

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: P454769

Luminaire Tested: **GALN-SA5D-827-U-T4FT**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P454769  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA5D-827-U-T4FT  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28416 lumens  
Efficiency: N/A  
Efficacy: 92.0 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4

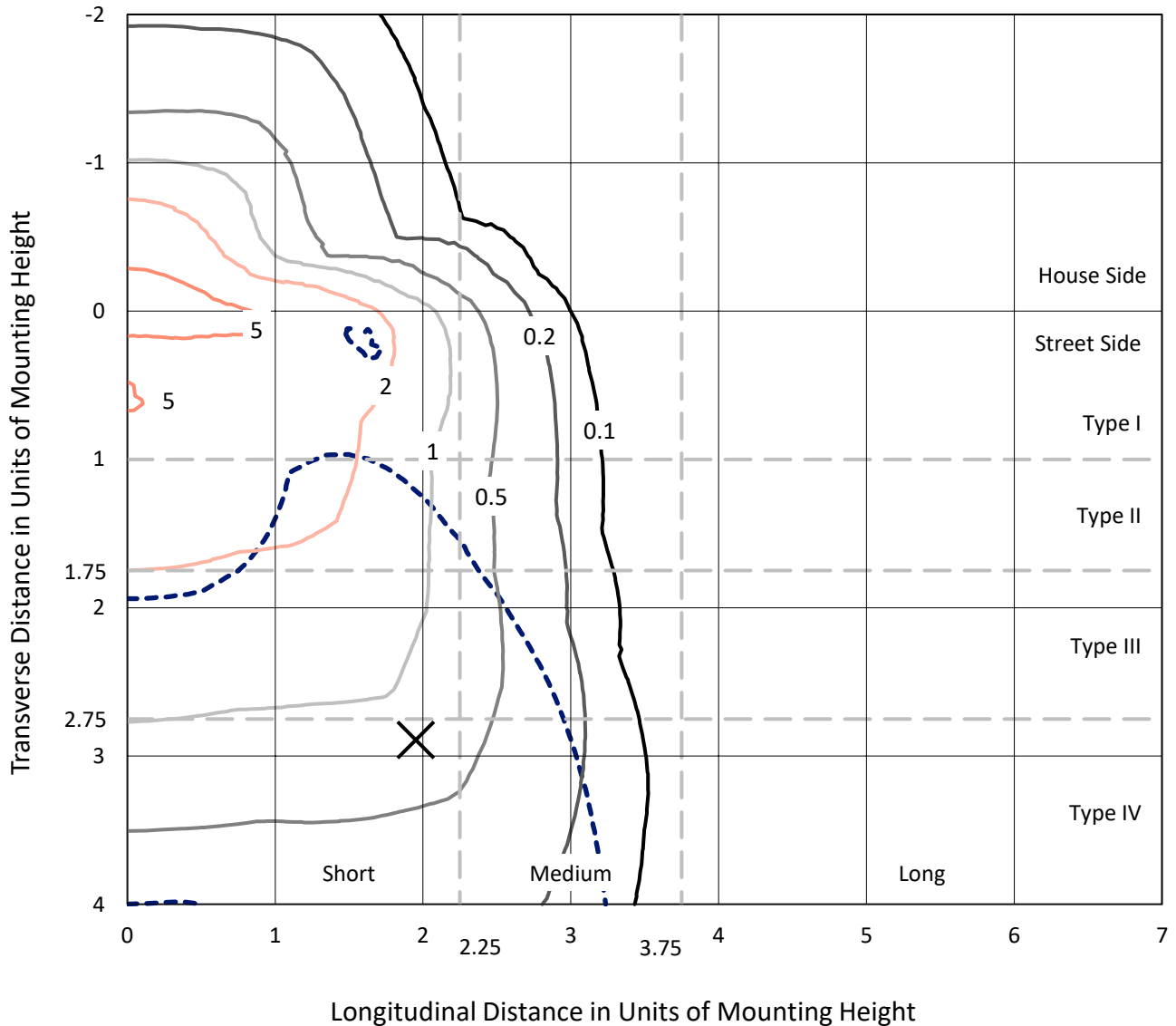
Input Watts (W): 309  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

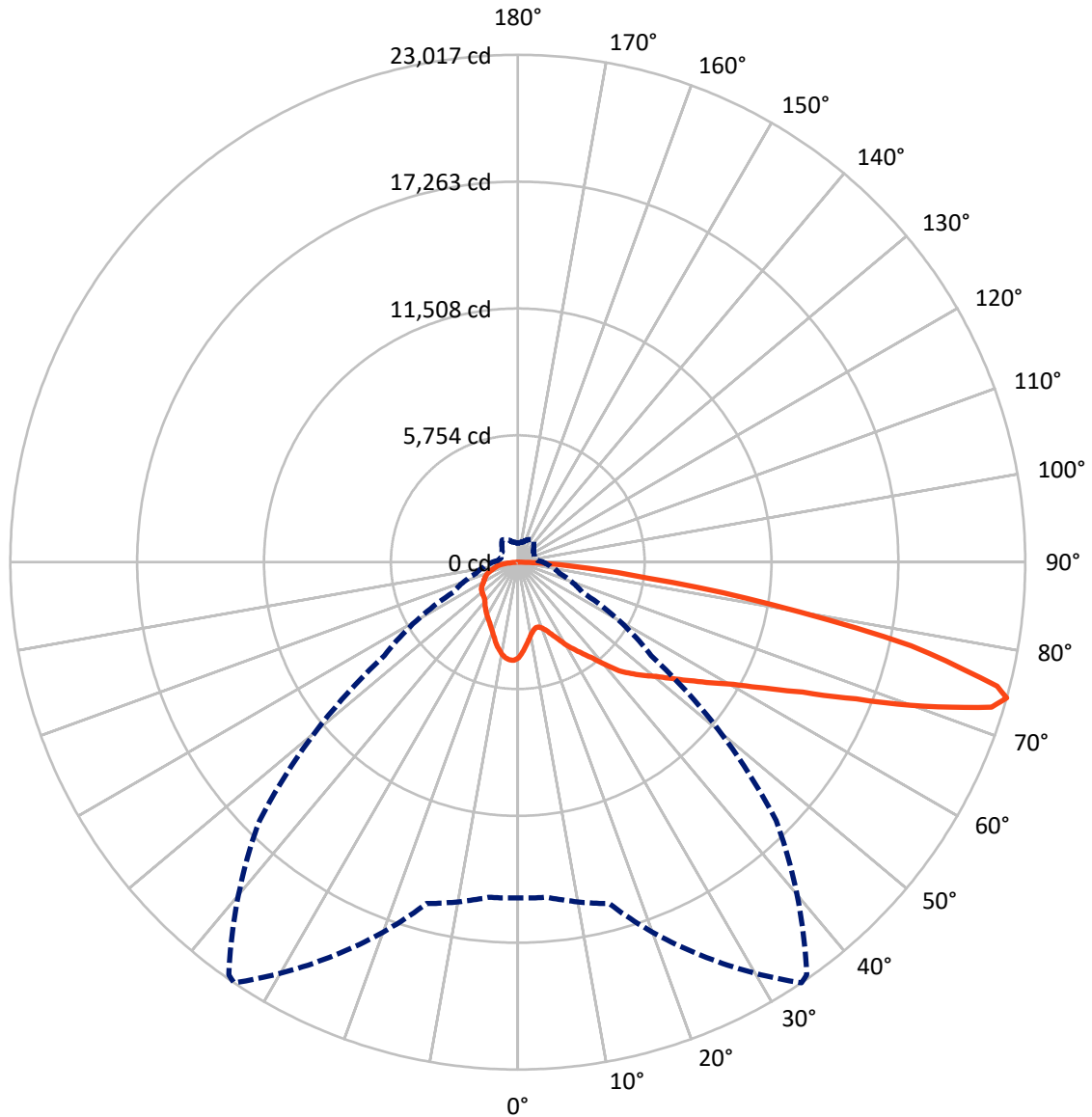
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral    - - - Horizontal Cone Through 74-Deg Vertical

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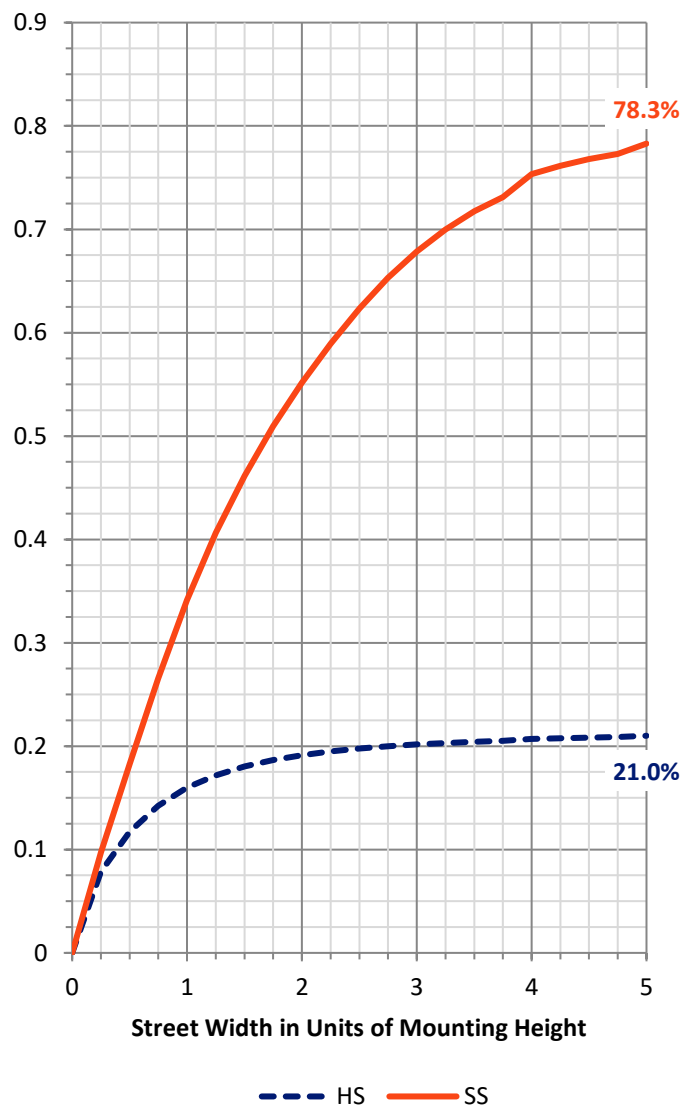
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6047.1	0.0	6047.1
	% Fixture	21.3	0.0	21.3
<b>Street Side</b>	Lumens	22368.9	0.0	22368.9
	% Fixture	78.7	0.0	78.7
<b>Total</b>	Lumens	28416.0	0.0	28416.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	394.6	1.4
10°-20°	1080.1	3.8
20°-30°	1780.9	6.3
30°-40°	2667.5	9.4
40°-50°	3877.8	13.6
50°-60°	5416.4	19.1
60°-70°	6781.1	23.9
70°-80°	5607.4	19.7
80°-90°	810.2	2.9
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°	28416.0	100.0
0°-180°	28416.0	100.0

