

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: P301014

Luminaire Tested: **GLNA-AF-10-LED-E1-SL4-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301014  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-10-LED-E1-SL4-7027-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31930.8 lumens  
Efficiency: N/A  
Efficacy: 98.9 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G5

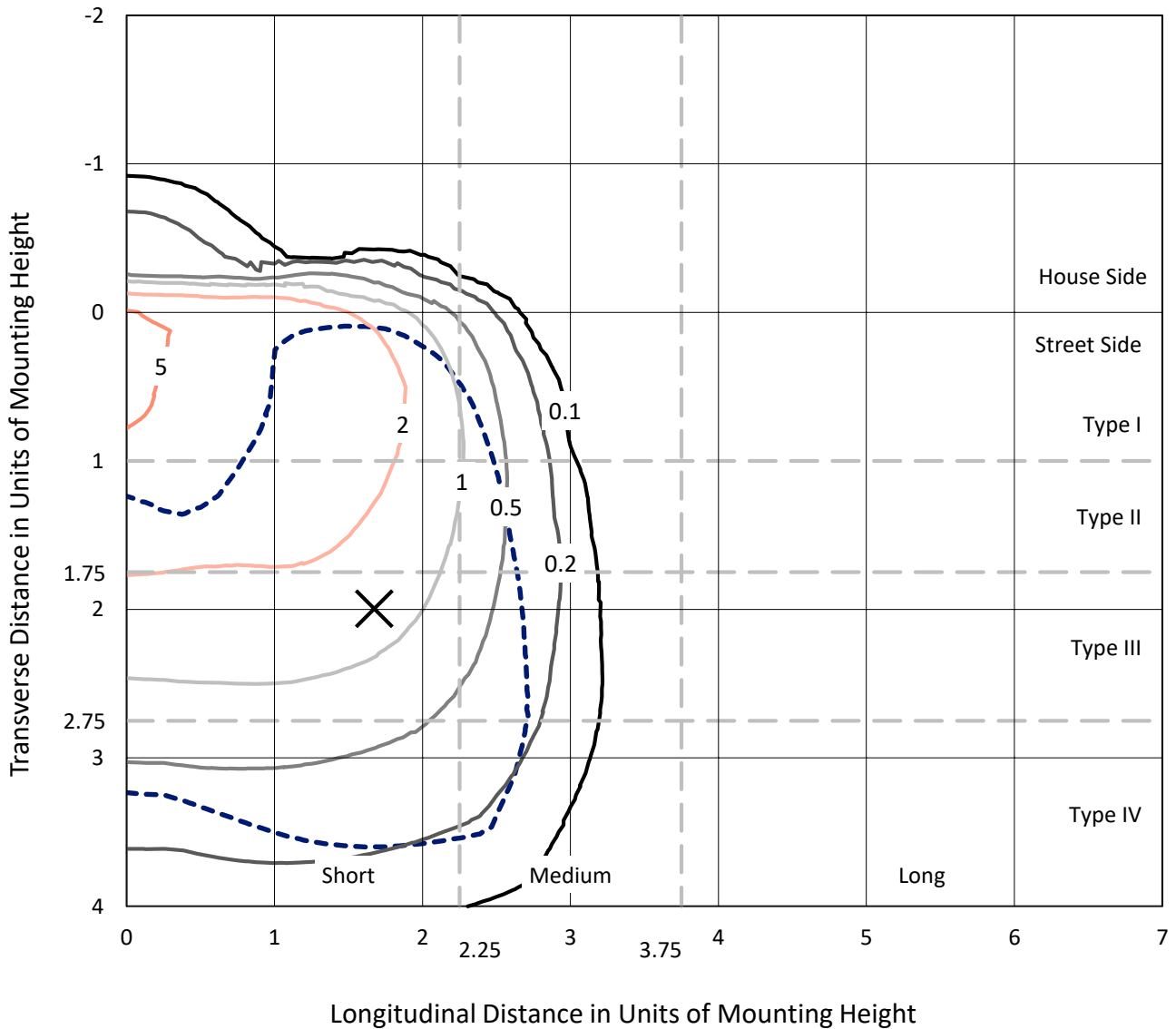
Input Watts (W): 323  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

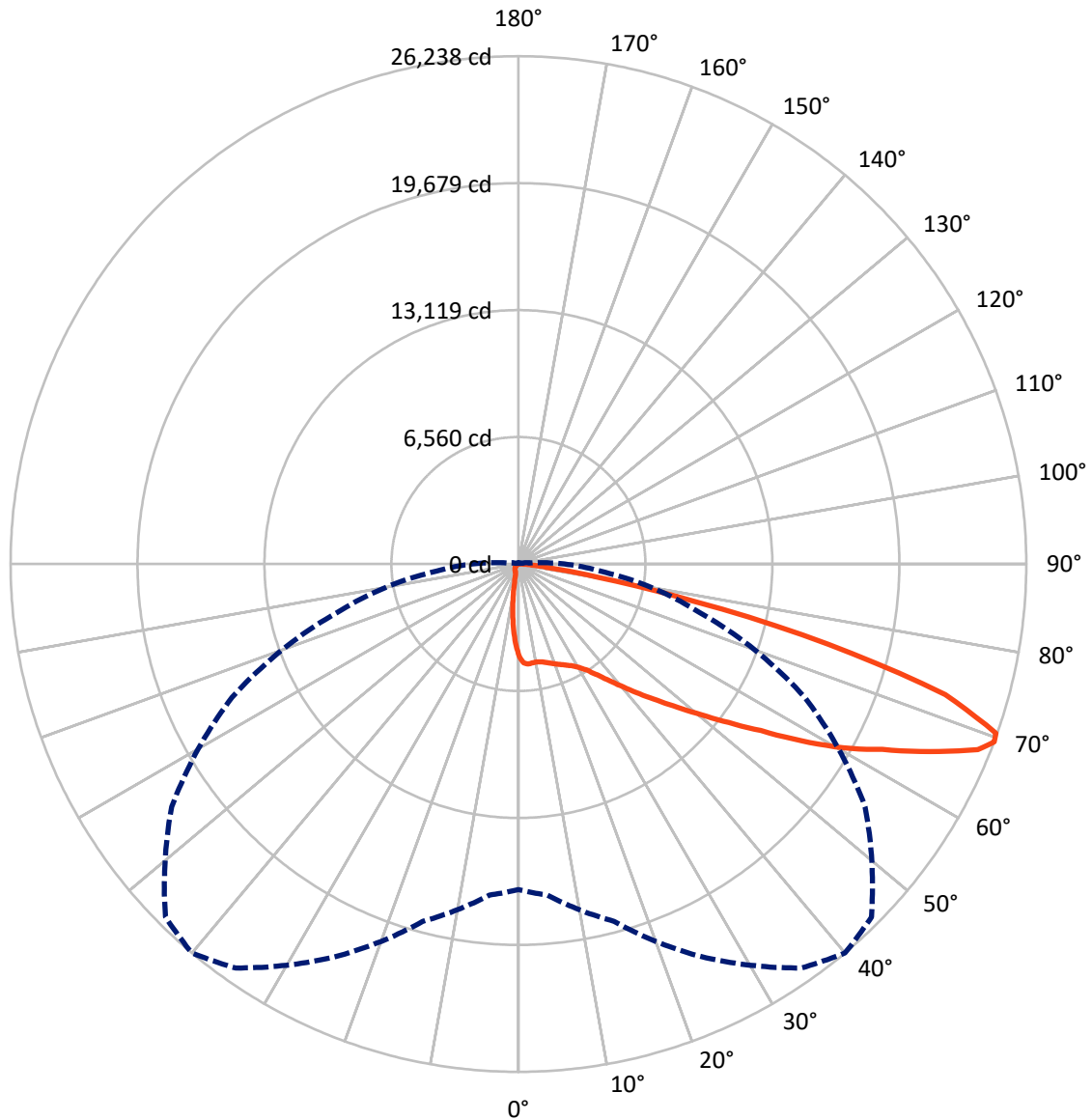
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.8 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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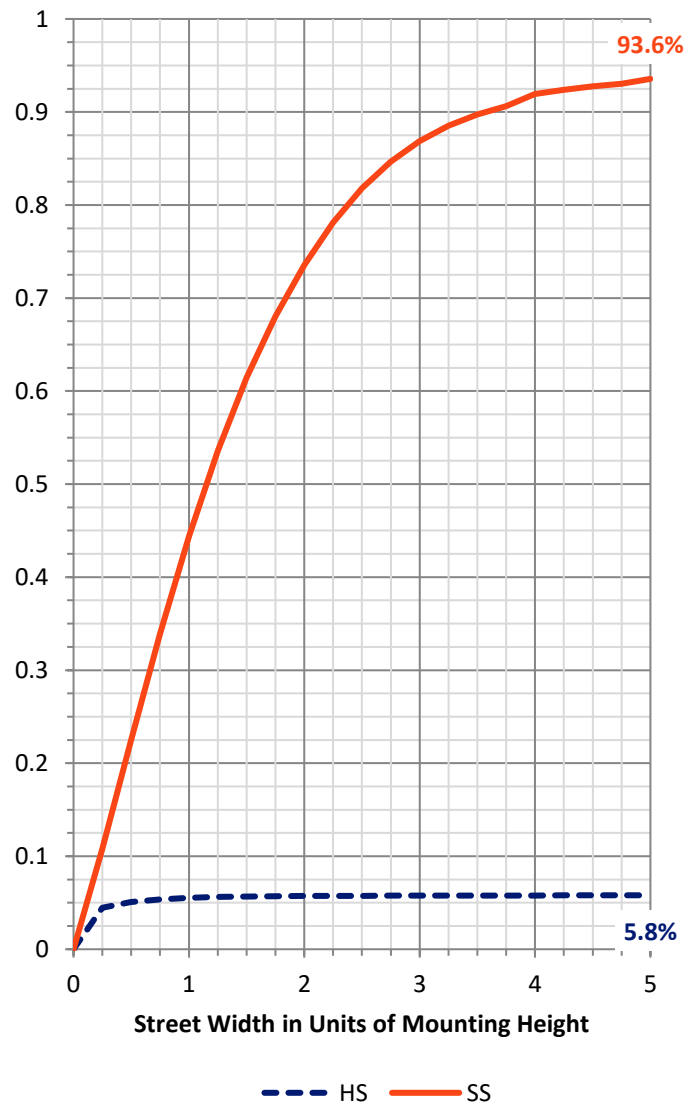
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1868.1	0.0	1868.1
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	30062.7	0.0	30062.7
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	31930.8	0.0	31930.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	386.8	1.2
10°-20°	951.2	3.0
20°-30°	1602.2	5.0
30°-40°	2622.8	8.2
40°-50°	4541.3	14.2
50°-60°	7153.1	22.4
60°-70°	9341.6	29.3
70°-80°	4811.3	15.1
80°-90°	520.4	1.6
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°	31930.8	100.0
