

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: P454087

Luminaire Tested: **GALN-SA5A-830-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454087
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA5A-830-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17813 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

Input Watts (W): 154
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: 24 FT

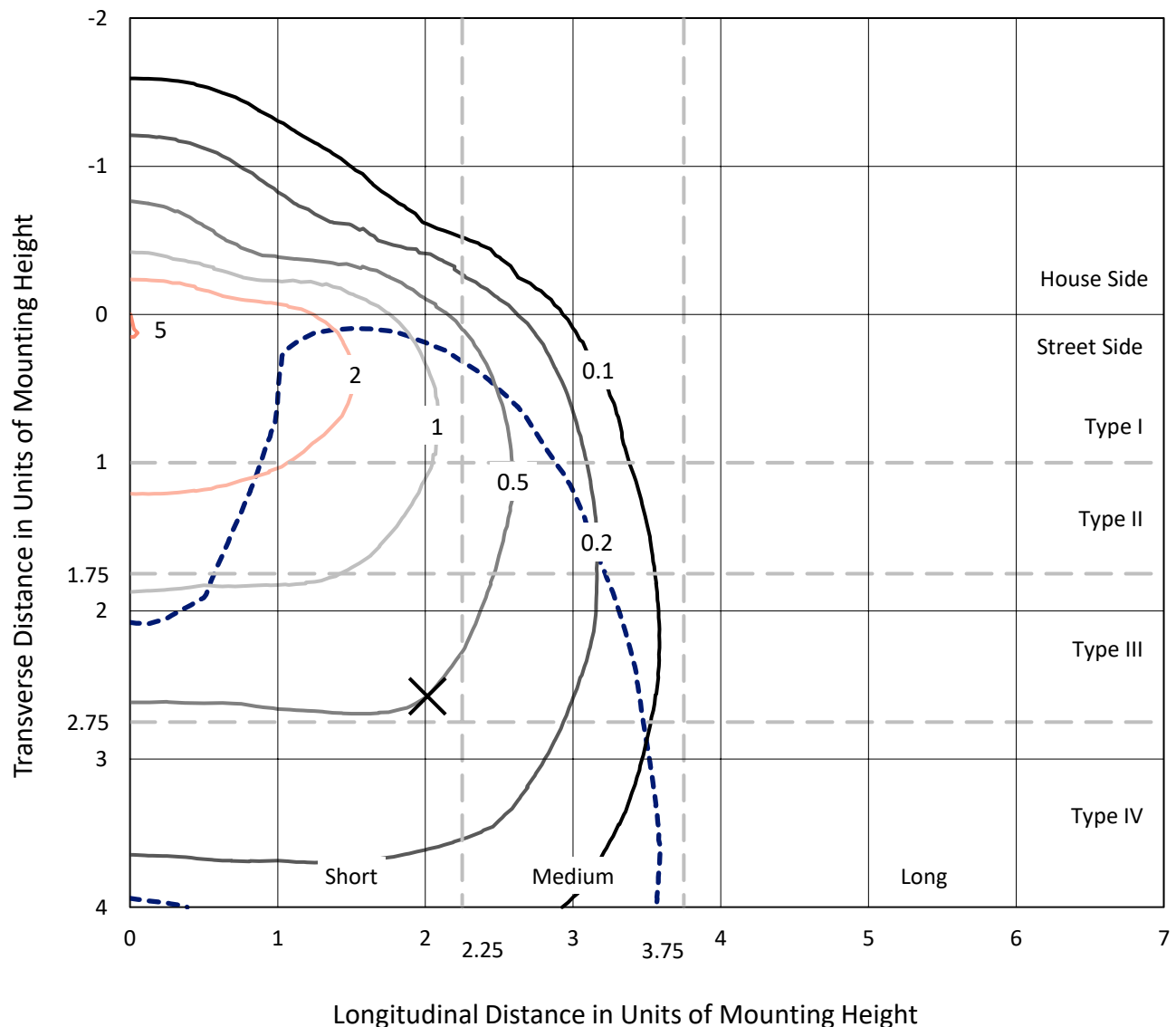


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Iso-Footcandle Lines of Horizontal Illumination

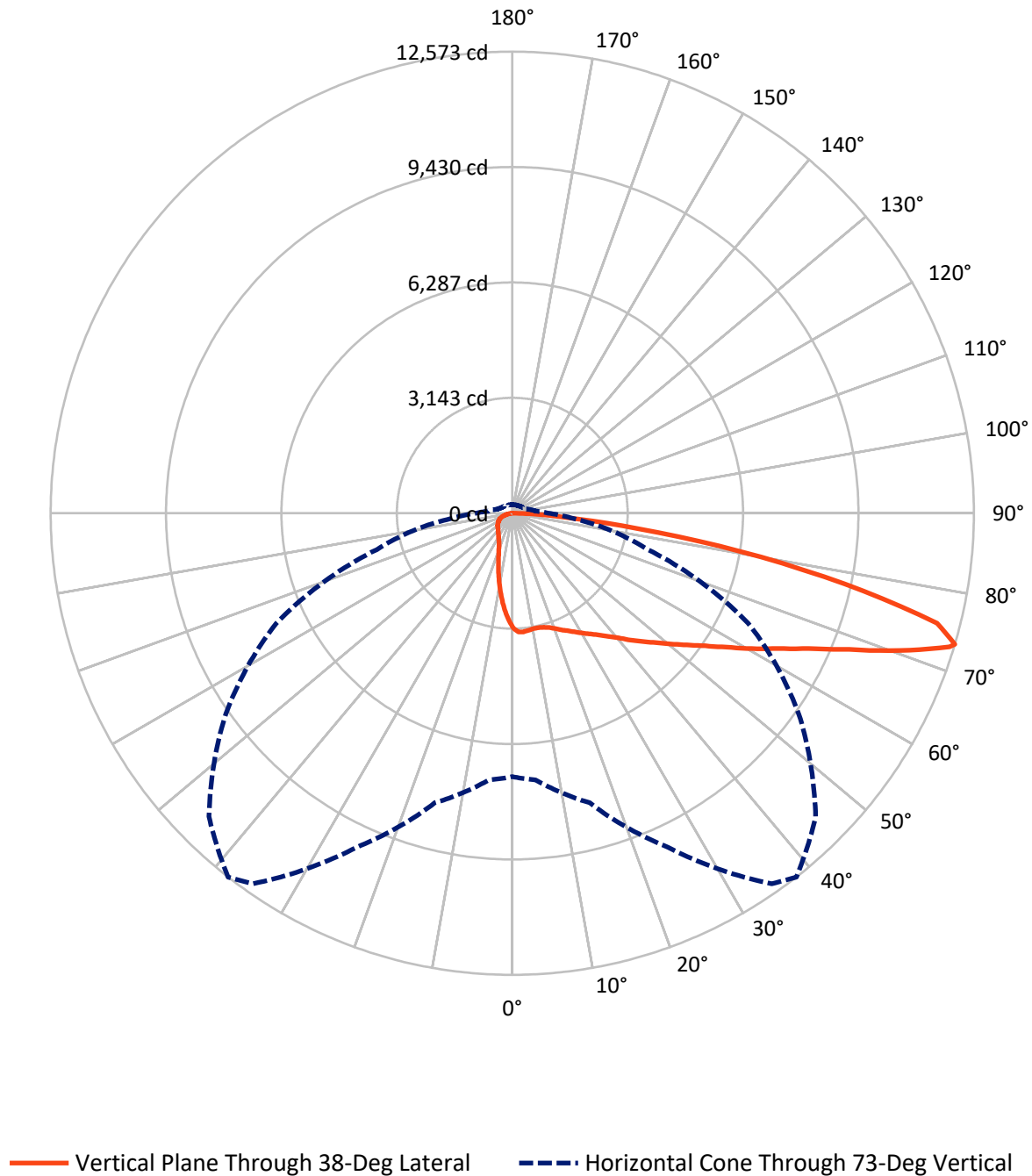
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



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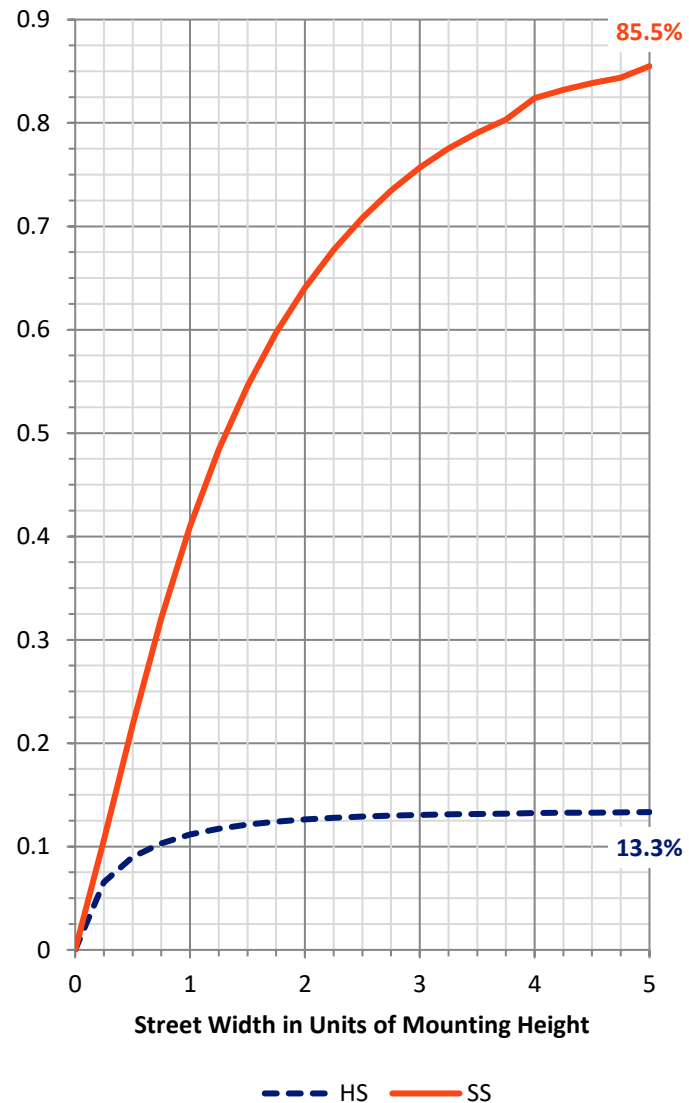
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2394.6	0.0	2394.6
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	15418.4	0.0	15418.4
	% Fixture	86.6	0.0	86.6
Total	Lumens	17813.0	0.0	17813.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.2	1.5
10°-20°	700.5	3.9
20°-30°	1090.8	6.1
30°-40°	1599.9	9.0
40°-50°	2373.3	13.3
50°-60°	3362.5	18.9
60°-70°	4265.5	23.9
70°-80°	3550.7	19.9
80°-90°	596.6	3.3
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°	17813.0	100.0
0°-180°	17813.0	100.0

