

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: P301005

Luminaire Tested: **GLNA-AF-08-LED-E1-SL4-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301005
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-SL4-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K 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: 29757.1 lumens
Efficiency: N/A
Efficacy: 115.8 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G5

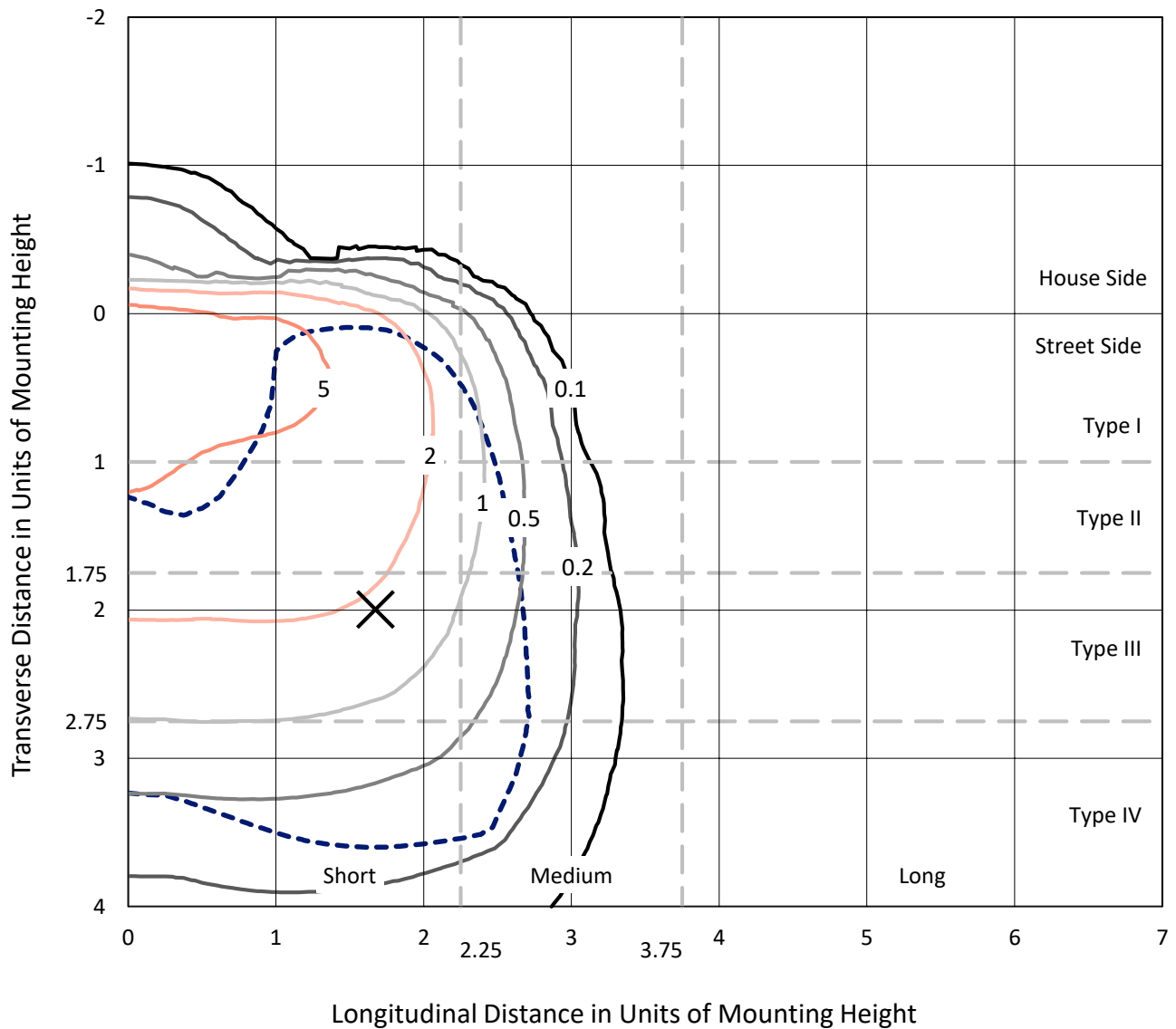
Input Watts (W): 257
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P301005
 CATALOG NUMBER: GLNA-AF-08-LED-E1-SL4-600

