

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: P301955

Luminaire Tested: **GLNA-AF-06-LED-E1-SL4-7060-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301955
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-06-LED-E1-SL4-7060-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 5700K CCT 600mA 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: 17294.8 lumens
Efficiency: N/A
Efficacy: 89.6 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 - G4

Input Watts (W): 193
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

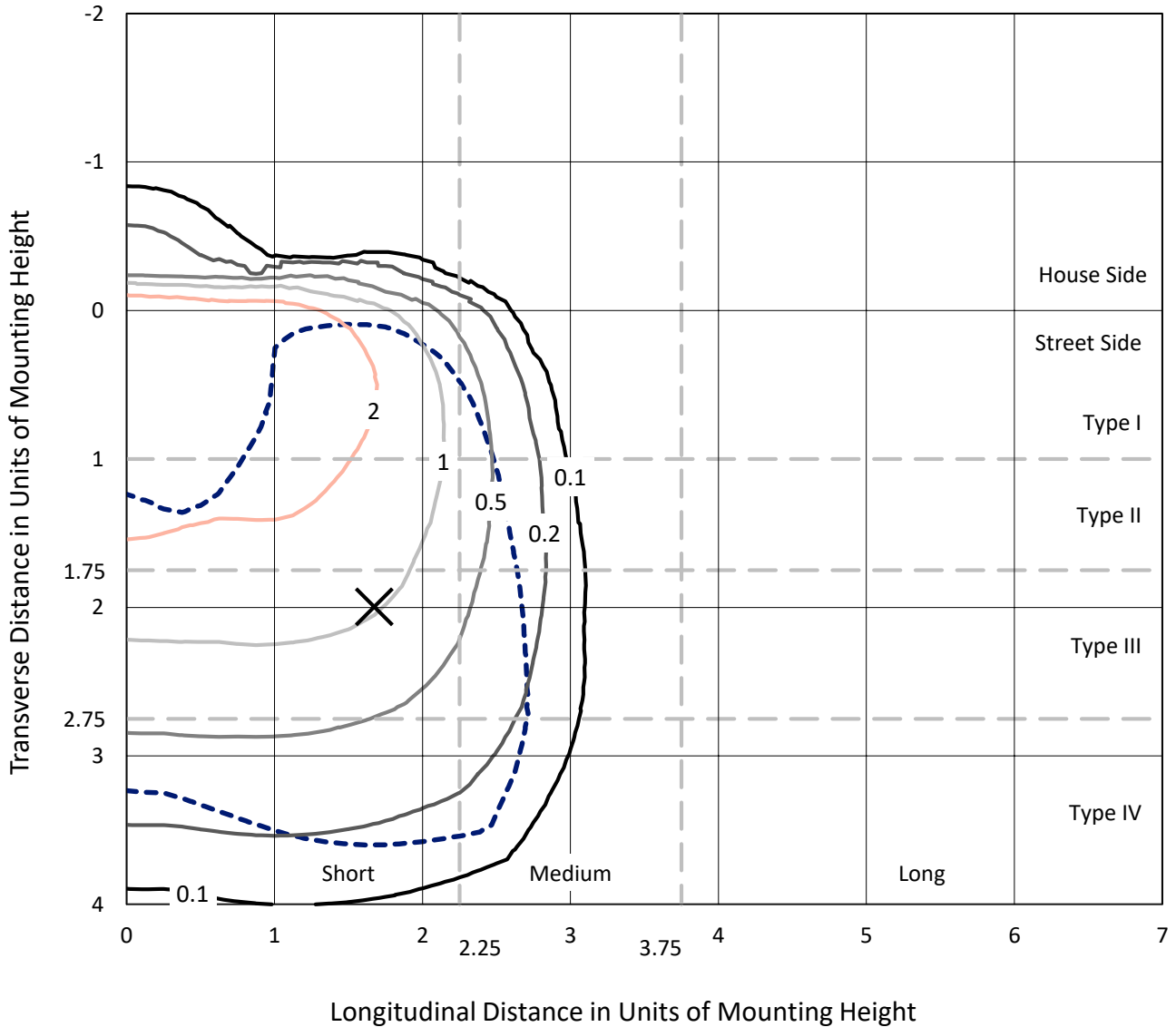


REPORT NUMBER: P301955

CATALOG NUMBER: GLNA-AF-06-LED-E1-SL4-7060-600-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

