

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: P458234

Luminaire Tested: **GALN-SA9C-827-U-SL4**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P458234  
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-SA9C-827-U-SL4  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 2700K, 1050mA 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: 45861 lumens  
Efficiency: N/A  
Efficacy: 95.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

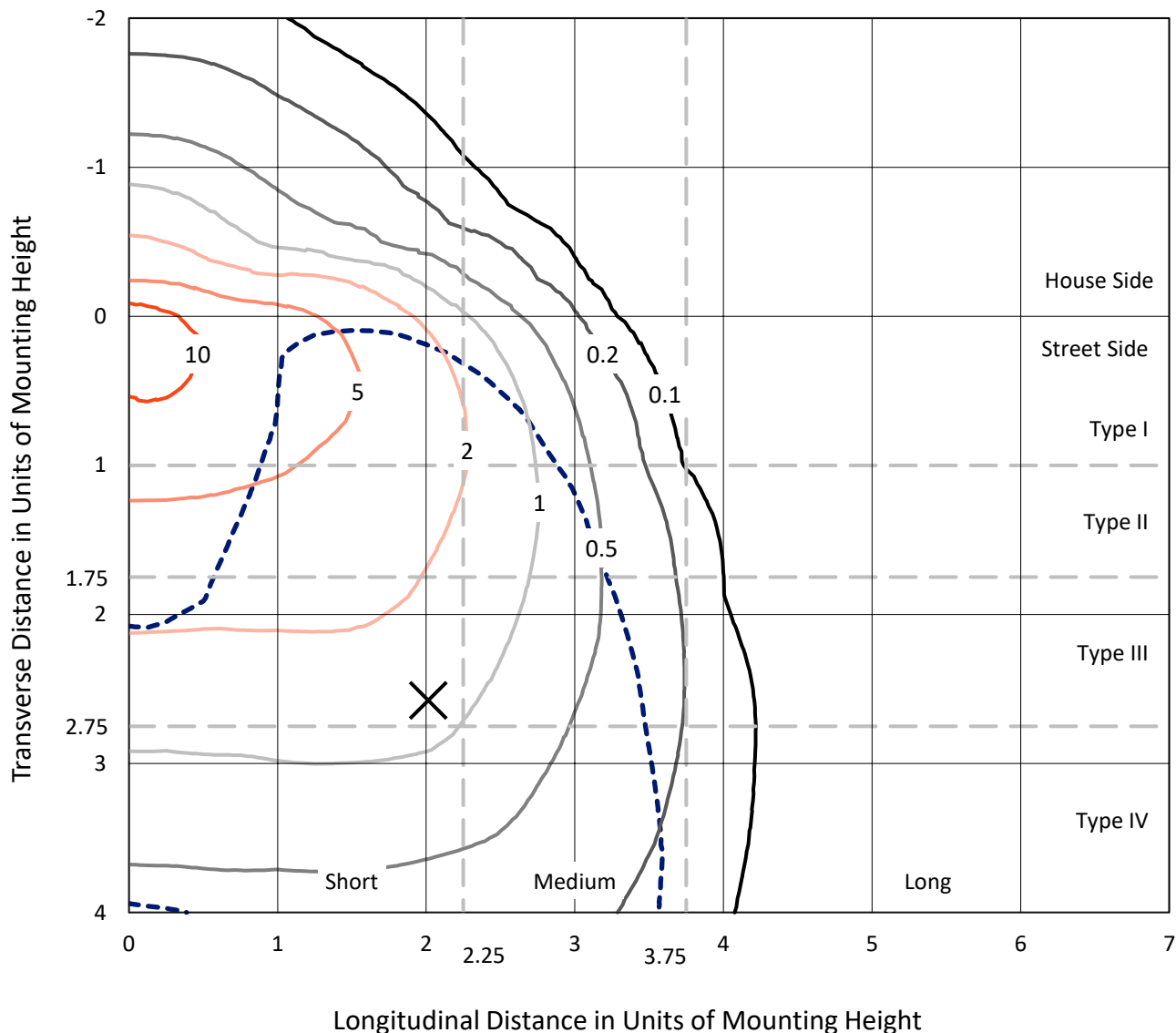
Input Watts (W): 481  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

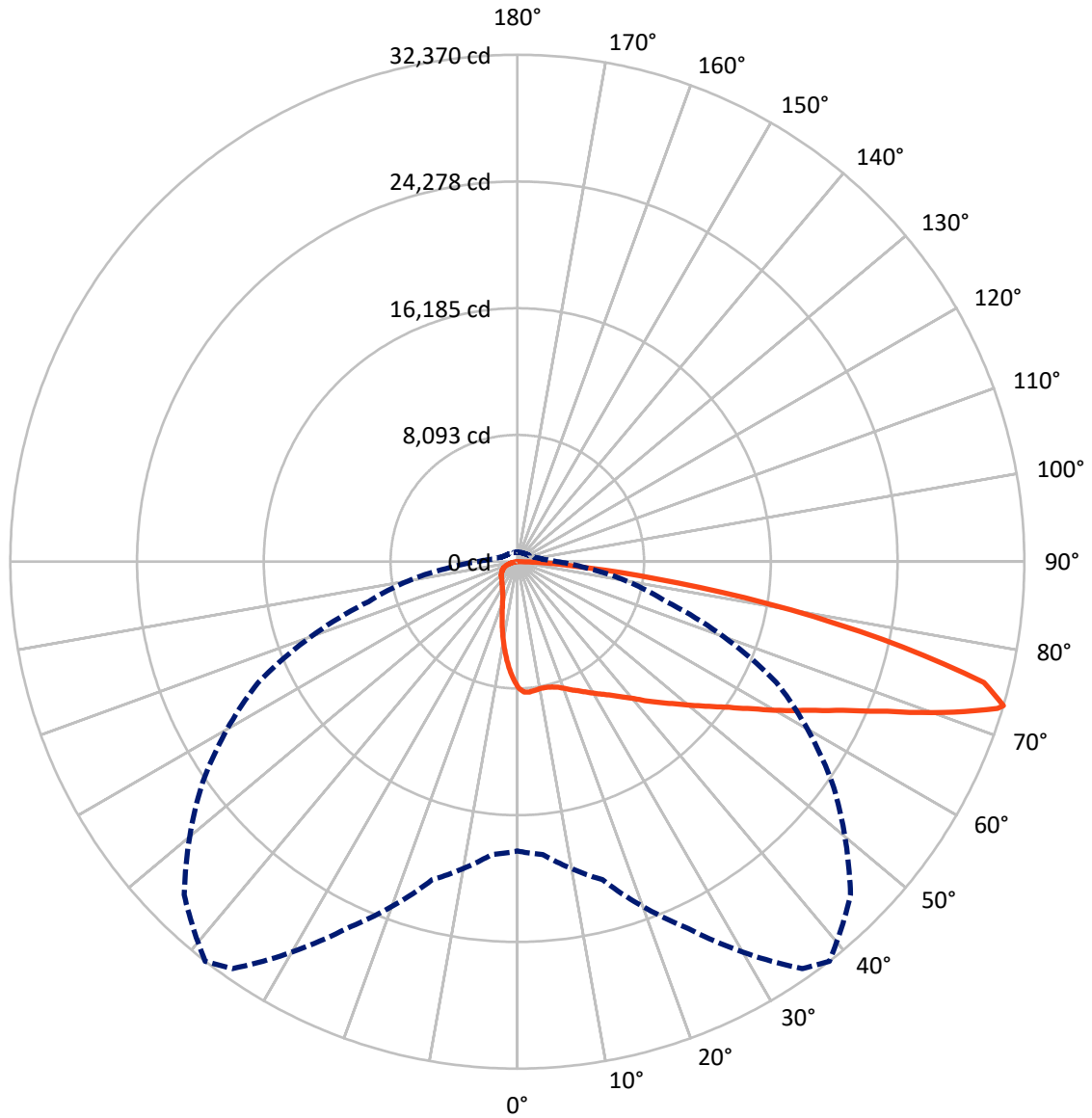
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.1 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral    - - - Horizontal Cone Through 73-Deg Vertical

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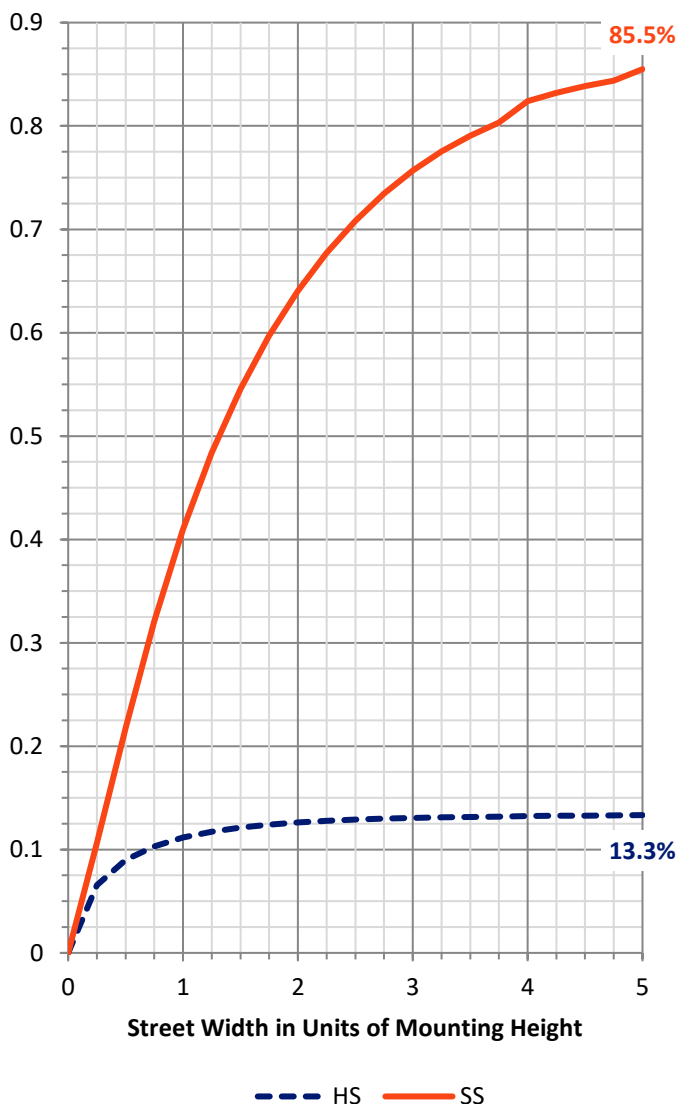
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6165.1	0.0	6165.1
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	39695.9	0.0	39695.9
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	45861.0	0.0	45861.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	703.3	1.5
10°-20°	1803.5	3.9
20°-30°	2808.3	6.1
30°-40°	4119.2	9.0
40°-50°	6110.3	13.3
50°-60°	8657.1	18.9
60°-70°	10981.8	23.9
70°-80°	9141.5	19.9
80°-90°	1535.9	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°	45861.0	100.0
