

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: P300852

Luminaire Tested: **GLNA-AF-03-LED-E1-SL4-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300852
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-03-LED-E1-SL4-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14950.3 lumens
Efficiency: N/A
Efficacy: 90.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

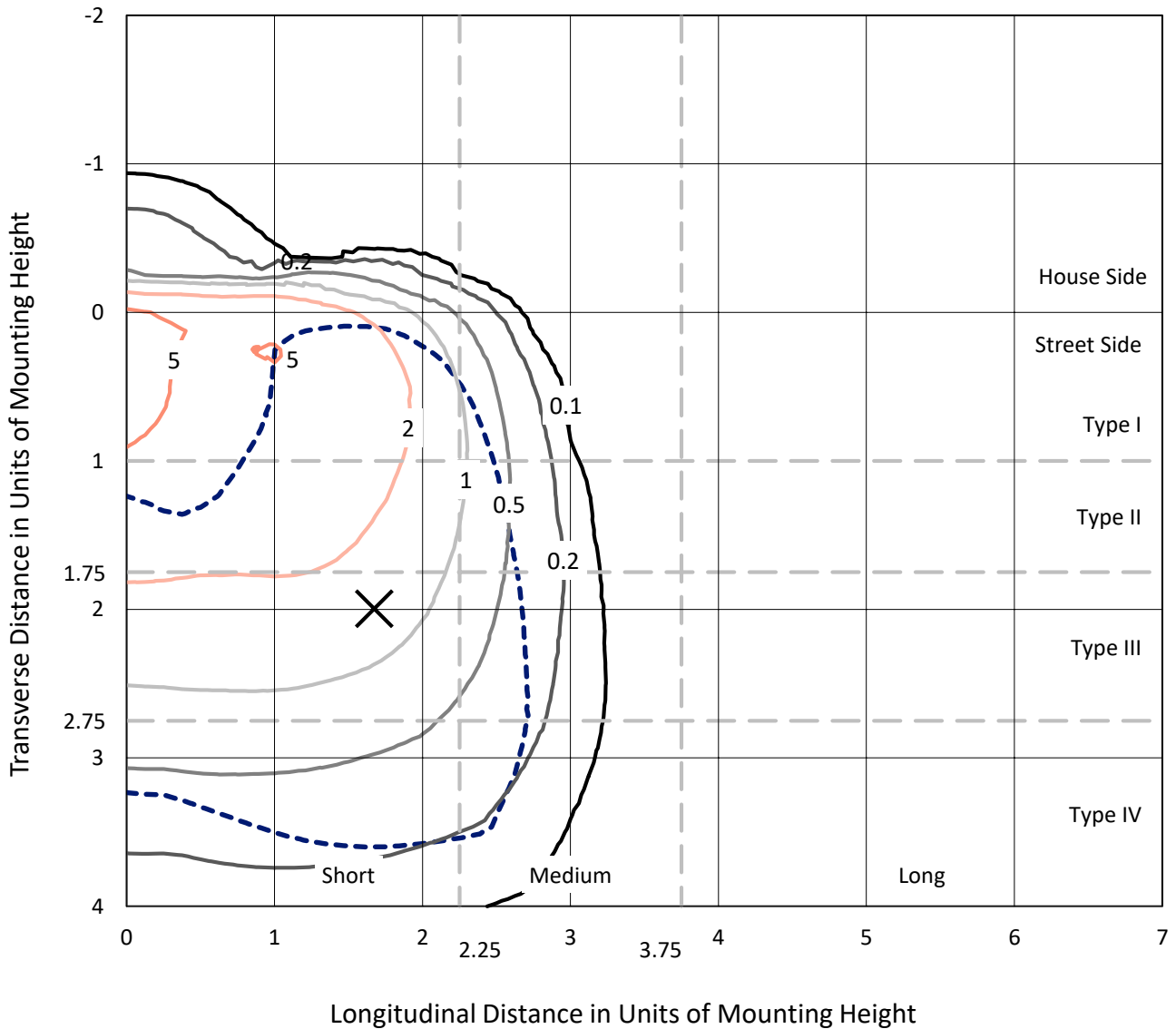
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P300852
 CATALOG NUMBER: GLNA-AF-03-LED-E1-SL4-7027