Coefficient of Utilization



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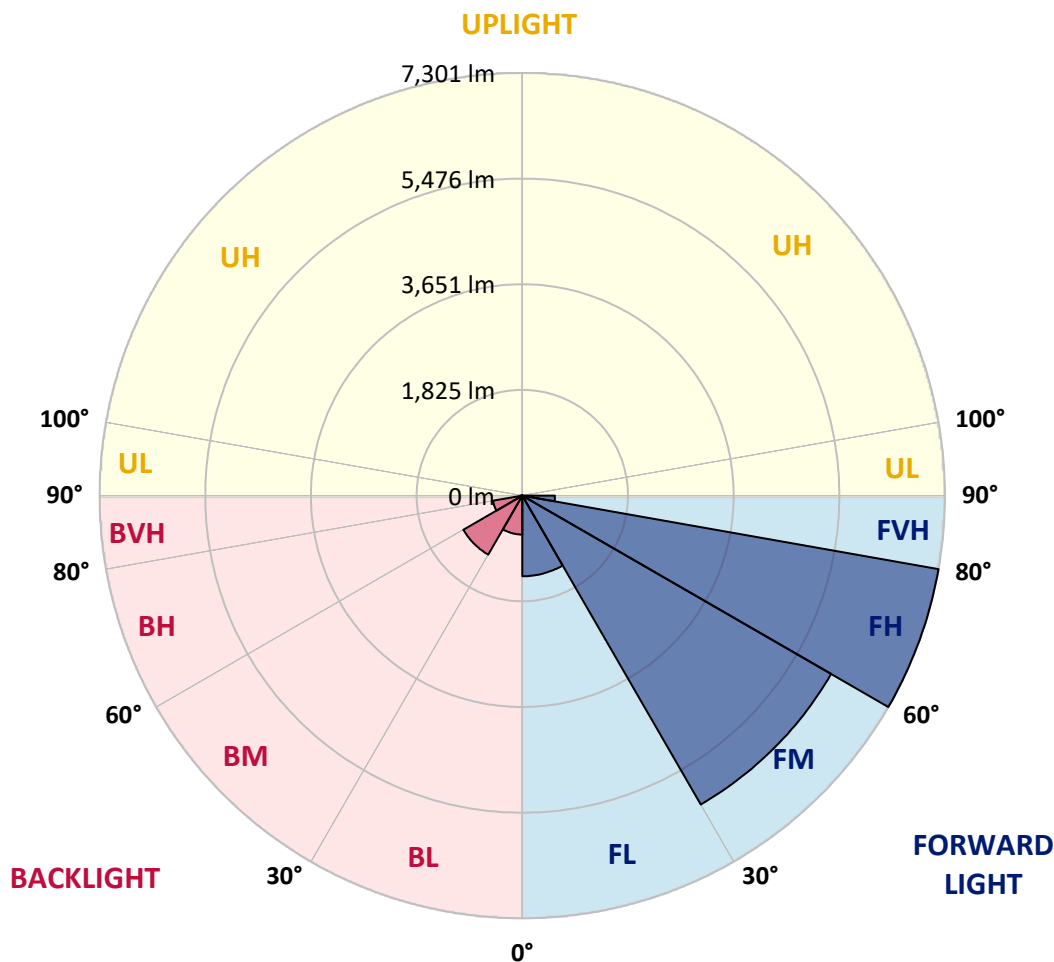
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1392.5	7.8			
FM	(30°-60°)	6160.2	34.6			
FH	(60°-80°)	7301.5	41.0			G3/7500
FVH	(80°-90°)	564.2	3.2			G4/750
BL	(0°-30°)	671.9	3.8	B2/1000		
BM	(30°-60°)	1175.6	6.6	B2/2500		
BH	(60°-80°)	514.7	2.9	B2/1000		G2/1000
BVH	(80°-90°)	32.4	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	3129.4	3129.4	3129.4	3129.4	3129.4	3129.4	3129.4	3129.4	3129.4	3129.4	3129.4
2.5°	3255.2	3271.3	3263.2	3252.2	3245.1	3238.1	3228.0	3198.9	3175.7	3150.6	3111.3
5°	3279.3	3289.4	3282.3	3268.3	3252.2	3245.1	3226.0	3187.8	3150.6	3108.3	3050.0
7.5°	3265.2	3269.3	3261.2	3244.1	3230.0	3217.0	3194.8	3152.6	3107.3	3056.0	2979.6
10°	3214.9	3230.0	3230.0	3216.0	3201.9	3194.8	3172.7	3132.5	3091.2	3032.9	2942.3
12.5°	3173.7	3189.8	3202.9	3198.9	3197.8	3197.8	3180.7	3150.6	3102.3	3047.0	2939.3
15°	3145.5	3164.6	3192.8	3208.9	3219.0	3222.0	3214.9	3188.8	3139.5	3075.1	2951.4
17.5°	3139.5	3162.6	3213.9	3249.1	3275.3	3274.3	3272.3	3236.1	3181.8	3115.4	2966.5
20°	3166.7	3196.8	3268.3	3323.6	3361.8	3354.8	3343.7	3296.4	3233.1	3158.6	2980.6
22.5°	3248.1	3279.3	3357.8	3418.1	3455.4	3455.4	3422.2	3359.8	3292.4	3208.9	2999.7
