

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: P301008

Luminaire Tested: **GLNA-AF-09-LED-E1-SL4-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301008
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-09-LED-E1-SL4-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K 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: 28840.3 lumens
Efficiency: N/A
Efficacy: 99.4 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

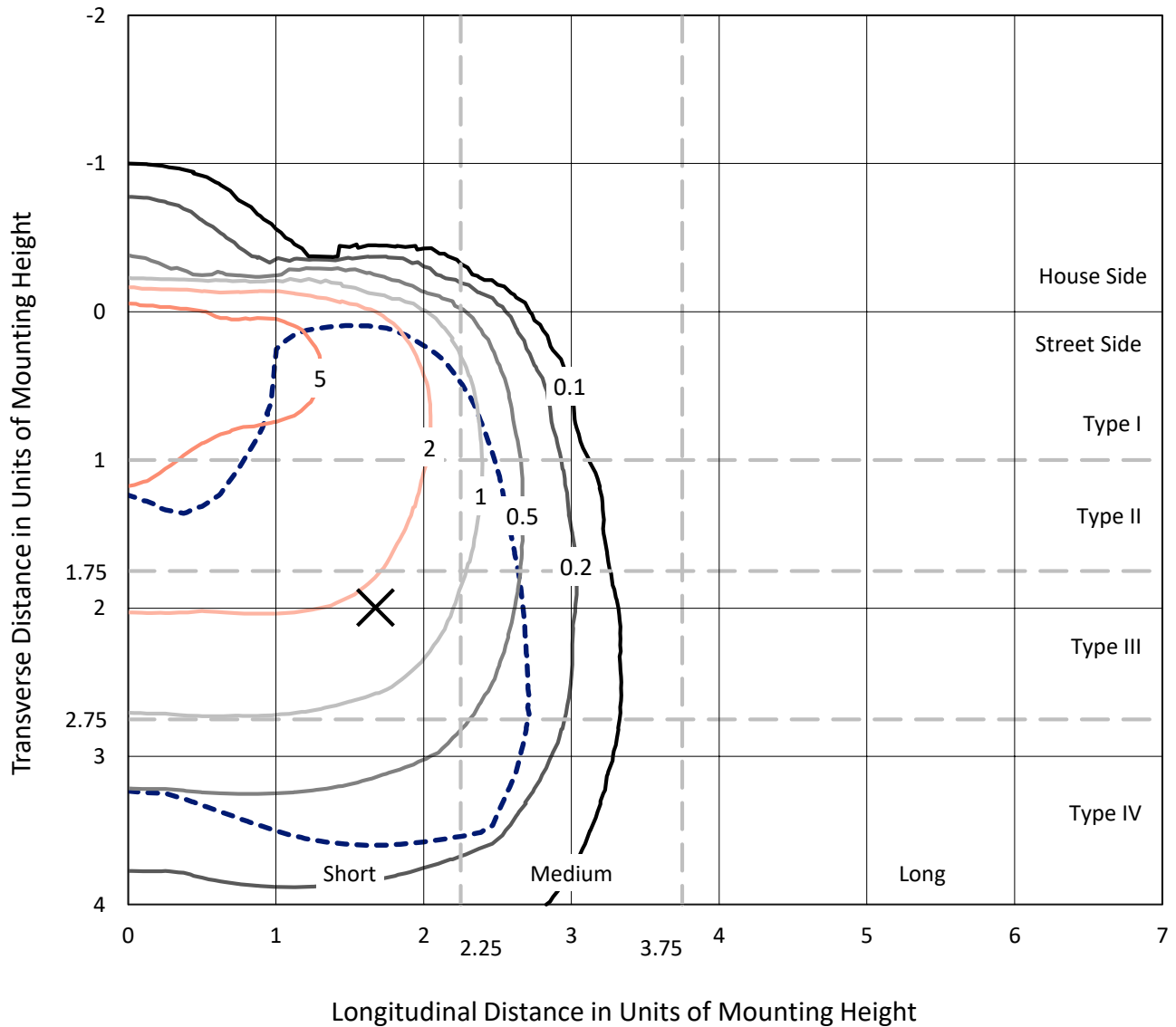
Input Watts (W): 290
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P301008
 CATALOG NUMBER: GLNA-AF-09-LED-E1-SL4-7027-600