0°-180°	45861.0	100.0

**Coefficient of Utilization**



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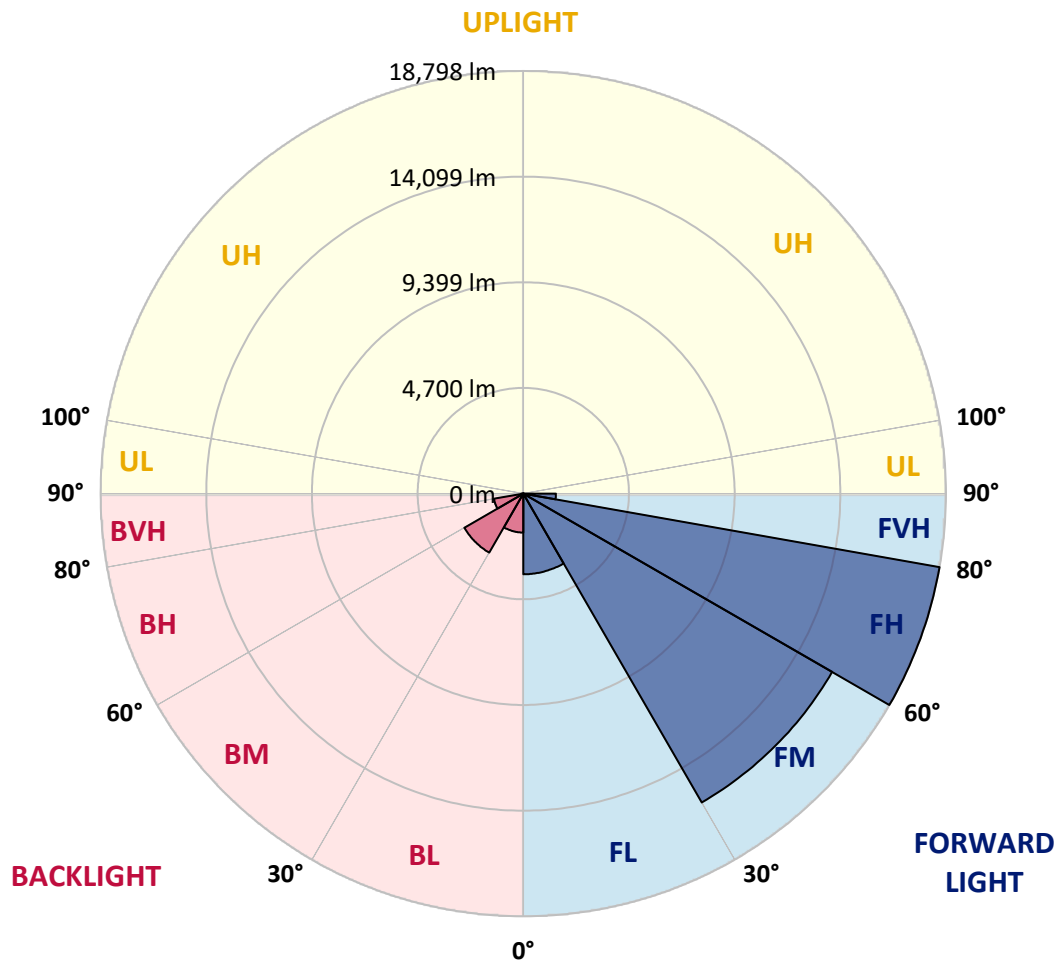
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3585.1	7.8			
FM	(30°-60°)	15860.0	34.6			
FH	(60°-80°)	18798.2	41.0			G5
FVH	(80°-90°)	1452.6	3.2			G5
BL	(0°-30°)	1730.0	3.8	B3/2500		
BM	(30°-60°)	3026.7	6.6	B3/5000		
BH	(60°-80°)	1325.1	2.9	B3/2500		G3/2500
BVH	(80°-90°)	83.3	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	8057.0	8057.0	8057.0	8057.0	8057.0	8057.0	8057.0	8057.0	8057.0	8057.0	8057.0
2.5°	8380.7	8422.2	8401.4	8373.0	8354.8	8336.7	8310.8	8235.7	8176.1	8111.4	8010.4
5°	8442.9	8468.8	8450.7	8414.4	8373.0	8354.8	8305.6	8207.2	8111.4	8002.6	7852.4
7.5°	8406.6	8417.0	8396.3	8352.2	8316.0	8282.3	8225.3	8116.6	8000.0	7867.9	7671.1
10°	8277.1	8316.0	8316.0	8279.7	8243.5	8225.3	8168.4	8064.8	7958.6	7808.4	7575.3
12.5°	8171.0	8212.4	8246.1	8235.7	8233.1	8233.1	8189.1	8111.4	7987.1	7844.6	7567.5
15°	8098.4	8147.6	8220.2	8261.6	8287.5	8295.3	8277.1	8209.8	8082.9	7917.1	7598.6
17.5°	8082.9	8142.5	8274.5	8365.2	8432.5	8429.9	8424.8	8331.5	8191.7	8020.7	7637.4
20°	8152.8	8230.5	8414.4	8556.8	8655.3	8637.1	8608.6	8486.9	8323.8	8132.1	7673.7
22.5°	8362.6	8442.9	8644.9	8800.3	8896.1	8896.1	8810.6	8650.1	8476.6	8261.6	7722.9
