

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: P191198

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P191198  
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-SL4-600-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 4000K, 615mA 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: 32228.1 lumens  
Efficiency: N/A  
Efficacy: 99.8 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

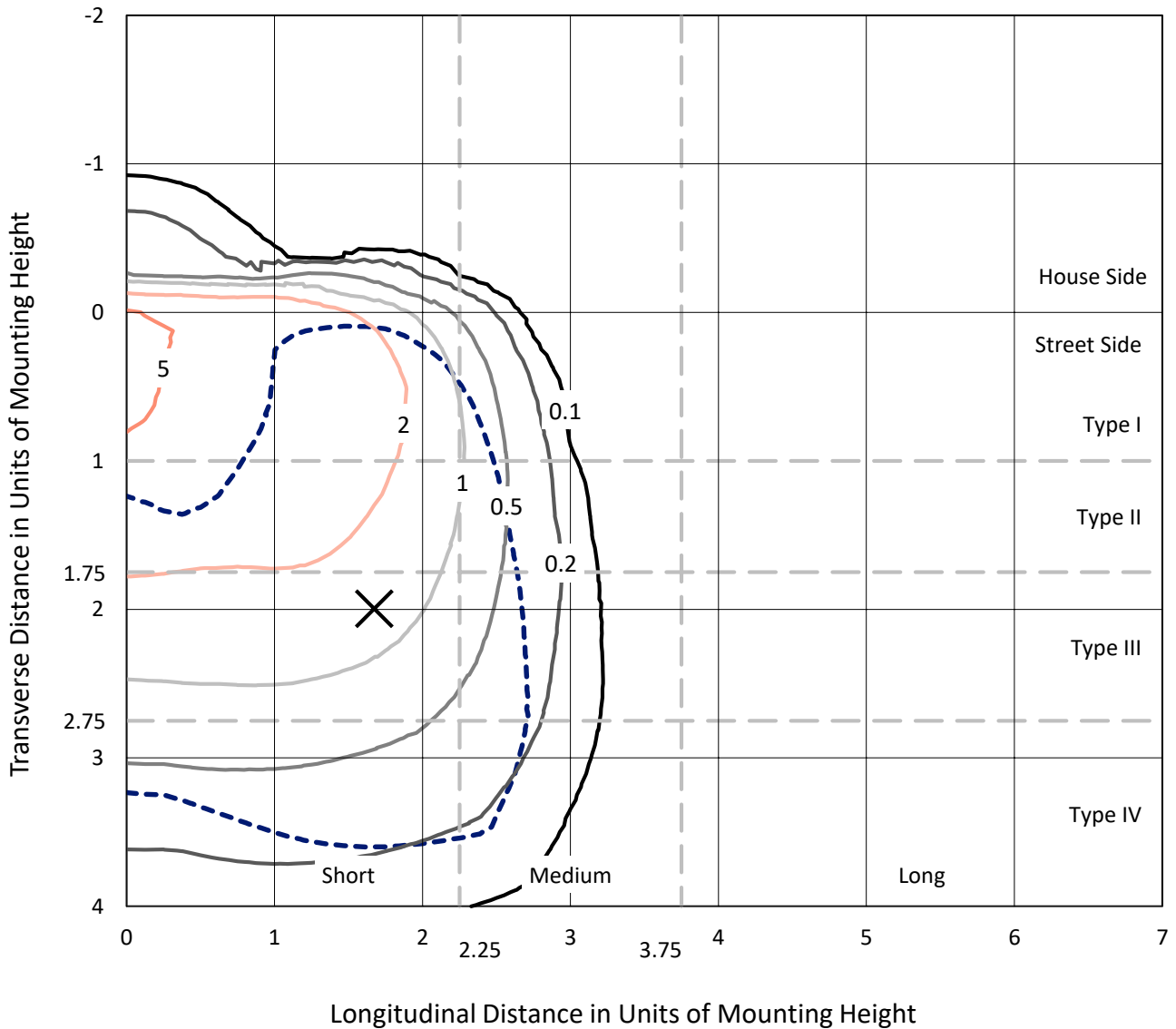
Input Watts (W): 323  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

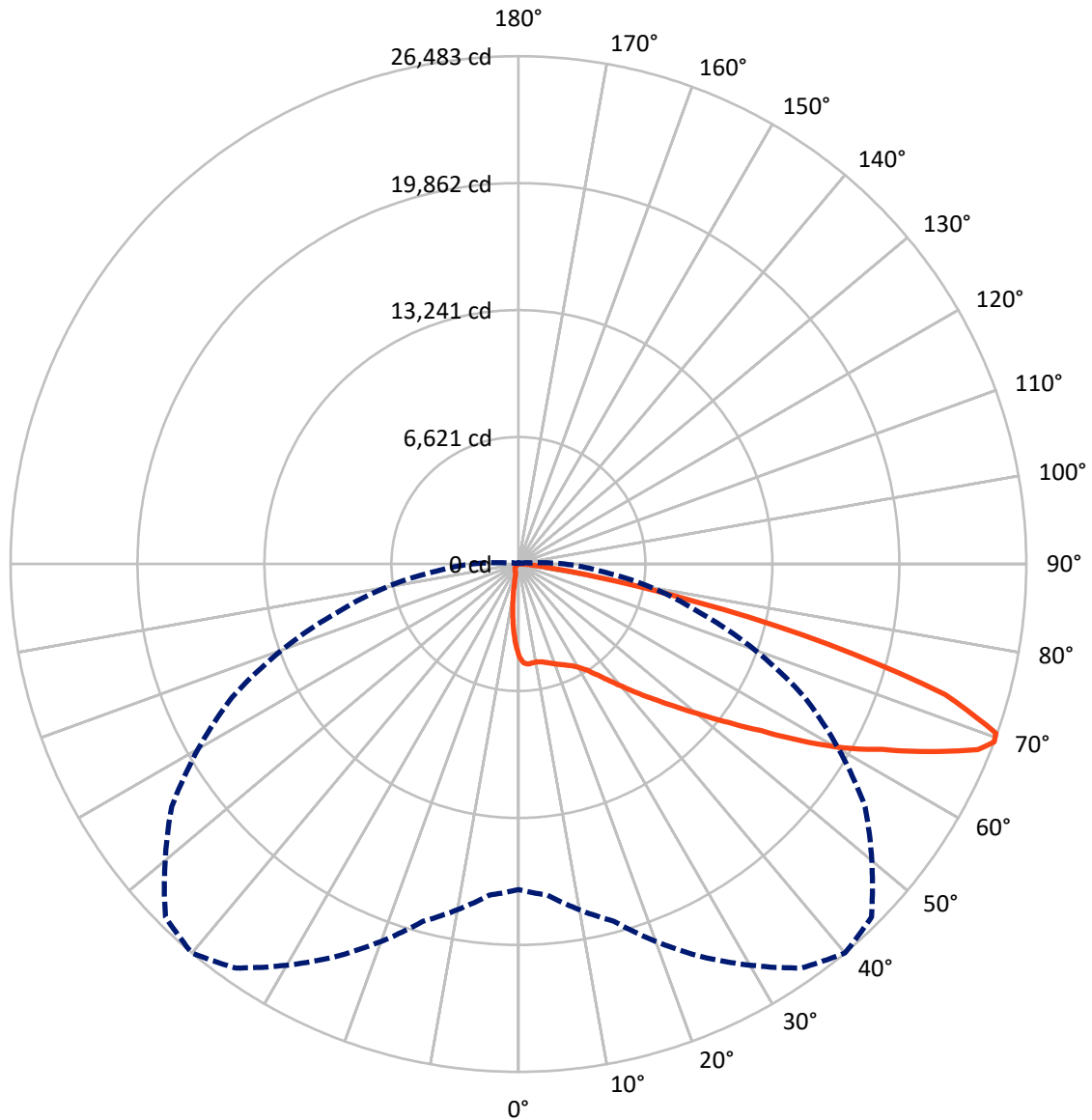
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.9 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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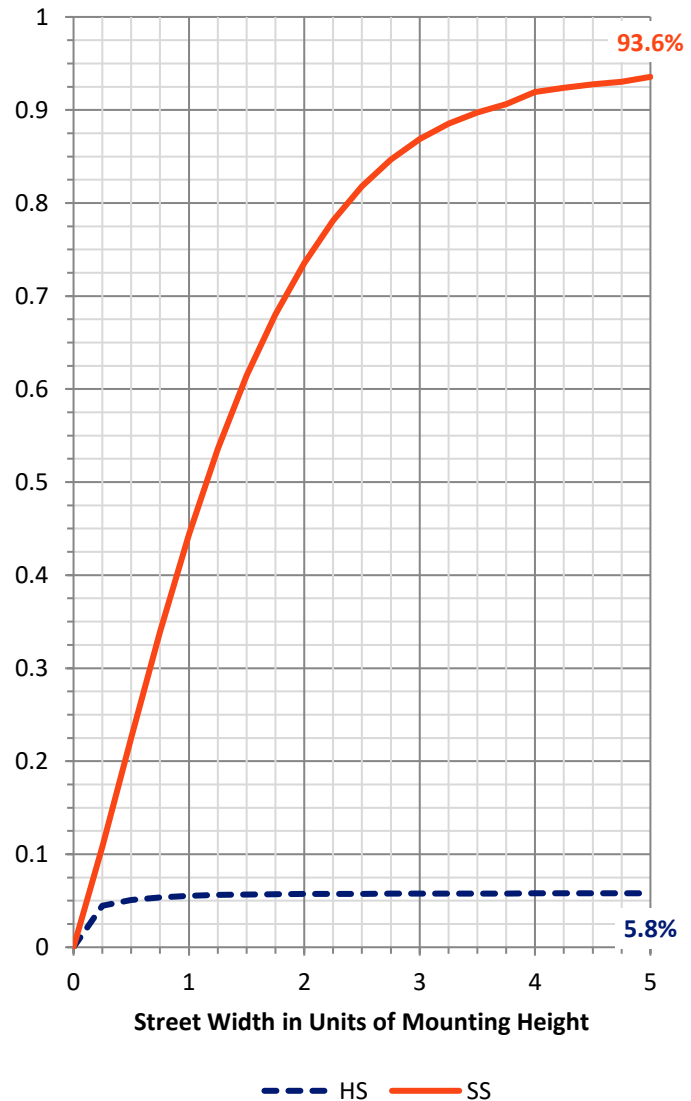
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1885.5	0.0	1885.5
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	30342.5	0.0	30342.5
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	32228.1	0.0	32228.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	390.4	1.2
10°-20°	960.1	3.0
20°-30°	1617.1	5.0
30°-40°	2647.2	8.2
40°-50°	4583.6	14.2
50°-60°	7219.6	22.4
60°-70°	9428.6	29.3
70°-80°	4856.1	15.1
80°-90°	525.3	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°	32228.1	100.0
