

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: P301902

Luminaire Tested: **GLNA-AF-08-LED-E1-SL4-7027-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301902  
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-08-LED-E1-SL4-7027-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 2700K CCT 800mA 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: 24692.4 lumens  
Efficiency: N/A  
Efficacy: 73.9 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G4

Input Watts (W): 334  
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

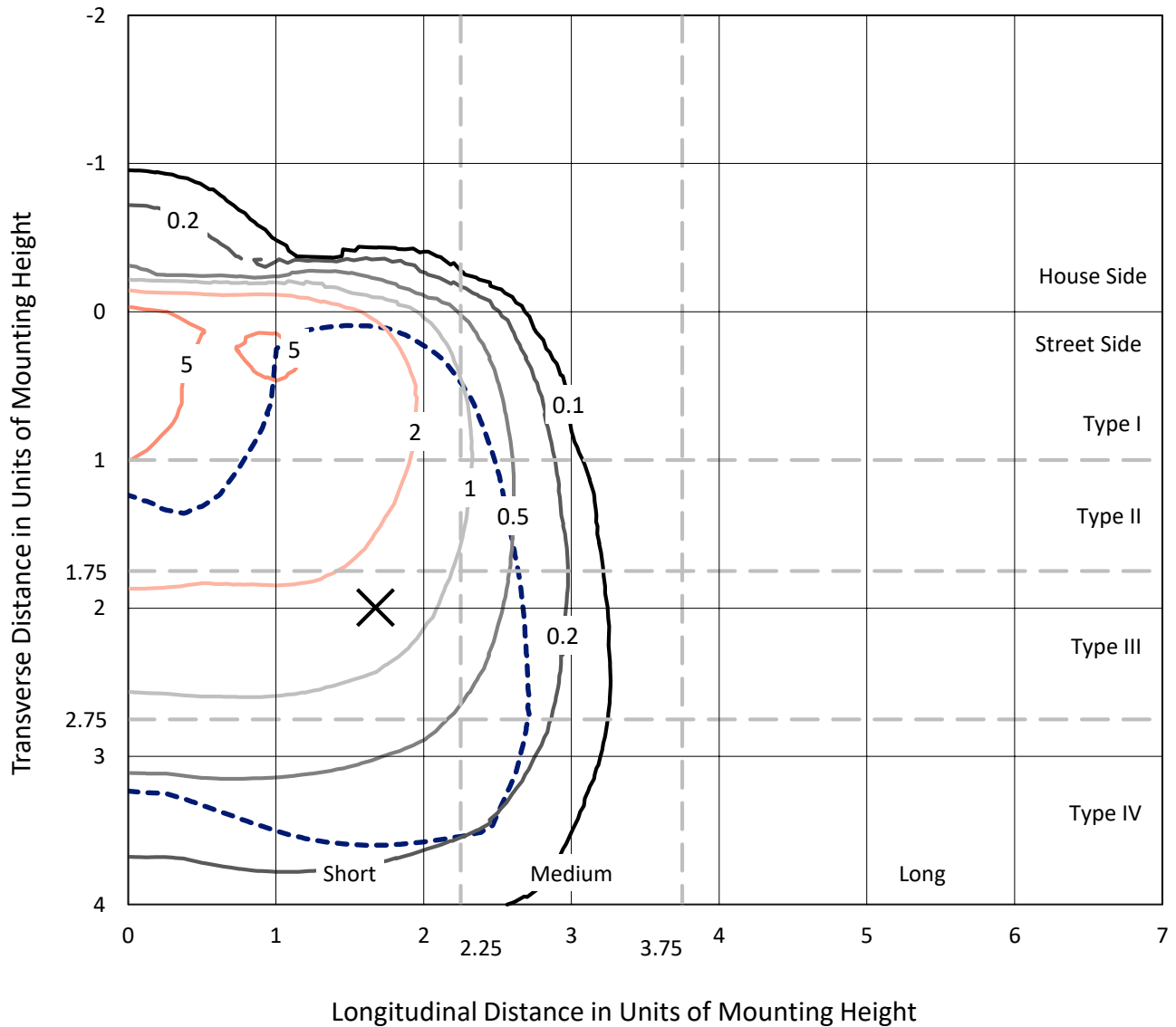


REPORT NUMBER: P301902

CATALOG NUMBER: GLNA-AF-08-LED-E1-SL4-7027-800-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

