

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: P453009

Luminaire Tested: **GALN-SA4A-730-U-SL2-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453009  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4A-730-U-SL2-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13484 lumens  
Efficiency: N/A  
Efficacy: 111.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

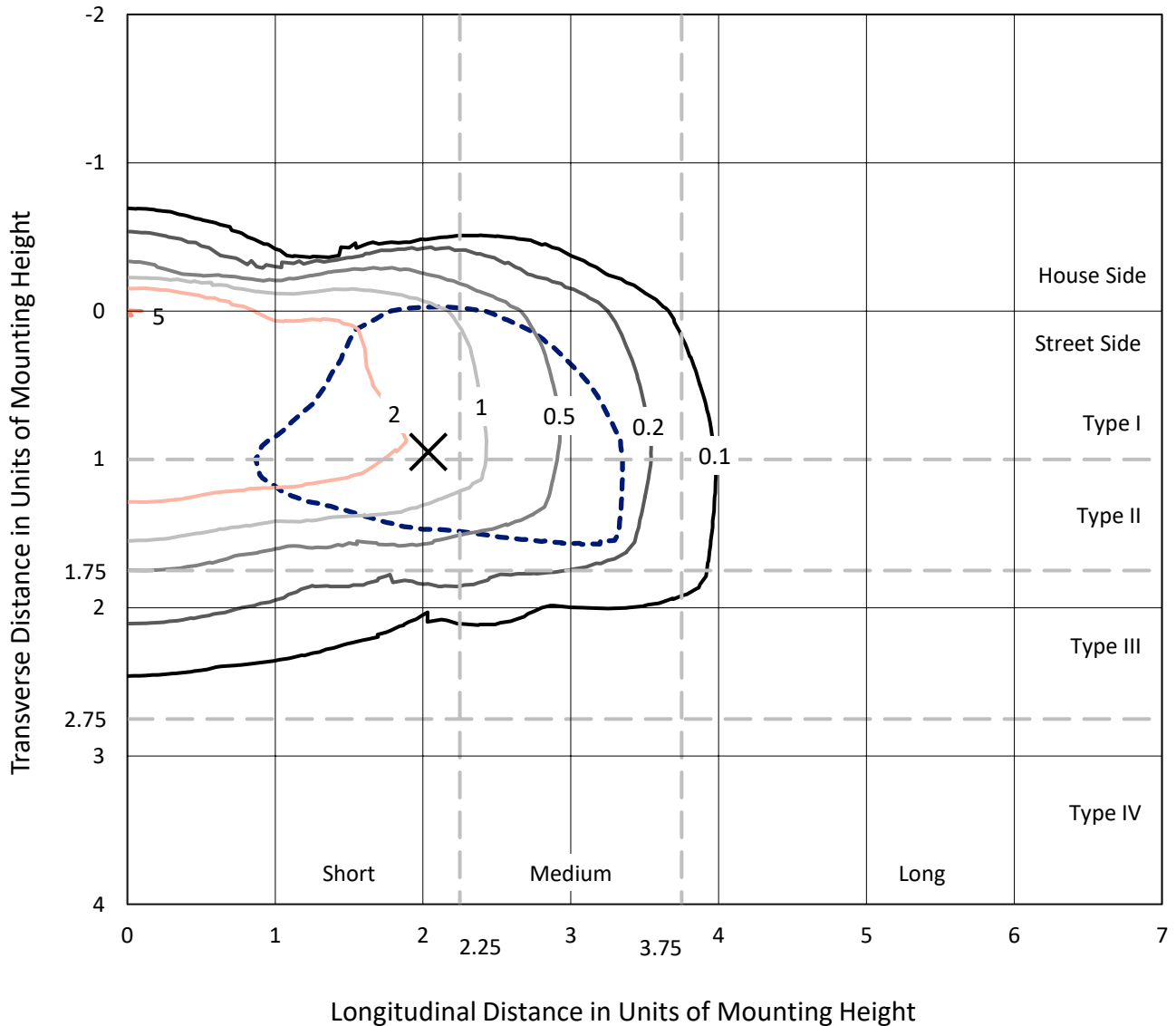
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

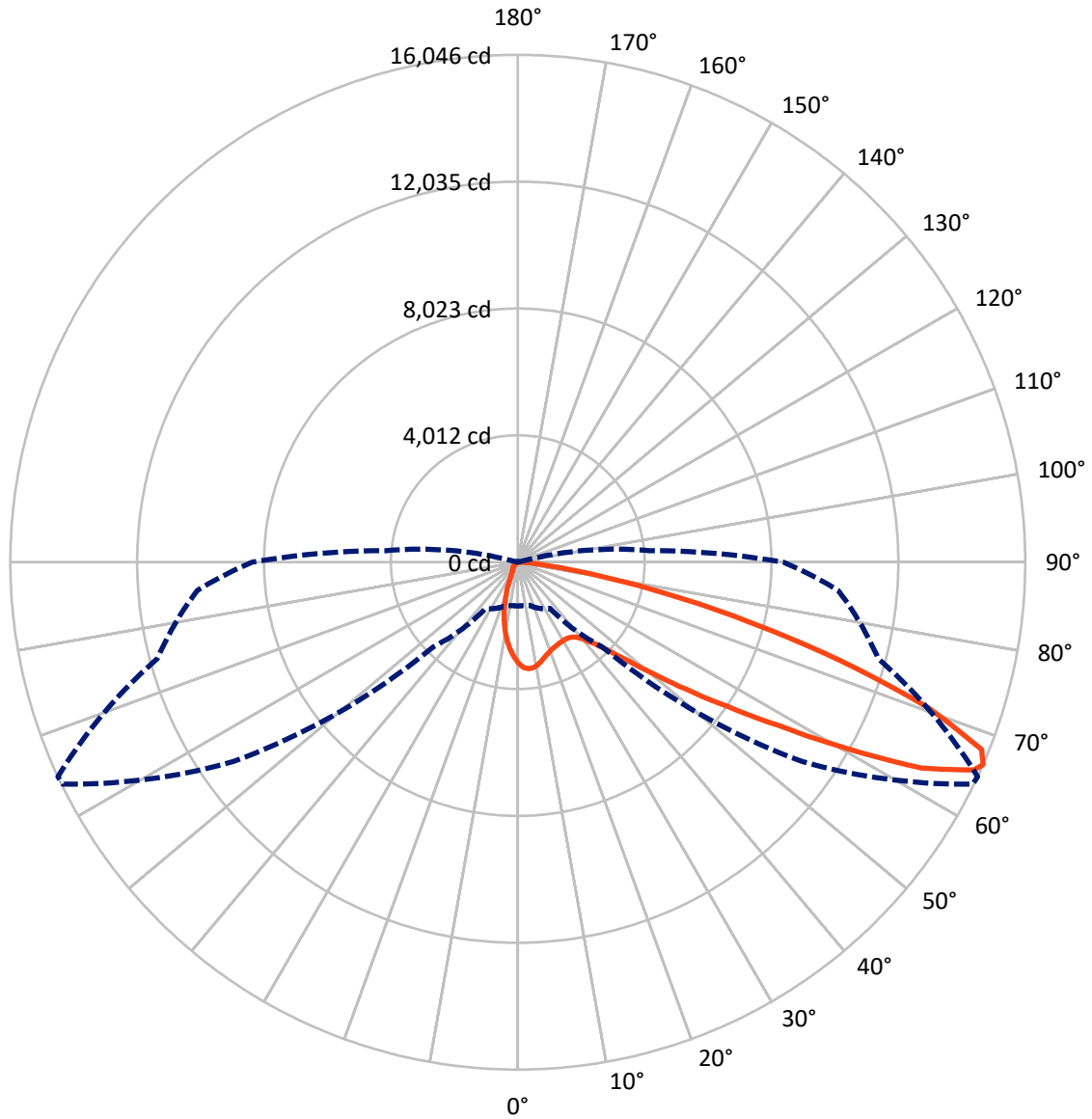
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral      - - - Horizontal Cone Through 66-Deg Vertical

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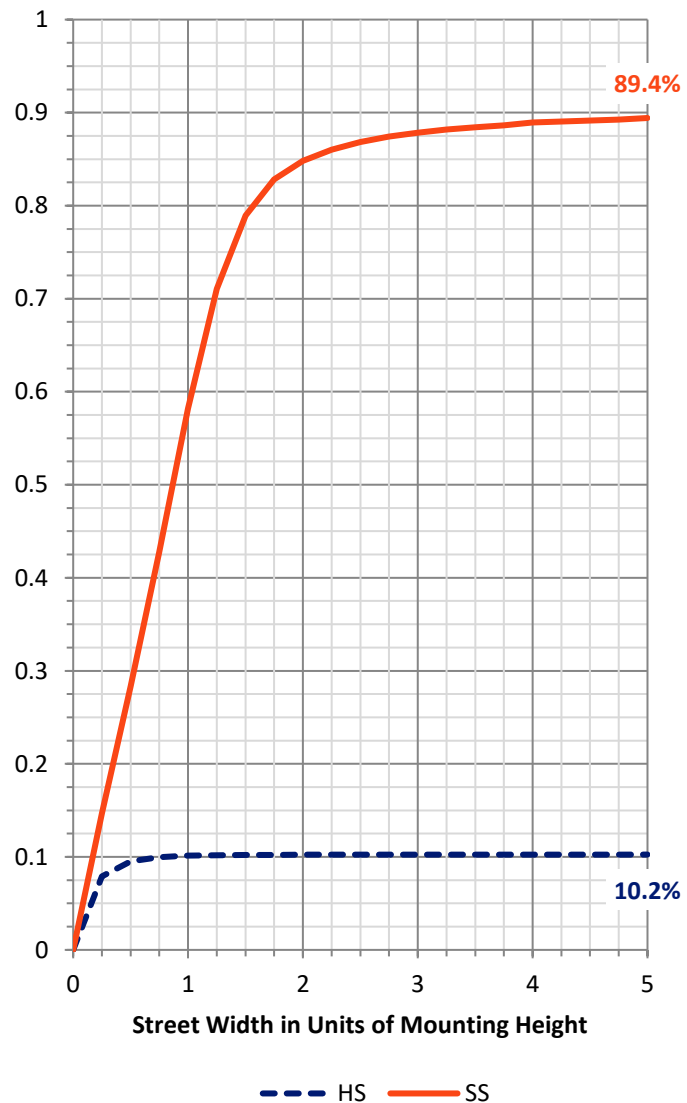
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1394.4	0.0	1394.4
	% Fixture	10.3	0.0	10.3
<b>Street Side</b>	Lumens	12089.6	0.0	12089.6
	% Fixture	89.7	0.0	89.7
<b>Total</b>	Lumens	13484.0	0.0	13484.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	261.5	1.9
10°-20°	569.8	4.2
20°-30°	816.2	6.1
30°-40°	1192.2	8.8
40°-50°	1999.1	14.8
50°-60°	3336.1	24.7
60°-70°	3541.2	26.3
70°-80°	1603.8	11.9
80°-90°	164.1	1.2
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°	13484.0	100.0