Iso-Footcandle Lines of Horizontal Illumination

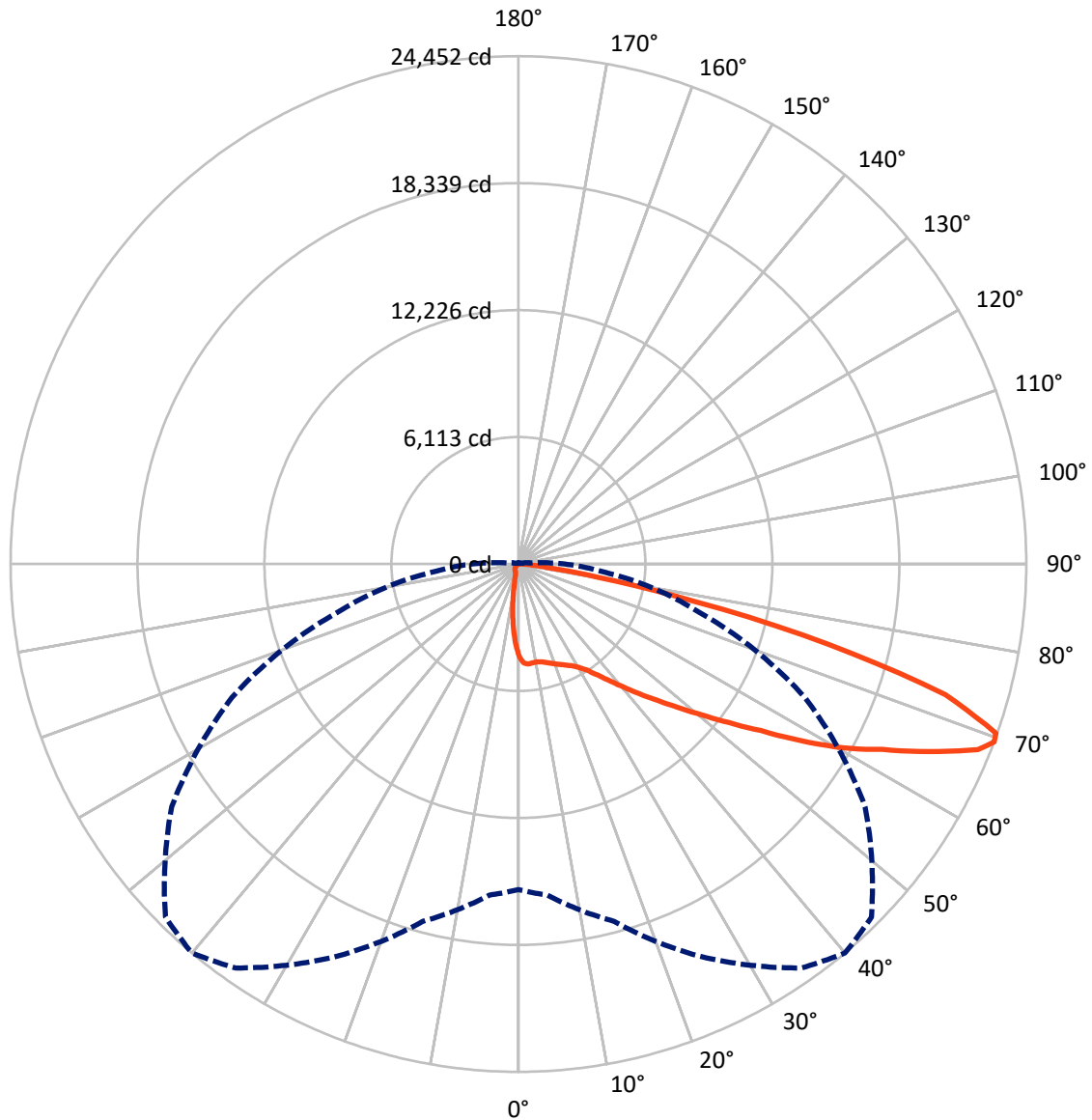
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P301005
CATALOG NUMBER: GLNA-AF-08-LED-E1-SL4-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P301005