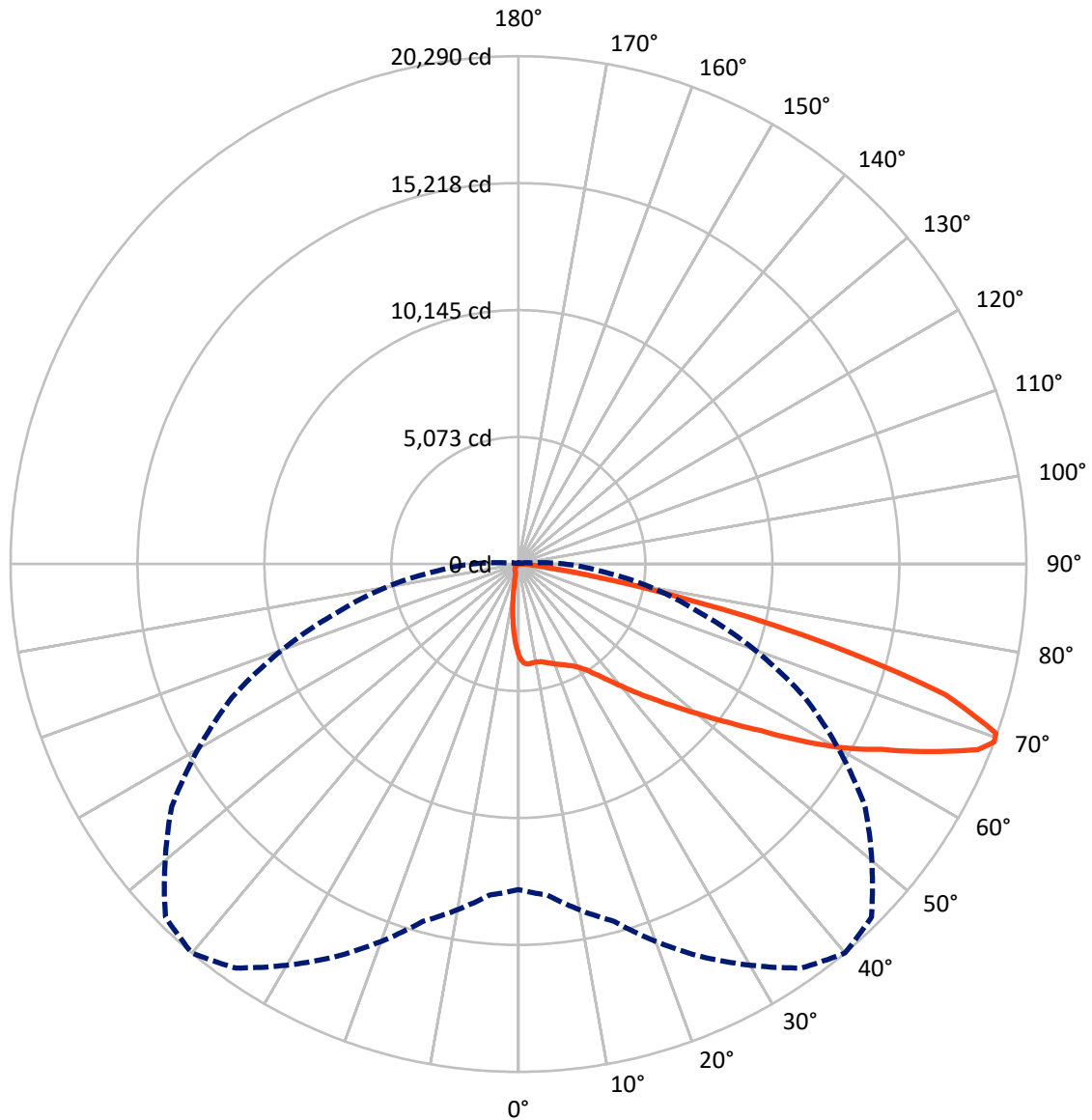


Based on 25 foot mounting height. Maximum calculated value = 6.5 fc  
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P301902

CATALOG NUMBER: GLNA-AF-08-LED-E1-SL4-7027-800-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P301902