**Coefficient of Utilization**



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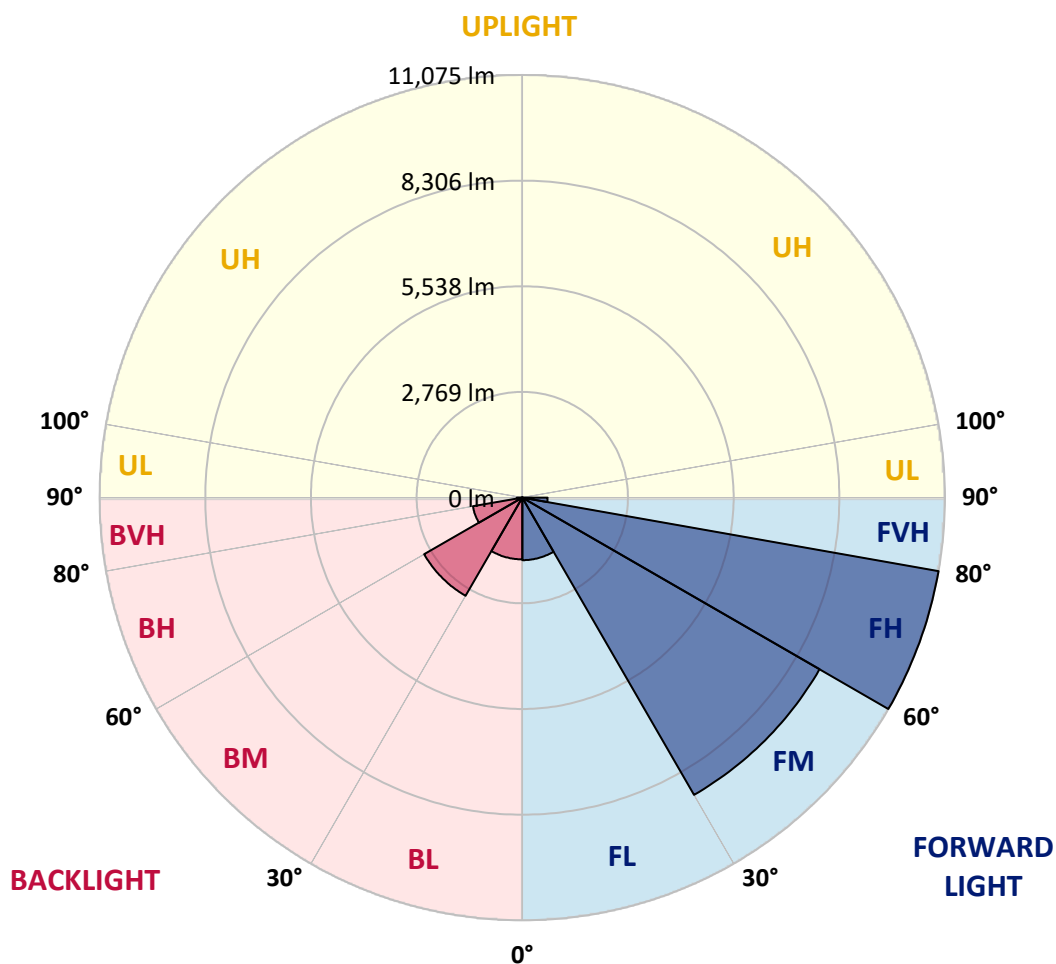
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1638.1	5.8			
FM	(30°-60°)	8992.0	31.6			
FH	(60°-80°)	11075.1	39.0			G4/12000
FVH	(80°-90°)	663.8	2.3			G4/750
BL	(0°-30°)	1617.5	5.7	B3/2500		
BM	(30°-60°)	2969.8	10.5	B3/5000		
BH	(60°-80°)	1313.4	4.6	B3/2500		G3/2500
BVH	(80°-90°)	146.5	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	4338.6	4338.6	4338.6	4338.6	4338.6	4338.6	4338.6	4338.6	4338.6	4338.6	4338.6
2.5°	4009.5	4030.0	4041.0	4080.4	4089.8	4102.4	4135.5	4179.6	4236.2	4286.6	4330.7
5°	3675.8	3707.3	3726.2	3760.8	3828.5	3834.8	3923.0	4023.7	4138.6	4245.7	4333.8
7.5°	3359.4	3394.0	3409.8	3472.7	3562.5	3576.6	3705.7	3864.7	4056.8	4218.9	4354.3
10°	3121.7	3139.0	3173.6	3220.9	3327.9	3337.4	3505.8	3718.3	3967.0	4206.3	4388.9
12.5°	2992.6	3002.0	3009.9	3060.3	3165.8	3179.9	3356.2	3597.1	3896.2	4215.8	4445.6
15°	3011.5	3014.6	2980.0	2989.5	3074.5	3094.9	3269.7	3516.8	3852.1	4239.4	4530.6
17.5°	3170.5	3159.5	3074.5	3030.4	3090.2	3099.6	3252.3	3485.3	3831.7	4283.5	4618.8
20°	3420.8	3405.0	3258.6	3161.0	3195.7	3203.5	3309.0	3508.9	3852.1	4355.9	4755.7
22.5°	3732.5	3726.2	3504.2	3386.2	3384.6	3384.6	3439.7	3594.0	3913.5	4455.1	4899.0
25°	4168.5	4135.5	3845.8	3693.1	3650.6	3647.5	3641.2	3734.1	3992.2	4560.5	5069.0
