

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: P301884

Luminaire Tested: **GLNA-AF-05-LED-E1-SL4-7027-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301884
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-05-LED-E1-SL4-7027-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 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: 15399.1 lumens
Efficiency: N/A
Efficacy: 73.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 210
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

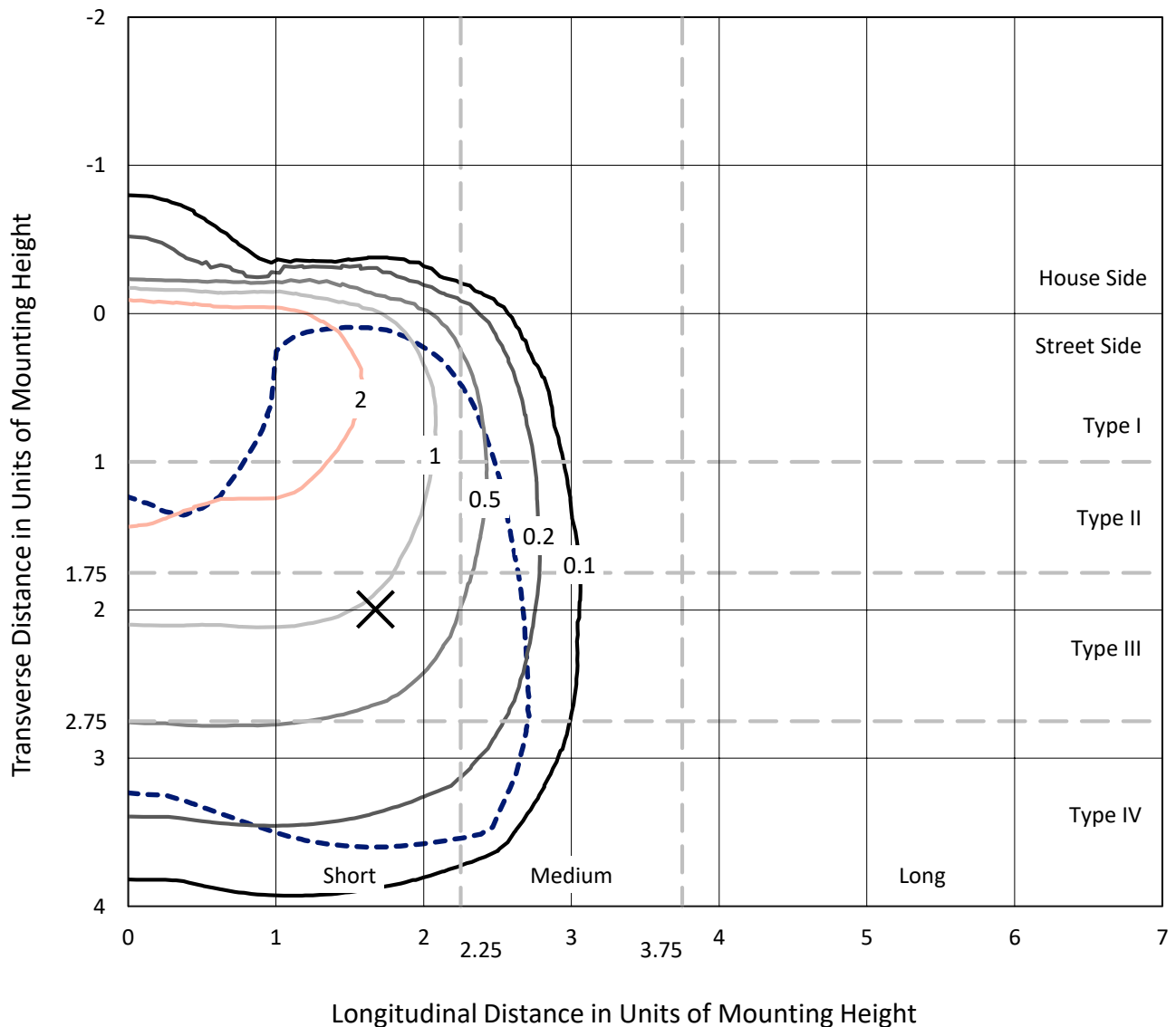


REPORT NUMBER: P301884

CATALOG NUMBER: GLNA-AF-05-LED-E1-SL4-7027-800-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