CATALOG NUMBER: GLNA-AF-08-LED-E1-SL4-7027-800-HSS

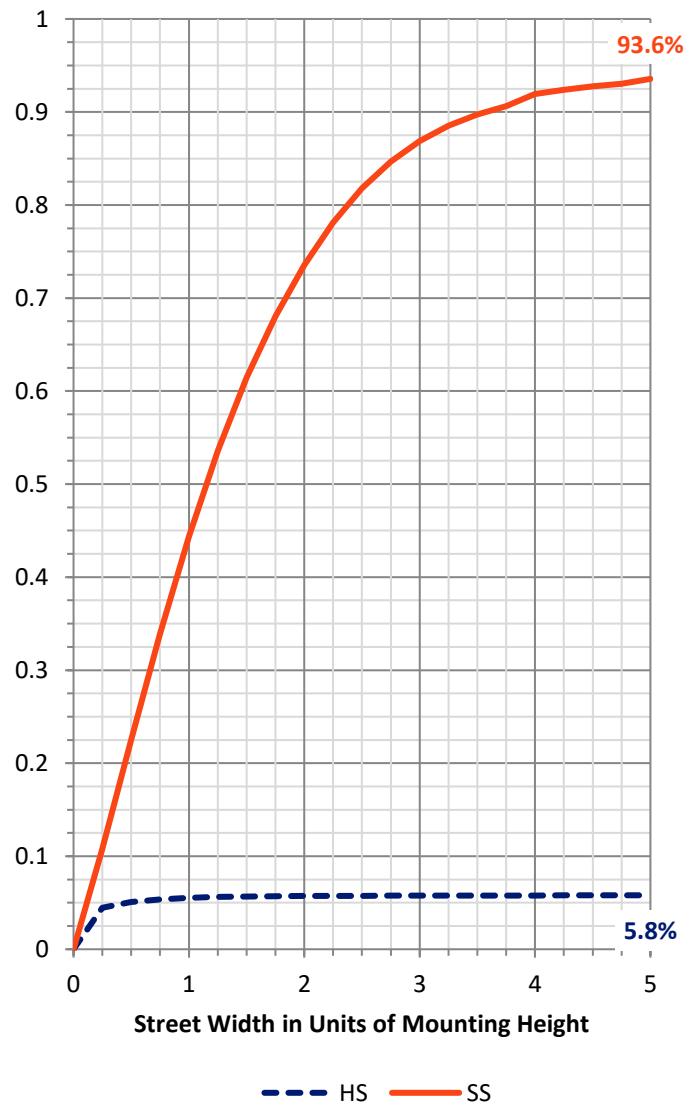
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1444.6	0.0	1444.6
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	23247.7	0.0	23247.7
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	24692.4	0.0	24692.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	299.1	1.2
10°-20°	735.6	3.0
20°-30°	1239.0	5.0
30°-40°	2028.2	8.2
40°-50°	3511.9	14.2
50°-60°	5531.5	22.4
60°-70°	7224.0	29.3
70°-80°	3720.6	15.1
80°-90°	402.5	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°	24692.4	100.0
0°-180°	24692.4	100.0



