

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: P453145

Luminaire Tested: **GALN-SA4A-827-U-T4FT**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453145  
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-SA4A-827-U-T4FT  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 2700K, 615mA 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: 13270 lumens  
Efficiency: N/A  
Efficacy: 109.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3

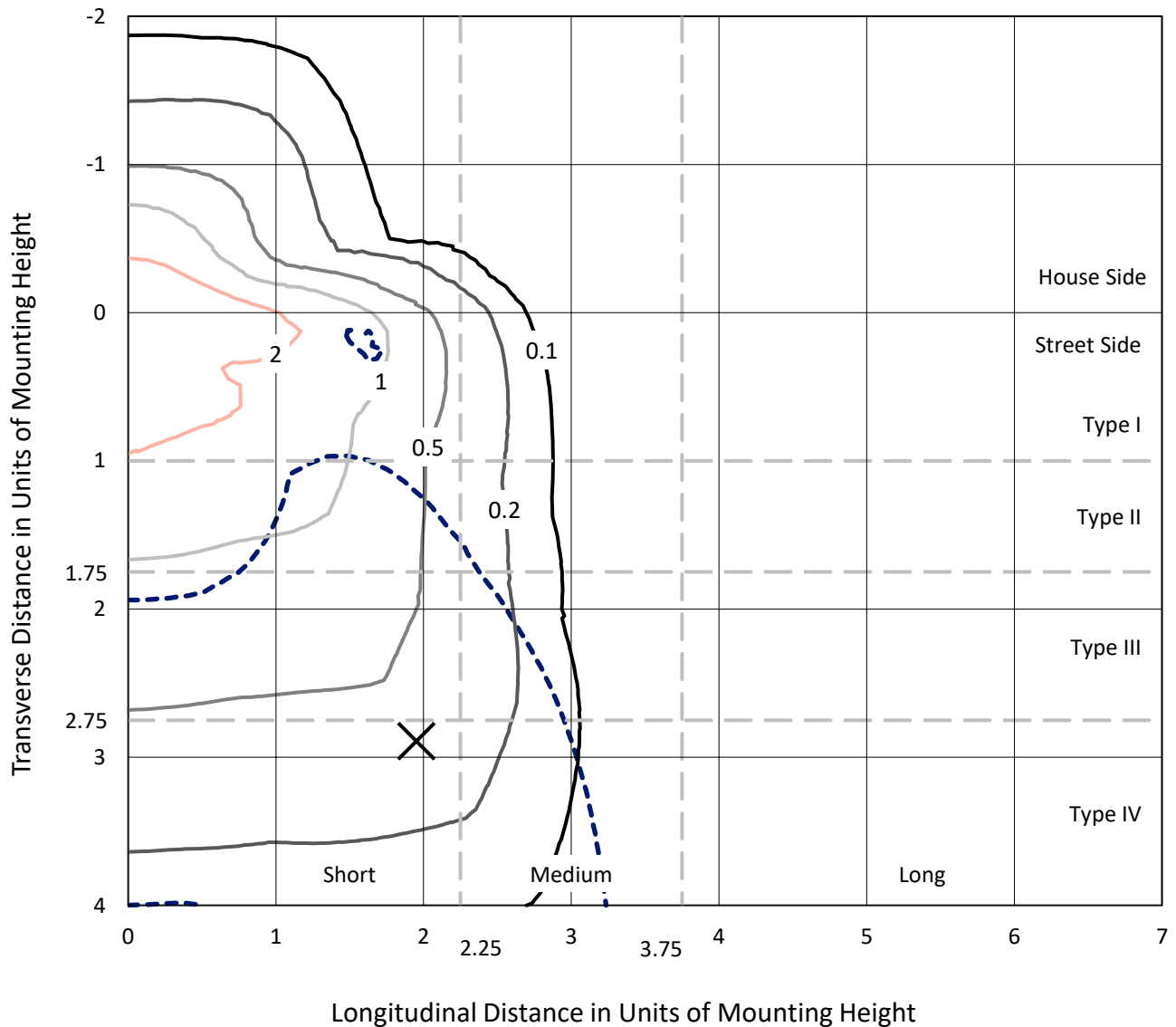
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

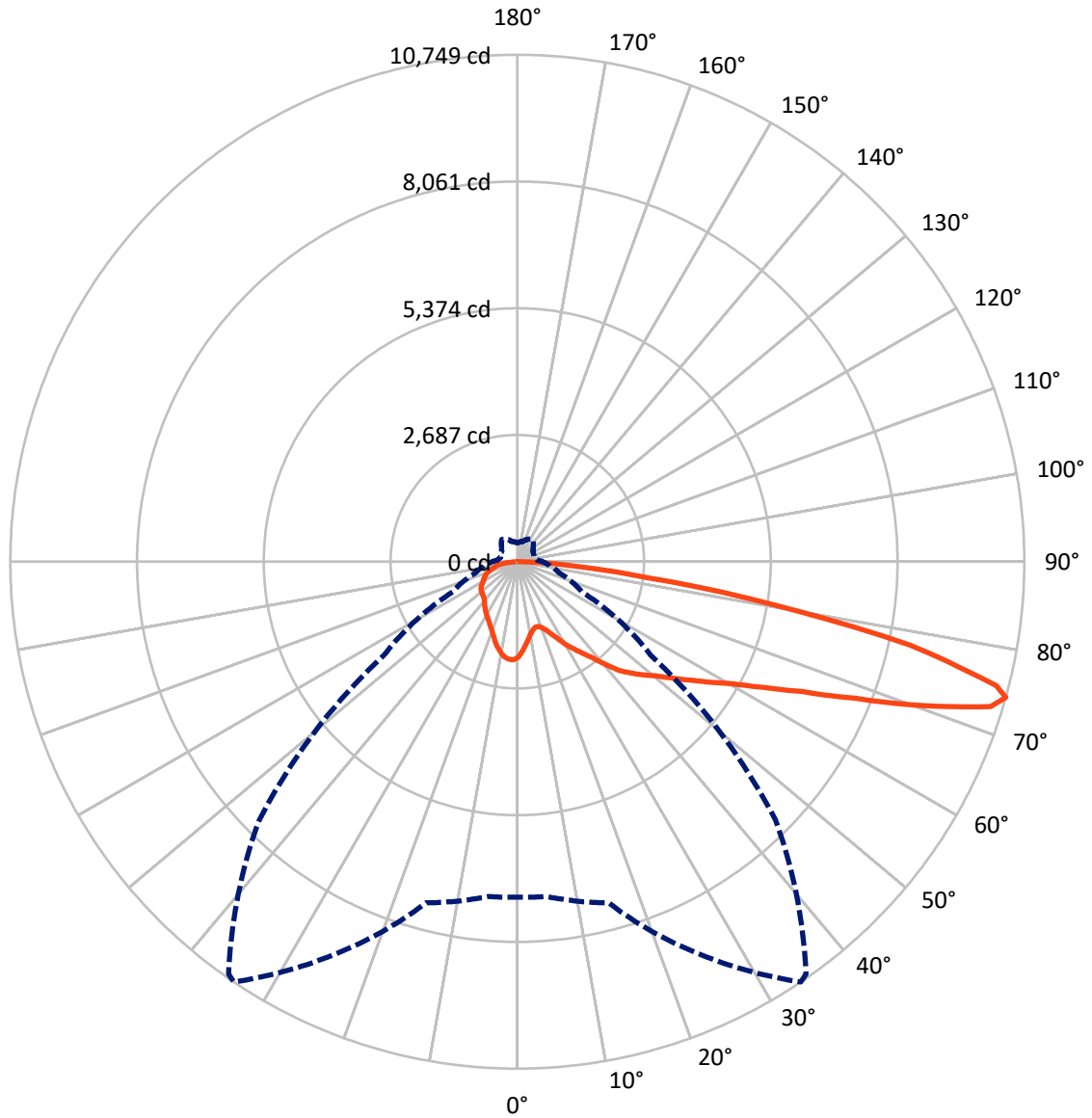
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 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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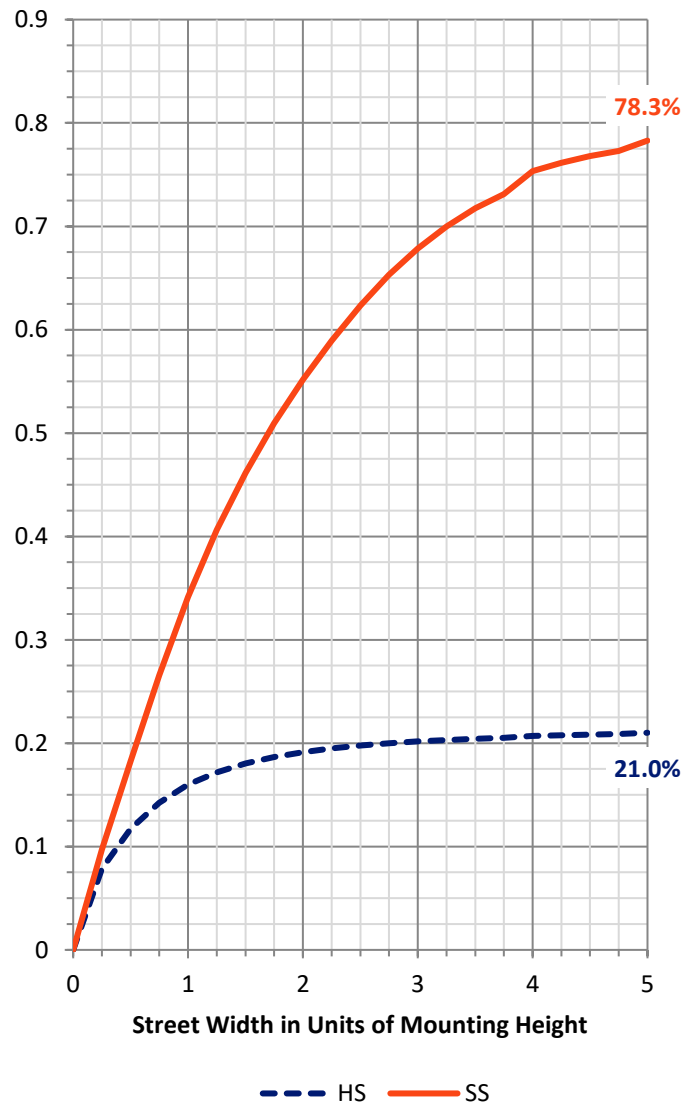
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2824.0	0.0	2824.0
	% Fixture	21.3	0.0	21.3
<b>Street Side</b>	Lumens	10446.0	0.0	10446.0
	% Fixture	78.7	0.0	78.7
<b>Total</b>	Lumens	13270.0	0.0	13270.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.3	1.4
10°-20°	504.4	3.8
20°-30°	831.6	6.3
30°-40°	1245.7	9.4
40°-50°	1810.9	13.6
50°-60°	2529.4	19.1
60°-70°	3166.7	23.9
70°-80°	2618.6	19.7
80°-90°	378.4	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°	13270.0	100.0