0°-180°	31930.8	100.0

**Coefficient of Utilization**



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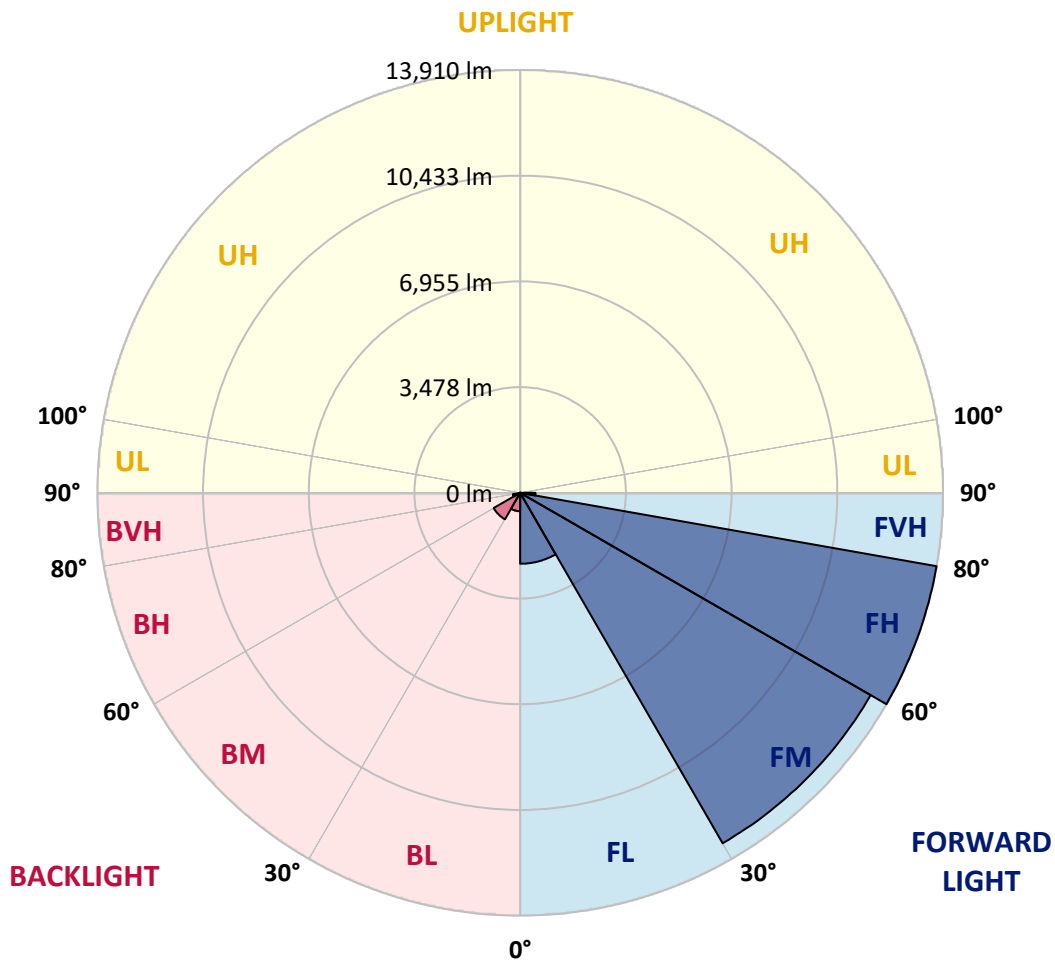
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2335.1	7.3			
FM	(30°-60°)	13313.1	41.7			
FH	(60°-80°)	13910.4	43.6			G5
FVH	(80°-90°)	504.1	1.6			G4/750
BL	(0°-30°)	605.1	1.9	B2/1000		
BM	(30°-60°)	1004.1	3.1	B2/2500		
BH	(60°-80°)	242.6	0.8	B1/500		G1/500
BVH	(80°-90°)	16.3	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4770.6	4770.6	4770.6	4770.6	4770.6	4770.6	4770.6	4770.6	4770.6	4770.6	4770.6
2.5°	5238.2	5209.7	5192.6	5169.8	5141.3	5116.5	5107.0	5036.7	4970.2	4879.0	4774.4
5°	5335.1	5325.6	5295.2	5264.8	5230.6	5192.6	5171.7	5088.0	4993.0	4860.0	4677.5
7.5°	5344.6	5333.2	5295.2	5253.4	5205.9	5160.3	5124.1	5040.5	4953.1	4818.1	4595.8
10°	5329.4	5316.1	5287.6	5242.0	5183.1	5139.4	5103.2	5023.4	4949.3	4827.6	4580.6
12.5°	5312.3	5299.0	5285.7	5262.9	5211.6	5181.2	5150.8	5074.7	5008.2	4905.6	4635.7
15°	5329.4	5321.8	5337.0	5327.5	5299.0	5272.4	5242.0	5173.6	5112.7	5027.2	4736.4
17.5°	5401.6	5401.6	5449.2	5454.9	5428.3	5390.2	5346.5	5278.1	5226.8	5154.6	4856.2
20°	5570.8	5565.1	5625.9	5637.3	5572.7	5513.8	5449.2	5365.5	5325.6	5280.0	4974.0
22.5°	5861.6	5835.0	5871.1	5859.7	5732.4	5641.1	5561.3	5458.7	5437.8	5416.8	5105.1
