

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: P191228

Luminaire Tested: **GLEON-AF-10-LED-E1-SL4-1200-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P191228  
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: GLEON-AF-10-LED-E1-SL4-1200-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 53658.9 lumens  
Efficiency: N/A  
Efficacy: 83.8 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G5

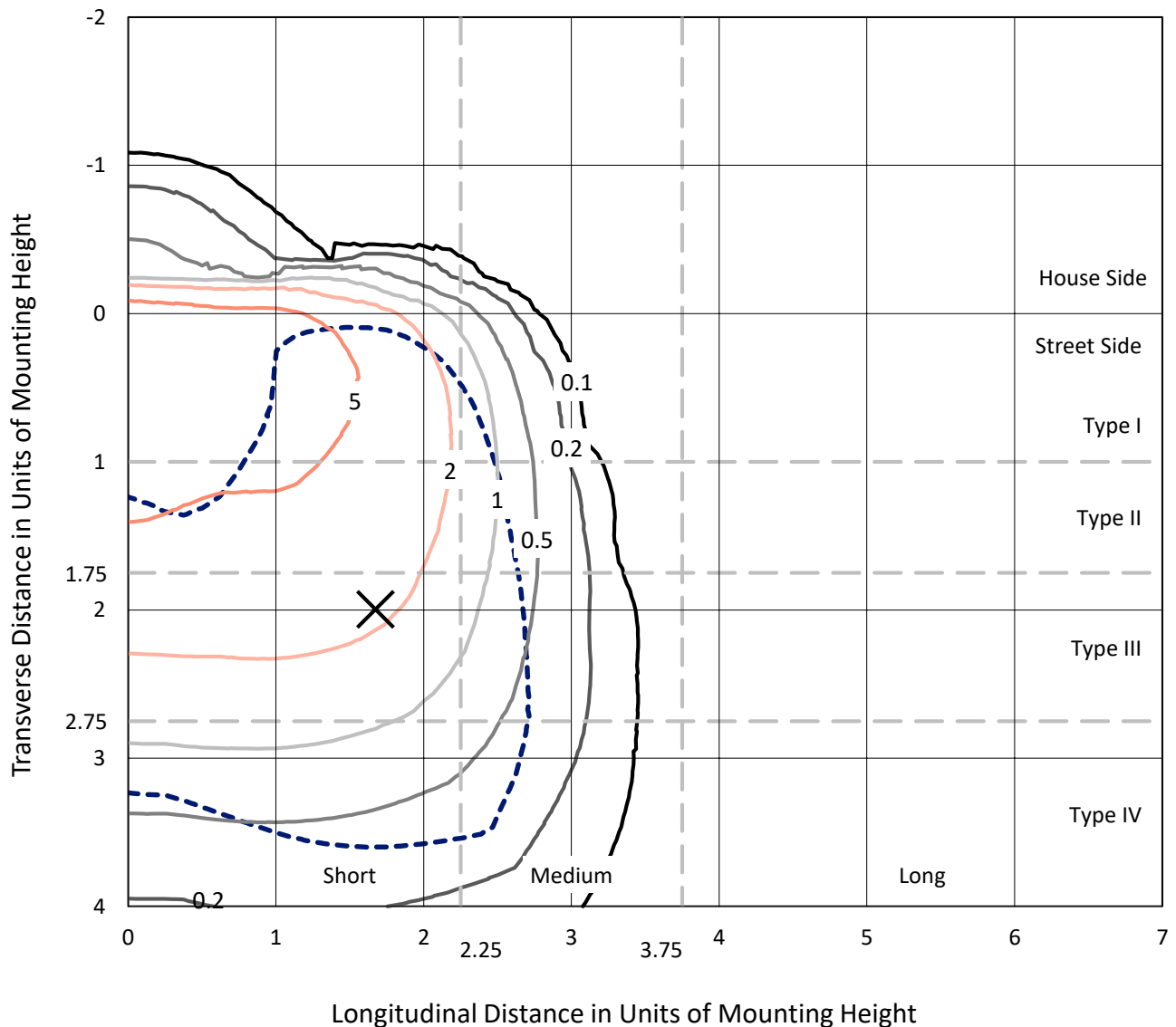
Input Watts (W): 640  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

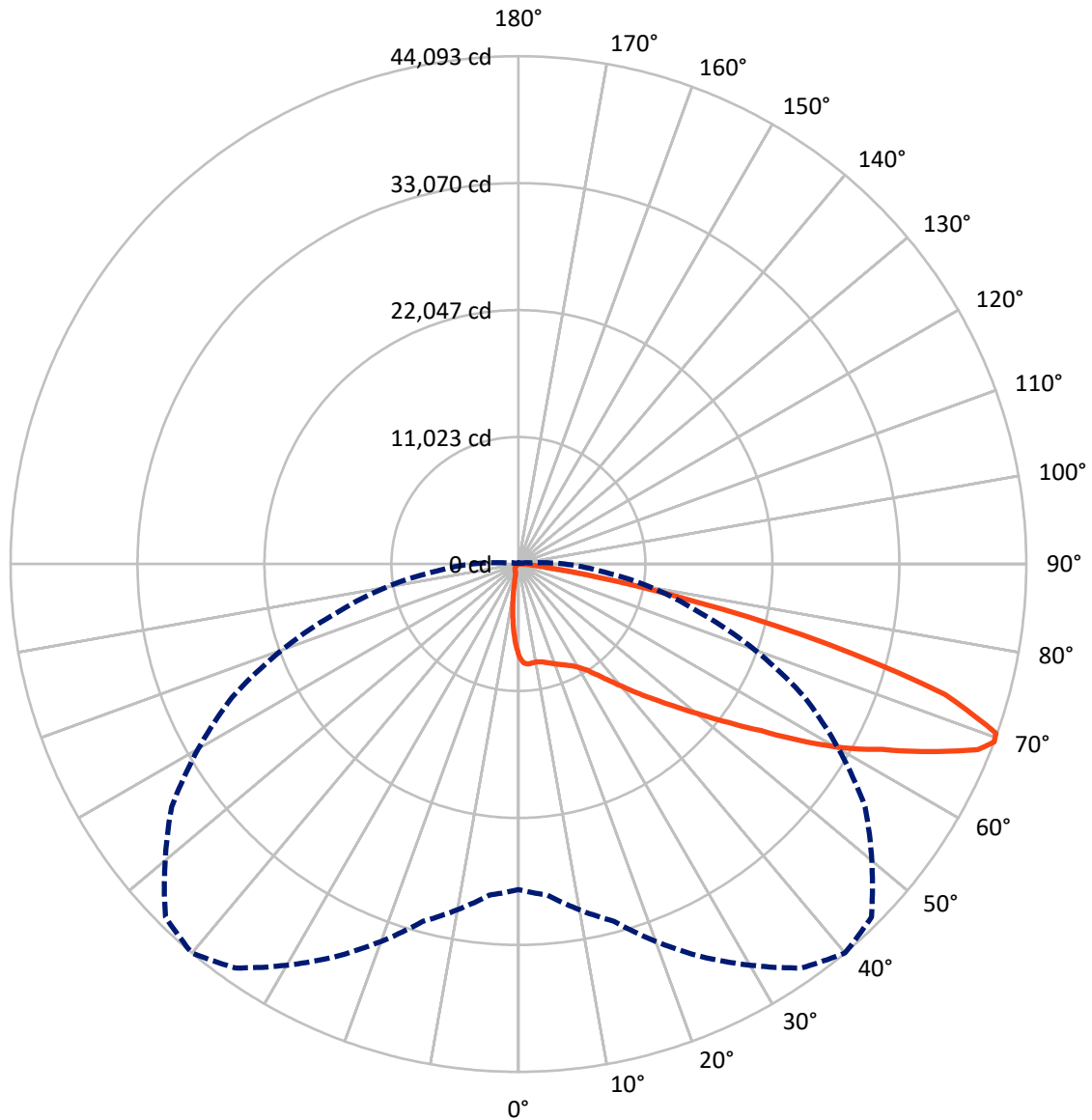


Based on 30 foot mounting height. Maximum calculated value = 9.7 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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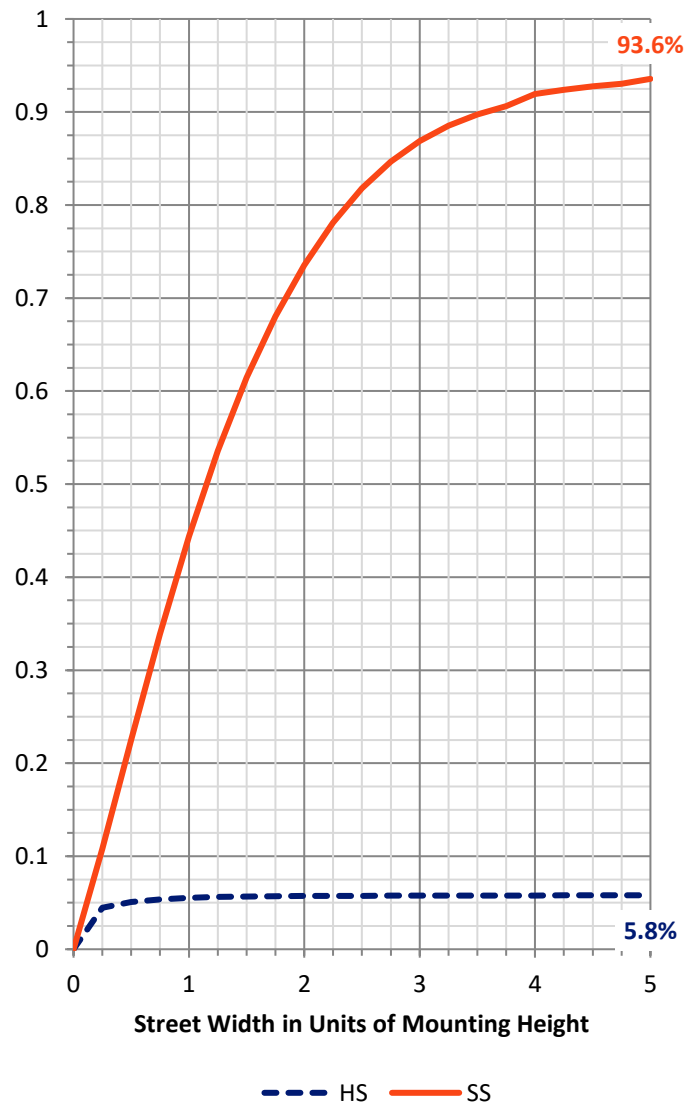
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3139.3	0.0	3139.3
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	50519.5	0.0	50519.5
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	53658.9	0.0	53658.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	650.0	1.2
10°-20°	1598.5	3.0
20°-30°	2692.4	5.0
30°-40°	4407.6	8.2
40°-50°	7631.6	14.2
50°-60°	12020.5	22.4
60°-70°	15698.3	29.3
70°-80°	8085.3	15.1
80°-90°	874.6	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°	53658.9	100.0