27.5°	4615.6	4559.0	4300.8	4066.2	3974.9	3963.9	3923.0	3932.4	4093.0	4680.2	5262.6
30°	5017.1	4980.8	4738.4	4478.7	4370.0	4344.9	4231.5	4179.6	4261.4	4895.8	5571.2
32.5°	5324.0	5302.0	5113.1	4876.9	4716.4	4711.7	4546.4	4503.9	4524.3	5157.2	5923.8
35°	5572.8	5580.6	5484.6	5279.9	5095.8	5069.0	4958.8	4905.3	4845.5	5535.0	6367.7
37.5°	5912.8	5930.1	5923.8	5747.5	5522.4	5528.7	5503.5	5415.3	5256.3	5956.9	6860.5
40°	6287.5	6300.0	6298.5	6230.8	6112.7	6119.0	6109.6	6008.8	5771.1	6493.7	7408.3
42.5°	6805.4	6745.5	6589.7	6657.4	6726.7	6756.6	6821.1	6725.1	6399.2	7066.7	7923.1
45°	7384.7	7271.3	6918.7	6950.2	7206.8	7263.5	7619.2	7487.0	7080.9	7724.7	8529.1
47.5°	7749.9	7638.1	7340.6	7334.3	7674.3	7729.4	8359.1	8310.3	7701.1	8434.7	9269.0
50°	8075.8	8060.0	7724.7	7805.0	8137.2	8219.0	9165.1	9119.5	8319.8	9272.2	10075.0
52.5°	8559.1	8431.5	8163.9	8329.2	8768.4	8875.5	9964.8	9831.0	8888.1	10012.1	10857.4
55°	8776.3	8746.4	8730.6	8873.9	9476.8	9554.0	10742.5	10435.5	9372.9	10638.6	11452.5
57.5°	9357.2	9302.1	9457.9	9555.5	10311.2	10429.2	11554.8	11066.8	9798.0	11136.1	11742.1
60°	10109.7	10079.8	10223.0	10399.3	11243.1	11422.6	12480.4	11605.2	10139.6	11386.4	11583.1
62.5°	11233.7	11230.5	11203.8	11581.6	12563.9	12729.2	13543.0	12129.4	10193.1	11199.0	10761.4