25°	6239.8	6224.6	6249.3	6137.2	5912.9	5789.4	5694.3	5578.4	5578.4	5599.3	5253.4
27.5°	6789.1	6732.1	6648.5	6450.8	6114.4	5956.6	5854.0	5730.5	5762.8	5840.7	5449.2
30°	7351.7	7289.0	7097.0	6792.9	6359.6	6194.2	6074.5	5945.2	6021.3	6163.8	5711.4
32.5°	7906.7	7836.4	7564.6	7180.6	6711.2	6545.8	6429.9	6287.3	6414.7	6654.2	6095.4
35°	8444.6	8381.9	8068.3	7615.9	7178.7	7041.9	6935.5	6811.9	6975.4	7309.9	6637.1
37.5°	9049.0	8980.6	8598.5	8108.2	7747.0	7648.2	7570.3	7446.7	7731.8	8222.2	7391.6
40°	9792.1	9676.2	9161.1	8672.7	8404.7	8357.1	8303.9	8286.8	8729.7	9408.2	8397.1
42.5°	10643.6	10453.6	9750.3	9267.6	9126.9	9161.1	9147.8	9223.8	9978.4	10883.1	9621.1
45°	11495.1	11249.9	10406.0	9902.4	9921.4	10041.1	10115.2	10419.4	11542.6	12574.7	10938.2
47.5°	12217.4	11976.0	11035.2	10588.5	10816.6	11052.3	11253.7	11829.6	13150.6	14239.7	11962.7
50°	12835.1	12607.0	11702.3	11343.1	11856.2	12236.4	12563.3	13416.7	14880.2	15507.4	12681.1
52.5°	13340.6	13188.6	12394.1	12207.9	13044.1	13601.0	14080.0	15102.5	16412.1	16537.5	13239.9
55°	13832.9	13724.6	13137.3	13236.1	14439.2	15197.6	15803.9	16891.1	17731.1	17396.6	13775.9
57.5°	14399.3	14300.5	13985.0	14540.0	16273.3	17227.5	17888.9	18476.2	18892.4	18274.7	14281.5