0°-180°	53658.9	100.0

**Coefficient of Utilization**



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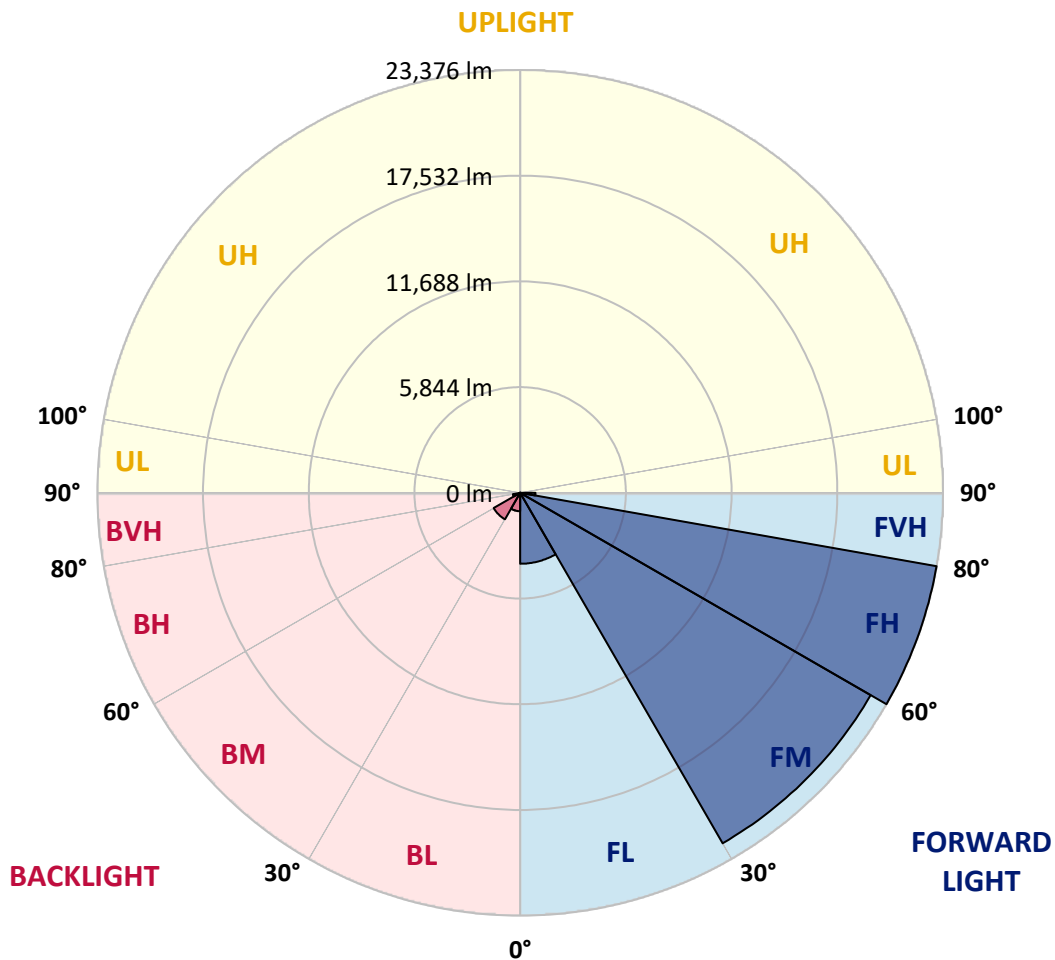
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3924.0	7.3			
FM	(30°-60°)	22372.4	41.7			
FH	(60°-80°)	23376.0	43.6			G5
FVH	(80°-90°)	847.1	1.6			G5
BL	(0°-30°)	1016.9	1.9	B3/2500		
BM	(30°-60°)	1687.3	3.1	B2/2500		
BH	(60°-80°)	407.6	0.8	B1/500		G1/500
BVH	(80°-90°)	27.5	0.1			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°	40°	45°	55°	65°	75°	85°
0°	8016.9	8016.9	8016.9	8016.9	8016.9	8016.9	8016.9	8016.9	8016.9	8016.9	8016.9
2.5°	8802.6	8754.7	8726.0	8687.6	8639.7	8598.2	8582.3	8464.1	8352.3	8199.0	8023.3
5°	8965.6	8949.6	8898.4	8847.4	8789.9	8726.0	8690.9	8550.3	8390.7	8167.0	7860.5
7.5°	8981.5	8962.4	8898.4	8828.2	8748.4	8671.7	8611.0	8470.4	8323.5	8096.8	7723.1
10°	8955.9	8933.6	8885.7	8809.0	8710.0	8636.6	8575.9	8441.7	8317.1	8112.7	7697.5
12.5°	8927.2	8904.9	8882.5	8844.1	8757.9	8706.8	8655.7	8527.9	8416.1	8243.7	7790.2
15°	8955.9	8943.1	8968.7	8952.8	8904.9	8860.1	8809.0	8694.1	8591.9	8448.1	7959.4
17.5°	9077.4	9077.4	9157.1	9166.8	9122.1	9058.1	8984.7	8869.7	8783.5	8662.1	8160.7
20°	9361.5	9352.0	9454.2	9473.3	9364.8	9265.8	9157.1	9016.6	8949.6	8872.9	8358.6
22.5°	9850.3	9805.6	9866.3	9847.0	9633.0	9479.8	9345.6	9173.1	9138.0	9102.8	8579.1