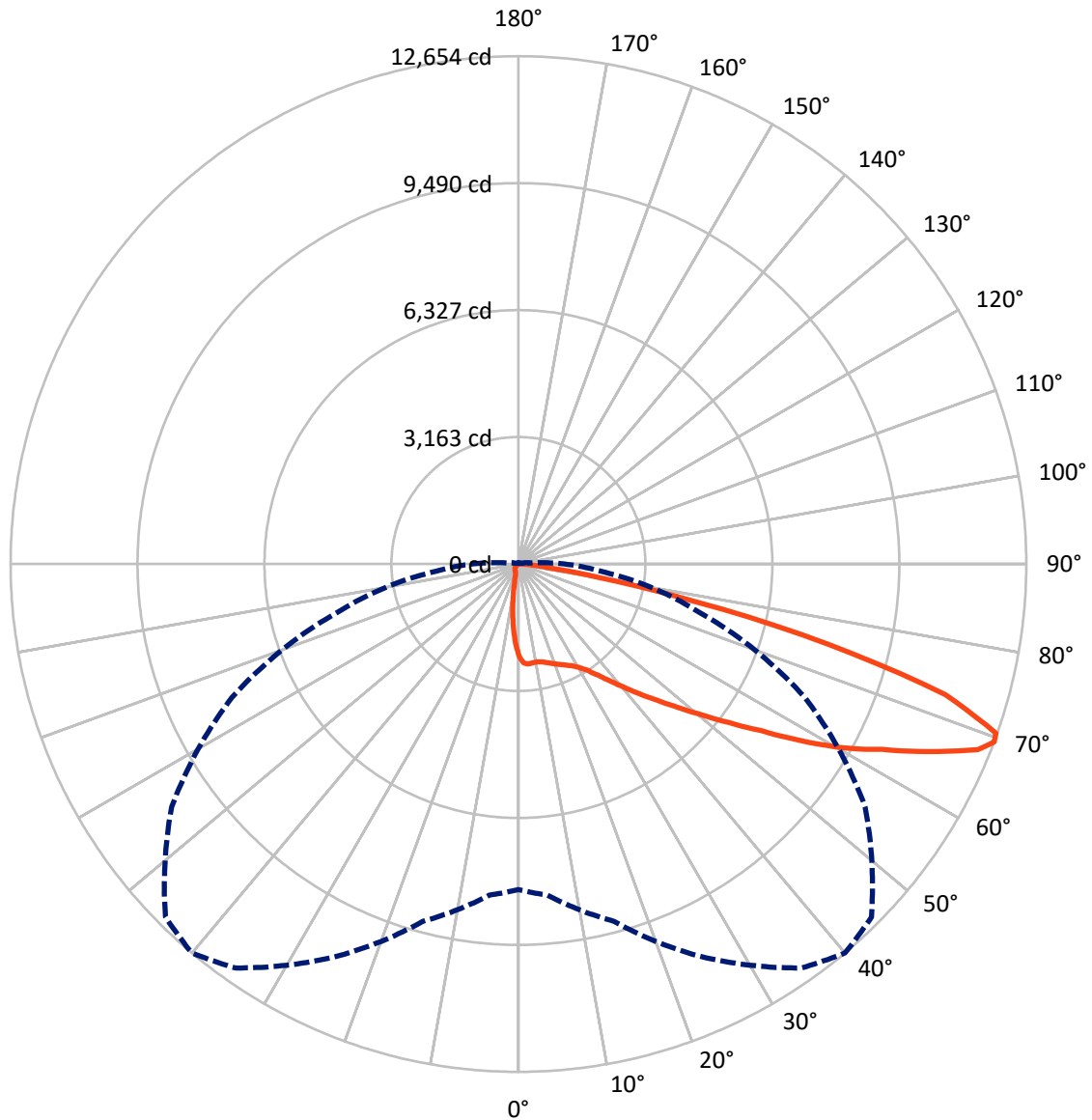


Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P301884

CATALOG NUMBER: GLNA-AF-05-LED-E1-SL4-7027-800-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P301884