60°	14977.1	14920.1	14927.7	15988.3	18379.3	19295.4	19660.3	19812.4	20032.8	19101.5	14310.0
62.5°	15528.3	15636.6	16005.4	17600.0	20395.9	21099.1	21283.5	21433.6	21175.1	19232.7	13220.9
65°	16461.5	16638.3	17518.3	19757.2	22613.9	23366.6	23556.6	23041.6	21355.7	17537.3	10753.9
67.5°	16917.7	17240.8	18810.7	21768.1	24765.4	25601.7	25531.4	23146.1	19164.2	13373.0	6901.3
69°	16822.6	17166.7	19109.1	22383.9	25480.1	26238.4	25791.8	21867.0	16326.6	9687.6	4236.5
70°	16446.3	16794.1	18955.2	22361.1	25571.3	26171.9	25309.0	20287.5	13804.4	7083.7	2649.5
72.5°	13734.1	14034.4	16828.3	20211.5	23556.6	23068.2	21173.2	14055.3	6726.4	1929.2	596.8
75°	8454.1	8621.3	12074.8	15226.1	17792.0	16537.5	14106.6	6992.5	2005.2	545.5	330.7
77.5°	4466.5	4542.5	6610.5	8974.9	11278.4	9332.2	7230.1	2727.4	923.7	342.1	239.5
80°	2640.0	2697.0	3559.9	4103.5	4880.9	4076.9	2890.9	1674.5	661.4	214.8	212.9
82.5°	1511.0	1547.1	2581.1	2280.8	1923.5	1642.2	1438.8	1587.0	397.2	144.4	220.5
85°	555.0	562.6	1452.1	1735.3	1144.2	680.4	714.6	1315.2	106.4	91.2	173.0
87.5°	258.5	252.8	747.0	1062.5	669.0	431.4	556.9	288.9	41.8	58.9	47.5
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°	4770.6	4770.6	4770.6	4770.6	4770.6	4770.6	4770.6	4770.6	4770.6	4770.6	4770.6
2.5°	4713.6	4643.3	4515.9	4384.8	4251.7	4149.1	4048.4	3968.6	3941.9	3892.5	3896.3