CATALOG NUMBER: GLNA-AF-08-LED-E1-SL4-600

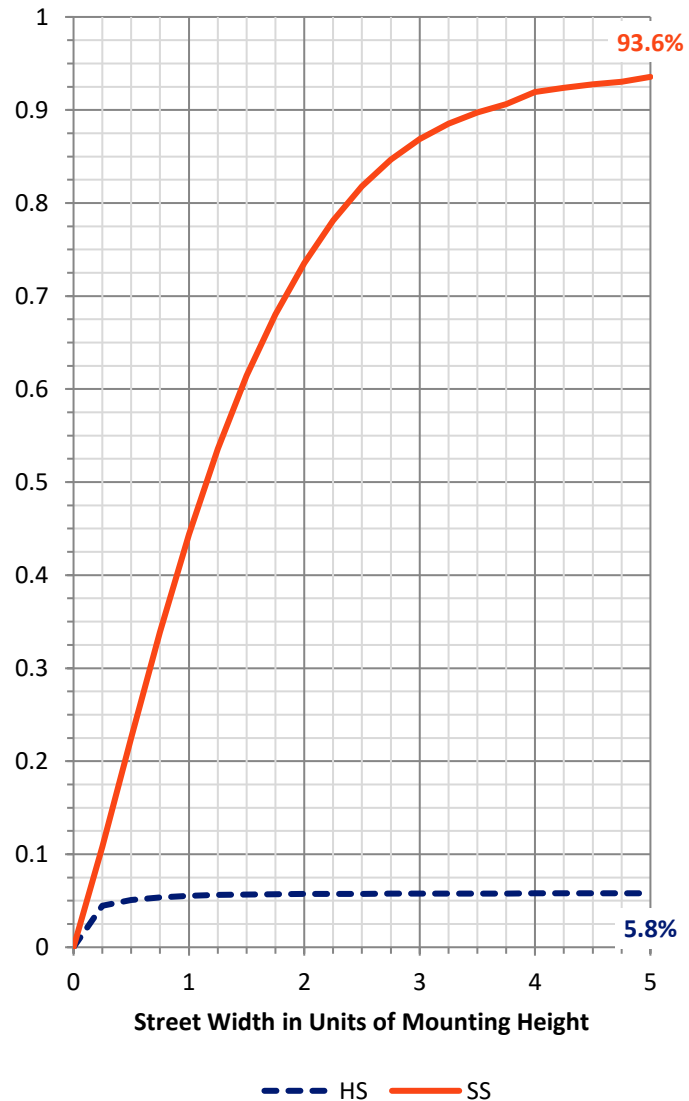
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1741.0	0.0	1741.0
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	28016.2	0.0	28016.2
	% Fixture	94.1	0.0	94.1
Total	Lumens	29757.1	0.0	29757.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	360.5	1.2
10°-20°	886.5	3.0
20°-30°	1493.1	5.0
30°-40°	2444.3	8.2
40°-50°	4232.2	14.2
50°-60°	6666.1	22.4
60°-70°	8705.7	29.3
70°-80°	4483.8	15.1
80°-90°	485.0	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°	29757.1	100.0
0°-180°	29757.1	100.0