CATALOG NUMBER: GLNA-AF-05-LED-E1-SL4-7027-800-HSS

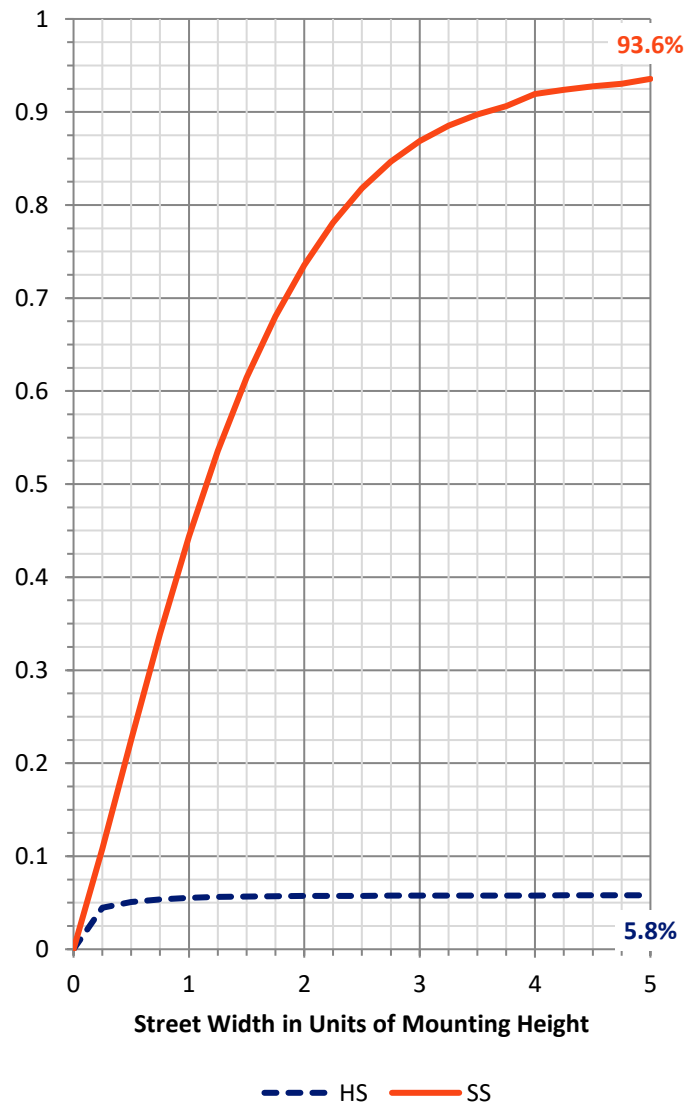
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	900.9	0.0	900.9
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	14498.2	0.0	14498.2
	% Fixture	94.1	0.0	94.1
Total	Lumens	15399.1	0.0	15399.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.5	1.2
10°-20°	458.7	3.0
20°-30°	772.7	5.0
30°-40°	1264.9	8.2
40°-50°	2190.1	14.2
50°-60°	3449.7	22.4
60°-70°	4505.1	29.3
70°-80°	2320.3	15.1
80°-90°	251.0	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°	15399.1	100.0
0°-180°	15399.1	100.0