REPORT NUMBER: P301902

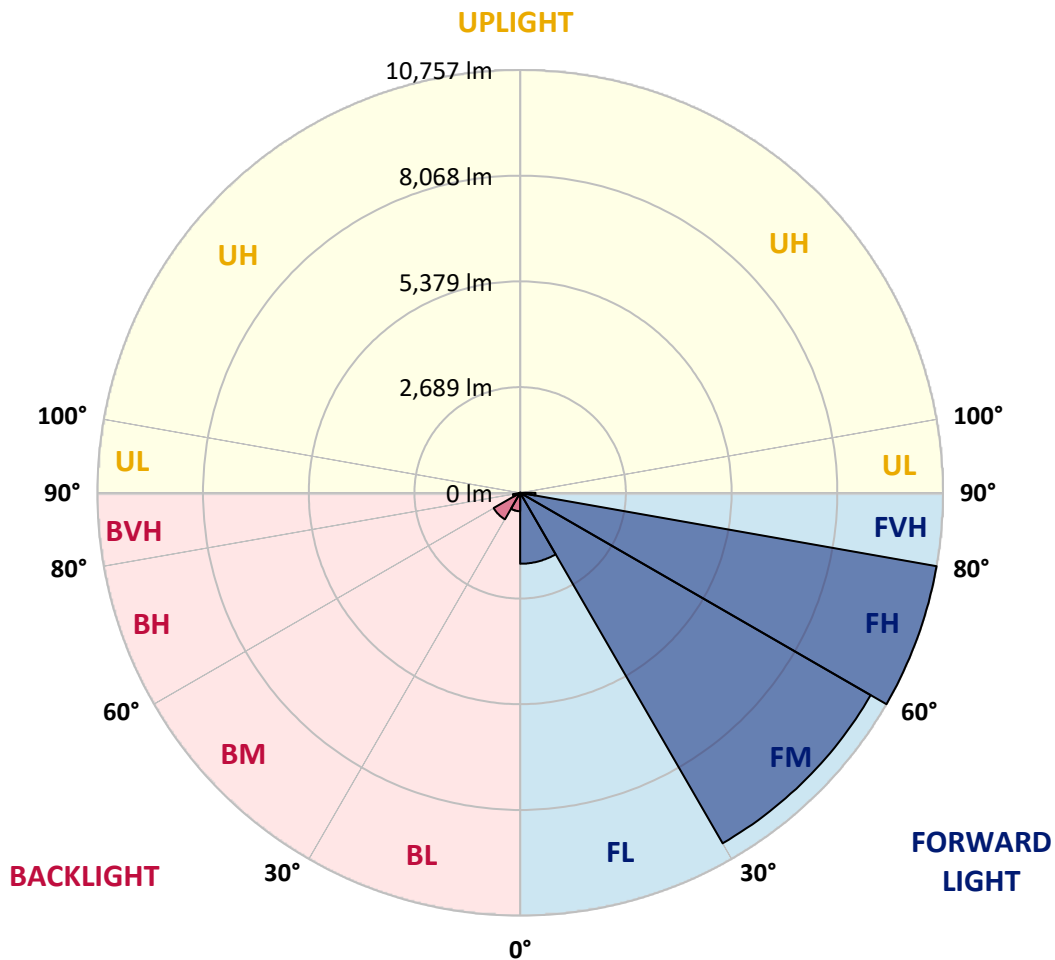
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1805.7	7.3			
FM (30°-60°)	10295.2	41.7			
FH (60°-80°)	10757.0	43.6			G4/12000
FVH (80°-90°)	389.8	1.6			G3/500
BL (0°-30°)	468.0	1.9	B1/500		
BM (30°-60°)	776.5	3.1	B1/1000		
BH (60°-80°)	187.6	0.8	B1/500		G1/500
BVH (80°-90°)	12.6	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3689.2	3689.2	3689.2	3689.2	3689.2	3689.2	3689.2	3689.2	3689.2	3689.2	3689.2
2.5°	4050.7	4028.7	4015.5	3997.8	3975.8	3956.7	3949.3	3894.9	3843.5	3772.9	3692.1
5°	4125.7	4118.3	4094.8	4071.3	4044.9	4015.5	3999.3	3934.6	3861.1	3758.2	3617.1
7.5°	4133.0	4124.2	4094.8	4062.5	4025.8	3990.5	3962.5	3897.9	3830.3	3725.9	3553.9
10°	4121.3	4111.0	4089.0	4053.7	4008.1	3974.3	3946.4	3884.7	3827.3	3733.3	3542.2
12.5°	4108.1	4097.8	4087.5	4069.8	4030.2	4006.6	3983.1	3924.3	3872.9	3793.5	3584.8
15°	4121.3	4115.4	4127.2	4119.8	4097.8	4077.2	4053.7	4000.8	3953.7	3887.6	3662.7
17.5°	4177.1	4177.1	4213.9	4218.3	4197.7	4168.3	4134.5	4081.6	4041.9	3986.1	3755.3
20°	4307.9	4303.5	4350.6	4359.4	4309.4	4263.9	4213.9	4149.2	4118.3	4083.1	3846.4
22.5°	4532.8	4512.3	4540.2	4531.4	4432.9	4362.3	4300.6	4221.2	4205.1	4188.9	3947.9
25°	4825.3	4813.6	4832.7	4745.9	4572.5	4477.0	4403.5	4313.8	4313.8	4330.0	4062.5
27.5°	5250.1	5206.0	5141.3	4988.5	4728.3	4606.3	4526.9	4431.4	4456.4	4516.7	4213.9
30°	5685.1	5636.6	5488.2	5253.0	4917.9	4790.0	4697.4	4597.5	4656.3	4766.5	4416.7
32.5°	6114.3	6059.9	5849.8	5552.9	5189.8	5062.0	4972.3	4862.1	4960.5	5145.7	4713.6
35°	6530.3	6481.8	6239.3	5889.4	5551.4	5445.6	5363.3	5267.7	5394.1	5652.8	5132.5
37.5°	6997.7	6944.8	6649.3	6270.1	5990.9	5914.4	5854.2	5758.6	5979.1	6358.3	5716.0
40°	7572.4	7482.7	7084.4	6706.6	6499.4	6462.7	6421.5	6408.3	6750.7	7275.5	6493.5
42.5°	8230.8	8083.8	7540.0	7166.7	7057.9	7084.4	7074.1	7132.9	7716.4	8416.0	7440.1
45°	8889.3	8699.7	8047.1	7657.6	7672.3	7764.9	7822.2	8057.4	8926.0	9724.1	8458.6
47.5°	9447.8	9261.1	8533.6	8188.2	8364.6	8546.8	8702.6	9148.0	10169.5	11011.7	9250.8