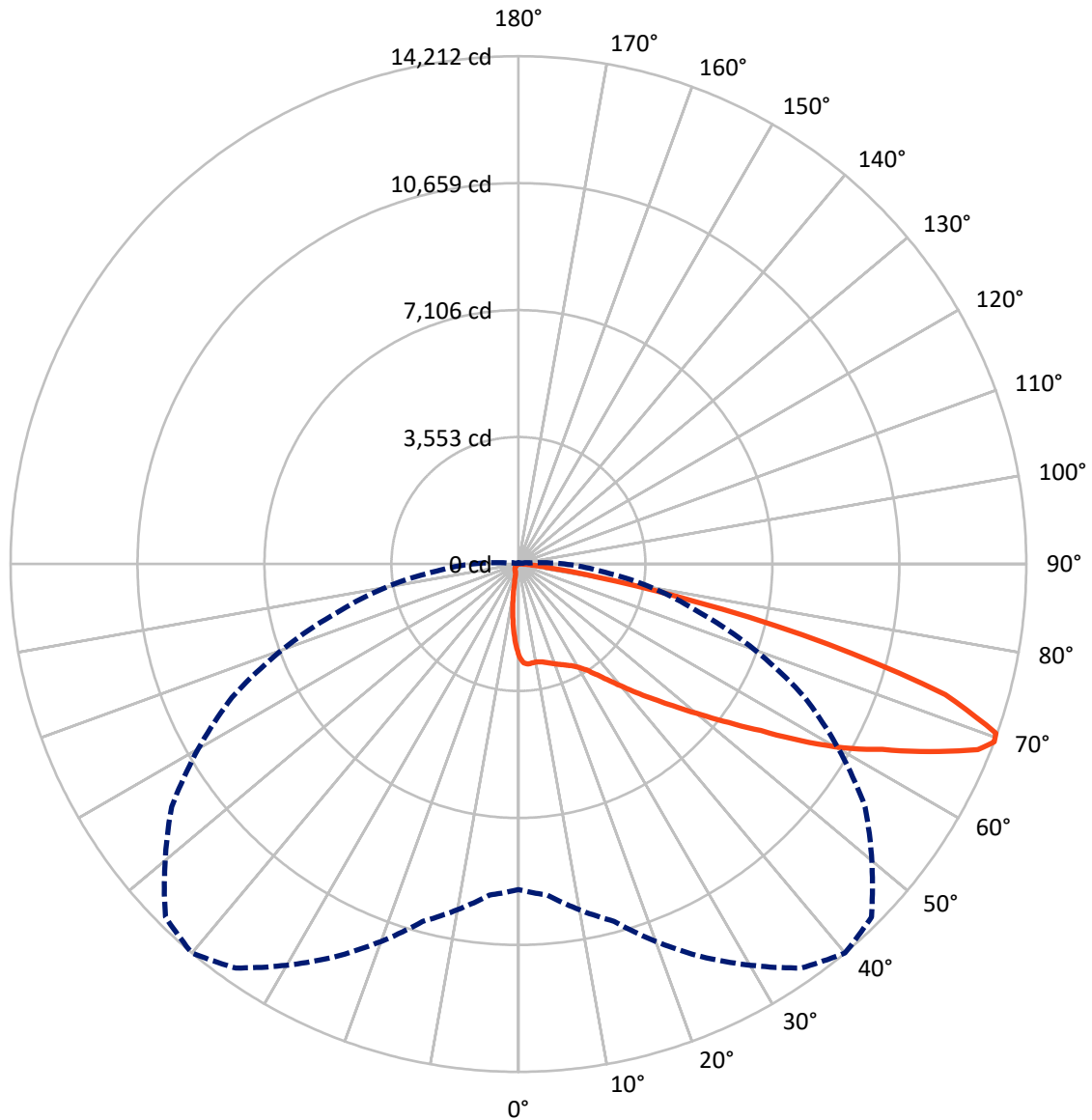


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P301955

CATALOG NUMBER: GLNA-AF-06-LED-E1-SL4-7060-600-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P301955