0°-180°	13270.0	100.0



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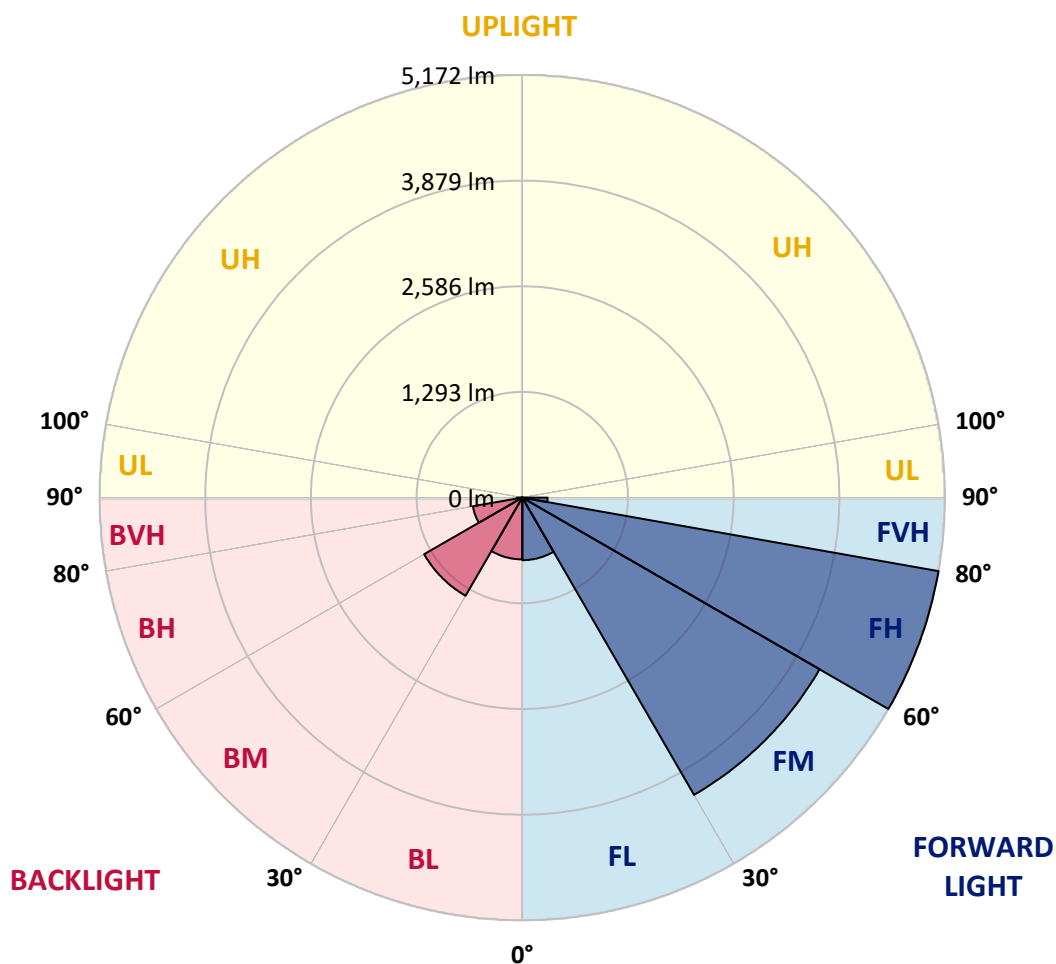
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	765.0	5.8			
FM	(30°-60°)	4199.2	31.6			
FH	(60°-80°)	5171.9	39.0			G3/7500
FVH	(80°-90°)	310.0	2.3			G3/500
BL	(0°-30°)	755.4	5.7	B2/1000		
BM	(30°-60°)	1386.8	10.5	B2/2500		
BH	(60°-80°)	613.3	4.6	B2/1000		G2/1000
BVH	(80°-90°)	68.4	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	2026.1	2026.1	2026.1	2026.1	2026.1	2026.1	2026.1	2026.1	2026.1	2026.1	2026.1
2.5°	1872.4	1882.0	1887.1	1905.5	1909.9	1915.8	1931.2	1951.8	1978.3	2001.8	2022.4
5°	1716.6	1731.3	1740.1	1756.3	1787.9	1790.8	1832.0	1879.0	1932.7	1982.7	2023.9
7.5°	1568.8	1585.0	1592.3	1621.7	1663.6	1670.3	1730.5	1804.8	1894.5	1970.2	2033.4
10°	1457.8	1465.9	1482.1	1504.1	1554.1	1558.5	1637.2	1736.4	1852.6	1964.3	2049.6
12.5°	1397.5	1401.9	1405.6	1429.1	1478.4	1485.0	1567.3	1679.8	1819.5	1968.7	2076.1
15°	1406.3	1407.8	1391.6	1396.0	1435.7	1445.3	1526.9	1642.3	1798.9	1979.8	2115.8
17.5°	1480.6	1475.4	1435.7	1415.2	1443.1	1447.5	1518.8	1627.6	1789.3	2000.3	2156.9
20°	1597.5	1590.1	1521.8	1476.2	1492.3	1496.0	1545.3	1638.6	1798.9	2034.2	2220.9
22.5°	1743.0	1740.1	1636.4	1581.3	1580.6	1580.6	1606.3	1678.3	1827.6	2080.5	2287.8
