

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: P454609

Luminaire Tested: **GALN-SA5D-727-U-SL4**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P454609  
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-SA5D-727-U-SL4  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K, 1200mA 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: 31714 lumens  
Efficiency: N/A  
Efficacy: 102.6 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

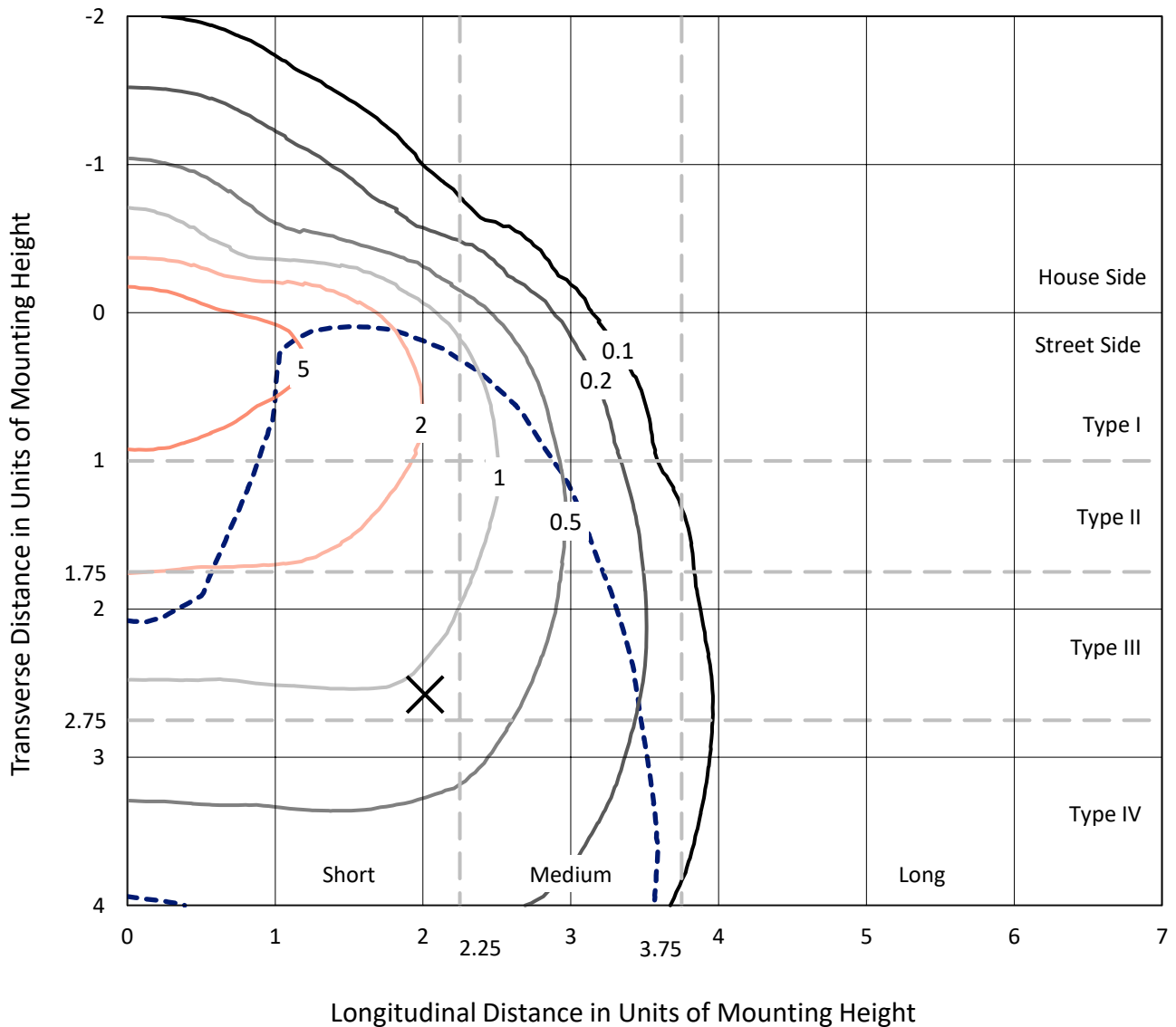
Input Watts (W): 309  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

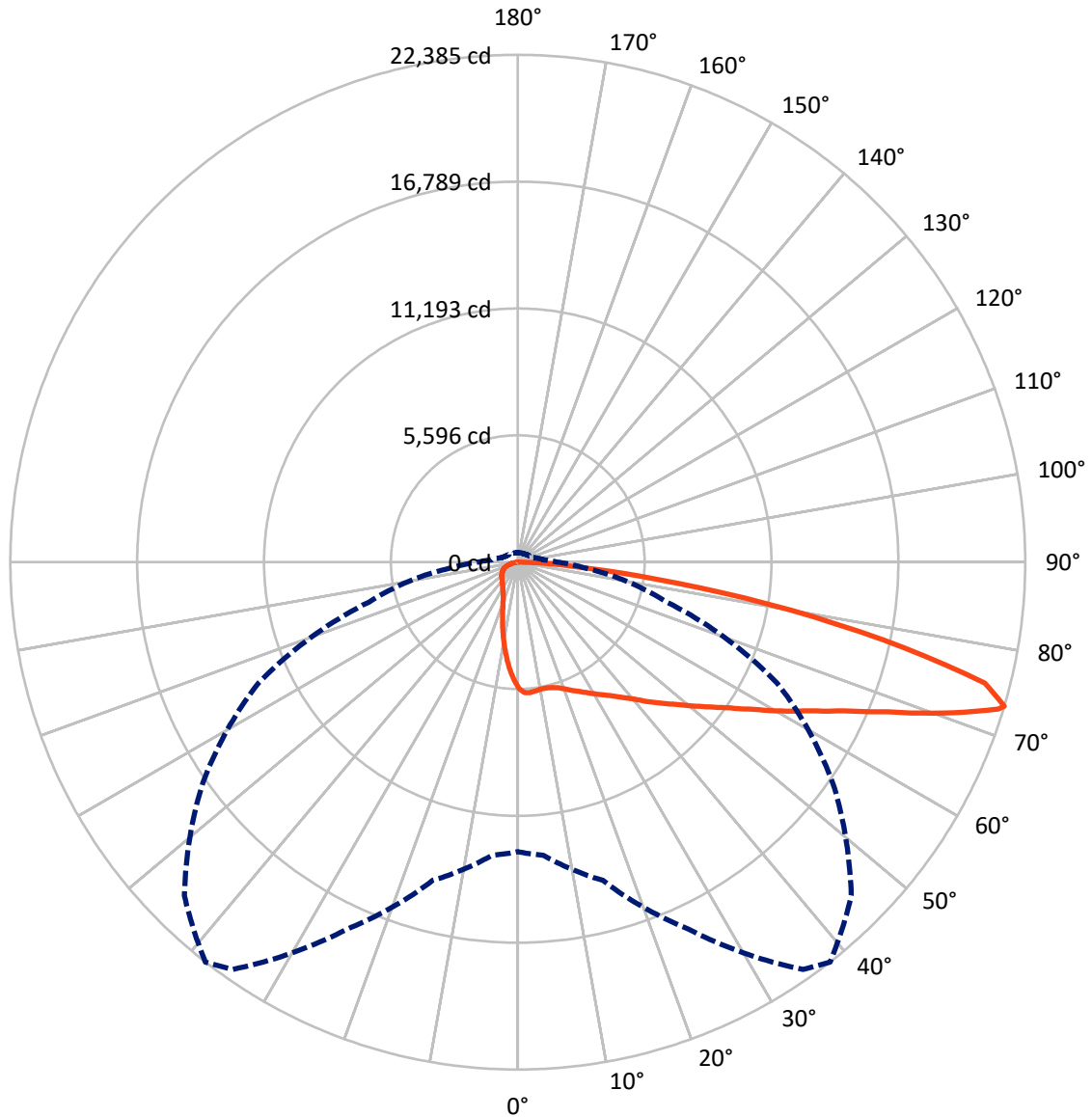
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.1 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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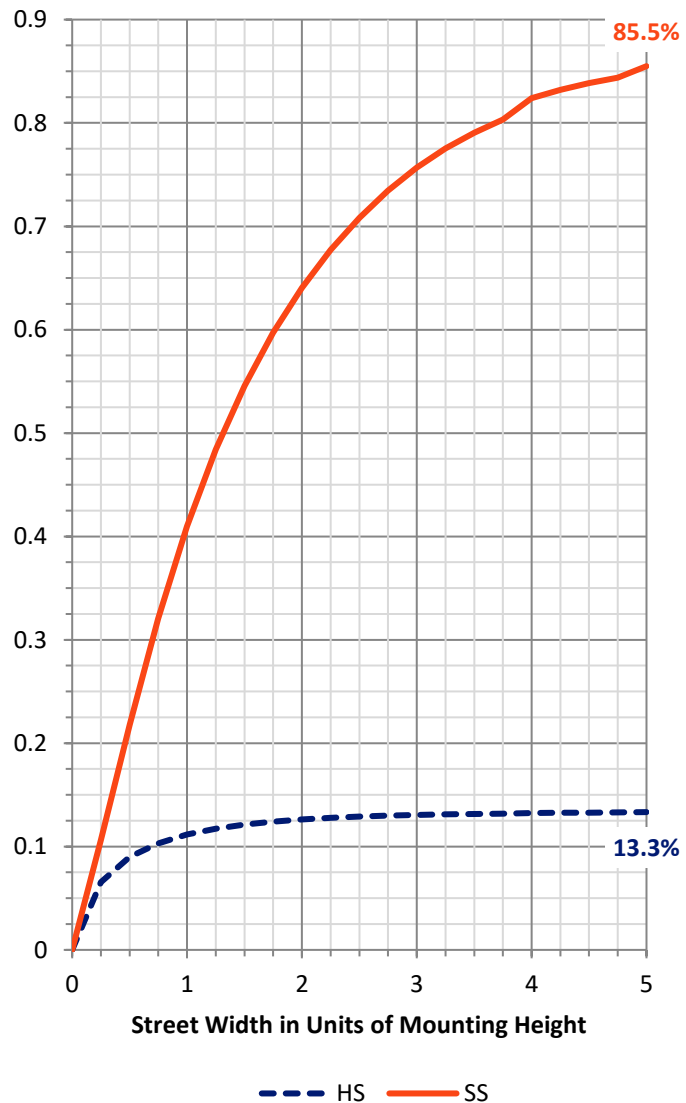
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4263.3	0.0	4263.3
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	27450.7	0.0	27450.7
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	31714.0	0.0	31714.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	486.3	1.5
10°-20°	1247.1	3.9
20°-30°	1942.0	6.1
30°-40°	2848.5	9.0
40°-50°	4225.4	13.3
50°-60°	5986.6	18.9
60°-70°	7594.2	23.9
70°-80°	6321.6	19.9
80°-90°	1062.1	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°	31714.0	100.0
