

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: P301975

Luminaire Tested: **GLNA-AF-10-LED-E1-SL4-7030-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301975  
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-SL4-7030-600-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27684.6 lumens  
Efficiency: N/A  
Efficacy: 85.7 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

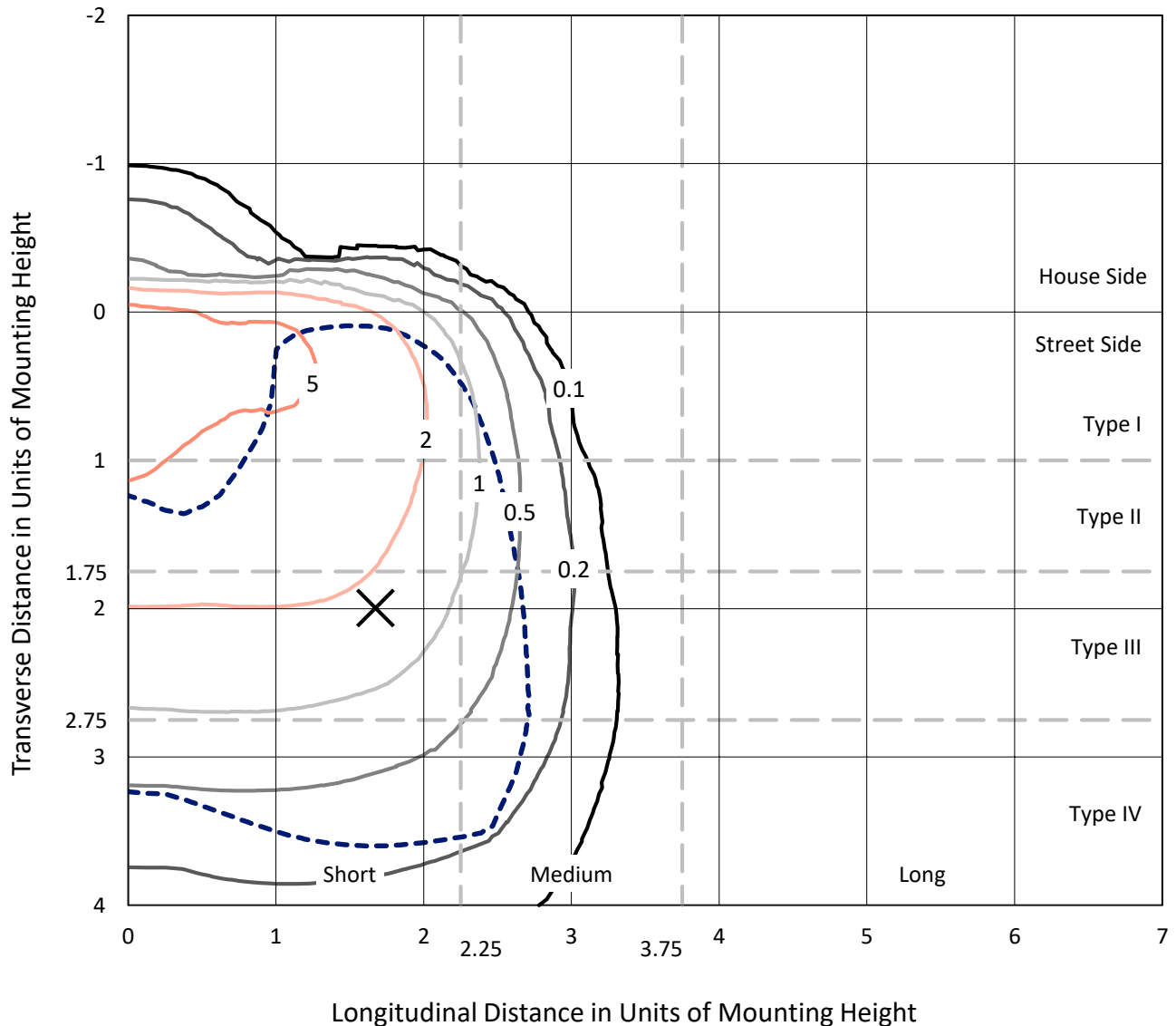


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

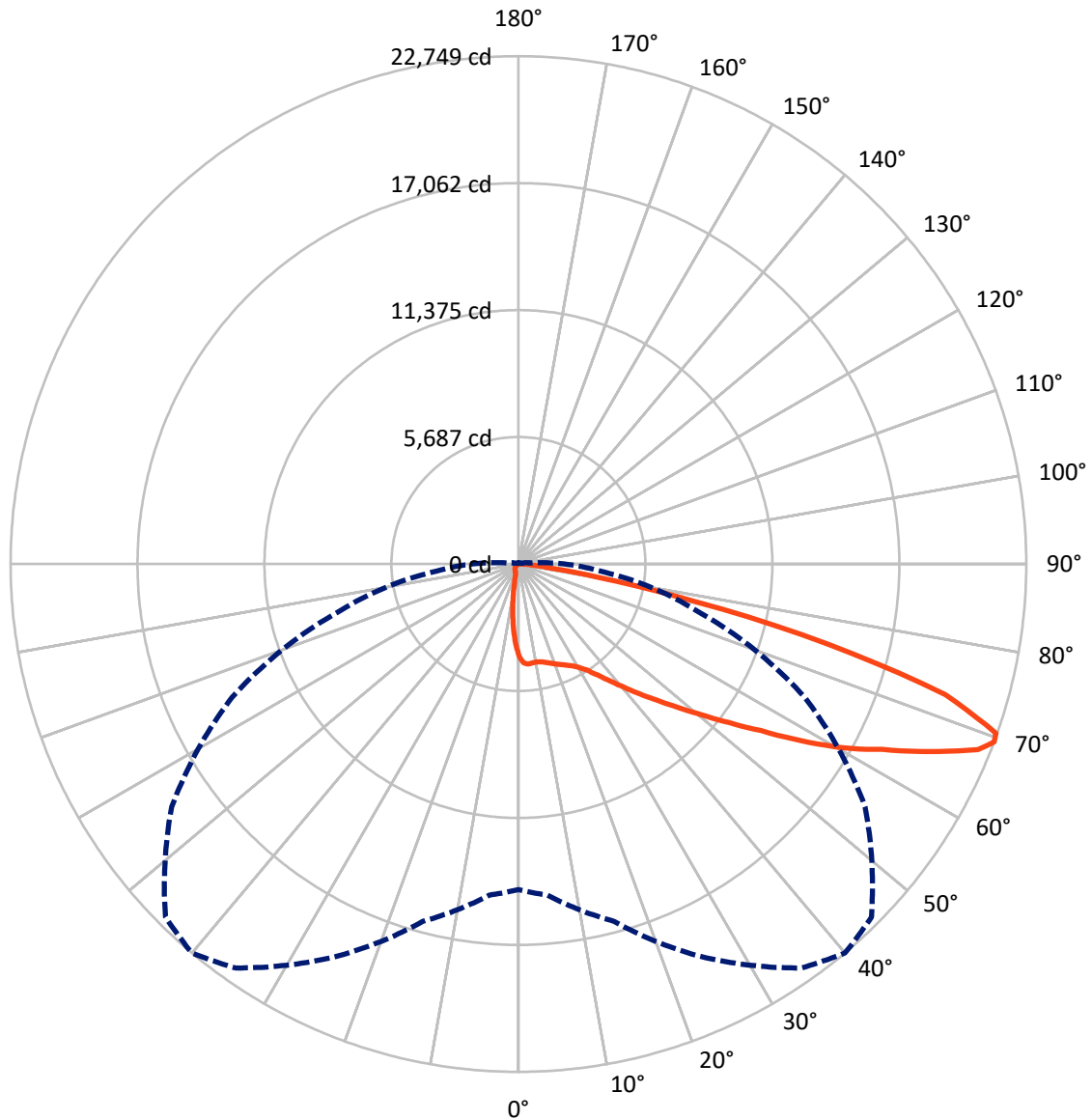


Based on 25 foot mounting height. Maximum calculated value = 7.2 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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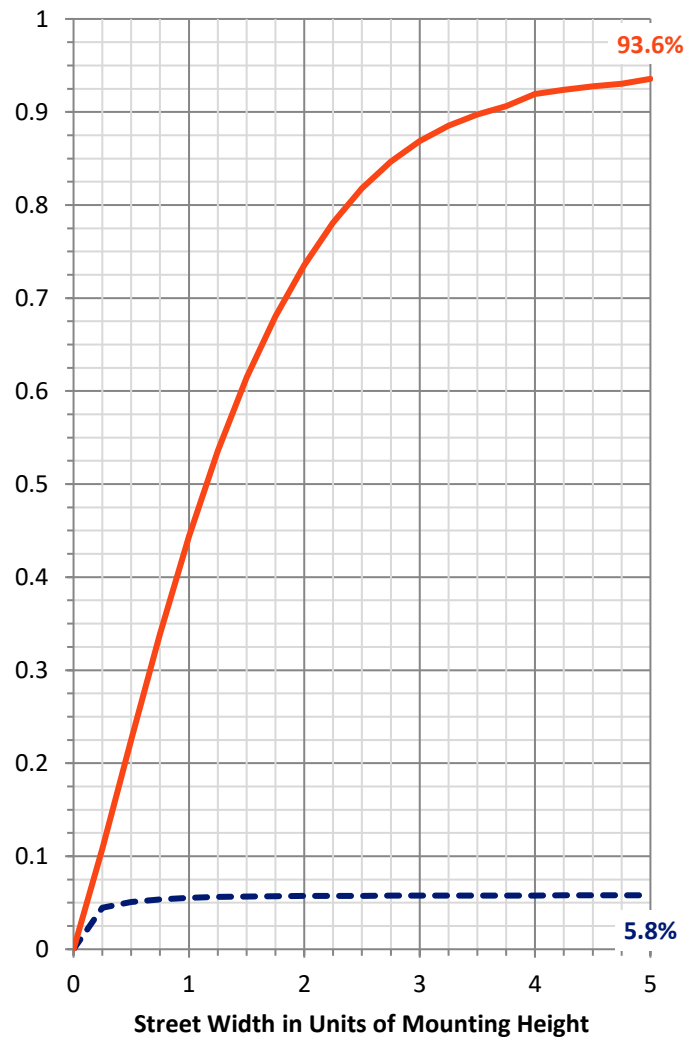
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1619.7	0.0	1619.7
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	26064.9	0.0	26064.9
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	27684.6	0.0	27684.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	335.4	1.2
10°-20°	824.7	3.0
20°-30°	1389.1	5.0
30°-40°	2274.0	8.2
40°-50°	3937.4	14.2
50°-60°	6201.8	22.4
60°-70°	8099.3	29.3
70°-80°	4171.5	15.1
80°-90°	451.2	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°	27684.6	100.0