25°	8663.0	8751.1	8966.0	9124.0	9168.0	9134.4	9048.9	8854.7	8655.3	8448.1	7826.5
27.5°	9030.8	9137.0	9336.4	9468.5	9455.5	9429.6	9341.6	9092.9	8893.5	8704.5	8002.6
30°	9489.2	9566.9	9774.1	9805.1	9758.5	9753.3	9629.0	9380.4	9193.9	9048.9	8253.8
32.5°	9921.7	9991.6	10157.4	10170.3	10087.4	10097.8	9981.3	9753.3	9647.2	9595.4	8676.0
35°	10380.1	10416.3	10558.8	10543.2	10488.9	10481.1	10434.5	10216.9	10250.6	10343.8	9274.2
37.5°	10763.4	10835.9	10916.2	10929.1	10926.5	10952.4	10983.5	10879.9	11074.2	11366.8	10058.9
40°	11115.6	11177.8	11296.9	11338.3	11439.3	11491.1	11597.3	11599.9	12047.9	12529.7	11025.0
42.5°	11353.9	11460.1	11682.8	11757.9	12003.9	12159.3	12317.3	12485.6	13135.7	13754.7	12164.5
45°	11561.1	11700.9	12071.3	12304.3	12638.4	12827.5	13161.6	13513.8	14448.7	15259.4	13322.2
47.5°	11874.4	11998.7	12423.5	12835.3	13340.3	13557.8	14057.7	14583.4	15805.8	16694.1	14430.6
50°	12309.5	12384.6	12817.1	13487.9	14132.8	14412.5	15072.9	15831.7	17256.1	18110.8	15404.4
52.5°	12866.3	12897.4	13241.9	14135.4	14984.8	15331.9	16207.2	17093.0	18525.1	19340.9	16176.2
55°	13524.2	13472.4	13741.7	14821.7	15958.6	16411.8	17351.9	18369.8	19952.1	20335.4	16738.2
57.5°	14174.2	14093.9	14308.9	15655.6	17160.3	17706.8	18802.3	19685.4	21226.4	21265.2	17131.8
60°	14863.1	14803.5	15059.9	16634.6	18633.9	19281.4	20294.0	21050.2	22459.1	21912.7	17194.0