25°	3364.8	3399.0	3482.5	3543.9	3561.0	3547.9	3514.7	3439.3	3361.8	3281.3	3039.9
27.5°	3507.7	3548.9	3626.4	3677.7	3672.6	3662.6	3628.4	3531.8	3454.4	3380.9	3108.3
30°	3685.7	3715.9	3796.4	3808.4	3790.3	3788.3	3740.0	3643.5	3571.0	3514.7	3205.9
32.5°	3853.7	3880.9	3945.2	3950.3	3918.1	3922.1	3876.8	3788.3	3747.1	3727.0	3369.9
35°	4031.8	4045.8	4101.2	4095.1	4074.0	4071.0	4052.9	3968.4	3981.5	4017.7	3602.2
37.5°	4180.6	4208.8	4240.0	4245.0	4244.0	4254.1	4266.1	4225.9	4301.3	4415.0	3907.0
40°	4317.4	4341.6	4387.9	4404.0	4443.2	4463.3	4504.5	4505.6	4679.6	4866.7	4282.2
42.5°	4410.0	4451.2	4537.7	4566.9	4662.5	4722.8	4784.2	4849.6	5102.1	5342.5	4724.8
45°	4490.5	4544.8	4688.6	4779.2	4908.9	4982.4	5112.1	5248.9	5612.1	5926.9	5174.5
47.5°	4612.2	4660.5	4825.4	4985.4	5181.5	5266.0	5460.2	5664.4	6139.2	6484.2	5605.0
50°	4781.2	4810.3	4978.3	5238.9	5489.3	5598.0	5854.5	6149.2	6702.5	7034.5	5983.3
52.5°	4997.5	5009.5	5143.3	5490.4	5820.3	5955.1	6295.1	6639.1	7195.4	7512.3	6283.0
55°	5253.0	5232.8	5337.5	5756.9	6198.5	6374.6	6739.7	7135.0	7749.7	7898.5	6501.3
57.5°	5505.4	5474.3	5557.8	6080.8	6665.3	6877.5	7303.0	7646.1	8244.6	8259.7	6654.2
60°	5773.0	5749.9	5849.5	6461.1	7237.7	7489.1	7882.5	8176.2	8723.4	8511.2	6678.4