5°	4569.2	4439.9	4173.8	3903.9	3622.6	3390.8	3172.2	2995.4	2909.9	2822.5	2822.5
7.5°	4443.7	4255.6	3839.3	3400.3	2946.0	2564.0	2220.0	1961.5	1818.9	1704.9	1703.0
10°	4396.2	4141.5	3559.9	2930.8	2297.9	1777.1	1368.5	1106.2	971.2	883.8	880.0
12.5°	4417.1	4101.6	3345.1	2497.5	1703.0	1142.3	792.6	623.4	566.4	539.8	539.8
15°	4477.9	4090.2	3130.4	2073.6	1203.1	714.6	526.5	480.9	477.1	477.1	477.1
17.5°	4552.1	4094.0	2909.9	1661.2	819.2	511.3	454.3	448.6	452.4	452.4	452.4
20°	4628.1	4095.9	2672.3	1279.1	577.8	444.8	427.6	425.7	429.5	429.5	431.4
22.5°	4721.2	4105.4	2434.7	956.0	477.1	420.0	406.7	406.7	408.6	408.6	406.7
25°	4827.6	4124.4	2187.6	708.9	435.2	402.9	391.5	389.6	391.5	389.6	387.7
27.5°	4960.7	4151.0	1912.1	555.0	416.2	385.8	376.3	376.3	374.4	372.5	370.6
30°	5127.9	4181.4	1602.2	471.4	397.2	370.6	361.1	359.2	357.3	353.5	353.5
32.5°	5382.6	4247.9	1296.2	427.6	376.3	349.7	342.1	342.1	338.3	334.5	332.6
35°	5774.2	4379.1	1022.5	401.0	353.5	326.9	317.4	317.4	313.6	311.7	309.8
37.5°	6315.9	4578.7	794.5	376.3	330.7	302.2	292.7	290.8	287.0	283.2	281.3
40°	7036.2	4825.7	625.3	353.5	307.9	277.5	269.9	266.1	258.5	252.8	252.8
42.5°	7940.9	5107.0	507.5	328.8	281.3	254.7	249.0	243.3	230.0	224.3	222.4
45°	8887.4	5359.8	429.5	300.3	254.7	231.9	228.1	218.6	201.5	195.8	195.8