Iso-Footcandle Lines of Horizontal Illumination

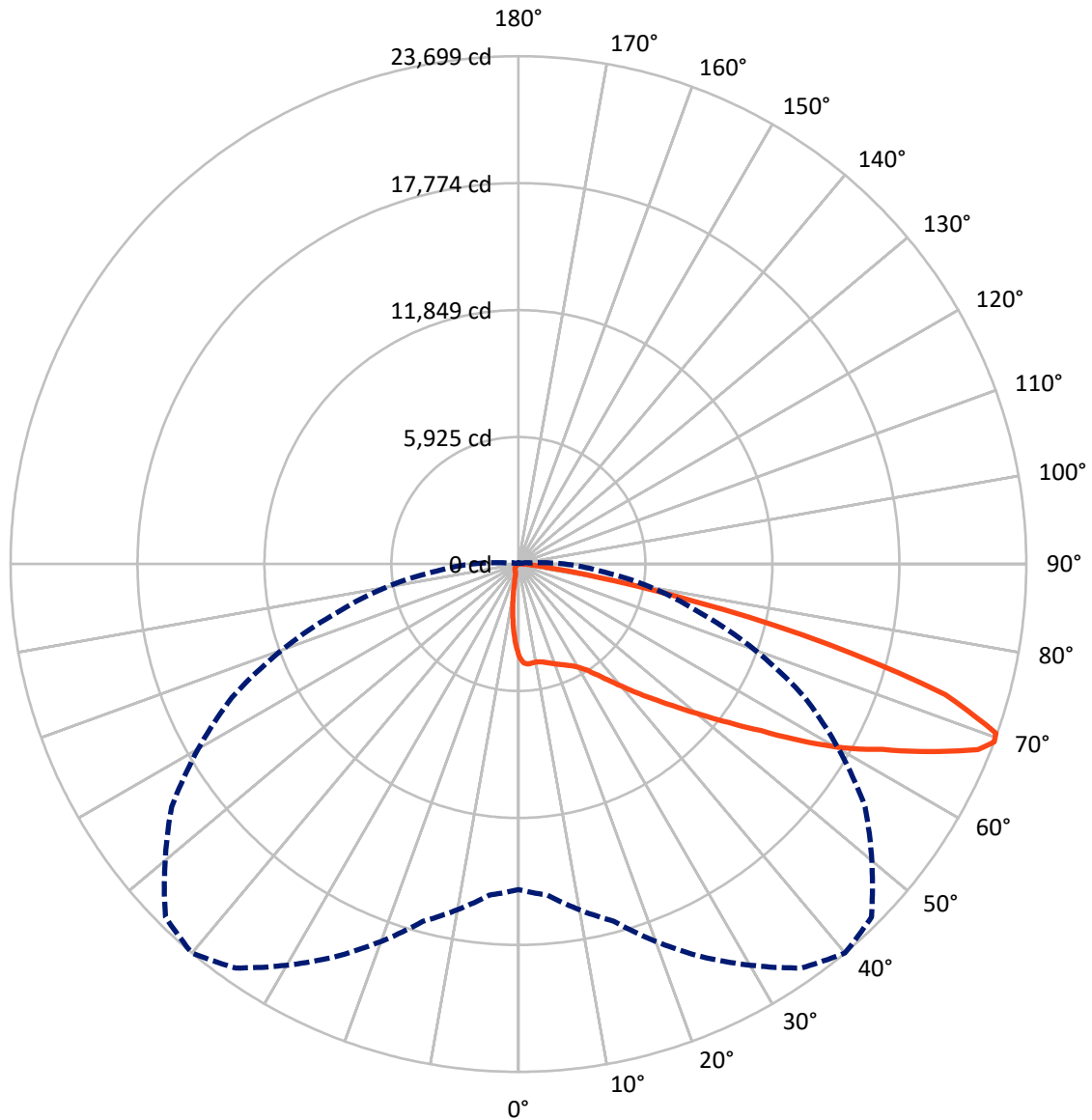
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P301008
CATALOG NUMBER: GLNA-AF-09-LED-E1-SL4-7027-600