62.5°	15570.1	15474.3	15839.5	17735.2	20294.0	20881.9	21863.5	22500.6	23668.6	22153.5	16595.7
65°	16256.4	16212.4	16777.0	19043.1	22184.6	22852.8	23805.8	24238.3	24637.2	21790.9	15111.7
67.5°	16986.8	17074.8	17976.1	20788.7	24650.1	25489.2	26517.4	26110.8	24914.3	20073.9	12726.5
70°	18100.4	18157.4	19550.7	23075.5	27827.9	28840.5	29337.7	26776.4	23577.9	16813.3	9566.9
72.5°	18579.5	18830.7	20957.0	25476.3	31438.1	32057.1	30285.6	25292.4	19641.4	11421.2	5026.9
73°	18473.3	18773.8	21021.8	25841.4	31720.4	32370.4	30083.6	24528.4	18258.4	9836.2	4309.5
75°	17149.9	17520.3	20180.1	25535.8	31171.3	30782.9	26835.9	20905.2	12338.0	4472.7	1963.1
77.5°	13531.9	13638.1	15989.7	20620.3	24546.5	23826.6	20084.2	13065.8	5039.8	1662.7	1113.6
80°	6788.0	7179.0	9012.7	11812.3	16414.4	16178.7	12677.3	6179.4	2100.4	976.4	738.1
82.5°	3265.8	3542.9	4389.8	5759.8	9069.6	8854.7	6277.8	3377.2	1333.8	569.8	435.1
85°	2103.0	2310.1	2794.4	2747.8	3729.4	3561.0	2820.3	2556.2	789.9	297.8	303.0
87.5°	1388.2	1520.2	1823.2	1458.1	1357.1	1227.6	1245.7	1440.0	155.4	114.0	41.4
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°	8057.0	8057.0	8057.0	8057.0	8057.0	8057.0	8057.0	8057.0	8057.0	8057.0	8057.0
2.5°	7968.9	7935.3	7823.9	7715.1	7611.5	7513.1	7448.4	7362.9	7305.9	7321.5	7344.8
5°	7769.5	7694.4	7497.6	7305.9	7124.7	6909.7	6736.2	6596.3	6490.1	6451.3	6443.5