0°-180°	31714.0	100.0

**Coefficient of Utilization**



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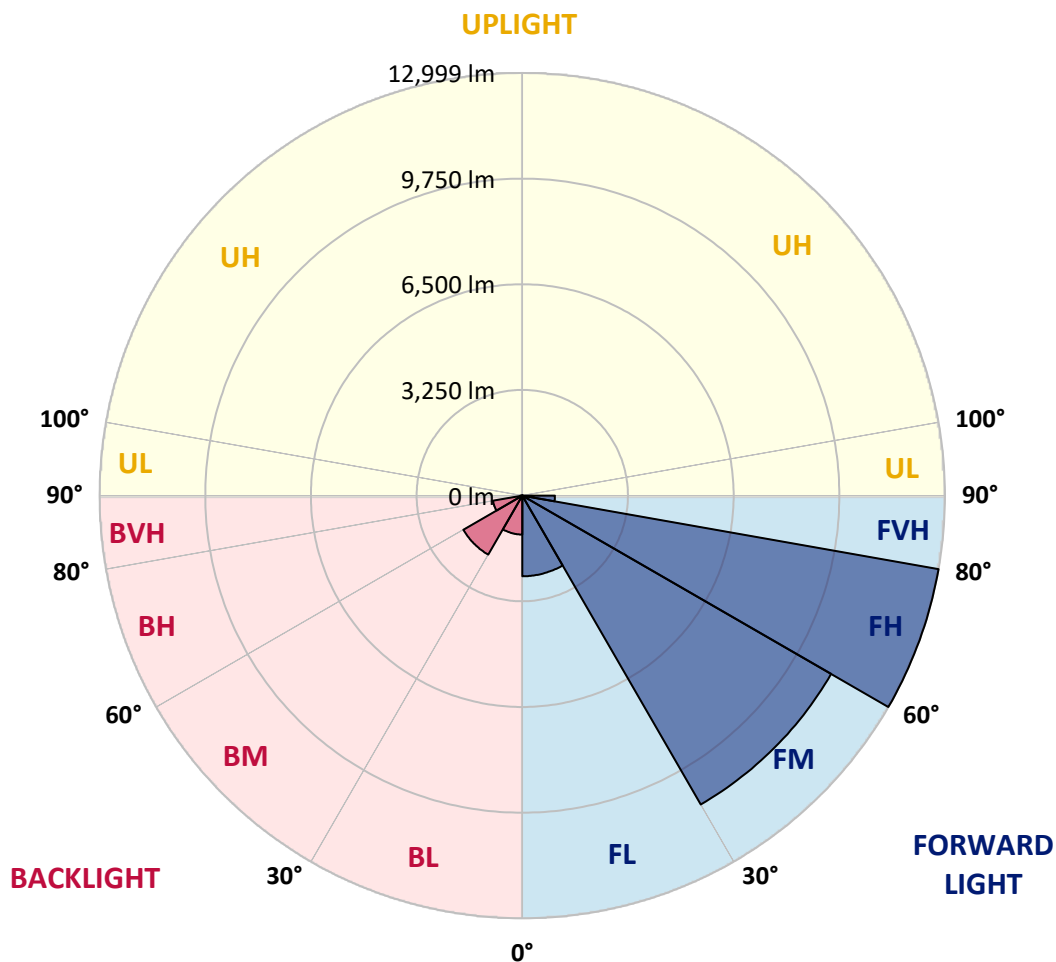
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2479.2	7.8			
FM	(30°-60°)	10967.6	34.6			
FH	(60°-80°)	12999.4	41.0			G5
FVH	(80°-90°)	1004.5	3.2			G5
BL	(0°-30°)	1196.3	3.8	B3/2500		
BM	(30°-60°)	2093.0	6.6	B2/2500		
BH	(60°-80°)	916.4	2.9	B2/1000		G2/1000
BVH	(80°-90°)	57.6	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°	5571.6	5571.6	5571.6	5571.6	5571.6	5571.6	5571.6	5571.6	5571.6	5571.6	5571.6
2.5°	5795.5	5824.1	5809.8	5790.1	5777.6	5765.0	5747.1	5695.2	5654.0	5609.2	5539.4
5°	5838.5	5856.4	5843.8	5818.8	5790.1	5777.6	5743.5	5675.5	5609.2	5534.0	5430.1
7.5°	5813.4	5820.6	5806.2	5775.8	5750.7	5727.4	5688.0	5612.8	5532.2	5440.9	5304.8
10°	5723.8	5750.7	5750.7	5725.6	5700.6	5688.0	5648.6	5577.0	5503.6	5399.7	5238.5
12.5°	5650.4	5679.1	5702.4	5695.2	5693.4	5693.4	5663.0	5609.2	5523.3	5424.8	5233.1
15°	5600.3	5634.3	5684.4	5713.1	5731.0	5736.4	5723.8	5677.3	5589.5	5474.9	5254.6
17.5°	5589.5	5630.7	5722.1	5784.7	5831.3	5829.5	5825.9	5761.5	5664.7	5546.5	5281.5
20°	5637.9	5691.6	5818.8	5917.3	5985.3	5972.8	5953.1	5868.9	5756.1	5623.5	5306.6
22.5°	5782.9	5838.5	5978.2	6085.6	6151.9	6151.9	6092.8	5981.7	5861.7	5713.1	5340.6