25°	1946.7	1931.2	1796.0	1724.7	1704.8	1703.3	1700.4	1743.8	1864.3	2129.7	2367.2
27.5°	2155.5	2129.0	2008.4	1898.9	1856.2	1851.1	1832.0	1836.4	1911.4	2185.6	2457.6
30°	2342.9	2326.0	2212.8	2091.5	2040.8	2029.0	1976.1	1951.8	1990.0	2286.3	2601.7
32.5°	2486.3	2476.0	2387.8	2277.5	2202.5	2200.3	2123.1	2103.3	2112.8	2408.3	2766.4
35°	2602.4	2606.1	2561.3	2465.7	2379.7	2367.2	2315.7	2290.7	2262.8	2584.8	2973.7
37.5°	2761.2	2769.3	2766.4	2684.0	2578.9	2581.8	2570.1	2528.9	2454.7	2781.8	3203.8
40°	2936.2	2942.1	2941.3	2909.7	2854.6	2857.5	2853.1	2806.1	2695.1	3032.5	3459.6
42.5°	3178.0	3150.1	3077.3	3108.9	3141.3	3155.3	3185.4	3140.6	2988.4	3300.1	3700.0
45°	3448.6	3395.6	3231.0	3245.7	3365.5	3392.0	3558.1	3496.4	3306.7	3607.4	3983.0
47.5°	3619.1	3566.9	3428.0	3425.1	3583.8	3609.6	3903.6	3880.8	3596.3	3938.9	4328.5
50°	3771.3	3764.0	3607.4	3644.9	3800.0	3838.2	4280.0	4258.7	3885.3	4330.0	4704.9
52.5°	3997.0	3937.5	3812.5	3889.7	4094.8	4144.8	4653.5	4591.0	4150.6	4675.5	5070.3
55°	4098.4	4084.5	4077.1	4144.0	4425.6	4461.6	5016.6	4873.3	4377.1	4968.1	5348.2
57.5°	4369.7	4344.0	4416.8	4462.3	4815.2	4870.4	5396.0	5168.1	4575.6	5200.4	5483.5
60°	4721.1	4707.1	4774.0	4856.4	5250.4	5334.2	5828.2	5419.5	4735.1	5317.3	5409.2