7.5°	7559.8	7432.8	7150.6	6821.6	6513.5	6246.7	5938.5	5785.7	5607.0	5544.9	5524.1
10°	7432.8	7261.9	6865.7	6407.3	5943.7	5500.8	5166.7	4894.8	4648.8	4602.2	4578.8
12.5°	7396.6	7171.3	6637.8	6047.3	5430.9	4887.0	4392.4	4035.0	3796.7	3742.3	3662.0
15°	7375.9	7096.2	6425.4	5684.7	4902.6	4239.6	3719.0	3302.0	3084.5	2939.5	2942.1
17.5°	7357.7	7010.7	6187.1	5288.5	4446.8	3682.8	3107.8	2732.3	2532.9	2455.2	2447.4
20°	7331.8	6909.7	5912.6	4871.5	3926.2	3175.1	2654.6	2374.9	2240.2	2175.5	2172.9
22.5°	7321.5	6811.3	5643.3	4446.8	3465.2	2784.1	2354.2	2157.3	2071.9	2027.8	2027.8
25°	7347.4	6741.4	5361.0	4042.7	3056.0	2450.0	2147.0	2012.3	1963.1	1939.8	1932.0
27.5°	7427.7	6710.3	5081.3	3638.7	2680.5	2222.1	2007.1	1913.9	1877.6	1859.5	1862.1
30°	7580.5	6707.7	4806.7	3239.9	2400.8	2048.6	1895.8	1831.0	1802.5	1792.2	1789.6
32.5°	7826.5	6764.7	4537.4	2911.0	2165.1	1903.5	1792.2	1745.6	1732.6	1724.8	1722.2
35°	8243.5	6925.2	4270.7	2610.6	1983.8	1774.0	1693.8	1670.4	1652.3	1660.1	1662.7
37.5°	8805.5	7202.4	4016.8	2374.9	1846.6	1678.2	1610.9	1590.2	1579.8	1587.6	1595.3
40°	9559.1	7601.2	3804.5	2185.8	1748.1	1597.9	1538.4	1520.2	1509.9	1522.8	1525.4
42.5°	10390.4	8062.2	3628.4	2038.2	1667.9	1530.6	1473.6	1452.9	1445.1	1452.9	1455.5
45°	11245.1	8598.3	3537.7	1932.0	1600.5	1481.4	1421.8	1398.5	1380.4	1375.2	1383.0
47.5°	12086.8	9064.4	3535.1	1867.3	1546.1	1437.4	1372.6	1346.7	1323.4	1310.5	1307.9