25°	5990.7	6051.6	6200.2	6309.5	6339.9	6316.6	6257.5	6123.2	5985.3	5842.0	5412.2
27.5°	6245.0	6318.4	6456.3	6547.7	6538.7	6520.8	6459.9	6288.0	6150.1	6019.3	5534.0
30°	6562.0	6615.7	6759.0	6780.5	6748.3	6744.7	6658.7	6486.8	6357.8	6257.5	5707.7
32.5°	6861.1	6909.4	7024.1	7033.0	6975.7	6982.9	6902.3	6744.7	6671.2	6635.4	5999.6
35°	7178.1	7203.2	7301.7	7290.9	7253.3	7247.9	7215.7	7065.3	7088.5	7153.0	6413.4
37.5°	7443.1	7493.3	7548.8	7557.8	7556.0	7573.9	7595.4	7523.7	7658.1	7860.4	6956.0
40°	7686.7	7729.7	7812.1	7840.7	7910.6	7946.4	8019.8	8021.6	8331.4	8664.6	7624.0
42.5°	7851.5	7924.9	8078.9	8130.9	8301.0	8408.5	8517.7	8634.1	9083.6	9511.7	8412.0
45°	7994.8	8091.5	8347.6	8508.8	8739.8	8870.5	9101.6	9345.1	9991.7	10552.2	9212.6
47.5°	8211.5	8297.4	8591.1	8875.9	9225.1	9375.6	9721.2	10084.8	10930.1	11544.4	9979.1
50°	8512.3	8564.3	8863.4	9327.2	9773.2	9966.6	10423.3	10948.0	11933.0	12524.0	10652.5
52.5°	8897.4	8918.9	9157.1	9774.9	10362.4	10602.4	11207.7	11820.2	12810.6	13374.7	11186.2
55°	9352.3	9316.5	9502.7	10249.5	11035.8	11349.2	11999.3	12703.1	13797.4	14062.5	11574.8
57.5°	9801.8	9746.3	9894.9	10826.2	11866.8	12244.7	13002.2	13612.9	14678.5	14705.4	11847.1
60°	10278.2	10237.0	10414.3	11503.2	12885.8	13333.5	14033.8	14556.8	15531.0	15153.1	11890.0