0°-180°	27684.6	100.0



--- HS    — SS

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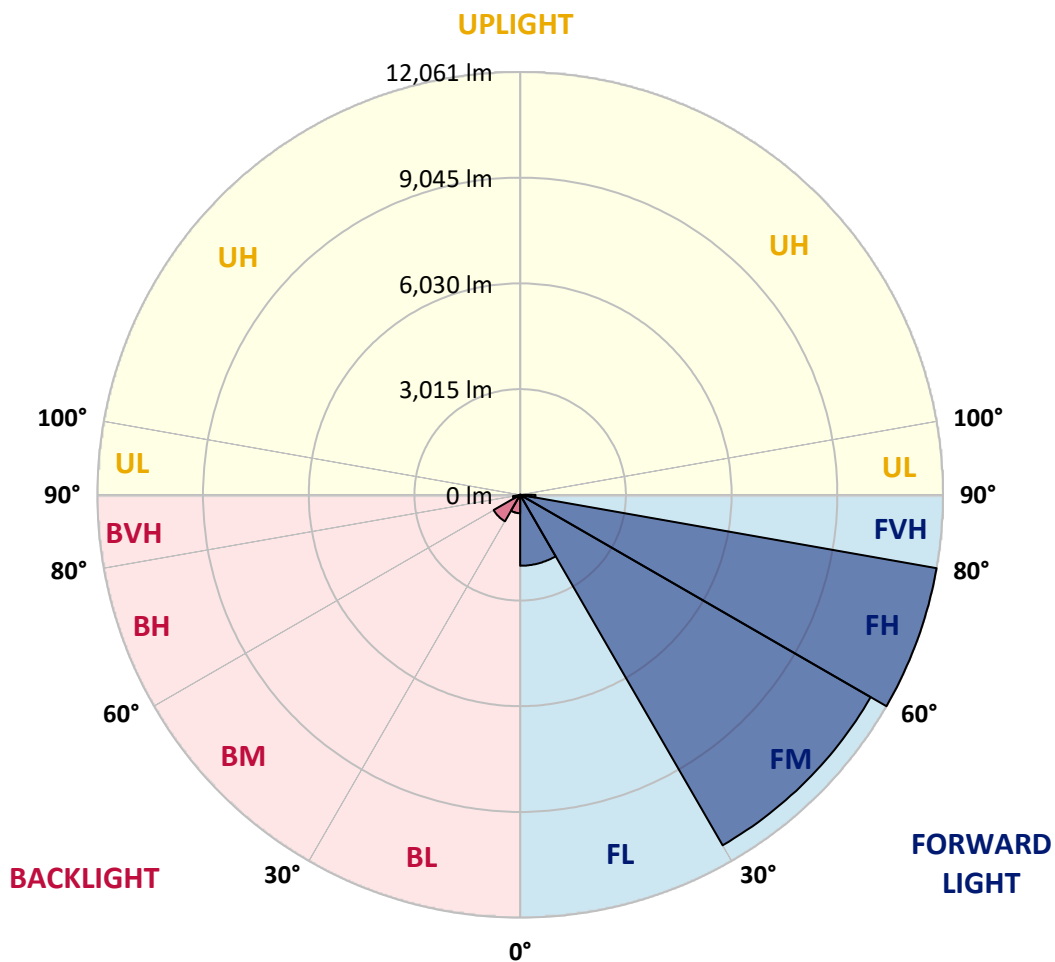
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2024.5	7.3			
FM	(30°-60°)	11542.7	41.7			
FH	(60°-80°)	12060.5	43.6			G5
FVH	(80°-90°)	437.1	1.6			G3/500
BL	(0°-30°)	524.7	1.9	B2/1000		
BM	(30°-60°)	870.5	3.1	B1/1000		
BH	(60°-80°)	210.3	0.8	B1/500		G1/500
BVH	(80°-90°)	14.2	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°	4136.2	4136.2	4136.2	4136.2	4136.2	4136.2	4136.2	4136.2	4136.2	4136.2	4136.2
2.5°	4541.6	4516.9	4502.1	4482.3	4457.6	4436.1	4427.9	4366.9	4309.2	4230.1	4139.5
5°	4625.6	4617.4	4591.0	4564.7	4535.0	4502.1	4483.9	4411.4	4329.0	4213.7	4055.5
7.5°	4633.9	4624.0	4591.0	4554.8	4513.6	4474.0	4442.7	4370.2	4294.4	4177.4	3984.6
10°	4620.7	4609.2	4584.4	4544.9	4493.8	4455.9	4424.6	4355.4	4291.1	4185.7	3971.4
12.5°	4605.9	4594.3	4582.8	4563.0	4518.5	4492.2	4465.8	4399.9	4342.2	4253.2	4019.2
15°	4620.7	4614.1	4627.3	4619.1	4594.3	4571.3	4544.9	4485.6	4432.8	4358.7	4106.6
17.5°	4683.3	4683.3	4724.5	4729.5	4706.4	4673.4	4635.5	4576.2	4531.7	4469.1	4210.4
20°	4830.0	4825.0	4877.8	4887.7	4831.6	4780.5	4724.5	4652.0	4617.4	4577.9	4312.5
22.5°	5082.1	5059.0	5090.4	5080.5	4970.1	4891.0	4821.7	4732.8	4714.6	4696.5	4426.2