REPORT NUMBER: P301005

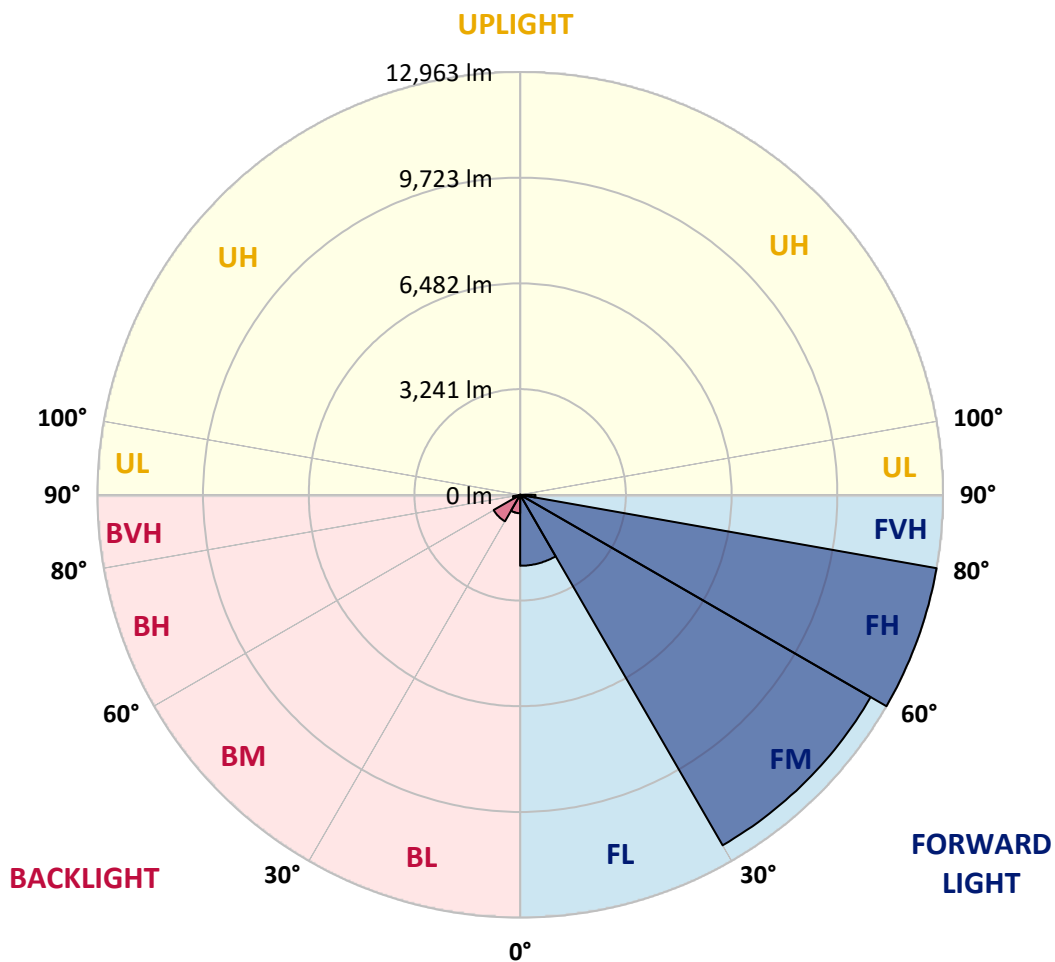
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2176.1	7.3			
FM	(30°-60°)	12406.8	41.7			
FH	(60°-80°)	12963.4	43.6			G5
FVH	(80°-90°)	469.8	1.6			G3/500
BL	(0°-30°)	563.9	1.9	B2/1000		
BM	(30°-60°)	935.7	3.1	B1/1000		
BH	(60°-80°)	226.1	0.8	B1/500		G1/500
BVH	(80°-90°)	15.2	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