62.5°	10767.1	10700.9	10953.4	12264.4	14033.8	14440.3	15119.1	15559.7	16367.4	15319.7	11476.3
65°	11241.7	11211.3	11601.7	13168.8	15341.2	15803.2	16462.3	16761.4	17037.2	15069.0	10450.1
67.5°	11746.8	11807.7	12430.9	14375.9	17046.2	17626.4	18337.4	18056.3	17228.8	13881.6	8800.7
70°	12516.9	12556.3	13519.8	15957.3	19243.6	19943.9	20287.8	18516.5	16304.7	11626.8	6615.7
72.5°	12848.2	13021.9	14492.3	17617.5	21740.2	22168.2	20943.2	17490.3	13582.5	7898.0	3476.2
73°	12774.8	12982.5	14537.1	17870.0	21935.4	22385.0	20803.6	16962.0	12626.1	6802.0	2980.1
75°	11859.6	12115.7	13955.0	17658.7	21555.7	21287.1	18557.7	14456.5	8532.0	3093.0	1357.5
77.5°	9357.7	9431.1	11057.3	14259.5	16974.5	16476.6	13888.7	9035.3	3485.2	1149.8	770.1
80°	4694.1	4964.5	6232.5	8168.5	11351.0	11188.0	8766.6	4273.2	1452.5	675.2	510.4
82.5°	2258.4	2450.0	3035.6	3983.0	6271.9	6123.2	4341.2	2335.4	922.3	394.0	300.9
85°	1454.2	1597.5	1932.4	1900.2	2579.0	2462.5	1950.3	1767.7	546.2	206.0	209.5
87.5°	959.9	1051.3	1260.8	1008.3	938.5	848.9	861.4	995.8	107.5	78.8	28.7
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°	5571.6	5571.6	5571.6	5571.6	5571.6	5571.6	5571.6	5571.6	5571.6	5571.6	5571.6
2.5°	5510.7	5487.4	5410.4	5335.2	5263.6	5195.5	5150.7	5091.6	5052.2	5063.0	5079.1
5°	5372.8	5320.9	5184.8	5052.2	4926.9	4778.2	4658.2	4561.5	4488.1	4461.2	4455.9