0°-180°	32228.1	100.0



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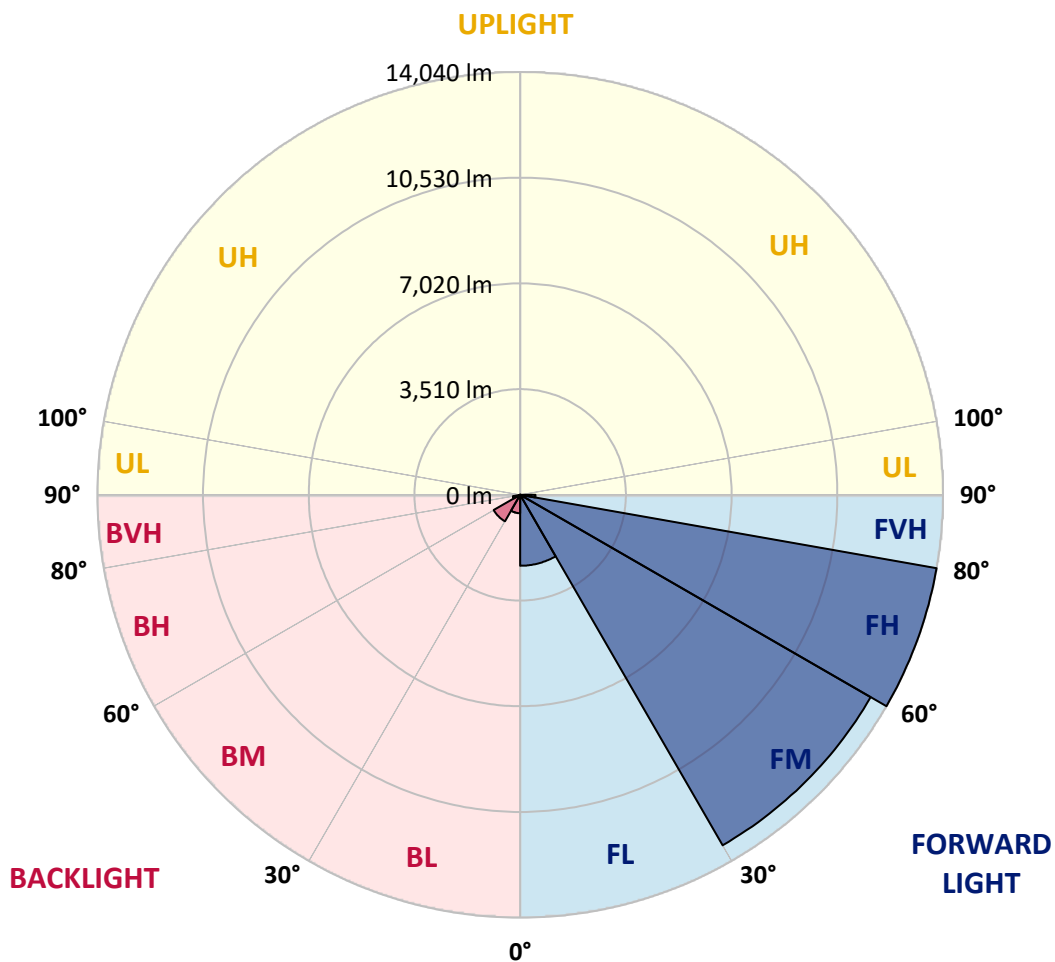
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2356.8	7.3			
FM	(30°-60°)	13437.1	41.7			
FH	(60°-80°)	14039.9	43.6			G5
FVH	(80°-90°)	508.8	1.6			G4/750
BL	(0°-30°)	610.8	1.9	B2/1000		
BM	(30°-60°)	1013.4	3.1	B2/2500		
BH	(60°-80°)	244.8	0.8	B1/500		G1/500
BVH	(80°-90°)	16.5	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: 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°	4815.0	4815.0	4815.0	4815.0	4815.0	4815.0	4815.0	4815.0	4815.0	4815.0	4815.0
2.5°	5286.9	5258.2	5240.9	5217.9	5189.1	5164.2	5154.5	5083.7	5016.4	4924.4	4818.9
5°	5384.8	5375.2	5344.5	5313.8	5279.2	5240.9	5219.8	5135.4	5039.5	4905.2	4721.0
7.5°	5394.4	5382.9	5344.5	5302.3	5254.4	5208.3	5171.8	5087.4	4999.2	4863.0	4638.6
10°	5379.0	5365.6	5336.8	5290.8	5231.3	5187.2	5150.8	5070.2	4995.4	4872.6	4623.2
12.5°	5361.8	5348.3	5334.9	5311.9	5260.1	5229.4	5198.7	5122.0	5054.8	4951.3	4678.9
15°	5379.0	5371.3	5386.7	5377.1	5348.3	5321.5	5290.8	5221.8	5160.4	5074.0	4780.6
17.5°	5451.9	5451.9	5499.9	5505.6	5478.8	5440.5	5396.3	5327.2	5275.5	5202.5	4901.4
20°	5622.6	5616.9	5678.3	5689.8	5624.6	5565.2	5499.9	5415.5	5375.2	5329.2	5020.3