CATALOG NUMBER: GLNA-AF-06-LED-E1-SL4-7060-600-HSS

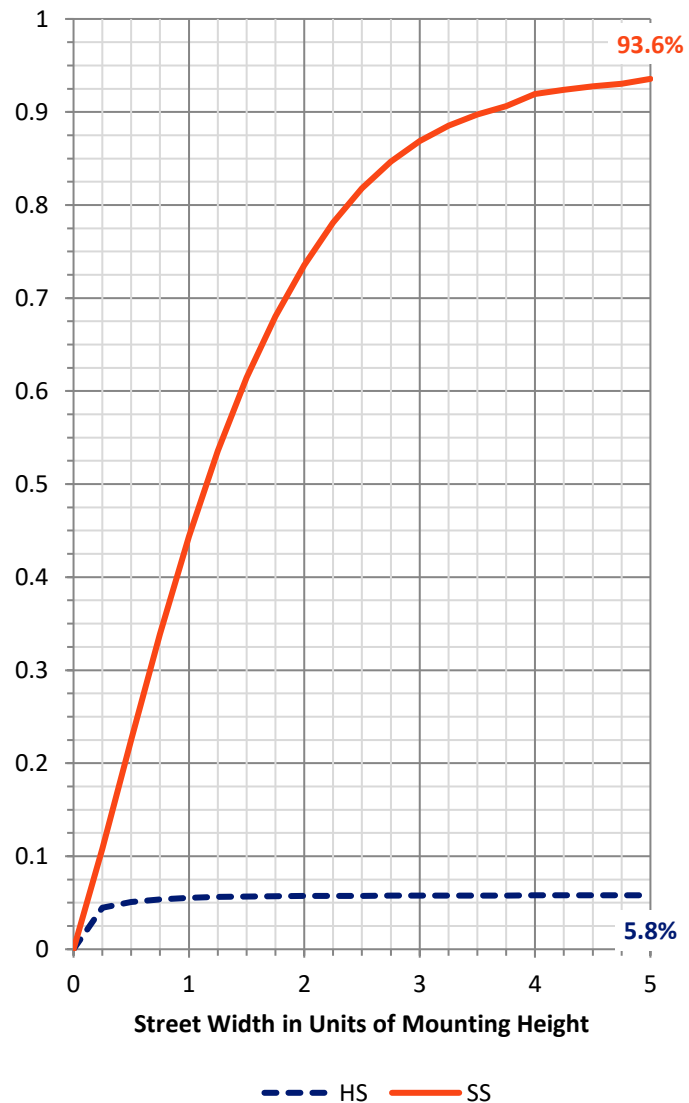
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1011.9	0.0	1011.9
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	16283.0	0.0	16283.0
	% Fixture	94.1	0.0	94.1
Total	Lumens	17294.8	0.0	17294.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.5	1.2
10°-20°	515.2	3.0
20°-30°	867.8	5.0
30°-40°	1420.6	8.2
40°-50°	2459.7	14.2
50°-60°	3874.3	22.4
60°-70°	5059.7	29.3
70°-80°	2606.0	15.1
80°-90°	281.9	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°	17294.8	100.0
0°-180°	17294.8	100.0