0°-180°	13484.0	100.0



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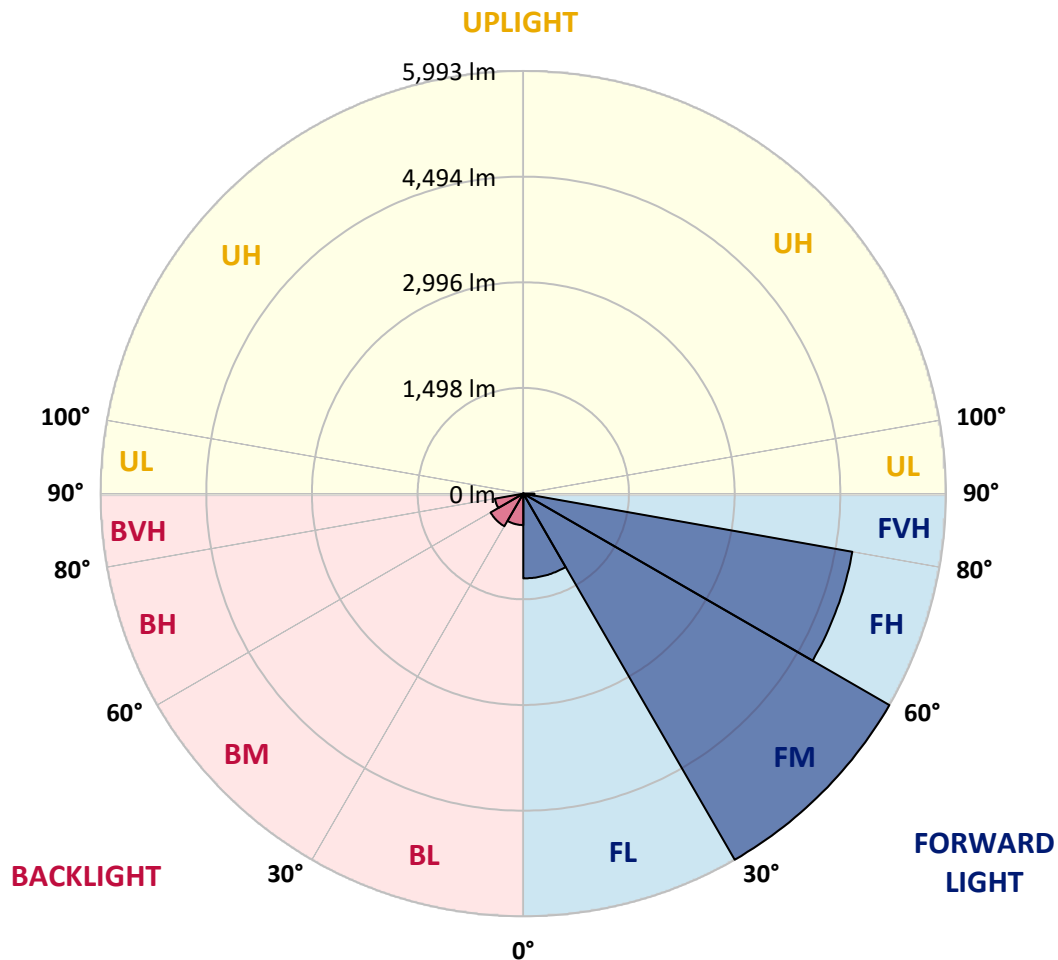
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1201.5	8.9			
FM (30°-60°)	5992.6	44.4			
FH (60°-80°)	4736.6	35.1			G2/5000
FVH (80°-90°)	158.9	1.2			G2/225
BL (0°-30°)	446.1	3.3	B1/500		
BM (30°-60°)	534.8	4.0	B1/1000		
BH (60°-80°)	408.4	3.0	B1/500		G1/500
BVH (80°-90°)	5.2	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-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	3197.6	3197.6	3197.6	3197.6	3197.6	3197.6	3197.6	3197.6	3197.6	3197.6	3197.6
2.5°	3369.7	3373.3	3377.9	3384.3	3388.8	3375.1	3356.0	3334.2	3329.6	3283.2	3226.7
5°	3189.4	3194.8	3234.9	3256.8	3305.9	3350.6	3378.8	3382.4	3380.6	3336.9	3246.7
7.5°	2932.5	2948.0	2987.2	3025.4	3117.4	3202.1	3302.3	3372.4	3377.0	3365.1	3253.1
10°	2724.0	2734.0	2754.0	2829.6	2906.1	3035.4	3175.7	3307.8	3318.7	3366.0	3247.6
12.5°	2561.0	2575.5	2600.1	2658.4	2750.4	2872.4	3031.8	3209.4	3232.2	3348.7	3232.2
15°	2447.1	2454.4	2479.0	2536.4	2625.6	2738.5	2899.7	3106.5	3126.5	3326.0	3229.4
17.5°	2393.4	2401.6	2418.9	2464.4	2538.2	2642.9	2800.5	3023.6	3049.1	3311.4	3239.4
20°	2408.0	2415.2	2416.2	2439.8	2489.9	2578.3	2727.6	2946.2	2979.0	3302.3	3255.8