REPORT NUMBER: P301884

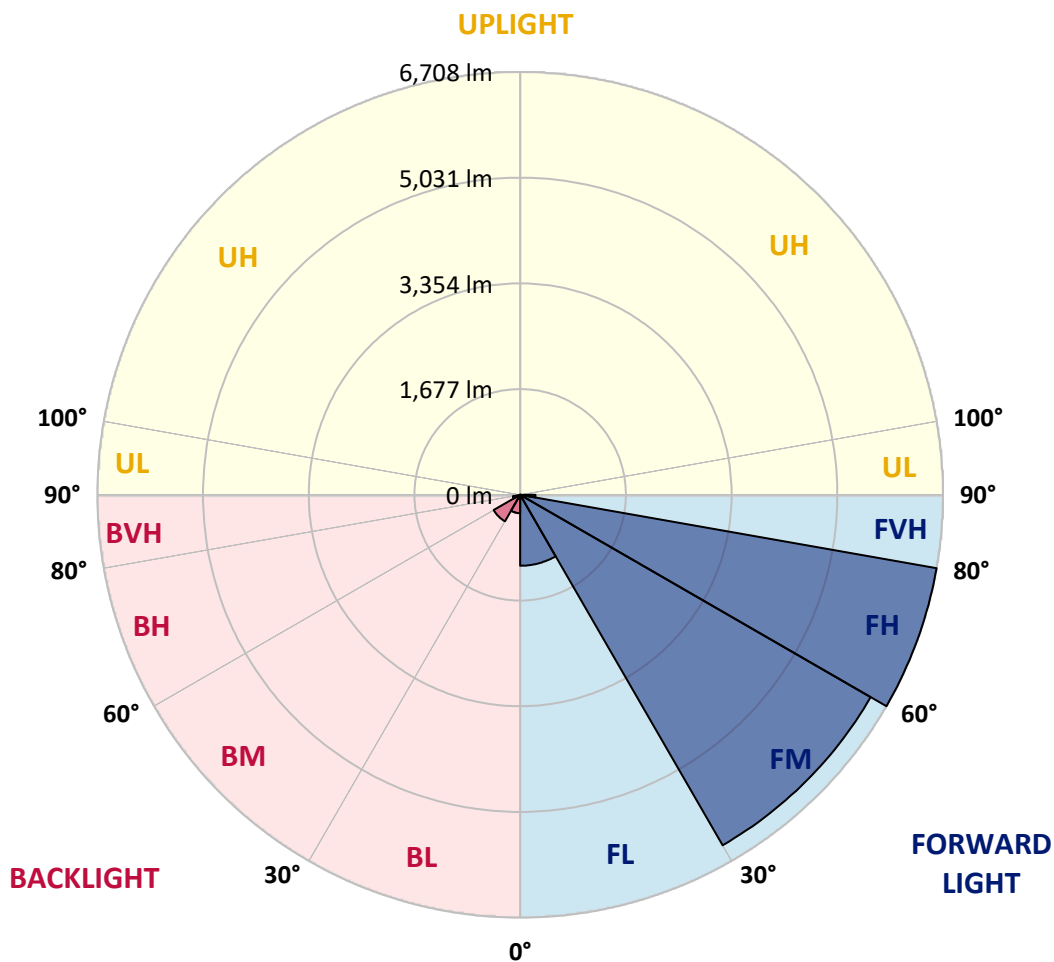
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1126.1	7.3			
FM	(30°-60°)	6420.5	41.7			
FH	(60°-80°)	6708.5	43.6			G3/7500
FVH	(80°-90°)	243.1	1.6			G3/500
BL	(0°-30°)	291.8	1.9	B1/500		
BM	(30°-60°)	484.2	3.1	B1/1000		
BH	(60°-80°)	117.0	0.8	B1/500		G1/500
BVH	(80°-90°)	7.9	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2300.7	2300.7	2300.7	2300.7	2300.7	2300.7	2300.7	2300.7	2300.7	2300.7	2300.7
2.5°	2526.2	2512.4	2504.2	2493.2	2479.4	2467.5	2462.9	2429.0	2397.0	2353.0	2302.5
5°	2572.9	2568.4	2553.7	2539.0	2522.5	2504.2	2494.1	2453.8	2408.0	2343.8	2255.8
7.5°	2577.5	2572.0	2553.7	2533.5	2510.6	2488.6	2471.2	2430.9	2388.7	2323.6	2216.4
10°	2570.2	2563.8	2550.0	2528.0	2499.6	2478.5	2461.1	2422.6	2386.9	2328.2	2209.0
12.5°	2561.9	2555.5	2549.1	2538.1	2513.4	2498.7	2484.0	2447.4	2415.3	2365.8	2235.6
15°	2570.2	2566.5	2573.9	2569.3	2555.5	2542.7	2528.0	2495.0	2465.7	2424.4	2284.2
17.5°	2605.0	2605.0	2627.9	2630.7	2617.9	2599.5	2578.4	2545.4	2520.7	2485.9	2342.0
20°	2686.6	2683.9	2713.2	2718.7	2687.5	2659.1	2627.9	2587.6	2568.4	2546.4	2398.8
22.5°	2826.8	2814.0	2831.4	2825.9	2764.5	2720.5	2682.0	2632.5	2622.4	2612.4	2462.0
25°	3009.3	3001.9	3013.8	2959.8	2851.6	2792.0	2746.2	2690.3	2690.3	2700.4	2533.5
27.5°	3274.2	3246.7	3206.3	3111.0	2948.8	2872.7	2823.2	2763.6	2779.2	2816.8	2627.9
30°	3545.5	3515.2	3422.6	3276.0	3067.0	2987.3	2929.5	2867.2	2903.8	2972.6	2754.4
32.5°	3813.1	3779.2	3648.1	3463.0	3236.6	3156.8	3100.9	3032.2	3093.6	3209.1	2939.6
35°	4072.5	4042.3	3891.0	3672.9	3462.1	3396.1	3344.7	3285.2	3364.0	3525.3	3200.8
37.5°	4364.0	4331.0	4146.8	3910.3	3736.1	3688.5	3650.9	3591.3	3728.8	3965.3	3564.7