62.5°	5246.0	5244.5	5232.0	5408.5	5867.2	5944.4	6324.5	5664.3	4760.1	5229.8	5025.5
65°	5998.8	5972.3	5863.5	6056.1	6634.7	6725.1	6841.3	5801.0	4609.4	4780.7	4231.5
67.5°	6786.1	6784.7	6696.5	6946.4	7736.7	7830.1	7487.5	5770.9	4191.1	3872.8	3005.3
70°	7439.0	7407.3	7519.8	8185.9	9144.5	9252.6	8052.8	5415.8	3338.3	2557.6	1785.7
72.5°	7595.5	7597.0	7830.8	9141.6	10496.4	10513.3	8256.4	4389.6	2234.1	1410.7	893.2
74°	7113.3	7125.8	7488.2	9189.3	10748.6	10672.1	7736.0	3450.0	1510.7	921.1	644.0
75°	6492.8	6414.2	6938.3	8871.0	10486.9	10404.5	7126.5	2768.6	1152.7	735.9	563.9
77.5°	3471.4	3551.5	4360.2	6620.0	8519.6	8424.8	4832.1	1327.7	622.7	512.4	405.8
80°	1235.8	1363.0	1915.8	3464.0	5462.1	5491.6	2306.2	608.7	438.1	377.9	286.7
82.5°	504.3	518.3	822.6	1537.2	2773.7	2800.2	941.7	361.7	313.2	260.2	171.3
85°	197.0	202.9	363.9	691.0	1183.6	1260.8	325.7	191.1	192.6	149.2	87.5
87.5°	66.2	75.0	149.2	230.1	402.1	394.0	94.8	56.6	69.1	64.7	27.2
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°	2026.1	2026.1	2026.1	2026.1	2026.1	2026.1	2026.1	2026.1	2026.1	2026.1	2026.1
2.5°	2032.7	2046.7	2056.2	2066.5	2076.1	2079.0	2076.8	2083.4	2084.1	2084.9	2085.6
5°	2044.4	2063.6	2081.9	2092.2	2096.6	2093.0	2080.5	2073.9	2068.0	2063.6	2065.0
7.5°	2060.6	2087.8	2104.7	2109.1	2097.4	2080.5	2049.6	2025.3	2009.9	1999.6	1998.9