22.5°	2490.8	2491.7	2480.8	2469.9	2487.2	2550.9	2683.0	2897.0	2930.7	3300.5	3275.0
25°	2614.7	2617.4	2599.2	2561.0	2526.3	2559.1	2673.0	2865.1	2895.2	3295.9	3286.8
27.5°	2785.9	2785.0	2779.5	2715.8	2617.4	2595.6	2681.2	2847.8	2873.3	3283.2	3291.4
30°	3025.4	3018.1	3006.3	2934.4	2784.1	2683.9	2715.8	2836.9	2860.6	3264.9	3279.5
32.5°	3261.3	3288.6	3286.8	3218.5	3030.9	2841.5	2787.7	2851.5	2868.8	3253.1	3262.2
35°	3536.3	3535.4	3605.6	3580.1	3360.6	3042.7	2910.7	2899.7	2913.4	3261.3	3254.0
37.5°	3791.3	3815.0	3924.3	3950.7	3750.4	3326.9	3084.6	3003.6	3008.1	3316.9	3274.1
40°	4109.2	4154.7	4317.7	4406.1	4229.4	3748.5	3341.4	3193.9	3194.8	3453.5	3349.6
42.5°	4519.0	4591.0	4743.1	4890.6	4795.9	4247.6	3726.7	3495.4	3493.5	3693.9	3522.7
45°	5017.2	5067.3	5240.3	5474.4	5414.3	4944.3	4287.7	3962.6	3938.9	4088.2	3829.6
47.5°	5447.0	5515.3	5691.1	5958.0	6231.2	5794.9	4958.0	4604.6	4589.1	4715.7	4356.0
50°	5634.7	5694.8	5879.6	6253.9	6916.0	6911.5	5956.1	5541.8	5515.3	5583.7	5170.2
52.5°	5428.8	5485.3	5672.0	6138.3	7238.4	8272.1	7402.4	6717.5	6685.6	6598.2	6142.8
55°	4723.9	4770.4	5046.3	5581.8	7114.6	9179.2	9395.0	8170.1	8046.3	7706.6	7243.9
57.5°	3761.3	3737.6	3908.8	4530.9	6387.8	9483.4	11440.5	9979.7	9758.4	8664.6	8175.6