40°	4722.4	4666.5	4418.1	4182.5	4053.3	4030.4	4004.7	3996.4	4210.0	4537.3	4049.6
42.5°	5133.1	5041.4	4702.2	4469.4	4401.6	4418.1	4411.7	4448.3	4812.2	5248.5	4639.9
45°	5543.7	5425.5	5018.5	4775.6	4784.7	4842.5	4878.2	5024.9	5566.6	6064.3	5275.1
47.5°	5892.0	5775.6	5321.9	5106.5	5216.5	5330.1	5427.3	5705.0	6342.1	6867.3	5769.2
50°	6189.9	6079.9	5643.6	5470.4	5717.9	5901.2	6058.8	6470.4	7176.2	7478.7	6115.7
52.5°	6433.7	6360.4	5977.3	5887.4	6290.7	6559.3	6790.3	7283.4	7915.0	7975.5	6385.1
55°	6671.1	6618.9	6335.7	6383.3	6963.5	7329.3	7621.7	8146.0	8551.1	8389.8	6643.6
57.5°	6944.3	6896.6	6744.5	7012.1	7848.1	8308.2	8627.2	8910.4	9111.2	8813.3	6887.5
60°	7222.9	7195.4	7199.1	7710.6	8863.7	9305.5	9481.5	9554.8	9661.1	9212.0	6901.2
62.5°	7488.8	7541.0	7718.8	8487.9	9836.2	10175.4	10264.3	10336.7	10212.0	9275.2	6376.0
65°	7938.8	8024.1	8448.5	9528.2	10905.9	11268.9	11360.5	11112.1	10299.1	8457.6	5186.2
67.5°	8158.8	8314.6	9071.8	10498.0	11943.5	12346.8	12312.9	11162.6	9242.2	6449.3	3328.2
69°	8113.0	8278.9	9215.7	10795.0	12288.2	12653.9	12438.5	10545.7	7873.7	4672.0	2043.1
70°	7931.5	8099.2	9141.4	10784.0	12332.2	12621.8	12205.7	9784.0	6657.4	3416.2	1277.8
72.5°	6623.5	6768.3	8115.7	9747.3	11360.5	11125.0	10211.1	6778.4	3243.9	930.4	287.8
75°	4077.1	4157.8	5823.3	7343.0	8580.4	7975.5	6803.1	3372.2	967.0	263.1	159.5
77.5°	2154.0	2190.7	3188.0	4328.3	5439.2	4500.6	3486.8	1315.3	445.5	165.0	115.5
80°	1273.2	1300.7	1716.8	1979.0	2353.9	1966.1	1394.2	807.5	319.0	103.6	102.7
82.5°	728.7	746.1	1244.8	1099.9	927.6	792.0	693.9	765.4	191.6	69.7	106.3
85°	267.7	271.3	700.3	836.9	551.8	328.1	344.6	634.3	51.3	44.0	83.4
87.5°	124.7	121.9	360.2	512.4	322.6	208.1	268.6	139.3	20.2	28.4	22.9
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: P301884