25°	10485.9	10460.3	10501.8	10313.4	9936.5	9728.9	9569.2	9374.3	9374.3	9409.5	8828.2
27.5°	11409.0	11313.1	11172.6	10840.4	10275.0	10010.0	9837.5	9629.9	9684.2	9815.1	9157.1
30°	12354.4	12248.9	11926.4	11415.3	10687.1	10409.2	10208.0	9990.8	10118.5	10358.1	9597.9
32.5°	13287.0	13168.9	12712.1	12066.9	11277.9	11000.1	10805.2	10565.8	10779.8	11182.2	10243.1
35°	14190.9	14085.5	13558.5	12798.3	12063.7	11833.7	11654.9	11447.2	11721.9	12284.1	11153.4
37.5°	15206.6	15091.6	14449.6	13625.6	13018.7	12852.7	12721.6	12514.1	12993.1	13817.2	12421.4
40°	16455.4	16260.6	15395.0	14574.2	14123.8	14044.0	13954.6	13925.8	14670.0	15810.2	14111.1
42.5°	17886.3	17566.9	16385.1	15573.9	15337.5	15395.0	15372.7	15500.5	16768.4	18288.8	16167.9
45°	19317.2	18905.3	17487.1	16640.6	16672.7	16873.9	16998.4	17509.4	19397.1	21131.4	18381.4
47.5°	20530.9	20125.3	18544.3	17793.7	18177.0	18573.0	18911.6	19879.4	22099.2	23929.4	20102.9
50°	21569.0	21185.7	19665.4	19061.8	19924.1	20562.9	21112.3	22546.3	25005.7	26059.8	21310.3
52.5°	22418.6	22163.0	20828.0	20515.0	21920.3	22856.2	23661.1	25379.4	27580.1	27790.9	22249.3
55°	23245.8	23063.8	22076.8	22242.9	24264.7	25539.1	26558.1	28384.9	29796.7	29234.6	23150.0
57.5°	24197.7	24031.6	23501.4	24434.0	27347.0	28950.3	30061.9	31048.8	31748.3	30710.2	23999.7