50°	9925.5	9749.1	9049.5	8771.7	9168.5	9462.5	9715.3	10375.2	11507.0	11992.0	9806.4
52.5°	10316.4	10198.9	9584.5	9440.5	10087.2	10517.8	10888.2	11678.9	12691.6	12788.6	10238.5
55°	10697.1	10613.3	10159.2	10235.6	11166.0	11752.4	12221.3	13062.0	13711.7	13453.0	10653.0
57.5°	11135.1	11058.7	10814.7	11243.9	12584.3	13322.2	13833.6	14287.8	14609.7	14132.0	11044.0
60°	11581.9	11537.8	11543.7	12363.9	14212.9	14921.3	15203.5	15321.1	15491.6	14771.4	11066.0
62.5°	12008.2	12091.9	12377.1	13610.2	15772.3	16316.1	16458.7	16574.8	16374.9	14872.8	10223.8
65°	12729.8	12866.5	13547.0	15278.5	17487.5	18069.6	18216.6	17818.2	16514.5	13561.7	8316.1
67.5°	13082.6	13332.5	14546.5	16833.5	19151.3	19798.1	19743.7	17899.1	14819.9	10341.4	5336.8
69°	13009.1	13275.1	14777.3	17309.7	19704.0	20290.4	19945.0	16909.9	12625.5	7491.5	3276.2
70°	12718.1	12987.1	14658.2	17292.1	19774.5	20239.0	19571.7	15688.5	10675.1	5477.9	2048.9
72.5°	10620.7	10852.9	13013.5	15629.7	18216.6	17838.8	16373.4	10869.1	5201.6	1491.8	461.5
75°	6537.6	6667.0	9337.6	11774.5	13758.7	12788.6	10908.8	5407.4	1550.6	421.8	255.7
77.5°	3454.0	3512.8	5111.9	6940.3	8721.7	7216.7	5591.1	2109.1	714.3	264.6	185.2
80°	2041.5	2085.6	2752.9	3173.3	3774.4	3152.7	2235.5	1294.9	511.5	166.1	164.6
82.5°	1168.5	1196.4	1996.0	1763.7	1487.4	1269.9	1112.6	1227.3	307.2	111.7	170.5
85°	429.2	435.1	1122.9	1341.9	884.8	526.2	552.6	1017.1	82.3	70.5	133.8
87.5°	199.9	195.5	577.6	821.6	517.4	333.6	430.6	223.4	32.3	45.6	36.7
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°	3689.2	3689.2	3689.2	3689.2	3689.2	3689.2	3689.2	3689.2	3689.2	3689.2	3689.2
2.5°	3645.1	3590.7	3492.2	3390.8	3287.9	3208.5	3130.6	3068.9	3048.3	3010.1	3013.1
5°	3533.4	3433.4	3227.7	3018.9	2801.4	2622.1	2453.1	2316.4	2250.2	2182.6	2182.6
7.5°	3436.4	3290.9	2969.0	2629.5	2278.2	1982.7	1716.7	1516.8	1406.6	1318.4	1316.9
10°	3399.6	3202.7	2752.9	2266.4	1777.0	1374.3	1058.2	855.4	751.1	683.5	680.5
12.5°	3415.8	3171.8	2586.8	1931.3	1316.9	883.3	612.9	482.1	438.0	417.4	417.4
15°	3462.8	3163.0	2420.7	1603.5	930.4	552.6	407.1	371.9	368.9	368.9	368.9