22.5°	5916.1	5889.3	5925.7	5914.3	5785.7	5693.6	5613.0	5509.5	5488.3	5467.3	5152.7
25°	6297.9	6282.6	6307.5	6194.4	5968.0	5843.3	5747.3	5630.3	5630.3	5651.4	5302.3
27.5°	6852.3	6794.7	6710.4	6510.9	6171.3	6012.1	5908.5	5783.8	5816.4	5895.1	5499.9
30°	7420.2	7356.9	7163.1	6856.1	6418.8	6251.9	6131.1	6000.5	6077.4	6221.2	5764.6
32.5°	7980.3	7909.4	7635.0	7247.5	6773.7	6606.7	6489.7	6345.9	6474.4	6716.1	6152.1
35°	8523.2	8459.9	8143.4	7686.8	7245.6	7107.5	7000.1	6875.4	7040.4	7377.9	6698.9
37.5°	9133.2	9064.2	8678.6	8183.6	7819.1	7719.4	7640.7	7516.0	7803.8	8298.8	7460.5
40°	9883.3	9766.3	9246.5	8753.4	8482.9	8434.9	8381.2	8364.0	8811.0	9495.7	8475.2
42.5°	10742.7	10550.9	9841.1	9353.9	9211.9	9246.5	9232.9	9309.7	10071.3	10984.4	9710.7
45°	11602.1	11354.7	10502.9	9994.5	10013.8	10134.6	10209.5	10516.3	11650.1	12691.8	11040.1
47.5°	12331.1	12087.5	11137.9	10687.1	10917.2	11155.2	11358.5	11939.8	13273.0	14372.3	12074.1
50°	12954.5	12724.4	11811.2	11448.7	11966.6	12350.3	12680.2	13541.6	15018.7	15651.8	12799.2
52.5°	13464.8	13311.4	12509.5	12321.5	13165.6	13727.7	14211.0	15243.2	16564.8	16691.5	13363.2
55°	13961.7	13852.4	13259.6	13359.3	14573.7	15339.0	15951.0	17048.3	17896.2	17558.5	13904.2
57.5°	14533.4	14433.6	14115.2	14675.4	16424.8	17387.8	18055.4	18648.2	19068.3	18444.8	14414.4