60°	25168.7	25072.8	25085.6	26867.8	30885.9	32425.4	33038.7	33294.2	33664.7	32099.6	24047.5
62.5°	26094.9	26276.9	26896.5	29576.4	34274.7	35456.5	35766.2	36018.6	35584.3	32320.0	22217.4
65°	27663.1	27960.2	29439.0	33201.5	38002.1	39266.9	39586.4	38720.7	35887.7	29470.9	18071.6
67.5°	28429.7	28972.6	31610.9	36580.7	41617.7	43023.1	42904.9	38896.4	32204.9	22472.9	11597.4
69°	28270.0	28848.1	32112.4	37615.6	42818.6	44093.1	43342.4	36746.8	27436.4	16279.8	7119.4
70°	27637.6	28222.1	31853.7	37577.3	42971.9	43981.3	42531.1	34092.6	23198.0	11904.0	4452.4
72.5°	23079.8	23584.4	28279.6	33964.9	39586.4	38765.4	35581.0	23619.5	11303.5	3241.9	1002.9
75°	14206.8	14488.0	20291.5	25587.1	29898.9	27790.9	23705.8	11750.6	3369.7	916.7	555.8
77.5°	7505.9	7633.7	11108.7	15082.0	18953.1	15682.4	12149.9	4583.3	1552.3	574.9	402.4
80°	4436.4	4532.3	5982.3	6895.8	8202.1	6851.1	4858.1	2813.9	1111.5	360.9	357.7
82.5°	2539.3	2599.9	4337.4	3832.8	3232.3	2759.6	2417.8	2666.9	667.6	242.7	370.5
85°	932.6	945.4	2440.2	2916.1	1922.7	1143.5	1200.9	2210.3	178.9	153.3	290.6
87.5°	434.3	424.8	1255.3	1785.5	1124.3	725.1	935.8	485.5	70.3	99.0	79.9
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°	8016.9	8016.9	8016.9	8016.9	8016.9	8016.9	8016.9	8016.9	8016.9	8016.9	8016.9
2.5°	7921.1	7803.0	7589.0	7368.5	7145.0	6972.4	6803.2	6669.0	6624.3	6541.3	6547.7