25°	5410.0	5396.9	5418.3	5321.1	5126.6	5019.5	4937.1	4836.6	4836.6	4854.7	4554.8
27.5°	5886.3	5836.8	5764.3	5593.0	5301.3	5164.5	5075.5	4968.4	4996.4	5064.0	4724.5
30°	6374.1	6319.7	6153.2	5889.6	5513.9	5370.5	5266.7	5154.6	5220.5	5344.1	4951.9
32.5°	6855.2	6794.3	6558.6	6225.8	5818.7	5675.4	5574.8	5451.2	5561.6	5769.3	5284.8
35°	7321.6	7267.2	6995.3	6603.1	6224.1	6105.5	6013.2	5906.1	6047.8	6337.8	5754.5
37.5°	7845.6	7786.3	7455.1	7029.9	6716.8	6631.1	6563.6	6456.5	6703.6	7128.8	6408.7
40°	8490.0	8389.4	7942.9	7519.3	7287.0	7245.8	7199.7	7184.8	7568.8	8157.1	7280.4
42.5°	9228.2	9063.4	8453.7	8035.1	7913.2	7942.9	7931.3	7997.2	8651.5	9435.9	8341.6
45°	9966.5	9753.9	9022.2	8585.5	8602.0	8705.8	8770.1	9033.8	10007.7	10902.5	9483.6
47.5°	10592.7	10383.4	9567.7	9180.4	9378.2	9582.5	9757.2	10256.5	11401.8	12346.0	10371.9
50°	11128.2	10930.5	10146.1	9834.6	10279.6	10609.2	10892.6	11632.5	12901.4	13445.2	10994.8
52.5°	11566.6	11434.7	10745.9	10584.4	11309.5	11792.3	12207.6	13094.2	14229.6	14338.3	11479.2
55°	11993.4	11899.5	11390.3	11475.9	12519.1	13176.6	13702.3	14644.9	15373.2	15083.2	11943.9
57.5°	12484.5	12398.8	12125.2	12606.4	14109.3	14936.5	15510.0	16019.2	16380.1	15844.5	12382.3