47.5°	9569.8	5418.7	378.2	273.7	230.0	207.2	205.3	188.2	173.0	169.2	167.3
50°	9995.5	5302.8	336.4	247.1	207.2	184.4	178.7	157.8	148.3	144.4	142.5
52.5°	10282.5	5095.6	302.2	224.3	186.3	163.5	150.2	134.9	127.3	123.5	123.5
55°	10512.5	4802.9	268.0	203.4	169.2	146.3	127.3	115.9	108.3	104.5	104.5
57.5°	10577.1	4405.7	233.8	186.3	152.1	129.2	108.3	100.7	91.2	89.3	89.3
60°	10107.6	3689.2	207.2	165.4	136.8	112.1	95.0	85.5	76.0	74.1	72.2
62.5°	8870.3	2854.8	182.5	146.3	119.7	96.9	81.7	70.3	62.7	62.7	62.7
65°	6766.3	1914.0	159.7	127.3	104.5	81.7	70.3	57.0	53.2	53.2	55.1
67.5°	4050.3	1041.6	136.8	108.3	89.3	68.4	58.9	49.4	47.5	49.4	49.4
69°	2373.9	612.0	123.5	96.9	77.9	60.8	51.3	43.7	47.5	49.4	49.4
70°	1465.4	412.4	114.0	87.4	70.3	55.1	47.5	41.8	45.6	47.5	47.5
72.5°	408.6	212.9	91.2	68.4	57.0	45.6	38.0	38.0	43.7	45.6	45.6
75°	266.1	157.8	70.3	51.3	43.7	36.1	32.3	36.1	41.8	43.7	43.7
77.5°	220.5	129.2	57.0	41.8	36.1	34.2	30.4	32.3	38.0	39.9	39.9
80°	201.5	91.2	45.6	38.0	32.3	30.4	28.5	26.6	34.2	36.1	36.1
82.5°	192.0	72.2	39.9	34.2	30.4	26.6	24.7	26.6	30.4	32.3	34.2
85°	119.7	47.5	36.1	32.3	26.6	24.7	24.7	24.7	28.5	30.4	30.4
87.5°	43.7	38.0	32.3	26.6	22.8	22.8	22.8	22.8	24.7	28.5	28.5
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)