60°	15116.6	15059.0	15066.6	16137.0	18550.4	19475.0	19843.3	19996.8	20219.3	19279.3	14443.2
62.5°	15672.8	15782.2	16154.3	17763.8	20585.8	21295.5	21481.6	21633.2	21372.2	19411.7	13344.0
65°	16614.8	16793.2	17681.4	19941.2	22824.4	23584.1	23775.9	23256.1	21554.5	17700.5	10854.0
67.5°	17075.2	17401.3	18985.9	21970.7	24996.0	25840.0	25769.1	23361.5	19342.7	13497.4	6965.5
69°	16979.2	17326.4	19287.0	22592.3	25717.3	26482.7	26032.0	22070.6	16478.5	9777.8	4275.9
70°	16599.4	16950.5	19131.6	22569.3	25809.4	26415.6	25544.6	20476.4	13932.9	7149.7	2674.2
72.5°	13861.9	14165.0	16985.0	20399.7	23775.9	23282.9	21370.4	14186.2	6789.0	1947.1	602.3
75°	8532.7	8701.6	12187.2	15367.8	17957.6	16691.5	14237.9	7057.5	2023.8	550.6	333.8
77.5°	4508.1	4584.9	6672.0	9058.4	11383.4	9419.0	7297.4	2752.9	932.3	345.3	241.7
80°	2664.6	2722.2	3593.0	4141.7	4926.3	4114.8	2917.8	1690.0	667.6	216.8	214.8
82.5°	1525.1	1561.5	2605.1	2302.0	1941.4	1657.5	1452.2	1601.8	400.9	145.8	222.5
85°	560.2	567.8	1465.6	1751.5	1154.8	686.8	721.3	1327.5	107.4	92.1	174.6
87.5°	260.9	255.1	753.9	1072.4	675.2	435.5	562.1	291.5	42.2	59.4	48.0
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°	4815.0	4815.0	4815.0	4815.0	4815.0	4815.0	4815.0	4815.0	4815.0	4815.0	4815.0
2.5°	4757.4	4686.5	4558.0	4425.6	4291.4	4187.8	4086.1	4005.5	3978.7	3928.7	3932.6