10°	2085.6	2112.1	2126.0	2113.5	2081.2	2040.0	1991.5	1945.9	1911.4	1901.1	1900.4
12.5°	2117.2	2147.4	2146.6	2109.9	2053.3	1979.8	1901.1	1848.2	1801.1	1777.6	1787.1
15°	2158.4	2181.2	2159.9	2093.7	2004.0	1903.3	1806.3	1734.2	1681.3	1656.3	1657.8
17.5°	2206.2	2226.0	2169.4	2065.0	1934.9	1805.5	1693.0	1624.7	1582.8	1564.4	1562.9
20°	2265.7	2271.6	2169.4	2015.0	1846.0	1691.6	1584.2	1536.5	1512.9	1503.4	1506.3
22.5°	2329.7	2317.9	2157.7	1944.5	1729.1	1572.5	1500.4	1479.1	1467.4	1465.9	1467.4
25°	2401.7	2368.6	2133.4	1848.9	1607.0	1469.6	1427.7	1431.3	1433.5	1433.5	1438.7
27.5°	2489.9	2423.8	2093.0	1728.3	1464.4	1374.0	1362.2	1388.0	1399.7	1401.9	1405.6
30°	2606.1	2484.1	2026.1	1577.6	1343.1	1288.0	1308.6	1343.1	1356.3	1364.4	1363.0
32.5°	2744.3	2550.2	1935.6	1426.9	1245.3	1227.7	1252.7	1288.0	1302.7	1307.1	1301.2
35°	2906.8	2625.2	1816.5	1285.8	1160.1	1170.4	1199.8	1210.8	1224.0	1224.0	1227.0
37.5°	3081.7	2685.5	1671.0	1156.4	1093.9	1131.4	1152.7	1142.4	1136.5	1129.2	1132.9
40°	3259.6	2730.3	1482.1	1028.5	1027.7	1091.0	1096.8	1067.4	1043.9	1036.6	1032.9
42.5°	3414.8	2758.3	1311.5	929.2	965.2	1051.3	1055.7	1008.6	971.1	949.1	941.7
45°	3597.8	2790.6	1144.6	846.9	907.2	1019.6	1030.7	967.5	912.3	866.0	854.2
47.5°	3848.5	2864.1	1013.0	782.9	865.3	999.8	1015.2	933.6	860.9	800.6	791.0