7.5°	5227.8	5140.0	4944.8	4717.3	4504.2	4319.7	4106.6	4001.0	3877.4	3834.4	3820.1
10°	5140.0	5021.8	4747.8	4430.8	4110.2	3804.0	3572.9	3384.9	3214.7	3182.5	3166.4
12.5°	5114.9	4959.1	4590.2	4181.8	3755.6	3379.5	3037.4	2790.3	2625.5	2587.9	2532.4
15°	5100.6	4907.2	4443.3	3931.1	3390.2	2931.8	2571.8	2283.4	2133.0	2032.7	2034.5
17.5°	5088.1	4848.1	4278.6	3657.1	3075.0	2546.7	2149.1	1889.4	1751.5	1697.8	1692.4
20°	5070.1	4778.2	4088.7	3368.8	2715.1	2195.7	1835.7	1642.3	1549.2	1504.4	1502.6
22.5°	5063.0	4710.2	3902.5	3075.0	2396.3	1925.3	1628.0	1491.9	1432.8	1402.3	1402.3
25°	5080.9	4661.8	3707.2	2795.7	2113.3	1694.2	1484.7	1391.6	1357.5	1341.4	1336.0
27.5°	5136.4	4640.3	3513.8	2516.3	1853.6	1536.6	1388.0	1323.5	1298.4	1285.9	1287.7
30°	5242.1	4638.5	3324.0	2240.5	1660.2	1416.6	1311.0	1266.2	1246.5	1239.3	1237.5
32.5°	5412.2	4677.9	3137.7	2013.0	1497.2	1316.3	1239.3	1207.1	1198.1	1192.8	1191.0
35°	5700.6	4789.0	2953.3	1805.3	1371.9	1226.8	1171.3	1155.2	1142.6	1148.0	1149.8
37.5°	6089.2	4980.6	2777.7	1642.3	1276.9	1160.5	1114.0	1099.6	1092.5	1097.8	1103.2
40°	6610.4	5256.4	2630.9	1511.6	1208.9	1105.0	1063.8	1051.3	1044.1	1053.1	1054.9
42.5°	7185.2	5575.2	2509.1	1409.5	1153.4	1058.4	1019.0	1004.7	999.3	1004.7	1006.5
45°	7776.3	5945.9	2446.4	1336.0	1106.8	1024.4	983.2	967.1	954.6	951.0	956.4