Iso-Footcandle Lines of Horizontal Illumination

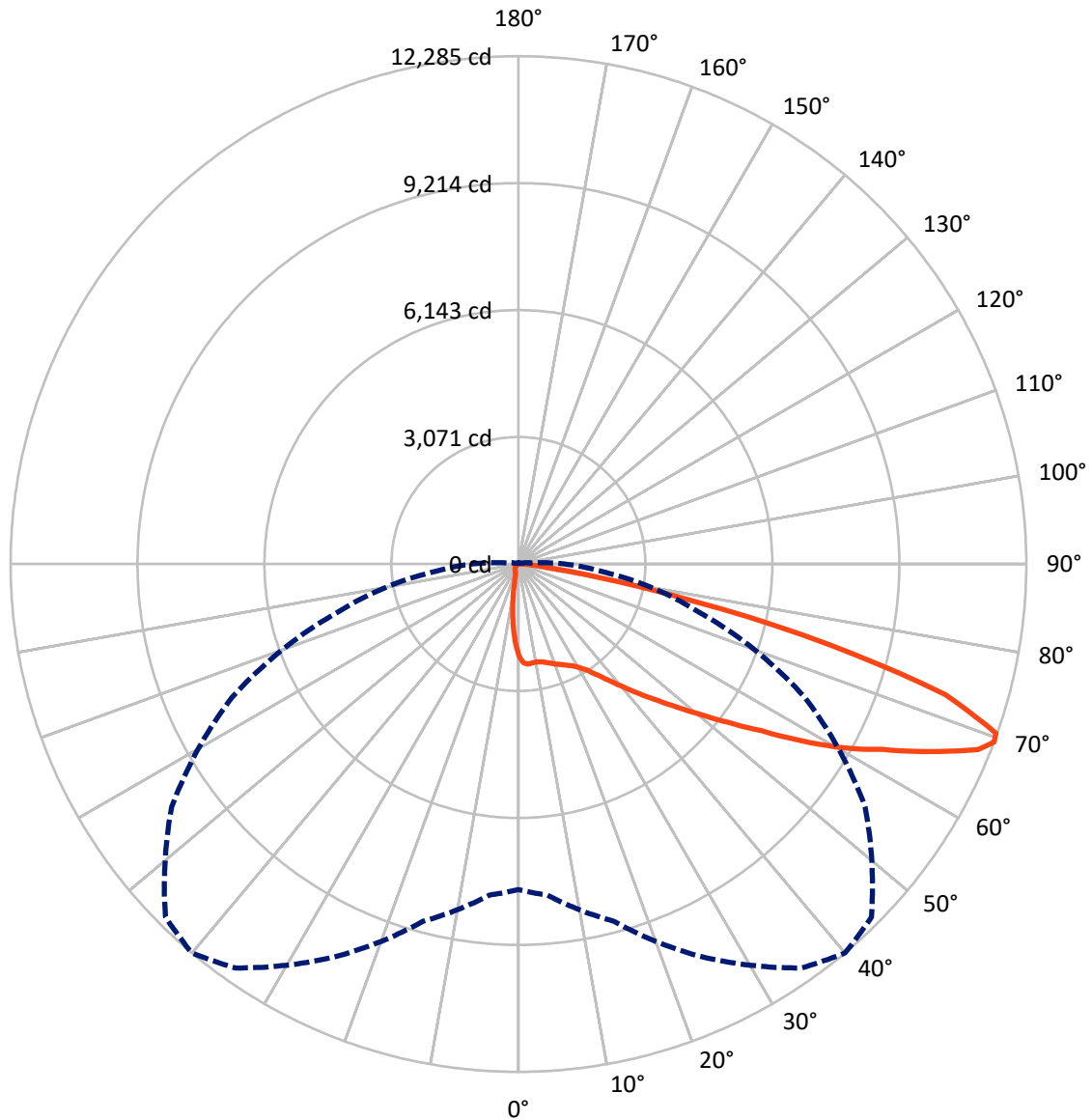
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Short - Semi-Cutoff

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CATALOG NUMBER: GLNA-AF-03-LED-E1-SL4-7027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P300852