60°	2606.5	2679.4	2748.6	3158.4	4803.2	8956.1	12712.8	12254.7	11963.3	9607.2	9068.1
62.5°	1916.2	1964.4	2010.0	2199.4	3020.0	7151.0	12937.8	14591.6	14333.0	10608.1	9919.6
65°	1515.4	1519.1	1537.3	1724.0	1989.9	4650.2	11856.7	15909.4	15843.0	11571.7	10264.8
66°	1380.7	1381.6	1409.8	1610.2	1785.9	3786.8	10990.6	16009.6	16046.1	11803.0	10163.7
67.5°	1206.7	1203.1	1244.0	1447.1	1626.6	2730.4	9440.6	15603.4	15819.3	11980.6	9800.3
70°	935.3	930.8	980.9	1214.0	1498.1	1821.4	6274.9	13397.7	13745.6	11617.2	8671.0
72.5°	622.9	626.6	712.2	958.1	1429.8	1603.8	3775.0	10191.9	10683.7	9593.6	6821.3
75°	363.4	369.8	467.2	712.2	1241.3	1529.1	2136.6	7267.6	7581.8	6624.6	4249.4
77.5°	190.3	193.1	261.4	469.9	951.7	1419.8	1423.5	4642.9	4790.4	3219.4	1682.1
80°	101.1	98.4	140.3	283.2	654.8	1246.8	1154.8	2458.0	2555.5	956.3	425.3
82.5°	38.3	41.9	74.7	185.8	387.1	895.2	994.5	1086.5	1052.8	210.4	178.5
85°	7.3	9.1	31.9	110.2	194.9	374.3	733.1	532.8	493.6	79.2	102.9
87.5°	0.9	1.8	9.1	26.4	28.2	126.6	216.8	147.5	127.5	29.1	42.8
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°	3197.6	3197.6	3197.6	3197.6	3197.6	3197.6	3197.6	3197.6	3197.6	3197.6	3197.6