47.5°	8358.3	6268.3	2444.6	1291.3	1069.2	994.0	949.2	931.3	915.2	906.2	904.4
50°	8832.9	6524.4	2487.6	1271.6	1037.0	959.9	915.2	897.3	875.8	857.9	861.4
52.5°	9191.1	6690.9	2507.3	1262.6	1019.0	924.1	879.4	863.2	838.2	814.9	814.9
55°	9422.1	6730.4	2459.0	1253.7	1004.7	886.5	838.2	823.8	798.8	775.5	775.5
57.5°	9500.9	6608.6	2285.2	1232.2	990.4	854.3	797.0	784.4	764.7	741.4	737.9
60°	9318.3	6196.7	1980.8	1167.7	961.7	820.3	752.2	746.8	739.7	720.0	718.2
62.5°	8614.4	5322.7	1649.5	1083.5	913.4	784.4	711.0	720.0	725.3	714.6	712.8
65°	7443.1	4321.5	1409.5	967.1	848.9	734.3	666.2	689.5	703.8	703.8	700.3
67.5°	6037.3	3318.6	1187.4	866.8	768.3	666.2	616.1	634.0	644.7	641.2	650.1
70°	4291.1	2247.6	967.1	752.2	666.2	589.2	551.6	551.6	544.4	540.9	540.9
72.5°	2081.1	1284.1	784.4	628.6	567.7	503.3	472.8	460.3	445.9	444.2	435.2
73°	1739.0	1151.6	748.6	605.3	544.4	490.7	456.7	437.0	428.0	420.9	419.1
75°	1058.4	874.0	625.0	510.4	463.9	422.7	392.2	374.3	365.4	360.0	358.2
77.5°	696.7	651.9	485.3	390.4	354.6	329.5	317.0	299.1	293.7	286.6	286.6
80°	519.4	497.9	347.4	275.8	254.3	232.8	229.2	225.7	211.3	202.4	198.8
82.5°	334.9	354.6	236.4	184.5	161.2	143.3	145.1	150.4	136.1	123.6	120.0
85°	238.2	256.1	143.3	84.2	68.1	59.1	66.3	59.1	60.9	48.4	39.4
87.5°	39.4	68.1	25.1	10.7	5.4	3.6	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)