CATALOG NUMBER: GLNA-AF-03-LED-E1-SL4-7027

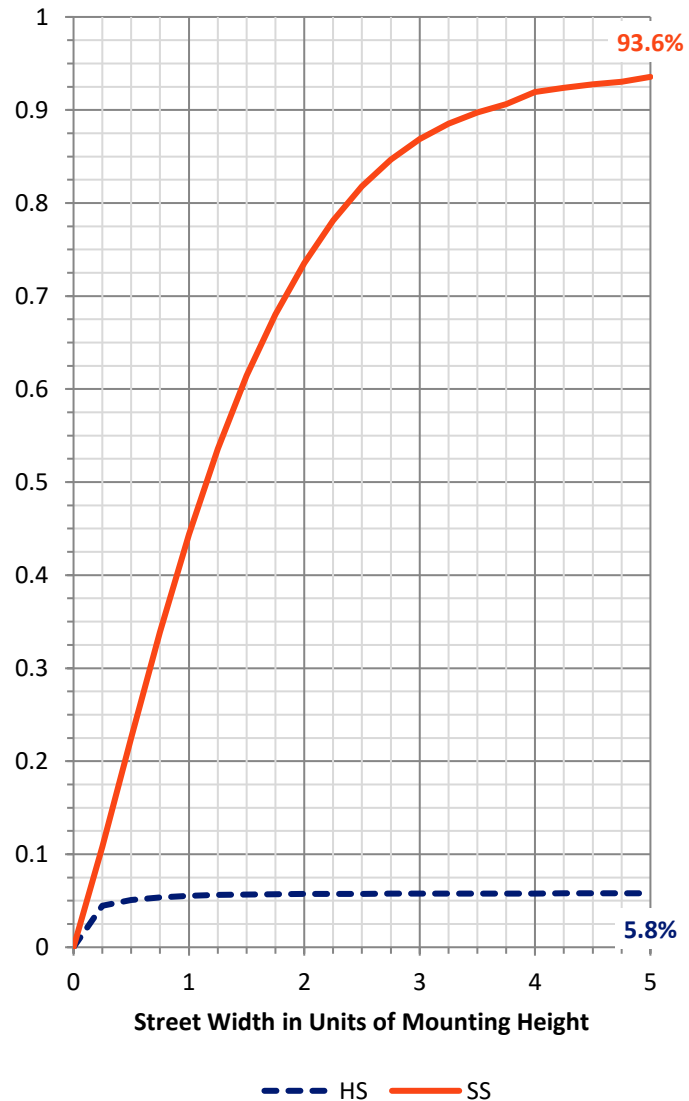
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	874.7	0.0	874.7
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	14075.6	0.0	14075.6
	% Fixture	94.1	0.0	94.1
Total	Lumens	14950.3	0.0	14950.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.1	1.2
10°-20°	445.4	3.0
20°-30°	750.2	5.0
30°-40°	1228.0	8.2
40°-50°	2126.3	14.2
50°-60°	3349.1	22.4
60°-70°	4373.8	29.3
70°-80°	2252.7	15.1
80°-90°	243.7	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°	14950.3	100.0
0°-180°	14950.3	100.0