5°	4611.7	4481.2	4212.7	3940.3	3656.3	3422.3	3201.7	3023.3	2937.0	2848.7	2848.7
7.5°	4485.1	4295.2	3875.0	3431.9	2973.4	2587.9	2240.7	1979.7	1835.9	1720.7	1718.9
10°	4437.2	4180.1	3593.0	2958.1	2319.2	1793.6	1381.2	1116.4	980.3	892.0	888.2
12.5°	4458.2	4139.8	3376.2	2520.7	1718.9	1153.0	799.9	629.2	571.6	544.8	544.8
15°	4519.6	4128.3	3159.5	2093.0	1214.3	721.3	531.4	485.4	481.5	481.5	481.5
17.5°	4594.4	4132.1	2937.0	1676.6	826.9	516.1	458.5	452.8	456.5	456.5	456.5
20°	4671.2	4134.1	2697.2	1291.1	583.2	448.9	431.6	429.7	433.5	433.5	435.5
22.5°	4765.2	4143.7	2457.4	964.9	481.5	423.9	410.5	410.5	412.5	412.5	410.5
25°	4872.6	4162.8	2208.0	715.6	439.3	406.7	395.2	393.2	395.2	393.2	391.4
27.5°	5006.8	4189.7	1929.9	560.2	420.1	389.4	379.8	379.8	377.9	376.0	374.1
30°	5175.7	4220.4	1617.2	475.8	400.9	374.1	364.5	362.5	360.7	356.8	356.8
32.5°	5432.8	4287.5	1308.4	431.6	379.8	353.0	345.3	345.3	341.5	337.7	335.7
35°	5828.0	4419.9	1032.1	404.8	356.8	330.0	320.4	320.4	316.5	314.6	312.7
37.5°	6374.6	4621.3	801.9	379.8	333.8	305.0	295.4	293.5	289.7	285.8	283.9
40°	7101.7	4870.7	631.2	356.8	310.8	280.1	272.4	268.5	260.9	255.1	255.1
42.5°	8014.8	5154.5	512.2	331.8	283.9	257.1	251.3	245.5	232.1	226.4	224.4
45°	8970.2	5409.8	433.5	303.1	257.1	234.1	230.2	220.7	203.4	197.6	197.6