60°	12985.4	12936.0	12942.6	13862.1	15935.2	16729.4	17045.8	17177.7	17368.8	16561.4	12407.0
62.5°	13463.3	13557.2	13876.9	15259.5	17683.6	18293.3	18453.1	18583.3	18359.2	16675.1	11462.8
65°	14272.4	14425.7	15188.7	17129.9	19606.7	20259.2	20424.0	19977.4	18515.8	15205.1	9323.8
67.5°	14667.9	14948.1	16309.2	18873.4	21472.1	22197.2	22136.2	20068.1	16615.7	11594.6	5983.5
69°	14585.5	14883.8	16567.9	19407.3	22091.7	22749.2	22361.9	18959.0	14155.4	8399.3	3673.2
70°	14259.2	14560.8	16434.5	19387.5	22170.8	22691.5	21943.4	17589.6	11968.7	6141.7	2297.2
72.5°	11907.7	12168.1	14590.5	17523.7	20424.0	20000.5	18357.6	12186.2	5831.9	1672.6	517.4
75°	7329.8	7474.9	10469.1	13201.3	15426.0	14338.3	12230.7	6062.6	1738.5	472.9	286.7
77.5°	3872.6	3938.5	5731.4	7781.4	9778.6	8091.2	6268.6	2364.7	800.9	296.6	207.6
80°	2288.9	2338.4	3086.5	3557.8	4231.8	3534.7	2506.4	1451.8	573.5	186.2	184.6
82.5°	1310.1	1341.4	2237.8	1977.5	1667.7	1423.8	1247.5	1376.0	344.4	125.2	191.2
85°	481.2	487.8	1259.0	1504.5	992.0	589.9	619.6	1140.3	92.3	79.1	150.0
87.5°	224.1	219.2	647.6	921.2	580.1	374.1	482.8	250.5	36.3	51.1	41.2
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°	4136.2	4136.2	4136.2	4136.2	4136.2	4136.2	4136.2	4136.2	4136.2	4136.2	4136.2
2.5°	4086.8	4025.8	3915.4	3801.7	3686.3	3597.4	3510.0	3440.8	3417.7	3374.9	3378.2