Luminous Intensity Polar Plot



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

REPORT NUMBER: P301008

CATALOG NUMBER: GLNA-AF-09-LED-E1-SL4-7027-600

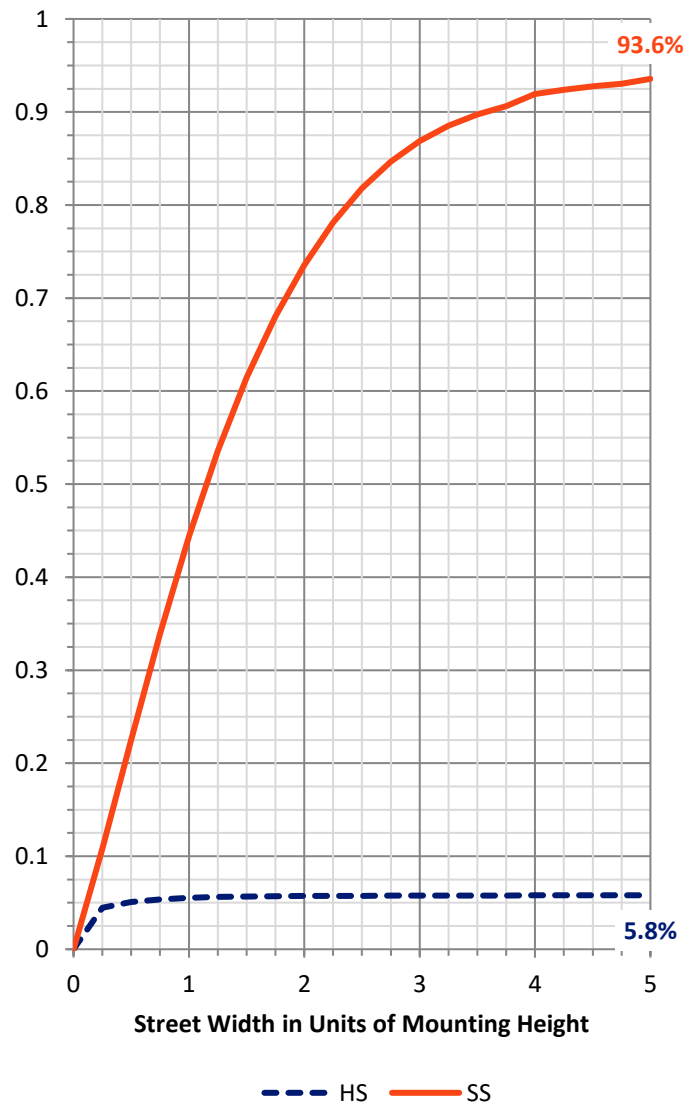
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1687.3	0.0	1687.3
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	27153.0	0.0	27153.0
	% Fixture	94.1	0.0	94.1
Total	Lumens	28840.3	0.0	28840.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	349.4	1.2
10°-20°	859.2	3.0
20°-30°	1447.1	5.0
30°-40°	2369.0	8.2
40°-50°	4101.8	14.2
50°-60°	6460.7	22.4
60°-70°	8437.5	29.3
70°-80°	4345.7	15.1
80°-90°	470.1	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°	28840.3	100.0
0°-180°	28840.3	100.0