REPORT NUMBER: P300852

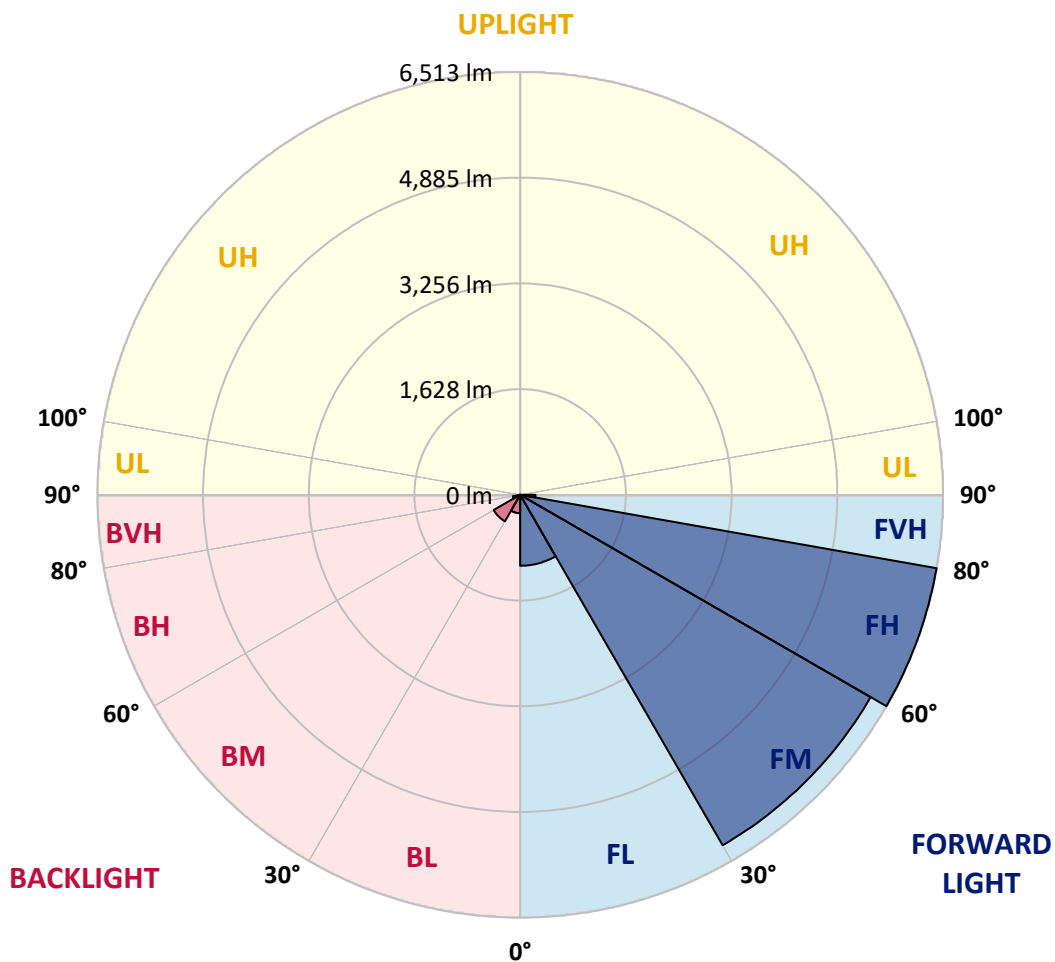
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1093.3	7.3			
FM	(30°-60°)	6233.3	41.7			
FH	(60°-80°)	6512.9	43.6			G3/7500
FVH	(80°-90°)	236.0	1.6			G3/500
BL	(0°-30°)	283.3	1.9	B1/500		
BM	(30°-60°)	470.1	3.1	B1/1000		
BH	(60°-80°)	113.6	0.8	B1/500		G1/500
BVH	(80°-90°)	7.7	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