2.5°	3199.4	3174.8	3092.8	3011.8	2928.9	2854.2	2803.2	2720.3	2699.4	2669.3	2652.0
5°	3193.0	3135.6	2978.1	2805.9	2645.7	2472.6	2340.6	2213.1	2144.8	2110.1	2097.4
7.5°	3174.8	3083.7	2837.8	2568.2	2311.4	2052.8	1827.8	1656.6	1546.4	1470.8	1419.8
10°	3138.4	3012.7	2674.8	2304.1	1916.2	1574.6	1289.6	1072.8	905.3	852.4	854.3
12.5°	3101.0	2933.4	2492.7	2010.9	1530.0	1099.2	796.9	625.7	545.5	519.1	513.6
15°	3066.4	2857.9	2314.2	1726.7	1139.3	712.2	513.6	453.5	431.7	427.1	426.2
17.5°	3048.2	2787.7	2123.8	1401.6	795.1	483.6	411.6	395.3	388.9	384.3	382.5
20°	3032.7	2726.7	1941.7	1097.4	543.7	396.2	368.8	353.4	342.4	337.9	335.1
22.5°	3021.8	2663.9	1753.1	849.7	416.2	351.5	327.0	306.9	291.4	286.0	282.3
25°	3005.4	2594.7	1562.8	621.1	350.6	312.4	284.1	260.5	240.4	230.4	228.6
27.5°	2981.7	2516.3	1354.2	459.9	313.3	277.8	243.2	214.0	194.0	183.1	184.0
30°	2943.5	2434.4	1145.7	365.2	283.2	242.3	204.9	176.7	157.6	149.4	148.4
32.5°	2897.9	2335.1	954.4	313.3	255.9	210.4	171.2	146.6	132.1	125.7	124.8
35°	2855.1	2234.9	759.5	281.4	227.7	181.2	143.9	122.9	112.0	106.6	107.5
37.5°	2831.4	2145.7	592.0	255.9	204.9	155.7	123.9	105.6	95.6	91.1	90.2
40°	2846.9	2072.8	470.8	233.1	179.4	133.9	106.6	91.1	81.1	74.7	74.7
42.5°	2919.8	2040.9	379.8	211.3	155.7	115.7	92.9	78.3	67.4	61.0	61.9