65°	12845.7	12789.0	12556.0	12968.5	14207.4	14401.0	14649.7	12422.2	9870.4	10237.2	9061.2
67.5°	14531.7	14528.5	14339.6	14874.8	16567.1	16767.1	16033.5	12357.7	8974.7	8293.0	6435.4
70°	15929.6	15861.9	16102.7	17529.0	19581.8	19813.2	17244.0	11597.3	7148.6	5476.7	3823.8
72.5°	16264.9	16268.0	16768.6	19575.5	22476.8	22513.0	17680.1	9399.7	4784.1	3020.9	1912.7
74°	15232.2	15259.0	16035.0	19677.8	23016.7	22853.0	16565.6	7387.8	3235.0	1972.5	1379.0
75°	13903.5	13735.1	14857.5	18996.2	22456.3	22280.0	15260.5	5928.5	2468.4	1575.8	1207.4
77.5°	7433.5	7605.1	9336.7	14175.9	18243.7	18040.6	10347.4	2843.0	1333.4	1097.2	869.0
80°	2646.3	2918.6	4102.4	7417.7	11696.5	11759.5	4938.3	1303.5	938.2	809.2	613.9
82.5°	1079.9	1109.8	1761.6	3291.7	5939.5	5996.2	2016.6	774.5	670.6	557.3	366.8
85°	421.9	434.5	779.2	1479.8	2534.5	2699.8	697.4	409.3	412.4	319.6	187.3
87.5°	141.7	160.6	319.6	492.7	861.1	843.8	203.1	121.2	148.0	138.5	58.2
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°	4338.6	4338.6	4338.6	4338.6	4338.6	4338.6	4338.6	4338.6	4338.6	4338.6	4338.6
2.5°	4352.7	4382.6	4403.1	4425.1	4445.6	4451.9	4447.2	4461.4	4462.9	4464.5	4466.1
5°	4377.9	4418.8	4458.2	4480.2	4489.7	4481.8	4455.1	4440.9	4428.3	4418.8	4422.0
7.5°	4412.5	4470.8	4507.0	4516.4	4491.3	4455.1	4388.9	4337.0	4303.9	4281.9	4280.3