REPORT NUMBER: P300852

CATALOG NUMBER: GLNA-AF-03-LED-E1-SL4-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6
2.5°	2452.6	2439.2	2431.2	2420.5	2407.2	2395.6	2391.2	2358.2	2327.1	2284.4	2235.4
5°	2497.9	2493.5	2479.3	2465.0	2449.0	2431.2	2421.4	2382.3	2337.8	2275.5	2190.0
7.5°	2502.4	2497.1	2479.3	2459.7	2437.4	2416.1	2399.2	2360.0	2319.1	2255.9	2151.8
10°	2495.3	2489.0	2475.7	2454.3	2426.8	2406.3	2389.4	2352.0	2317.3	2260.3	2144.7
12.5°	2487.3	2481.0	2474.8	2464.1	2440.1	2425.9	2411.6	2376.0	2344.9	2296.8	2170.5
15°	2495.3	2491.7	2498.8	2494.4	2481.0	2468.6	2454.3	2422.3	2393.8	2353.8	2217.6
17.5°	2529.1	2529.1	2551.3	2554.0	2541.6	2523.8	2503.3	2471.2	2447.2	2413.4	2273.7
20°	2608.3	2605.6	2634.1	2639.4	2609.2	2581.6	2551.3	2512.2	2493.5	2472.1	2328.9
22.5°	2744.4	2732.0	2748.9	2743.6	2683.9	2641.2	2603.8	2555.8	2546.0	2536.2	2390.3
25°	2921.5	2914.4	2926.0	2873.5	2768.5	2710.6	2666.1	2611.9	2611.9	2621.6	2459.7
27.5°	3178.7	3152.0	3112.9	3020.3	2862.8	2788.9	2740.9	2683.0	2698.2	2734.7	2551.3
30°	3442.1	3412.8	3322.9	3180.5	2977.6	2900.2	2844.1	2783.6	2819.2	2885.9	2674.1
32.5°	3702.0	3669.1	3541.8	3362.0	3142.2	3064.8	3010.5	2943.8	3003.4	3115.5	2853.9
35°	3953.8	3924.5	3777.6	3565.8	3361.1	3297.1	3247.2	3189.4	3265.9	3422.6	3107.5
37.5°	4236.8	4204.8	4025.9	3796.3	3627.2	3581.0	3544.5	3486.6	3620.1	3849.7	3460.8
40°	4584.8	4530.5	4289.3	4060.6	3935.1	3912.9	3888.0	3880.0	4087.3	4405.0	3931.6
42.5°	4983.4	4894.4	4565.2	4339.1	4273.3	4289.3	4283.1	4318.7	4672.0	5095.6	4504.7
45°	5382.1	5267.3	4872.2	4636.4	4645.3	4701.3	4736.0	4878.4	5404.4	5887.6	5121.4
47.5°	5720.3	5607.3	5166.8	4957.6	5064.4	5174.8	5269.1	5538.7	6157.2	6667.1	5601.0
50°	6009.5	5902.7	5479.1	5310.9	5551.2	5729.2	5882.2	6281.8	6967.0	7260.7	5937.4
52.5°	6246.2	6175.0	5803.0	5715.8	6107.4	6368.1	6592.4	7071.1	7684.3	7743.0	6199.0
55°	6476.7	6426.0	6151.0	6197.3	6760.6	7115.6	7399.5	7908.5	8301.9	8145.2	6450.0
57.5°	6741.9	6695.6	6547.9	6807.7	7619.3	8066.0	8375.7	8650.7	8845.6	8556.4	6686.7
60°	7012.4	6985.7	6989.3	7485.8	8605.3	9034.3	9205.1	9276.3	9379.5	8943.5	6700.0
62.5°	7270.5	7321.2	7493.8	8240.5	9549.5	9878.8	9965.1	10035.4	9914.4	9004.9	6190.1
65°	7707.4	7790.2	8202.2	9250.5	10588.0	10940.4	11029.4	10788.2	9998.9	8211.1	5035.0
67.5°	7921.0	8072.3	8807.3	10192.0	11595.4	11986.9	11954.0	10837.2	8972.9	6261.3	3231.2
69°	7876.5	8037.6	8947.0	10480.3	11930.0	12285.1	12075.9	10238.3	7644.2	4535.8	1983.6
70°	7700.3	7863.1	8875.0	10469.7	11972.7	12253.9	11849.9	9498.8	6463.3	3316.7	1240.5
72.5°	6430.4	6571.0	7879.2	9463.2	11029.4	10800.7	9913.5	6580.8	3149.4	903.2	279.4
75°	3958.3	4036.6	5653.5	7129.0	8330.3	7743.0	6604.8	3273.9	938.8	255.4	154.8
77.5°	2091.3	2126.9	3095.1	4202.1	5280.7	4369.4	3385.2	1277.0	432.5	160.2	112.1
80°	1236.1	1262.8	1666.8	1921.3	2285.3	1908.8	1353.5	784.0	309.7	100.6	99.7
