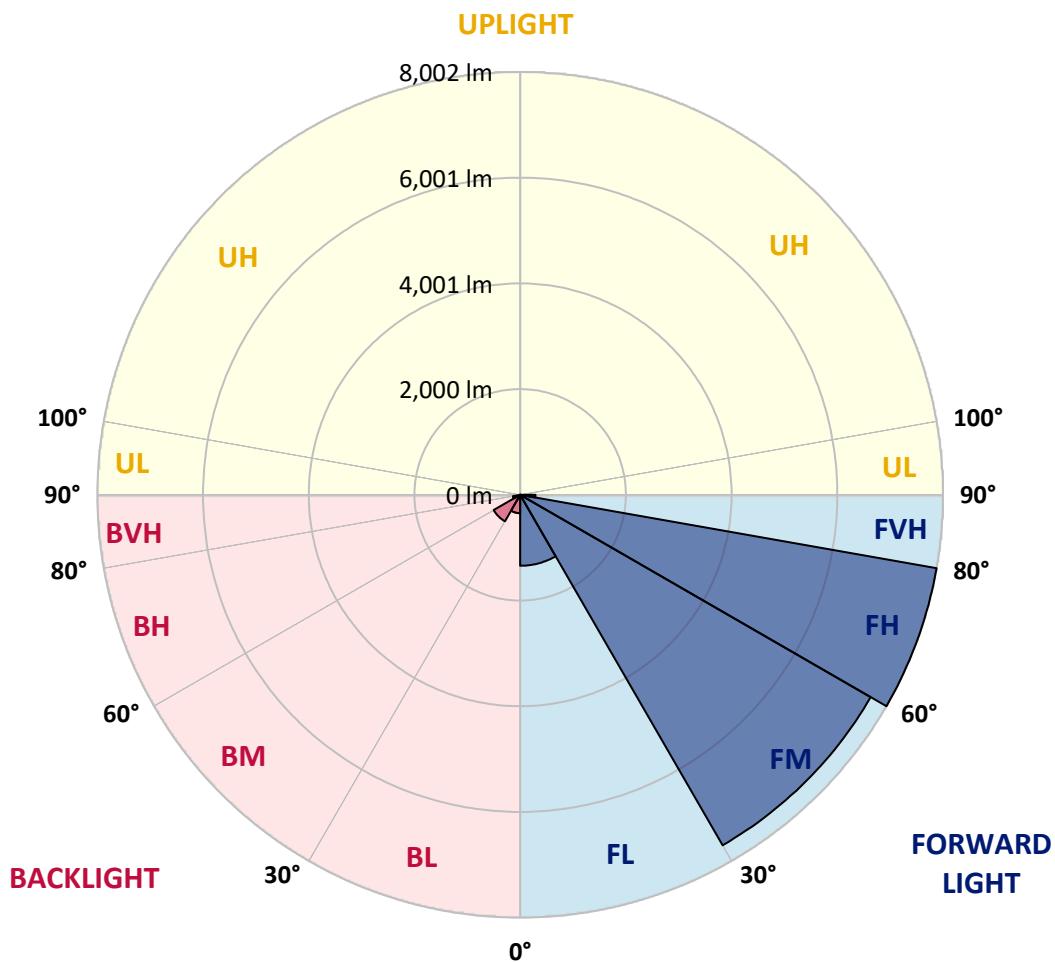
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1343.2	7.3			
FM	(30°-60°)	7658.3	41.7			
FH	(60°-80°)	8001.9	43.6			G4/12000
FVH	(80°-90°)	290.0	1.6			G3/500
BL	(0°-30°)	348.1	1.9	B1/500		
BM	(30°-60°)	577.6	3.1	B1/1000		
BH	(60°-80°)	139.5	0.8	B1/500		G1/500
BVH	(80°-90°)	9.4	0.1			G0/10
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°	2744.3	2744.3	2744.3	2744.3	2744.3	2744.3	2744.3	2744.3	2744.3	2744.3	2744.3
2.5°	3013.2	2996.8	2987.0	2973.9	2957.5	2943.3	2937.8	2897.4	2859.1	2806.6	2746.5
5°	3069.0	3063.5	3046.0	3028.6	3008.9	2987.0	2975.0	2926.9	2872.2	2795.7	2690.7
7.5°	3074.5	3067.9	3046.0	3022.0	2994.7	2968.4	2947.6	2899.5	2849.2	2771.6	2643.7
10°	3065.7	3058.1	3041.7	3015.4	2981.5	2956.4	2935.6	2889.7	2847.1	2777.1	2634.9
12.5°	3055.9	3048.2	3040.6	3027.5	2997.9	2980.4	2963.0	2919.2	2880.9	2821.9	2666.7
15°	3065.7	3061.4	3070.1	3064.6	3048.2	3032.9	3015.4	2976.1	2941.1	2891.9	2724.6
17.5°	3107.3	3107.3	3134.6	3137.9	3122.6	3100.7	3075.6	3036.2	3006.7	2965.1	2793.5
20°	3204.6	3201.3	3236.3	3242.8	3205.7	3171.8	3134.6	3086.5	3063.5	3037.3	2861.3
22.5°	3371.9	3356.6	3377.3	3370.8	3297.5	3245.0	3199.1	3140.1	3128.0	3116.0	2936.7
25°	3589.4	3580.7	3594.9	3530.4	3401.4	3330.3	3275.6	3209.0	3209.0	3221.0	3022.0
27.5°	3905.4	3872.6	3824.5	3710.8	3517.3	3426.5	3367.5	3296.4	3315.0	3359.8	3134.6
30°	4229.0	4193.0	4082.5	3907.6	3658.3	3563.2	3494.3	3420.0	3463.7	3545.7	3285.5
32.5°	4548.3	4507.8	4351.5	4130.6	3860.6	3765.5	3698.8	3616.8	3690.0	3827.8	3506.3
35°	4857.7	4821.6	4641.2	4381.0	4129.5	4050.8	3989.6	3918.5	4012.6	4205.0	3817.9
37.5°	5205.4	5166.0	4946.3	4664.2	4456.5	4399.6	4354.8	4283.7	4447.7	4729.8	4252.0
40°	5632.9	5566.2	5269.9	4988.9	4834.7	4807.4	4776.8	4767.0	5021.7	5412.0	4830.4
42.5°	6122.7	6013.4	5608.8	5331.1	5250.2	5269.9	5262.2	5306.0	5740.0	6260.5	5534.5
45°	6612.5	6471.5	5986.0	5696.3	5707.2	5776.1	5818.8	5993.7	6639.9	7233.5	6292.2
47.5°	7028.0	6889.1	6347.9	6091.0	6222.2	6357.8	6473.7	6804.9	7564.8	8191.3	6881.5