REPORT NUMBER: P301005
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4445.9	4445.9	4445.9	4445.9	4445.9	4445.9	4445.9	4445.9	4445.9	4445.9	4445.9
2.5°	4881.6	4855.0	4839.1	4817.8	4791.3	4768.2	4759.4	4693.8	4631.8	4546.8	4449.4
5°	4971.9	4963.1	4934.7	4906.4	4874.5	4839.1	4819.6	4741.7	4653.1	4529.1	4359.1
7.5°	4980.8	4970.2	4934.7	4895.8	4851.5	4809.0	4775.3	4697.4	4615.9	4490.1	4282.9
10°	4966.6	4954.2	4927.6	4885.1	4830.2	4789.5	4755.8	4681.4	4612.4	4499.0	4268.7
12.5°	4950.7	4938.3	4925.9	4904.6	4856.8	4828.5	4800.1	4729.3	4667.3	4571.6	4320.1
15°	4966.6	4959.5	4973.7	4964.8	4938.3	4913.5	4885.1	4821.4	4764.7	4685.0	4414.0
17.5°	5033.9	5033.9	5078.2	5083.5	5058.7	5023.3	4982.6	4918.8	4871.0	4803.7	4525.6
20°	5191.6	5186.3	5242.9	5253.6	5193.3	5138.4	5078.2	5000.3	4963.1	4920.6	4635.4
22.5°	5462.6	5437.8	5471.4	5460.8	5342.1	5257.1	5182.7	5087.1	5067.6	5048.1	4757.6
25°	5815.1	5800.9	5823.9	5719.4	5510.4	5395.3	5306.7	5198.7	5198.7	5218.1	4895.8
27.5°	6326.9	6273.8	6195.9	6011.7	5698.1	5551.1	5455.5	5340.4	5370.5	5443.1	5078.2
30°	6851.2	6792.8	6613.9	6330.5	5926.6	5772.5	5661.0	5540.5	5611.4	5744.2	5322.6
32.5°	7368.4	7302.9	7049.6	6691.8	6254.3	6100.2	5992.2	5859.3	5978.0	6201.2	5680.4
35°	7869.7	7811.3	7519.0	7097.4	6690.1	6562.5	6463.3	6348.2	6500.5	6812.3	6185.2
37.5°	8433.0	8369.2	8013.2	7556.2	7219.7	7127.6	7054.9	6939.8	7205.5	7662.5	6888.4
40°	9125.5	9017.5	8537.5	8082.3	7832.5	7788.2	7738.6	7722.7	8135.4	8767.7	7825.4
42.5°	9919.1	9741.9	9086.6	8636.7	8505.6	8537.5	8525.1	8595.9	9299.1	10142.2	8966.1
45°	10712.6	10484.1	9697.7	9228.3	9246.0	9357.6	9426.7	9710.1	10756.9	11718.7	10193.6
47.5°	11385.7	11160.7	10283.9	9867.7	10080.2	10299.9	10487.6	11024.3	12255.4	13270.3	11148.3
50°	11961.3	11748.8	10905.7	10570.9	11049.1	11403.4	11708.0	12503.3	13867.2	14451.7	11817.9
52.5°	12432.5	12290.8	11550.4	11376.8	12156.2	12675.1	13121.5	14074.4	15294.8	15411.7	12338.6
55°	12891.2	12790.3	12243.0	12335.1	13456.3	14163.0	14728.0	15741.2	16524.1	16212.4	12838.1
57.5°	13419.1	13327.0	13032.9	13550.2	15165.5	16054.7	16671.1	17218.4	17606.3	17030.7	13309.3
60°	13957.5	13904.4	13911.5	14899.9	17128.1	17981.8	18321.9	18463.6	18669.1	17801.2	13335.8
62.5°	14471.2	14572.2	14915.8	16401.9	19007.4	19662.8	19834.6	19974.5	19733.6	17923.4	12320.9
65°	15340.9	15505.6	16325.7	18412.3	21074.5	21775.9	21953.0	21473.0	19901.9	16343.4	10021.8
67.5°	15766.0	16067.1	17530.2	20286.3	23079.5	23858.9	23793.4	21570.4	17859.6	12462.6	6431.5
69°	15677.4	15998.0	17808.3	20860.1	23745.5	24452.3	24036.0	20378.4	15215.1	9028.1	3948.1
70°	15326.7	15650.9	17664.8	20838.9	23830.6	24390.3	23586.1	18906.4	12864.7	6601.5	2469.1
72.5°	12799.1	13079.0	15682.7	18835.6	21953.0	21497.8	19731.9	13098.5	6268.5	1797.8	556.2
75°	7878.6	8034.4	11252.8	14189.6	16580.8	15411.7	13146.3	6516.5	1868.7	508.4	308.2
77.5°	4162.5	4233.3	6160.4	8363.9	10510.7	8696.9	6737.9	2541.8	860.8	318.8	223.2
80°	2460.3	2513.4	3317.6	3824.2	4548.6	3799.4	2694.1	1560.5	616.4	200.2	198.4
82.5°	1408.2	1441.8	2405.4	2125.5	1792.5	1530.4	1340.8	1479.0	370.2	134.6	205.5
85°	517.2	524.3	1353.2	1617.2	1066.3	634.1	666.0	1225.7	99.2	85.0	161.2
87.5°	240.9	235.6	696.1	990.1	623.5	402.1	519.0	269.2	39.0	54.9	44.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P301005