50°	4131.5	2964.8	910.8	739.6	832.9	982.2	1001.3	899.1	813.1	746.2	738.8
52.5°	4391.0	3019.3	822.6	700.6	801.3	949.8	982.9	874.1	766.0	691.8	685.2
55°	4532.9	2931.0	735.9	662.4	757.9	907.9	957.2	839.5	720.4	663.1	653.5
57.5°	4552.0	2748.7	657.2	621.2	712.4	856.4	909.4	797.6	691.0	643.3	635.2
60°	4404.3	2476.7	596.2	587.4	666.0	798.4	855.7	760.9	660.9	621.2	613.1
62.5°	4036.7	2181.2	553.6	556.5	619.0	737.4	816.0	725.6	632.2	596.9	589.6
65°	3404.5	1800.4	512.4	524.9	577.1	689.6	780.0	696.2	603.6	578.6	571.9
67.5°	2365.0	1299.7	478.6	491.8	537.4	641.0	738.1	664.6	571.2	558.0	547.7
70°	1309.3	799.8	438.9	454.3	496.2	586.6	691.0	616.8	524.2	518.3	503.6
72.5°	688.1	509.5	394.0	410.9	440.4	516.8	619.0	564.6	477.8	452.9	433.7
74°	537.4	417.6	363.9	381.5	401.4	475.6	576.4	527.1	444.8	415.4	400.7
75°	468.3	372.0	338.2	361.0	378.6	447.7	543.3	500.6	426.4	398.4	385.2
77.5°	330.8	278.6	276.4	303.6	313.2	392.6	489.6	455.8	380.1	350.7	338.2
80°	232.3	208.8	219.1	236.0	249.2	347.0	454.3	394.0	311.7	277.2	272.7
82.5°	151.4	136.7	156.6	172.0	176.4	255.8	366.8	299.2	227.2	184.5	171.3
85°	69.8	68.4	89.7	87.5	86.7	125.0	217.6	175.0	130.9	97.8	91.9
87.5°	17.6	16.9	22.1	18.4	22.1	19.1	19.8	5.1	0.7	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)