50°	7383.3	7252.1	6731.7	6525.1	6820.3	7038.9	7227.0	7717.9	8559.8	8920.6	7294.8
52.5°	7674.2	7586.7	7129.7	7022.5	7503.6	7823.9	8099.5	8687.7	9441.0	9513.1	7616.2
55°	7957.3	7895.0	7557.2	7614.0	8306.1	8742.3	9091.1	9716.5	10199.8	10007.3	7924.5
57.5°	8283.1	8226.3	8044.8	8364.0	9361.2	9910.0	10290.5	10628.4	10867.8	10512.5	8215.4
60°	8615.5	8582.7	8587.1	9197.2	10572.6	11099.6	11309.5	11397.0	11523.8	10988.1	8231.8
62.5°	8932.6	8994.9	9207.0	10124.3	11732.6	12137.2	12243.2	12329.6	12180.9	11063.5	7605.3
65°	9469.4	9571.1	10077.3	11365.3	13008.6	13441.5	13550.9	13254.6	12284.8	10088.2	6186.1
67.5°	9731.8	9917.7	10820.8	12522.0	14246.2	14727.3	14686.8	13314.7	11024.1	7692.7	3969.9
69°	9677.1	9875.0	10992.4	12876.3	14657.3	15093.6	14836.6	12578.9	9391.8	5572.8	2437.1
70°	9460.7	9660.7	10903.9	12863.1	14709.8	15055.3	14558.9	11670.3	7940.9	4074.9	1524.1
72.5°	7900.5	8073.2	9680.4	11626.6	13550.9	13269.9	12179.8	8085.2	3869.3	1109.7	343.3
75°	4863.2	4959.4	6946.0	8758.7	10234.8	9513.1	8114.8	4022.4	1153.5	313.8	190.2
77.5°	2569.3	2613.1	3802.6	5162.7	6487.9	5368.3	4159.1	1568.9	531.4	196.8	137.8
80°	1518.6	1551.4	2047.8	2360.5	2807.7	2345.2	1663.0	963.2	380.5	123.5	122.5
82.5°	869.2	890.0	1484.8	1312.0	1106.5	944.6	827.7	912.9	228.5	83.1	126.8
85°	319.3	323.6	835.3	998.2	658.2	391.4	411.1	756.6	61.2	52.5	99.5
87.5°	148.7	145.4	429.7	611.2	384.9	248.2	320.3	166.2	24.1	33.9	27.3
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°	2744.3	2744.3	2744.3	2744.3	2744.3	2744.3	2744.3	2744.3	2744.3	2744.3	2744.3
2.5°	2711.5	2671.0	2597.8	2522.3	2445.8	2386.8	2328.8	2282.9	2267.6	2239.2	2241.3
5°	2628.4	2554.0	2401.0	2245.7	2083.9	1950.5	1824.8	1723.1	1673.9	1623.6	1623.6
7.5°	2556.2	2448.0	2208.5	1956.0	1694.7	1474.9	1277.0	1128.3	1046.3	980.7	979.6
10°	2528.9	2382.4	2047.8	1685.9	1321.8	1022.3	787.2	636.3	558.7	508.4	506.2
12.5°	2540.9	2359.4	1924.3	1436.6	979.6	657.1	455.9	358.6	325.8	310.5	310.5
15°	2575.9	2352.9	1800.7	1192.8	692.1	411.1	302.9	276.6	274.4	274.4	274.4
17.5°	2618.5	2355.1	1673.9	955.6	471.2	294.1	261.3	258.0	260.2	260.2	260.2