17.5°	3520.1	3165.9	2250.2	1284.6	633.5	395.4	351.3	346.9	349.8	349.8	349.8
20°	3578.9	3167.4	2066.5	989.2	446.8	343.9	330.7	329.2	332.2	332.2	333.6
22.5°	3651.0	3174.7	1882.8	739.3	368.9	324.8	314.5	314.5	316.0	316.0	314.5
25°	3733.3	3189.4	1691.7	548.2	336.6	311.6	302.8	301.3	302.8	301.3	299.8
27.5°	3836.1	3210.0	1478.6	429.2	321.9	298.4	291.0	291.0	289.5	288.1	286.6
30°	3965.5	3233.5	1239.0	364.5	307.2	286.6	279.3	277.8	276.3	273.4	273.4
32.5°	4162.4	3285.0	1002.4	330.7	291.0	270.4	264.6	264.6	261.6	258.7	257.2
35°	4465.2	3386.4	790.7	310.1	273.4	252.8	245.5	245.5	242.5	241.0	239.6
37.5°	4884.1	3540.7	614.4	291.0	255.7	233.7	226.3	224.9	221.9	219.0	217.5
40°	5441.2	3731.8	483.6	273.4	238.1	214.6	208.7	205.8	199.9	195.5	195.5
42.5°	6140.8	3949.3	392.4	254.3	217.5	197.0	192.5	188.1	177.8	173.4	172.0
45°	6872.7	4144.8	332.2	232.2	197.0	179.3	176.4	169.0	155.8	151.4	151.4
47.5°	7400.4	4190.4	292.5	211.6	177.8	160.2	158.7	145.5	133.8	130.8	129.3
50°	7729.6	4100.7	260.2	191.1	160.2	142.6	138.2	122.0	114.6	111.7	110.2
52.5°	7951.6	3940.5	233.7	173.4	144.0	126.4	116.1	104.4	98.5	95.5	95.5
55°	8129.4	3714.2	207.2	157.3	130.8	113.2	98.5	89.7	83.8	80.8	80.8
57.5°	8179.4	3407.0	180.8	144.0	117.6	99.9	83.8	77.9	70.5	69.1	69.1
60°	7816.3	2852.9	160.2	127.9	105.8	86.7	73.5	66.1	58.8	57.3	55.9
62.5°	6859.5	2207.6	141.1	113.2	92.6	75.0	63.2	54.4	48.5	48.5	48.5
65°	5232.4	1480.1	123.5	98.5	80.8	63.2	54.4	44.1	41.2	41.2	42.6
67.5°	3132.1	805.4	105.8	83.8	69.1	52.9	45.6	38.2	36.7	38.2	38.2
69°	1835.8	473.3	95.5	75.0	60.3	47.0	39.7	33.8	36.7	38.2	38.2
70°	1133.2	318.9	88.2	67.6	54.4	42.6	36.7	32.3	35.3	36.7	36.7
72.5°	316.0	164.6	70.5	52.9	44.1	35.3	29.4	29.4	33.8	35.3	35.3
75°	205.8	122.0	54.4	39.7	33.8	27.9	25.0	27.9	32.3	33.8	33.8
77.5°	170.5	99.9	44.1	32.3	27.9	26.5	23.5	25.0	29.4	30.9	30.9
80°	155.8	70.5	35.3	29.4	25.0	23.5	22.0	20.6	26.5	27.9	27.9
82.5°	148.4	55.9	30.9	26.5	23.5	20.6	19.1	20.6	23.5	25.0	26.5
85°	92.6	36.7	27.9	25.0	20.6	19.1	19.1	19.1	22.0	23.5	23.5
87.5°	33.8	29.4	25.0	20.6	17.6	17.6	17.6	17.6	19.1	22.0	22.0
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)