5°	7678.4	7461.2	7014.0	6560.5	6087.8	5698.0	5330.8	5033.7	4890.0	4743.1	4743.1
7.5°	7467.5	7151.3	6451.9	5714.0	4950.7	4308.7	3730.6	3296.2	3056.7	2865.0	2861.8
10°	7387.6	6959.7	5982.3	4925.1	3861.5	2986.4	2299.7	1858.9	1632.1	1485.2	1478.8
12.5°	7422.8	6892.6	5621.4	4196.9	2861.8	1919.6	1331.9	1047.6	951.9	907.1	907.1
15°	7525.0	6873.5	5260.5	3484.7	2021.8	1200.9	884.8	808.0	801.7	801.7	801.7
17.5°	7649.6	6879.9	4890.0	2791.5	1376.6	859.2	763.3	753.8	760.2	760.2	760.2
20°	7777.4	6883.0	4490.8	2149.5	971.0	747.4	718.6	715.5	721.8	721.8	725.1
22.5°	7933.9	6899.0	4091.5	1606.5	801.7	705.8	683.5	683.5	686.7	686.7	683.5
25°	8112.7	6931.0	3676.3	1191.3	731.4	677.1	658.0	654.8	658.0	654.8	651.6
27.5°	8336.3	6975.7	3213.2	932.6	699.5	648.3	632.4	632.4	629.2	626.0	622.9
30°	8617.3	7026.8	2692.5	792.1	667.6	622.9	606.8	603.6	600.5	594.1	594.1
32.5°	9045.3	7138.6	2178.3	718.6	632.4	587.7	574.9	574.9	568.6	562.1	558.9
35°	9703.3	7358.9	1718.4	673.9	594.1	549.3	533.4	533.4	527.0	523.9	520.6
37.5°	10613.6	7694.3	1335.1	632.4	555.8	507.9	491.8	488.7	482.3	475.9	472.7
40°	11824.2	8109.5	1050.8	594.1	517.4	466.4	453.6	447.1	434.3	424.8	424.8
42.5°	13344.5	8582.3	852.8	552.6	472.7	428.0	418.4	408.9	386.5	376.9	373.7
45°	14935.1	9007.1	721.8	504.6	428.0	389.6	383.3	367.3	338.6	329.0	329.0