20°	2662.3	2356.1	1537.2	735.8	332.4	255.8	246.0	244.9	247.1	247.1	248.2
22.5°	2715.9	2361.6	1400.6	549.9	274.4	241.6	234.0	234.0	235.1	235.1	234.0
25°	2777.1	2372.5	1258.4	407.8	250.4	231.8	225.2	224.1	225.2	224.1	223.0
27.5°	2853.6	2387.9	1099.9	319.3	239.4	221.9	216.5	216.5	215.4	214.3	213.2
30°	2949.8	2405.3	921.7	271.1	228.5	213.2	207.7	206.6	205.5	203.4	203.4
32.5°	3096.3	2443.6	745.7	246.0	216.5	201.2	196.8	196.8	194.6	192.4	191.3
35°	3321.6	2519.1	588.2	230.7	203.4	188.1	182.6	182.6	180.4	179.3	178.2
37.5°	3633.2	2633.9	457.0	216.5	190.2	173.8	168.4	167.3	165.1	162.9	161.8
40°	4047.5	2776.0	359.7	203.4	177.1	159.6	155.3	153.1	148.7	145.4	145.4
42.5°	4568.0	2937.8	291.9	189.1	161.8	146.5	143.2	139.9	132.3	129.0	127.9
45°	5112.5	3083.2	247.1	172.7	146.5	133.4	131.2	125.7	115.9	112.6	112.6
47.5°	5505.0	3117.1	217.6	157.4	132.3	119.2	118.1	108.2	99.5	97.3	96.2
50°	5749.9	3050.4	193.5	142.1	119.2	106.1	102.8	90.7	85.3	83.1	82.0
52.5°	5915.0	2931.2	173.8	129.0	107.1	94.0	86.4	77.6	73.3	71.1	71.1
55°	6047.3	2762.9	154.2	117.0	97.3	84.2	73.3	66.7	62.3	60.1	60.1
57.5°	6084.4	2534.4	134.5	107.1	87.5	74.3	62.3	57.9	52.5	51.4	51.4
60°	5814.4	2122.2	119.2	95.1	78.7	64.5	54.7	49.2	43.7	42.6	41.5
62.5°	5102.6	1642.2	105.0	84.2	68.9	55.8	47.0	40.5	36.1	36.1	36.1
65°	3892.3	1101.0	91.8	73.3	60.1	47.0	40.5	32.8	30.6	30.6	31.7
67.5°	2329.9	599.2	78.7	62.3	51.4	39.4	33.9	28.4	27.3	28.4	28.4
69°	1365.6	352.1	71.1	55.8	44.8	35.0	29.5	25.1	27.3	28.4	28.4
70°	843.0	237.3	65.6	50.3	40.5	31.7	27.3	24.1	26.2	27.3	27.3
72.5°	235.1	122.5	52.5	39.4	32.8	26.2	21.9	21.9	25.1	26.2	26.2
75°	153.1	90.7	40.5	29.5	25.1	20.8	18.6	20.8	24.1	25.1	25.1
77.5°	126.8	74.3	32.8	24.1	20.8	19.7	17.5	18.6	21.9	23.0	23.0
80°	115.9	52.5	26.2	21.9	18.6	17.5	16.4	15.3	19.7	20.8	20.8
82.5°	110.4	41.5	23.0	19.7	17.5	15.3	14.2	15.3	17.5	18.6	19.7
85°	68.9	27.3	20.8	18.6	15.3	14.2	14.2	14.2	16.4	17.5	17.5
87.5°	25.1	21.9	18.6	15.3	13.1	13.1	13.1	13.1	14.2	16.4	16.4
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)