62.5°	6047.6	6010.4	6152.3	6888.6	7882.5	8110.8	8492.0	8739.5	9193.2	8604.7	6446.0
65°	6314.2	6297.1	6516.4	7396.6	8616.8	8876.3	9246.5	9414.5	9569.4	8463.9	5869.6
67.5°	6597.9	6632.1	6982.1	8074.6	9574.4	9900.3	10299.7	10141.8	9677.0	7796.9	4943.1
70°	7030.4	7052.6	7593.8	8962.8	10808.7	11202.0	11395.2	10400.3	9158.0	6530.5	3715.9
72.5°	7216.5	7314.1	8140.0	9895.3	12211.0	12451.4	11763.3	9823.9	7629.0	4436.1	1952.5
73°	7175.3	7292.0	8165.1	10037.2	12320.6	12573.1	11684.9	9527.1	7091.8	3820.5	1673.9
75°	6661.3	6805.1	7838.2	9918.5	12107.4	11956.5	10423.4	8119.9	4792.2	1737.2	762.5
77.5°	5256.0	5297.2	6210.6	8009.2	9534.2	9254.5	7801.0	5074.9	1957.5	645.8	432.5
80°	2636.5	2788.4	3500.6	4588.0	6375.6	6284.0	4924.0	2400.1	815.8	379.2	286.7
82.5°	1268.5	1376.1	1705.0	2237.2	3522.8	3439.3	2438.4	1311.7	518.1	221.3	169.0
85°	816.8	897.3	1085.4	1067.3	1448.5	1383.2	1095.5	992.9	306.8	115.7	117.7
87.5°	539.2	590.5	708.2	566.3	527.1	476.8	483.9	559.3	60.4	44.3	16.1
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°	3129.4	3129.4	3129.4	3129.4	3129.4	3129.4	3129.4	3129.4	3129.4	3129.4	3129.4
2.5°	3095.2	3082.2	3038.9	2996.7	2956.4	2918.2	2893.0	2859.9	2837.7	2843.8	2852.8
5°	3017.8	2988.6	2912.2	2837.7	2767.3	2683.8	2616.4	2562.1	2520.9	2505.8	2502.7