50°	12773.1	9434.8	3597.3	1838.8	1499.5	1388.2	1323.4	1297.5	1266.4	1240.5	1245.7
52.5°	13291.1	9675.7	3625.8	1825.8	1473.6	1336.4	1271.6	1248.3	1212.0	1178.4	1178.4
55°	13625.2	9732.6	3555.9	1812.9	1452.9	1282.0	1212.0	1191.3	1155.1	1121.4	1121.4
57.5°	13739.1	9556.5	3304.6	1781.8	1432.2	1235.4	1152.5	1134.4	1105.9	1072.2	1067.0
60°	13475.0	8960.9	2864.4	1688.6	1390.7	1186.1	1087.7	1080.0	1069.6	1041.1	1038.5
62.5°	12457.1	7697.0	2385.2	1566.9	1320.8	1134.4	1028.2	1041.1	1048.9	1033.3	1030.8
65°	10763.4	6249.3	2038.2	1398.5	1227.6	1061.8	963.4	997.1	1017.8	1017.8	1012.6
67.5°	8730.4	4799.0	1717.1	1253.5	1111.0	963.4	890.9	916.8	932.3	927.2	940.1
70°	6205.3	3250.3	1398.5	1087.7	963.4	852.1	797.7	797.7	787.3	782.1	782.1
72.5°	3009.4	1856.9	1134.4	909.0	821.0	727.7	683.7	665.6	644.9	642.3	629.3
73°	2514.7	1665.3	1082.6	875.4	787.3	709.6	660.4	631.9	619.0	608.6	606.0
75°	1530.6	1263.8	903.9	738.1	670.8	611.2	567.2	541.3	528.3	520.6	518.0
77.5°	1007.4	942.7	701.8	564.6	512.8	476.5	458.4	432.5	424.7	414.4	414.4
80°	751.1	720.0	502.4	398.8	367.8	336.7	331.5	326.3	305.6	292.7	287.5
82.5°	484.3	512.8	341.9	266.8	233.1	207.2	209.8	217.5	196.8	178.7	173.5
85°	344.4	370.3	207.2	121.7	98.4	85.5	95.8	85.5	88.1	69.9	57.0
87.5°	57.0	98.4	36.3	15.5	7.8	5.2	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)