REPORT NUMBER: P301955

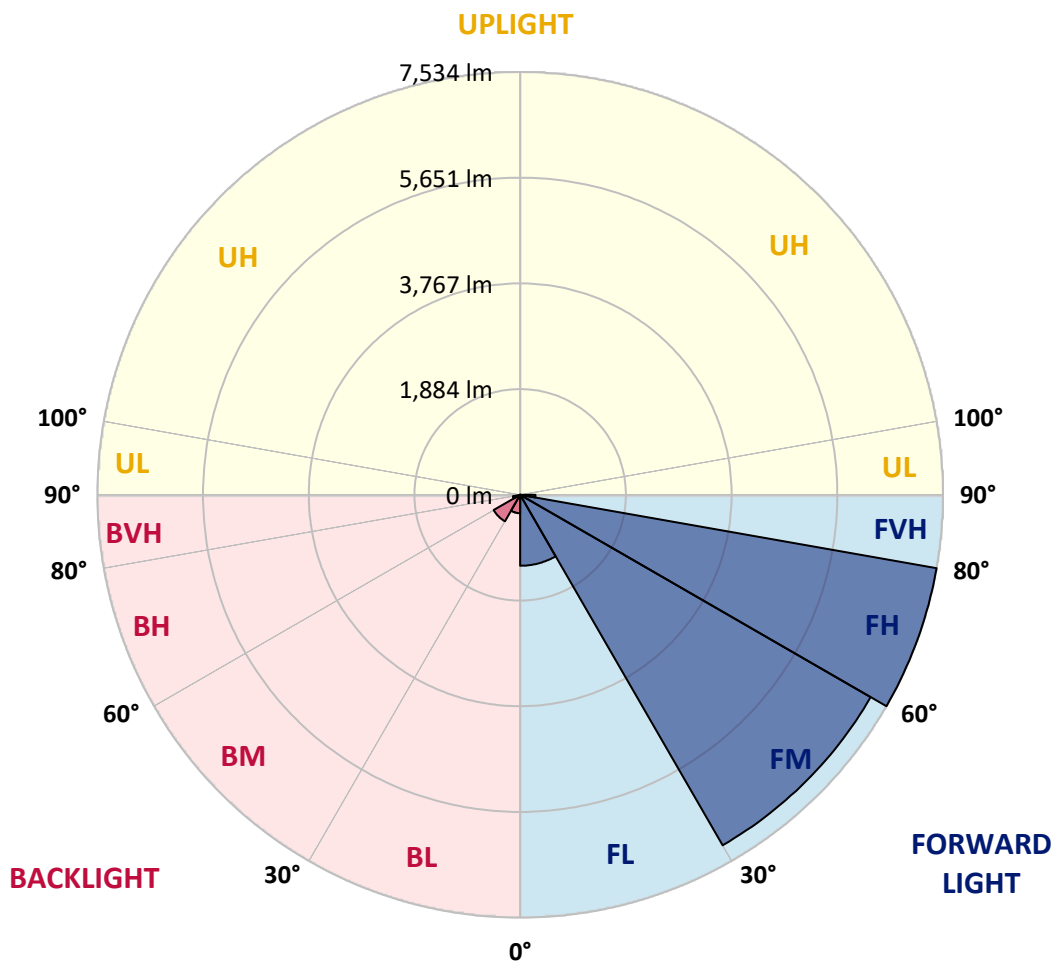
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1264.7	7.3			
FM	(30°-60°)	7210.9	41.7			
FH	(60°-80°)	7534.3	43.6			G4/12000
FVH	(80°-90°)	273.0	1.6			G3/500
BL	(0°-30°)	327.8	1.9	B1/500		
BM	(30°-60°)	543.8	3.1	B1/1000		
BH	(60°-80°)	131.4	0.8	B1/500		G1/500
BVH	(80°-90°)	8.9	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-G4