Coefficient of Utilization



REPORT NUMBER: P301008

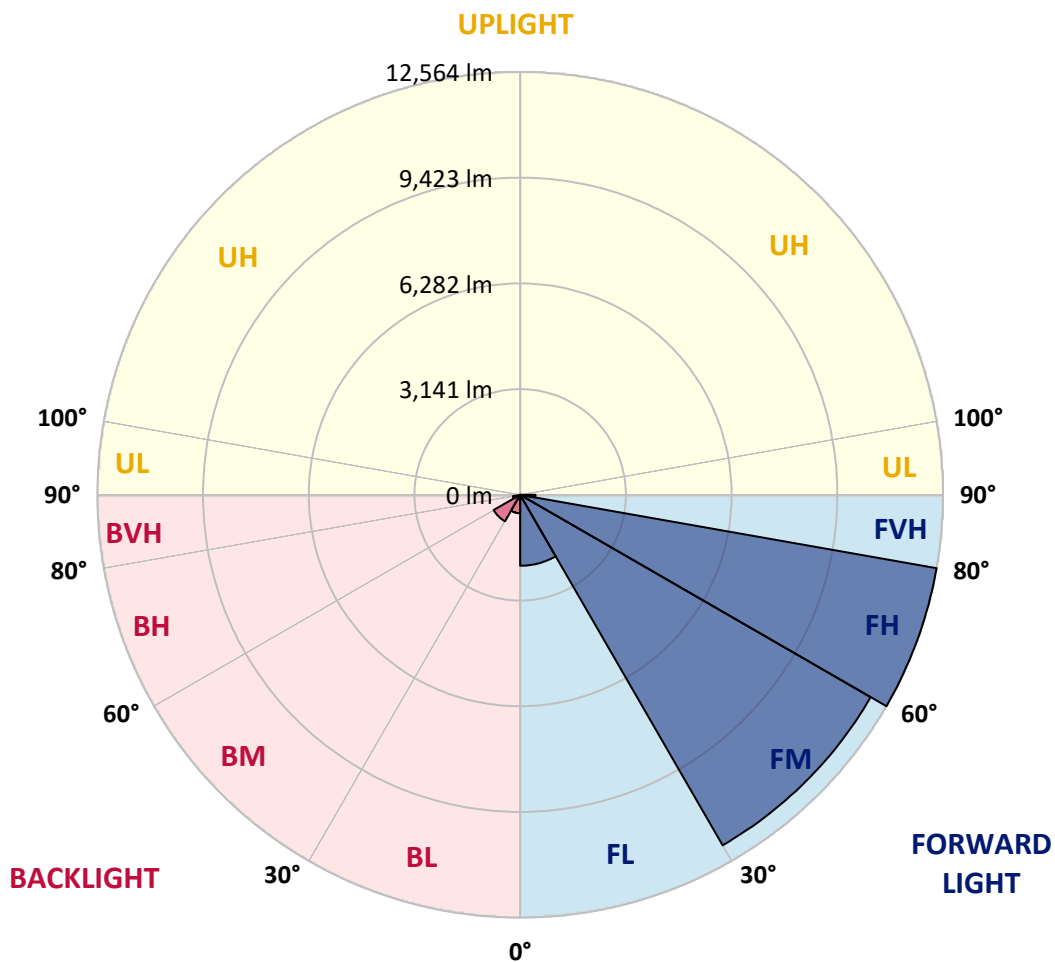
CATALOG NUMBER: GLNA-AF-09-LED-E1-SL4-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2109.0	7.3			
FM	(30°-60°)	12024.6	41.7			
FH	(60°-80°)	12564.0	43.6			G5
FVH	(80°-90°)	455.3	1.6			G3/500
BL	(0°-30°)	546.6	1.9	B2/1000		
BM	(30°-60°)	906.9	3.1	B1/1000		
BH	(60°-80°)	219.1	0.8	B1/500		G1/500
BVH	(80°-90°)	14.8	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: P301008