7.5°	2936.3	2887.0	2777.4	2649.6	2529.9	2426.3	2306.6	2247.2	2177.8	2153.7	2145.6
10°	2887.0	2820.6	2666.7	2488.7	2308.6	2136.6	2006.8	1901.2	1805.6	1787.5	1778.5
12.5°	2872.9	2785.4	2578.2	2348.8	2109.4	1898.2	1706.1	1567.2	1474.7	1453.6	1422.4
15°	2864.9	2756.2	2495.7	2208.0	1904.2	1646.7	1444.5	1282.6	1198.1	1141.7	1142.7
17.5°	2857.8	2723.0	2403.2	2054.1	1727.2	1430.4	1207.1	1061.3	983.8	953.6	950.6
20°	2847.8	2683.8	2296.5	1892.2	1525.0	1233.3	1031.1	922.4	870.1	845.0	844.0
22.5°	2843.8	2645.6	2191.9	1727.2	1345.9	1081.4	914.4	837.9	804.7	787.6	787.6
25°	2853.8	2618.4	2082.3	1570.3	1187.0	951.6	833.9	781.6	762.5	753.4	750.4
27.5°	2885.0	2606.4	1973.6	1413.3	1041.1	863.1	779.6	743.4	729.3	722.3	723.3
30°	2944.4	2605.4	1867.0	1258.4	932.5	795.7	736.3	711.2	700.1	696.1	695.1
32.5°	3039.9	2627.5	1762.4	1130.7	841.0	739.4	696.1	678.0	673.0	669.9	668.9
35°	3201.9	2689.9	1658.8	1014.0	770.5	689.1	657.9	648.8	641.8	644.8	645.8
37.5°	3420.2	2797.5	1560.2	922.4	717.2	651.8	625.7	617.6	613.6	616.6	619.7
40°	3712.9	2952.4	1477.7	849.0	679.0	620.7	597.5	590.5	586.5	591.5	592.5
42.5°	4035.8	3131.5	1409.3	791.7	647.8	594.5	572.4	564.3	561.3	564.3	565.3
45°	4367.7	3339.7	1374.1	750.4	621.7	575.4	552.3	543.2	536.2	534.1	537.2
47.5°	4694.7	3520.7	1373.1	725.3	600.5	558.3	533.1	523.1	514.0	509.0	508.0