Type IV Short





REPORT NUMBER: P301955

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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2583.9	2583.9	2583.9	2583.9	2583.9	2583.9	2583.9	2583.9	2583.9	2583.9	2583.9
2.5°	2837.2	2821.7	2812.5	2800.1	2784.7	2771.3	2766.1	2728.1	2692.0	2642.6	2586.0
5°	2889.7	2884.5	2868.1	2851.6	2833.1	2812.5	2801.2	2755.9	2704.4	2632.3	2533.5
7.5°	2894.8	2888.7	2868.1	2845.4	2819.7	2795.0	2775.4	2730.1	2682.8	2609.7	2489.2
10°	2886.6	2879.4	2863.9	2839.2	2807.3	2783.6	2764.1	2720.9	2680.7	2614.8	2481.0
12.5°	2877.3	2870.1	2862.9	2850.6	2822.8	2806.3	2789.8	2748.6	2712.6	2657.0	2510.8
15°	2886.6	2882.5	2890.7	2885.6	2870.1	2855.7	2839.2	2802.2	2769.2	2722.9	2565.4
17.5°	2925.7	2925.7	2951.5	2954.5	2940.1	2919.5	2895.9	2858.8	2831.0	2791.9	2630.3
20°	3017.3	3014.2	3047.2	3053.4	3018.4	2986.5	2951.5	2906.2	2884.5	2859.8	2694.1
22.5°	3174.8	3160.4	3180.0	3173.8	3104.8	3055.4	3012.2	2956.6	2945.3	2934.0	2765.1
25°	3379.7	3371.5	3384.9	3324.1	3202.6	3135.7	3084.3	3021.5	3021.5	3032.8	2845.4
27.5°	3677.2	3646.3	3601.0	3494.0	3311.8	3226.3	3170.7	3103.8	3121.3	3163.5	2951.5
30°	3981.9	3948.0	3844.0	3679.3	3444.6	3355.0	3290.1	3220.1	3261.3	3338.5	3093.5
32.5°	4282.5	4244.4	4097.2	3889.3	3635.0	3545.4	3482.7	3405.4	3474.4	3604.1	3301.5
35°	4573.9	4539.9	4370.0	4125.0	3888.3	3814.1	3756.5	3689.6	3778.1	3959.3	3594.9
37.5°	4901.2	4864.2	4657.3	4391.7	4196.1	4142.5	4100.3	4033.4	4187.8	4453.4	4003.6
40°	5303.8	5241.0	4962.0	4697.4	4552.3	4526.5	4497.7	4488.4	4728.3	5095.8	4548.1
42.5°	5765.0	5662.0	5281.1	5019.6	4943.4	4962.0	4954.8	4996.0	5404.6	5894.7	5211.1
45°	6226.2	6093.4	5636.3	5363.5	5373.8	5438.6	5478.8	5643.5	6251.9	6810.9	5924.5
47.5°	6617.3	6486.6	5977.0	5735.1	5858.6	5986.3	6095.4	6407.3	7122.8	7712.7	6479.4
50°	6951.9	6828.4	6338.4	6143.8	6421.7	6627.6	6804.7	7266.9	8059.6	8399.3	6868.5
52.5°	7225.8	7143.4	6713.1	6612.2	7065.2	7366.8	7626.2	8180.1	8889.4	8957.3	7171.2
55°	7492.4	7433.7	7115.6	7169.1	7820.8	8231.5	8559.9	9148.8	9603.8	9422.6	7461.5
57.5°	7799.2	7745.6	7574.7	7875.3	8814.2	9331.0	9689.2	10007.3	10232.8	9898.2	7735.3
60°	8112.1	8081.2	8085.3	8659.8	9954.8	10451.0	10648.7	10731.1	10850.5	10346.0	7750.8
62.5°	8410.7	8469.3	8669.1	9532.8	11047.1	11428.0	11527.9	11609.2	11469.2	10417.1	7160.9
65°	8916.1	9011.9	9488.5	10701.2	12248.5	12656.1	12759.1	12480.1	11567.0	9498.8	5824.7
67.5°	9163.2	9338.2	10188.5	11790.4	13413.8	13866.8	13828.7	12536.7	10380.0	7243.3	3738.0
69°	9111.7	9298.0	10350.2	12123.9	13800.9	14211.6	13969.7	11843.9	8843.0	5247.1	2294.7
70°	8907.9	9096.3	10266.8	12111.6	13850.3	14175.6	13708.2	10988.4	7476.9	3836.8	1435.1
72.5°	7438.9	7601.5	9114.8	10947.2	12759.1	12494.5	11468.1	7612.8	3643.2	1044.9	323.2
75°	4579.0	4669.6	6540.1	8247.0	9636.7	8957.3	7640.6	3787.4	1086.1	295.5	179.1
77.5°	2419.2	2460.4	3580.4	4861.1	6108.8	5054.6	3916.1	1477.3	500.3	185.3	129.7
80°	1429.9	1460.8	1928.2	2222.6	2643.6	2208.2	1565.8	907.0	358.3	116.3	115.3
82.5°	818.4	838.0	1398.0	1235.3	1041.8	889.5	779.3	859.6	215.2	78.2	119.4
85°	300.6	304.7	786.5	939.9	619.7	368.5	387.1	712.4	57.6	49.4	93.7
87.5°	140.0	136.9	404.6	575.5	362.4	233.7	301.6	156.5	22.6	31.9	25.7
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: P301955