CATALOG NUMBER: GLNA-AF-09-LED-E1-SL4-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9
2.5°	4731.2	4705.4	4690.0	4669.4	4643.6	4621.3	4612.7	4549.2	4489.1	4406.7	4312.3
5°	4818.7	4810.2	4782.7	4755.2	4724.3	4690.0	4671.1	4595.6	4509.7	4389.6	4224.8
7.5°	4827.3	4817.0	4782.7	4744.9	4702.0	4660.8	4628.2	4552.7	4473.7	4351.8	4151.0
10°	4813.6	4801.6	4775.8	4734.6	4681.4	4641.9	4609.3	4537.2	4470.3	4360.4	4137.2
12.5°	4798.1	4786.1	4774.1	4753.5	4707.2	4679.7	4652.2	4583.6	4523.5	4430.8	4187.0
15°	4813.6	4806.7	4820.5	4811.9	4786.1	4762.1	4734.6	4672.8	4617.9	4540.6	4278.0
17.5°	4878.8	4878.8	4921.7	4926.9	4902.9	4868.5	4829.0	4767.2	4720.9	4655.7	4386.1
20°	5031.6	5026.5	5081.4	5091.7	5033.3	4980.1	4921.7	4846.2	4810.2	4769.0	4492.6
22.5°	5294.3	5270.2	5302.8	5292.5	5177.5	5095.1	5023.0	4930.3	4911.4	4892.6	4611.0
25°	5635.9	5622.2	5644.5	5543.2	5340.6	5229.0	5143.2	5038.5	5038.5	5057.4	4744.9
27.5°	6132.0	6080.5	6005.0	5826.4	5522.6	5380.1	5287.4	5175.8	5205.0	5275.4	4921.7
30°	6640.1	6583.5	6410.1	6135.4	5744.0	5594.7	5486.5	5369.8	5438.5	5567.2	5158.6
32.5°	7141.4	7077.9	6832.4	6485.6	6061.6	5912.3	5807.6	5678.8	5793.8	6010.1	5505.4
35°	7627.2	7570.6	7287.3	6878.8	6483.9	6360.3	6264.2	6152.6	6300.2	6602.4	5994.7
37.5°	8173.2	8111.3	7766.3	7323.4	6997.2	6908.0	6837.6	6726.0	6983.5	7426.4	6676.2
40°	8844.4	8739.7	8274.4	7833.2	7591.2	7548.3	7500.2	7484.8	7884.7	8497.6	7584.3
42.5°	9613.5	9441.8	8806.6	8370.6	8243.5	8274.4	8262.4	8331.1	9012.6	9829.8	8689.9
45°	10382.5	10161.1	9398.9	8943.9	8961.1	9069.3	9136.2	9410.9	10425.4	11357.6	9879.5
47.5°	11034.9	10816.8	9967.1	9563.7	9769.7	9982.5	10164.5	10684.7	11877.8	12861.4	10804.8
50°	11592.8	11386.8	10569.6	10245.2	10708.7	11052.0	11347.3	12118.1	13439.9	14006.5	11453.7
52.5°	12049.4	11912.1	11194.5	11026.3	11781.6	12284.6	12717.2	13640.8	14823.6	14936.9	11958.4
55°	12494.1	12396.2	11865.7	11955.0	13041.7	13726.6	14274.3	15256.2	16015.0	15712.8	12442.6
57.5°	13005.6	12916.4	12631.4	13132.7	14698.3	15560.1	16157.5	16687.9	17063.9	16506.0	12899.2
60°	13527.5	13476.0	13482.9	14440.8	16600.4	17427.8	17757.4	17894.8	18093.9	17252.7	12924.9
62.5°	14025.3	14123.2	14456.2	15896.5	18421.8	19057.0	19223.5	19359.1	19125.6	17371.2	11941.3
65°	14868.2	15027.9	15822.7	17845.0	20425.2	21105.0	21276.6	20811.4	19288.7	15839.9	9713.0
67.5°	15280.2	15572.1	16990.1	19661.2	22368.4	23123.8	23060.3	20905.8	17309.4	12078.6	6233.3
69°	15194.4	15505.1	17259.6	20217.4	23013.9	23698.9	23295.5	19750.5	14746.3	8750.0	3826.5
70°	14854.5	15168.7	17120.5	20196.8	23096.3	23638.8	22859.4	18323.9	12468.3	6398.1	2393.1
72.5°	12404.8	12676.0	15199.6	18255.3	21276.6	20835.4	19123.9	12694.9	6075.4	1742.4	539.0
75°	7635.8	7786.9	10906.1	13752.4	16069.9	14936.9	12741.3	6315.7	1811.1	492.7	298.7
77.5°	4034.2	4102.9	5970.6	8106.2	10186.8	8428.9	6530.3	2463.4	834.3	309.0	216.3
80°	2384.5	2436.0	3215.4	3706.3	4408.5	3682.3	2611.1	1512.4	597.4	194.0	192.3
82.5°	1364.8	1397.4	2331.3	2060.0	1737.3	1483.2	1299.5	1433.4	358.8	130.5	199.1
85°	501.3	508.1	1311.5	1567.3	1033.4	614.6	645.5	1187.9	96.1	82.4	156.2
87.5°	233.5	228.3	674.7	959.6	604.3	389.7	503.0	260.9	37.8	53.2	42.9
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: P301008