CATALOG NUMBER: GLNA-AF-08-LED-E1-SL4-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4445.9	4445.9	4445.9	4445.9	4445.9	4445.9	4445.9	4445.9	4445.9	4445.9	4445.9
2.5°	4392.7	4327.2	4208.5	4086.3	3962.3	3866.7	3772.8	3698.4	3673.6	3627.5	3631.1
5°	4258.1	4137.7	3889.7	3638.2	3376.0	3159.9	2956.2	2791.5	2711.8	2630.3	2630.3
7.5°	4141.2	3965.9	3577.9	3168.8	2745.5	2389.4	2068.8	1827.9	1695.1	1588.8	1587.1
10°	4096.9	3859.6	3317.6	2731.3	2141.5	1656.1	1275.3	1030.9	905.1	823.6	820.1
12.5°	4116.4	3822.4	3117.4	2327.4	1587.1	1064.5	738.6	581.0	527.8	503.0	503.0
15°	4173.1	3811.8	2917.3	1932.4	1121.2	666.0	490.6	448.1	444.6	444.6	444.6
17.5°	4242.2	3815.3	2711.8	1548.1	763.4	476.5	423.3	418.0	421.6	421.6	421.6
20°	4313.0	3817.1	2490.4	1192.1	538.5	414.5	398.5	396.8	400.3	400.3	402.1
22.5°	4399.8	3825.9	2269.0	890.9	444.6	391.4	379.0	379.0	380.8	380.8	379.0
25°	4499.0	3843.6	2038.7	660.7	405.6	375.5	364.9	363.1	364.9	363.1	361.3
27.5°	4623.0	3868.4	1781.9	517.2	387.9	359.6	350.7	350.7	348.9	347.2	345.4
30°	4778.9	3896.8	1493.2	439.3	370.2	345.4	336.5	334.8	333.0	329.5	329.5
32.5°	5016.2	3958.8	1208.0	398.5	350.7	325.9	318.8	318.8	315.3	311.7	310.0
35°	5381.1	4081.0	952.9	373.7	329.5	304.7	295.8	295.8	292.3	290.5	288.7
37.5°	5885.9	4267.0	740.4	350.7	308.2	281.6	272.8	271.0	267.5	263.9	262.1
40°	6557.2	4497.2	582.7	329.5	286.9	258.6	251.5	248.0	240.9	235.6	235.6
42.5°	7400.3	4759.4	472.9	306.4	262.1	237.3	232.0	226.7	214.3	209.0	207.2
45°	8282.4	4995.0	400.3	279.9	237.3	216.1	212.6	203.7	187.8	182.4	182.4
47.5°	8918.3	5049.9	352.5	255.1	214.3	193.1	191.3	175.4	161.2	157.6	155.9
50°	9315.1	4941.8	313.5	230.3	193.1	171.8	166.5	147.0	138.2	134.6	132.8
52.5°	9582.5	4748.8	281.6	209.0	173.6	152.3	139.9	125.8	118.7	115.1	115.1
55°	9796.8	4476.0	249.7	189.5	157.6	136.4	118.7	108.0	101.0	97.4	97.4
57.5°	9857.1	4105.8	217.9	173.6	141.7	120.4	101.0	93.9	85.0	83.2	83.2
60°	9419.6	3438.0	193.1	154.1	127.5	104.5	88.6	79.7	70.9	69.1	67.3
62.5°	8266.5	2660.4	170.0	136.4	111.6	90.3	76.2	65.5	58.5	58.5	58.5
65°	6305.7	1783.7	148.8	118.7	97.4	76.2	65.5	53.1	49.6	49.6	51.4
67.5°	3774.6	970.7	127.5	101.0	83.2	63.8	54.9	46.1	44.3	46.1	46.1
69°	2212.3	570.3	115.1	90.3	72.6	56.7	47.8	40.7	44.3	46.1	46.1
70°	1365.6	384.4	106.3	81.5	65.5	51.4	44.3	39.0	42.5	44.3	44.3
72.5°	380.8	198.4	85.0	63.8	53.1	42.5	35.4	35.4	40.7	42.5	42.5
75°	248.0	147.0	65.5	47.8	40.7	33.7	30.1	33.7	39.0	40.7	40.7
77.5°	205.5	120.4	53.1	39.0	33.7	31.9	28.3	30.1	35.4	37.2	37.2
80°	187.8	85.0	42.5	35.4	30.1	28.3	26.6	24.8	31.9	33.7	33.7
82.5°	178.9	67.3	37.2	31.9	28.3	24.8	23.0	24.8	28.3	30.1	31.9
85°	111.6	44.3	33.7	30.1	24.8	23.0	23.0	23.0	26.6	28.3	28.3
87.5°	40.7	35.4	30.1	24.8	21.3	21.3	21.3	21.3	23.0	26.6	26.6
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)