5°	3961.5	3849.5	3618.8	3384.8	3140.9	2939.8	2750.3	2597.1	2522.9	2447.1	2447.1
7.5°	3852.8	3689.6	3328.7	2948.1	2554.2	2223.0	1924.7	1700.6	1577.0	1478.2	1476.5
10°	3811.6	3590.8	3086.5	2541.1	1992.3	1540.8	1186.5	959.1	842.1	766.3	763.0
12.5°	3829.7	3556.2	2900.3	2165.3	1476.5	990.4	687.2	540.5	491.1	468.0	468.0
15°	3882.4	3546.3	2714.1	1797.9	1043.1	619.6	456.5	416.9	413.6	413.6	413.6
17.5°	3946.7	3549.6	2522.9	1440.3	710.2	443.3	393.8	388.9	392.2	392.2	392.2
20°	4012.6	3551.2	2316.9	1109.0	501.0	385.6	370.8	369.1	372.4	372.4	374.1
22.5°	4093.4	3559.5	2111.0	828.9	413.6	364.2	352.6	352.6	354.3	354.3	352.6
25°	4185.7	3575.9	1896.7	614.7	377.4	349.4	339.5	337.8	339.5	337.8	336.2
27.5°	4301.0	3599.0	1657.8	481.2	360.9	334.5	326.3	326.3	324.6	323.0	321.3
30°	4446.0	3625.4	1389.2	408.7	344.4	321.3	313.1	311.5	309.8	306.5	306.5
32.5°	4666.8	3683.0	1123.9	370.8	326.3	303.2	296.6	296.6	293.3	290.0	288.4
35°	5006.3	3796.8	886.6	347.7	306.5	283.4	275.2	275.2	271.9	270.3	268.6
37.5°	5476.0	3969.8	688.8	326.3	286.7	262.0	253.8	252.1	248.8	245.5	243.9
40°	6100.5	4184.0	542.2	306.5	267.0	240.6	234.0	230.7	224.1	219.2	219.2
42.5°	6884.9	4427.9	440.0	285.1	243.9	220.8	215.9	210.9	199.4	194.5	192.8
45°	7705.6	4647.1	372.4	260.4	220.8	201.0	197.7	189.5	174.7	169.7	169.7