CATALOG NUMBER: GLNA-AF-09-LED-E1-SL4-7027-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9
2.5°	4257.4	4193.9	4078.9	3960.4	3840.2	3747.5	3656.5	3584.4	3560.4	3515.8	3519.2
5°	4126.9	4010.2	3769.8	3526.1	3272.0	3062.6	2865.2	2705.5	2628.2	2549.3	2549.3
7.5°	4013.6	3843.7	3467.7	3071.2	2660.9	2315.8	2005.1	1771.6	1642.9	1539.9	1538.2
10°	3970.7	3740.7	3215.4	2647.1	2075.5	1605.1	1236.0	999.1	877.2	798.3	794.8
12.5°	3989.6	3704.6	3021.4	2255.7	1538.2	1031.7	715.9	563.1	511.6	487.5	487.5
15°	4044.5	3694.3	2827.4	1872.9	1086.7	645.5	475.5	434.3	430.9	430.9	430.9
17.5°	4111.5	3697.7	2628.2	1500.4	739.9	461.8	410.3	405.1	408.6	408.6	408.6
20°	4180.1	3699.5	2413.7	1155.3	521.9	401.7	386.3	384.5	388.0	388.0	389.7
22.5°	4264.3	3708.0	2199.1	863.5	430.9	379.4	367.4	367.4	369.1	369.1	367.4
25°	4360.4	3725.2	1975.9	640.3	393.1	363.9	353.6	351.9	353.6	351.9	350.2
27.5°	4480.6	3749.2	1727.0	501.3	376.0	348.5	339.9	339.9	338.2	336.5	334.8
30°	4631.6	3776.7	1447.2	425.7	358.8	334.8	326.2	324.5	322.7	319.3	319.3
32.5°	4861.7	3836.8	1170.8	386.3	339.9	315.9	309.0	309.0	305.6	302.1	300.4
35°	5215.3	3955.2	923.6	362.2	319.3	295.3	286.7	286.7	283.3	281.5	279.8
37.5°	5704.6	4135.5	717.6	339.9	298.7	273.0	264.4	262.7	259.2	255.8	254.1
40°	6355.2	4358.7	564.8	319.3	278.1	250.6	243.8	240.3	233.5	228.3	228.3
42.5°	7172.3	4612.7	458.4	297.0	254.1	230.0	224.9	219.7	207.7	202.6	200.9
45°	8027.2	4841.1	388.0	271.2	230.0	209.4	206.0	197.4	182.0	176.8	176.8
47.5°	8643.5	4894.3	341.6	247.2	207.7	187.1	185.4	170.0	156.2	152.8	151.1
50°	9028.1	4789.6	303.9	223.2	187.1	166.5	161.4	142.5	133.9	130.5	128.8
52.5°	9287.3	4602.4	273.0	202.6	168.2	147.6	135.6	121.9	115.0	111.6	111.6
55°	9495.0	4338.1	242.1	183.7	152.8	132.2	115.0	104.7	97.9	94.4	94.4
57.5°	9553.4	3979.3	211.2	168.2	137.3	116.7	97.9	91.0	82.4	80.7	80.7
60°	9129.3	3332.1	187.1	149.4	123.6	101.3	85.8	77.3	68.7	67.0	65.2
62.5°	8011.8	2578.5	164.8	132.2	108.2	87.6	73.8	63.5	56.7	56.7	56.7
65°	6111.4	1728.7	144.2	115.0	94.4	73.8	63.5	51.5	48.1	48.1	49.8
67.5°	3658.3	940.7	123.6	97.9	80.7	61.8	53.2	44.6	42.9	44.6	44.6
69°	2144.1	552.8	111.6	87.6	70.4	54.9	46.4	39.5	42.9	44.6	44.6
70°	1323.6	372.5	103.0	79.0	63.5	49.8	42.9	37.8	41.2	42.9	42.9
72.5°	369.1	192.3	82.4	61.8	51.5	41.2	34.3	34.3	39.5	41.2	41.2
75°	240.3	142.5	63.5	46.4	39.5	32.6	29.2	32.6	37.8	39.5	39.5
77.5°	199.1	116.7	51.5	37.8	32.6	30.9	27.5	29.2	34.3	36.1	36.1
80°	182.0	82.4	41.2	34.3	29.2	27.5	25.8	24.0	30.9	32.6	32.6
82.5°	173.4	65.2	36.1	30.9	27.5	24.0	22.3	24.0	27.5	29.2	30.9
85°	108.2	42.9	32.6	29.2	24.0	22.3	22.3	22.3	25.8	27.5	27.5
87.5°	39.5	34.3	29.2	24.0	20.6	20.6	20.6	20.6	22.3	25.8	25.8
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)