10°	4466.1	4522.7	4552.7	4525.9	4456.6	4368.5	4264.6	4167.0	4093.0	4070.9	4069.4
12.5°	4533.8	4598.3	4596.7	4518.0	4396.8	4239.4	4070.9	3957.6	3856.8	3806.5	3826.9
15°	4621.9	4670.7	4625.1	4483.4	4291.3	4075.7	3867.9	3713.6	3600.3	3546.7	3549.9
17.5°	4724.2	4766.8	4645.5	4422.0	4143.4	3866.3	3625.4	3479.0	3389.3	3349.9	3346.8
20°	4851.8	4864.4	4645.5	4314.9	3952.9	3622.3	3392.5	3290.1	3239.8	3219.3	3225.6
22.5°	4988.7	4963.5	4620.3	4163.8	3702.6	3367.3	3213.0	3167.3	3142.2	3139.0	3142.2
25°	5143.0	5072.1	4568.4	3959.2	3441.3	3146.9	3057.1	3065.0	3069.7	3069.7	3080.8
27.5°	5331.9	5190.2	4481.8	3701.0	3135.9	2942.2	2917.0	2972.1	2997.3	3002.0	3009.9
30°	5580.6	5319.3	4338.6	3378.3	2876.1	2758.0	2802.1	2876.1	2904.4	2921.8	2918.6
32.5°	5876.6	5461.0	4144.9	3055.6	2666.7	2629.0	2682.5	2758.0	2789.5	2799.0	2786.4
35°	6224.5	5621.6	3889.9	2753.3	2484.1	2506.2	2569.1	2592.7	2621.1	2621.1	2627.4
37.5°	6599.1	5750.6	3578.2	2476.3	2342.4	2422.7	2468.4	2446.3	2433.8	2418.0	2425.9
40°	6980.1	5846.7	3173.6	2202.3	2200.8	2336.1	2348.7	2285.8	2235.4	2219.7	2211.8
42.5°	7312.3	5906.5	2808.4	1989.8	2067.0	2251.1	2260.6	2159.8	2079.5	2032.3	2016.6
45°	7704.3	5975.8	2451.1	1813.5	1942.6	2183.4	2207.1	2071.7	1953.6	1854.4	1829.2
47.5°	8241.1	6133.2	2169.3	1676.5	1852.9	2140.9	2174.0	1999.3	1843.4	1714.3	1693.9