82.5°	707.5	724.4	1208.5	1067.9	900.6	768.9	673.7	743.1	186.0	67.6	103.2
85°	259.9	263.4	679.9	812.5	535.7	318.6	334.6	615.8	49.8	42.7	81.0
87.5°	121.0	118.4	349.7	497.5	313.2	202.0	260.7	135.3	19.6	27.6	22.2
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°	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6	2233.6
2.5°	2206.9	2174.0	2114.4	2053.0	1990.7	1942.6	1895.5	1858.1	1845.7	1822.5	1824.3
5°	2139.3	2078.8	1954.2	1827.9	1696.1	1587.6	1485.2	1402.5	1362.4	1321.5	1321.5
7.5°	2080.6	1992.5	1797.6	1592.0	1379.3	1200.5	1039.4	918.4	851.6	798.2	797.3
10°	2058.3	1939.1	1666.8	1372.2	1075.9	832.1	640.7	517.9	454.7	413.8	412.0
12.5°	2068.1	1920.4	1566.2	1169.3	797.3	534.8	371.1	291.9	265.2	252.7	252.7
15°	2096.6	1915.1	1465.7	970.9	563.3	334.6	246.5	225.1	223.4	223.4	223.4
17.5°	2131.3	1916.8	1362.4	777.8	383.5	239.4	212.7	210.0	211.8	211.8	211.8
20°	2166.9	1917.7	1251.2	598.9	270.5	208.2	200.2	199.3	201.1	201.1	202.0
22.5°	2210.5	1922.2	1140.0	447.6	223.4	196.7	190.4	190.4	191.3	191.3	190.4
25°	2260.3	1931.1	1024.3	331.9	203.8	188.7	183.3	182.4	183.3	182.4	181.5
27.5°	2322.6	1943.5	895.2	259.9	194.9	180.6	176.2	176.2	175.3	174.4	173.5
30°	2400.9	1957.8	750.2	220.7	186.0	173.5	169.1	168.2	167.3	165.5	165.5
32.5°	2520.2	1988.9	606.9	200.2	176.2	163.7	160.2	160.2	158.4	156.6	155.7
35°	2703.5	2050.3	478.8	187.8	165.5	153.1	148.6	148.6	146.8	145.9	145.1
37.5°	2957.1	2143.8	372.0	176.2	154.8	141.5	137.0	136.2	134.4	132.6	131.7
40°	3294.4	2259.5	292.8	165.5	144.2	129.9	126.4	124.6	121.0	118.4	118.4
42.5°	3718.0	2391.2	237.6	154.0	131.7	119.2	116.6	113.9	107.7	105.0	104.1
45°	4161.2	2509.5	201.1	140.6	119.2	108.6	106.8	102.3	94.3	91.7	91.7
47.5°	4480.6	2537.1	177.1	128.1	107.7	97.0	96.1	88.1	81.0	79.2	78.3
50°	4680.0	2482.8	157.5	115.7	97.0	86.3	83.7	73.9	69.4	67.6	66.7
52.5°	4814.4	2385.8	141.5	105.0	87.2	76.5	70.3	63.2	59.6	57.8	57.8
55°	4922.0	2248.8	125.5	95.2	79.2	68.5	59.6	54.3	50.7	48.9	48.9
57.5°	4952.3	2062.8	109.5	87.2	71.2	60.5	50.7	47.2	42.7	41.8	41.8
60°	4732.5	1727.3	97.0	77.4	64.1	52.5	44.5	40.0	35.6	34.7	33.8
62.5°	4153.2	1336.6	85.4	68.5	56.1	45.4	38.3	32.9	29.4	29.4	29.4
65°	3168.0	896.1	74.8	59.6	48.9	38.3	32.9	26.7	24.9	24.9	25.8
67.5°	1896.4	487.7	64.1	50.7	41.8	32.0	27.6	23.1	22.2	23.1	23.1
69°	1111.5	286.5	57.8	45.4	36.5	28.5	24.0	20.5	22.2	23.1	23.1
70°	686.1	193.1	53.4	40.9	32.9	25.8	22.2	19.6	21.4	22.2	22.2
72.5°	191.3	99.7	42.7	32.0	26.7	21.4	17.8	17.8	20.5	21.4	21.4
75°	124.6	73.9	32.9	24.0	20.5	16.9	15.1	16.9	19.6	20.5	20.5
77.5°	103.2	60.5	26.7	19.6	16.9	16.0	14.2	15.1	17.8	18.7	18.7
80°	94.3	42.7	21.4	17.8	15.1	14.2	13.3	12.5	16.0	16.9	16.9
82.5°	89.9	33.8	18.7	16.0	14.2	12.5	11.6	12.5	14.2	15.1	16.0
85°	56.1	22.2	16.9	15.1	12.5	11.6	11.6	11.6	13.3	14.2	14.2
87.5°	20.5	17.8	15.1	12.5	10.7	10.7	10.7	10.7	11.6	13.3	13.3
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)