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2300.7	2300.7	2300.7	2300.7	2300.7	2300.7	2300.7	2300.7	2300.7	2300.7	2300.7
2.5°	2273.2	2239.3	2177.9	2114.6	2050.5	2001.0	1952.4	1913.9	1901.1	1877.2	1879.1
5°	2203.5	2141.2	2012.9	1882.7	1747.1	1635.2	1529.8	1444.6	1403.3	1361.2	1361.2
7.5°	2143.0	2052.3	1851.6	1639.8	1420.8	1236.5	1070.6	945.9	877.2	822.2	821.3
10°	2120.1	1997.3	1716.8	1413.4	1108.2	857.0	660.0	533.5	468.4	426.2	424.4
12.5°	2130.2	1978.1	1613.2	1204.4	821.3	550.9	382.2	300.7	273.2	260.3	260.3
15°	2159.5	1972.6	1509.7	1000.0	580.2	344.6	253.9	231.9	230.1	230.1	230.1
17.5°	2195.3	1974.4	1403.3	801.1	395.1	246.6	219.1	216.3	218.2	218.2	218.2
20°	2232.0	1975.3	1288.8	616.9	278.7	214.5	206.2	205.3	207.2	207.2	208.1
22.5°	2276.9	1979.9	1174.2	461.1	230.1	202.6	196.2	196.2	197.1	197.1	196.2
25°	2328.2	1989.1	1055.0	341.9	209.9	194.3	188.8	187.9	188.8	187.9	187.0
27.5°	2392.4	2001.9	922.1	267.7	200.7	186.1	181.5	181.5	180.6	179.7	178.7
30°	2473.0	2016.6	772.7	227.3	191.6	178.7	174.2	173.2	172.3	170.5	170.5
32.5°	2595.9	2048.6	625.1	206.2	181.5	168.7	165.0	165.0	163.2	161.3	160.4
35°	2784.7	2111.9	493.1	193.4	170.5	157.7	153.1	153.1	151.2	150.3	149.4
37.5°	3045.9	2208.1	383.1	181.5	159.5	145.7	141.2	140.2	138.4	136.6	135.7
40°	3393.3	2327.3	301.6	170.5	148.5	133.8	130.2	128.3	124.7	121.9	121.9
42.5°	3829.6	2462.9	244.7	158.6	135.7	122.8	120.1	117.3	110.9	108.2	107.2
45°	4286.1	2584.9	207.2	144.8	122.8	111.8	110.0	105.4	97.2	94.4	94.4
47.5°	4615.2	2613.3	182.4	132.0	110.9	99.9	99.0	90.7	83.4	81.6	80.7
50°	4820.5	2557.4	162.2	119.2	99.9	88.9	86.2	76.1	71.5	69.7	68.7
52.5°	4958.9	2457.4	145.7	108.2	89.8	78.8	72.4	65.1	61.4	59.6	59.6
55°	5069.8	2316.3	129.2	98.1	81.6	70.6	61.4	55.9	52.2	50.4	50.4
57.5°	5101.0	2124.7	112.7	89.8	73.3	62.3	52.2	48.6	44.0	43.1	43.1
60°	4874.6	1779.2	99.9	79.7	66.0	54.1	45.8	41.2	36.7	35.7	34.8
62.5°	4277.8	1376.8	88.0	70.6	57.7	46.7	39.4	33.9	30.2	30.2	30.2
65°	3263.2	923.0	77.0	61.4	50.4	39.4	33.9	27.5	25.7	25.7	26.6
67.5°	1953.3	502.3	66.0	52.2	43.1	33.0	28.4	23.8	22.9	23.8	23.8
69°	1144.9	295.2	59.6	46.7	37.6	29.3	24.7	21.1	22.9	23.8	23.8
70°	706.7	198.9	55.0	42.2	33.9	26.6	22.9	20.2	22.0	22.9	22.9
72.5°	197.1	102.7	44.0	33.0	27.5	22.0	18.3	18.3	21.1	22.0	22.0
75°	128.3	76.1	33.9	24.7	21.1	17.4	15.6	17.4	20.2	21.1	21.1
77.5°	106.3	62.3	27.5	20.2	17.4	16.5	14.7	15.6	18.3	19.2	19.2
80°	97.2	44.0	22.0	18.3	15.6	14.7	13.7	12.8	16.5	17.4	17.4
82.5°	92.6	34.8	19.2	16.5	14.7	12.8	11.9	12.8	14.7	15.6	16.5
85°	57.7	22.9	17.4	15.6	12.8	11.9	11.9	11.9	13.7	14.7	14.7
87.5°	21.1	18.3	15.6	12.8	11.0	11.0	11.0	11.0	11.9	13.7	13.7
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)