45°	3142.0	2074.6	317.8	191.3	133.9	100.2	80.1	64.7	54.6	50.1	49.2
47.5°	3510.8	2201.2	275.0	170.3	114.8	85.6	67.4	53.7	43.7	40.1	39.2
50°	4155.6	2462.6	243.2	149.4	97.4	72.9	55.6	42.8	34.6	31.0	31.0
52.5°	5042.7	3032.7	220.4	125.7	82.0	61.9	45.5	34.6	27.3	24.6	23.7
55°	5969.8	3633.8	208.6	105.6	68.3	51.0	36.4	27.3	20.9	18.2	17.3
57.5°	6861.4	4105.5	194.9	85.6	54.6	39.2	28.2	20.9	14.6	12.8	11.8
60°	7716.6	4487.1	165.8	68.3	42.8	28.2	20.9	14.6	10.0	8.2	8.2
62.5°	8481.6	4709.4	130.2	54.6	32.8	20.0	13.7	10.9	7.3	5.5	5.5
65°	8570.8	4420.7	98.4	41.9	23.7	12.8	8.2	8.2	5.5	3.6	3.6
66°	8391.4	4175.7	86.5	38.3	20.9	10.9	7.3	6.4	4.6	2.7	2.7
67.5°	7990.7	3757.6	74.7	32.8	17.3	8.2	5.5	5.5	3.6	1.8	1.8
70°	6904.2	3069.1	59.2	24.6	12.8	6.4	3.6	3.6	2.7	1.8	1.8
72.5°	5262.2	2291.4	48.3	18.2	9.1	4.6	2.7	2.7	2.7	1.8	1.8
75°	3173.9	1234.0	37.3	13.7	8.2	3.6	1.8	2.7	3.6	2.7	1.8
77.5°	1169.4	419.8	29.1	10.9	6.4	3.6	1.8	1.8	3.6	2.7	2.7
80°	286.9	109.3	20.9	9.1	6.4	3.6	1.8	1.8	3.6	3.6	3.6
82.5°	133.0	46.4	14.6	8.2	6.4	3.6	1.8	1.8	2.7	3.6	3.6
85°	76.5	21.9	11.8	9.1	6.4	3.6	1.8	1.8	2.7	3.6	3.6
87.5°	31.0	10.9	10.9	9.1	7.3	4.6	1.8	1.8	1.8	2.7	2.7
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)