47.5°	16081.7	9106.1	635.6	459.9	386.5	348.1	344.9	316.2	290.6	284.3	281.1
50°	16797.2	8911.2	565.4	415.2	348.1	309.9	300.2	265.1	249.1	242.7	239.6
52.5°	17279.5	8563.1	507.9	376.9	313.0	274.7	252.4	226.8	214.0	207.7	207.7
55°	17666.0	8071.2	450.3	341.8	284.3	245.9	214.0	194.9	182.1	175.6	175.6
57.5°	17774.6	7403.7	392.8	313.0	255.5	217.2	182.1	169.3	153.3	150.1	150.1
60°	16985.6	6199.5	348.1	277.8	230.0	188.4	159.7	143.7	127.8	124.6	121.3
62.5°	14906.3	4797.3	306.6	245.9	201.2	162.9	137.4	118.2	105.4	105.4	105.4
65°	11370.6	3216.4	268.3	214.0	175.6	137.4	118.2	95.9	89.4	89.4	92.6
67.5°	6806.4	1750.3	230.0	182.1	150.1	115.0	99.0	83.1	79.9	83.1	83.1
69°	3989.3	1028.5	207.7	162.9	130.9	102.2	86.2	73.4	79.9	83.1	83.1
70°	2462.5	693.0	191.6	146.9	118.2	92.6	79.9	70.3	76.6	79.9	79.9
72.5°	686.7	357.7	153.3	115.0	95.9	76.6	63.8	63.8	73.4	76.6	76.6
75°	447.1	265.1	118.2	86.2	73.4	60.7	54.3	60.7	70.3	73.4	73.4
77.5°	370.5	217.2	95.9	70.3	60.7	57.5	51.1	54.3	63.8	67.1	67.1
80°	338.6	153.3	76.6	63.8	54.3	51.1	47.9	44.7	57.5	60.7	60.7
82.5°	322.6	121.3	67.1	57.5	51.1	44.7	41.5	44.7	51.1	54.3	57.5
85°	201.2	79.9	60.7	54.3	44.7	41.5	41.5	41.5	47.9	51.1	51.1
87.5°	73.4	63.8	54.3	44.7	38.4	38.4	38.4	38.4	41.5	47.9	47.9
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)