50°	4961.2	3664.6	1397.2	714.2	582.4	539.2	514.0	504.0	491.9	481.8	483.9
52.5°	5162.4	3758.1	1408.3	709.2	572.4	519.1	493.9	484.9	470.8	457.7	457.7
55°	5292.2	3780.3	1381.1	704.1	564.3	497.9	470.8	462.7	448.6	435.6	435.6
57.5°	5336.4	3711.9	1283.6	692.1	556.3	479.8	447.6	440.6	429.5	416.5	414.4
60°	5233.8	3480.5	1112.6	655.9	540.2	460.7	422.5	419.5	415.4	404.4	403.4
62.5°	4838.5	2989.6	926.5	608.6	513.0	440.6	399.4	404.4	407.4	401.4	400.4
65°	4180.6	2427.3	791.7	543.2	476.8	412.4	374.2	387.3	395.3	395.3	393.3
67.5°	3391.0	1864.0	666.9	486.9	431.5	374.2	346.0	356.1	362.1	360.1	365.2
70°	2410.2	1262.4	543.2	422.5	374.2	331.0	309.8	309.8	305.8	303.8	303.8
72.5°	1168.9	721.3	440.6	353.1	318.9	282.7	265.6	258.5	250.5	249.5	244.4
73°	976.8	646.8	420.5	340.0	305.8	275.6	256.5	245.4	240.4	236.4	235.4
75°	594.5	490.9	351.1	286.7	260.5	237.4	220.3	210.2	205.2	202.2	201.2
77.5°	391.3	366.2	272.6	219.3	199.2	185.1	178.0	168.0	165.0	160.9	160.9
80°	291.7	279.6	195.2	154.9	142.8	130.8	128.8	126.7	118.7	113.7	111.7
82.5°	188.1	199.2	132.8	103.6	90.5	80.5	81.5	84.5	76.5	69.4	67.4
85°	133.8	143.8	80.5	47.3	38.2	33.2	37.2	33.2	34.2	27.2	22.1
87.5°	22.1	38.2	14.1	6.0	3.0	2.0	0.0	0.0	0.0	0.0	0.0
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)