47.5°	9658.8	5469.2	381.8	276.2	232.1	209.1	207.1	190.0	174.6	170.7	168.8
50°	10088.5	5352.2	339.5	249.4	209.1	186.1	180.3	159.3	149.7	145.8	143.8
52.5°	10378.2	5143.1	305.0	226.4	188.0	165.0	151.5	136.2	128.5	124.7	124.7
55°	10610.4	4847.7	270.5	205.3	170.7	147.7	128.5	117.0	109.4	105.5	105.5
57.5°	10675.6	4446.8	236.0	188.0	153.4	130.4	109.4	101.7	92.1	90.1	90.1
60°	10201.8	3723.5	209.1	166.9	138.1	113.1	96.0	86.3	76.7	74.8	72.9
62.5°	8952.9	2881.3	184.1	147.7	120.8	97.8	82.4	71.0	63.3	63.3	63.3
65°	6829.3	1931.7	161.1	128.5	105.5	82.4	71.0	57.6	53.7	53.7	55.6
67.5°	4088.0	1051.3	138.1	109.4	90.1	69.0	59.4	49.9	48.0	49.9	49.9
69°	2396.1	617.7	124.7	97.8	78.7	61.4	51.8	44.1	48.0	49.9	49.9
70°	1479.1	416.2	115.1	88.3	71.0	55.6	48.0	42.2	46.0	48.0	48.0
72.5°	412.5	214.8	92.1	69.0	57.6	46.0	38.4	38.4	44.1	46.0	46.0
75°	268.5	159.3	71.0	51.8	44.1	36.4	32.6	36.4	42.2	44.1	44.1
77.5°	222.5	130.4	57.6	42.2	36.4	34.6	30.7	32.6	38.4	40.3	40.3
80°	203.4	92.1	46.0	38.4	32.6	30.7	28.7	26.9	34.6	36.4	36.4
82.5°	193.7	72.9	40.3	34.6	30.7	26.9	25.0	26.9	30.7	32.6	34.6
85°	120.8	48.0	36.4	32.6	26.9	25.0	25.0	25.0	28.7	30.7	30.7
87.5°	44.1	38.4	32.6	26.9	23.0	23.0	23.0	23.0	25.0	28.7	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

(END OF REPORT)