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2583.9	2583.9	2583.9	2583.9	2583.9	2583.9	2583.9	2583.9	2583.9	2583.9	2583.9
2.5°	2553.1	2515.0	2446.0	2375.0	2302.9	2247.3	2192.7	2149.5	2135.1	2108.3	2110.4
5°	2474.8	2404.8	2260.7	2114.5	1962.1	1836.6	1718.2	1622.4	1576.1	1528.7	1528.7
7.5°	2406.9	2305.0	2079.5	1841.7	1595.7	1388.7	1202.4	1062.4	985.2	923.4	922.4
10°	2381.1	2243.2	1928.2	1587.4	1244.6	962.5	741.2	599.1	526.1	478.7	476.6
12.5°	2392.5	2221.6	1811.8	1352.7	922.4	618.7	429.3	337.7	306.8	292.4	292.4
15°	2425.4	2215.4	1695.5	1123.1	651.6	387.1	285.2	260.5	258.4	258.4	258.4
17.5°	2465.5	2217.4	1576.1	899.7	443.7	276.9	246.0	243.0	245.0	245.0	245.0
20°	2506.7	2218.5	1447.4	692.8	313.0	240.9	231.6	230.6	232.7	232.7	233.7
22.5°	2557.2	2223.6	1318.7	517.8	258.4	227.5	220.3	220.3	221.3	221.3	220.3
25°	2614.8	2233.9	1184.9	384.0	235.7	218.2	212.1	211.0	212.1	211.0	210.0
27.5°	2686.9	2248.3	1035.6	300.6	225.5	209.0	203.8	203.8	202.8	201.8	200.7
30°	2777.5	2264.8	867.8	255.3	215.2	200.7	195.6	194.6	193.5	191.5	191.5
32.5°	2915.4	2300.8	702.1	231.6	203.8	189.4	185.3	185.3	183.2	181.2	180.2
35°	3127.5	2371.9	553.8	217.2	191.5	177.1	171.9	171.9	169.9	168.8	167.8
37.5°	3420.9	2480.0	430.3	203.8	179.1	163.7	158.5	157.5	155.4	153.4	152.4
40°	3811.0	2613.8	338.7	191.5	166.8	150.3	146.2	144.1	140.0	136.9	136.9
42.5°	4301.1	2766.1	274.9	178.1	152.4	137.9	134.9	131.8	124.6	121.5	120.4
45°	4813.7	2903.1	232.7	162.7	137.9	125.6	123.5	118.4	109.1	106.0	106.0
47.5°	5183.3	2935.0	204.9	148.2	124.6	112.2	111.2	101.9	93.7	91.6	90.6
50°	5413.9	2872.2	182.2	133.8	112.2	99.9	96.8	85.4	80.3	78.2	77.2
52.5°	5569.4	2760.0	163.7	121.5	100.9	88.5	81.3	73.1	69.0	66.9	66.9
55°	5693.9	2601.4	145.2	110.2	91.6	79.3	69.0	62.8	58.7	56.6	56.6
57.5°	5728.9	2386.3	126.6	100.9	82.4	70.0	58.7	54.6	49.4	48.4	48.4
60°	5474.6	1998.2	112.2	89.6	74.1	60.7	51.5	46.3	41.2	40.1	39.1
62.5°	4804.5	1546.2	98.8	79.3	64.9	52.5	44.3	38.1	34.0	34.0	34.0
65°	3664.9	1036.7	86.5	69.0	56.6	44.3	38.1	30.9	28.8	28.8	29.9
67.5°	2193.8	564.1	74.1	58.7	48.4	37.1	31.9	26.8	25.7	26.8	26.8
69°	1285.8	331.5	66.9	52.5	42.2	32.9	27.8	23.7	25.7	26.8	26.8
70°	793.7	223.4	61.8	47.4	38.1	29.9	25.7	22.6	24.7	25.7	25.7
72.5°	221.3	115.3	49.4	37.1	30.9	24.7	20.6	20.6	23.7	24.7	24.7
75°	144.1	85.4	38.1	27.8	23.7	19.6	17.5	19.6	22.6	23.7	23.7
77.5°	119.4	70.0	30.9	22.6	19.6	18.5	16.5	17.5	20.6	21.6	21.6
80°	109.1	49.4	24.7	20.6	17.5	16.5	15.4	14.4	18.5	19.6	19.6
82.5°	104.0	39.1	21.6	18.5	16.5	14.4	13.4	14.4	16.5	17.5	18.5
85°	64.9	25.7	19.6	17.5	14.4	13.4	13.4	13.4	15.4	16.5	16.5
87.5°	23.7	20.6	17.5	14.4	12.4	12.4	12.4	12.4	13.4	15.4	15.4
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)