47.5°	8297.2	4698.2	327.9	237.3	199.4	179.6	178.0	163.1	150.0	146.7	145.0
50°	8666.3	4597.6	291.7	214.2	179.6	159.8	154.9	136.8	128.5	125.2	123.6
52.5°	8915.1	4418.0	262.0	194.5	161.5	141.7	130.2	117.0	110.4	107.1	107.1
55°	9114.5	4164.2	232.4	176.3	146.7	126.9	110.4	100.5	93.9	90.6	90.6
57.5°	9170.5	3819.8	202.7	161.5	131.8	112.1	93.9	87.3	79.1	77.5	77.5
60°	8763.5	3198.6	179.6	143.4	118.6	97.2	82.4	74.2	65.9	64.3	62.6
62.5°	7690.7	2475.1	158.2	126.9	103.8	84.0	70.9	61.0	54.4	54.4	54.4
65°	5866.5	1659.4	138.4	110.4	90.6	70.9	61.0	49.4	46.1	46.1	47.8
67.5°	3511.7	903.0	118.6	93.9	77.5	59.3	51.1	42.8	41.2	42.8	42.8
69°	2058.2	530.6	107.1	84.0	67.6	52.7	44.5	37.9	41.2	42.8	42.8
70°	1270.5	357.6	98.9	75.8	61.0	47.8	41.2	36.3	39.5	41.2	41.2
72.5°	354.3	184.6	79.1	59.3	49.4	39.5	33.0	33.0	37.9	39.5	39.5
75°	230.7	136.8	61.0	44.5	37.9	31.3	28.0	31.3	36.3	37.9	37.9
77.5°	191.2	112.1	49.4	36.3	31.3	29.7	26.4	28.0	33.0	34.6	34.6
80°	174.7	79.1	39.5	33.0	28.0	26.4	24.7	23.1	29.7	31.3	31.3
82.5°	166.4	62.6	34.6	29.7	26.4	23.1	21.4	23.1	26.4	28.0	29.7
85°	103.8	41.2	31.3	28.0	23.1	21.4	21.4	21.4	24.7	26.4	26.4
87.5°	37.9	33.0	28.0	23.1	19.8	19.8	19.8	19.8	21.4	24.7	24.7
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)