50°	8847.1	6348.8	1950.5	1583.7	1783.6	2103.2	2144.1	1925.3	1741.1	1597.8	1582.1
52.5°	9402.8	6465.3	1761.6	1500.2	1715.9	2033.9	2104.7	1871.8	1640.3	1481.3	1467.2
55°	9706.7	6276.4	1575.8	1418.4	1623.0	1944.2	2049.6	1797.8	1542.7	1420.0	1399.5
57.5°	9747.6	5886.0	1407.4	1330.2	1525.4	1834.0	1947.3	1708.0	1479.8	1377.4	1360.1
60°	9431.2	5303.6	1276.7	1257.8	1426.2	1709.6	1832.4	1629.3	1415.2	1330.2	1312.9
62.5°	8644.1	4670.7	1185.4	1191.7	1325.5	1578.9	1747.4	1553.8	1353.8	1278.3	1262.5
65°	7290.2	3855.3	1097.2	1124.0	1235.8	1476.6	1670.3	1490.8	1292.4	1238.9	1224.7
67.5°	5064.3	2783.2	1024.8	1053.2	1150.8	1372.7	1580.5	1423.1	1223.2	1194.8	1172.8
70°	2803.7	1712.8	939.8	972.9	1062.6	1256.2	1479.8	1320.8	1122.4	1109.8	1078.3
72.5°	1473.5	1090.9	843.8	880.0	943.0	1106.7	1325.5	1209.0	1023.2	969.7	928.8
74°	1150.8	894.2	779.2	817.0	859.5	1018.5	1234.2	1128.7	952.4	889.4	858.0
75°	1002.8	796.6	724.1	772.9	810.7	958.7	1163.4	1072.0	913.0	853.2	824.9
77.5°	708.4	596.6	591.9	650.2	670.6	840.6	1048.4	976.0	813.9	750.9	724.1
80°	497.5	447.1	469.1	505.3	533.7	743.0	972.9	843.8	667.5	593.5	584.0
82.5°	324.3	292.8	335.3	368.4	377.8	547.8	785.5	640.7	486.4	395.1	366.8
85°	149.6	146.4	192.1	187.3	185.8	267.6	466.0	374.7	280.2	209.4	196.8
87.5°	37.8	36.2	47.2	39.4	47.2	40.9	42.5	11.0	1.6	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)