

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: P191192

Luminaire Tested: **GLEON-AF-04-LED-E1-SL4-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191192
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: GLEON-AF-04-LED-E1-SL4-600-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13134.7 lumens
Efficiency: N/A
Efficacy: 101.8 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

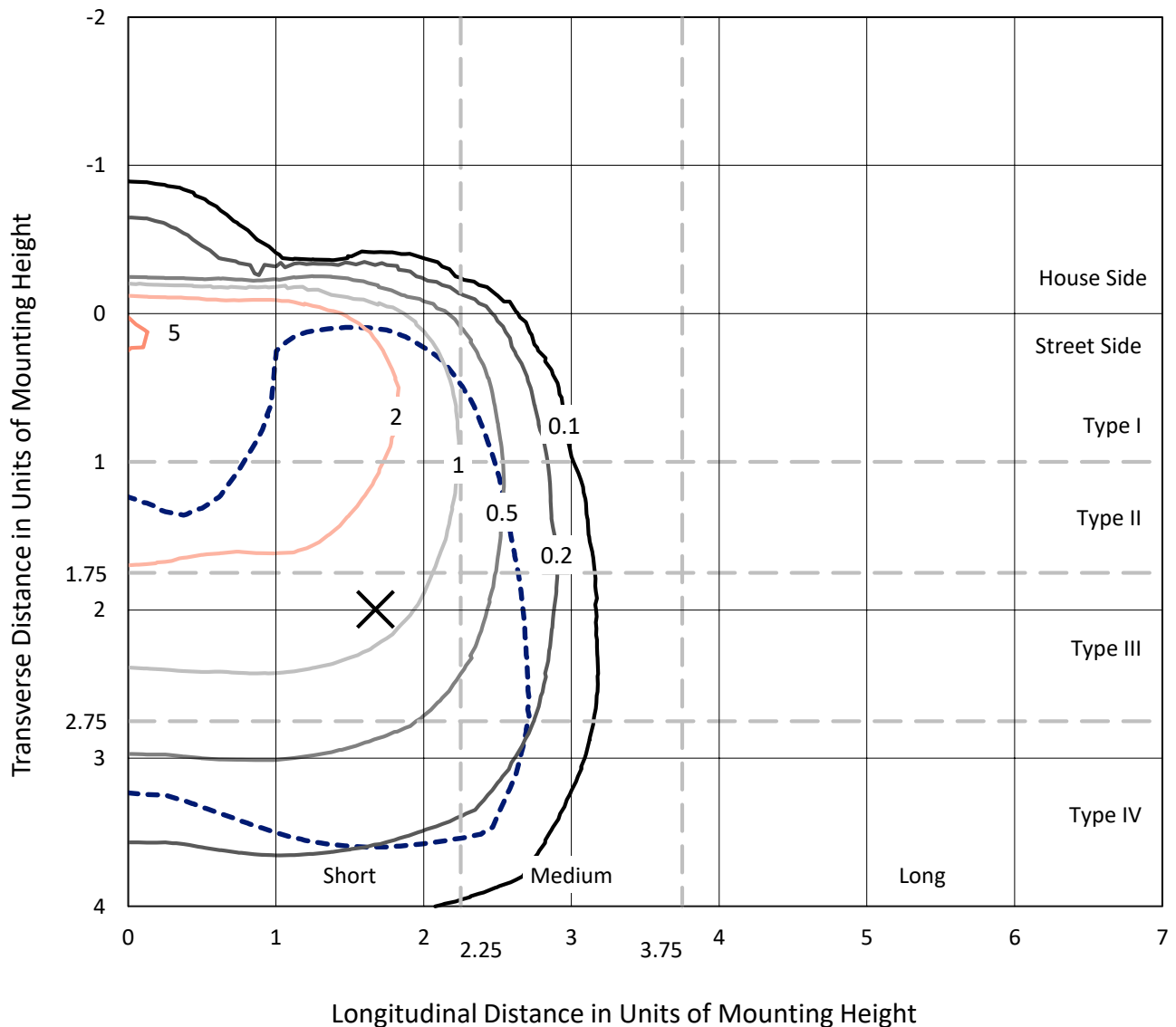
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

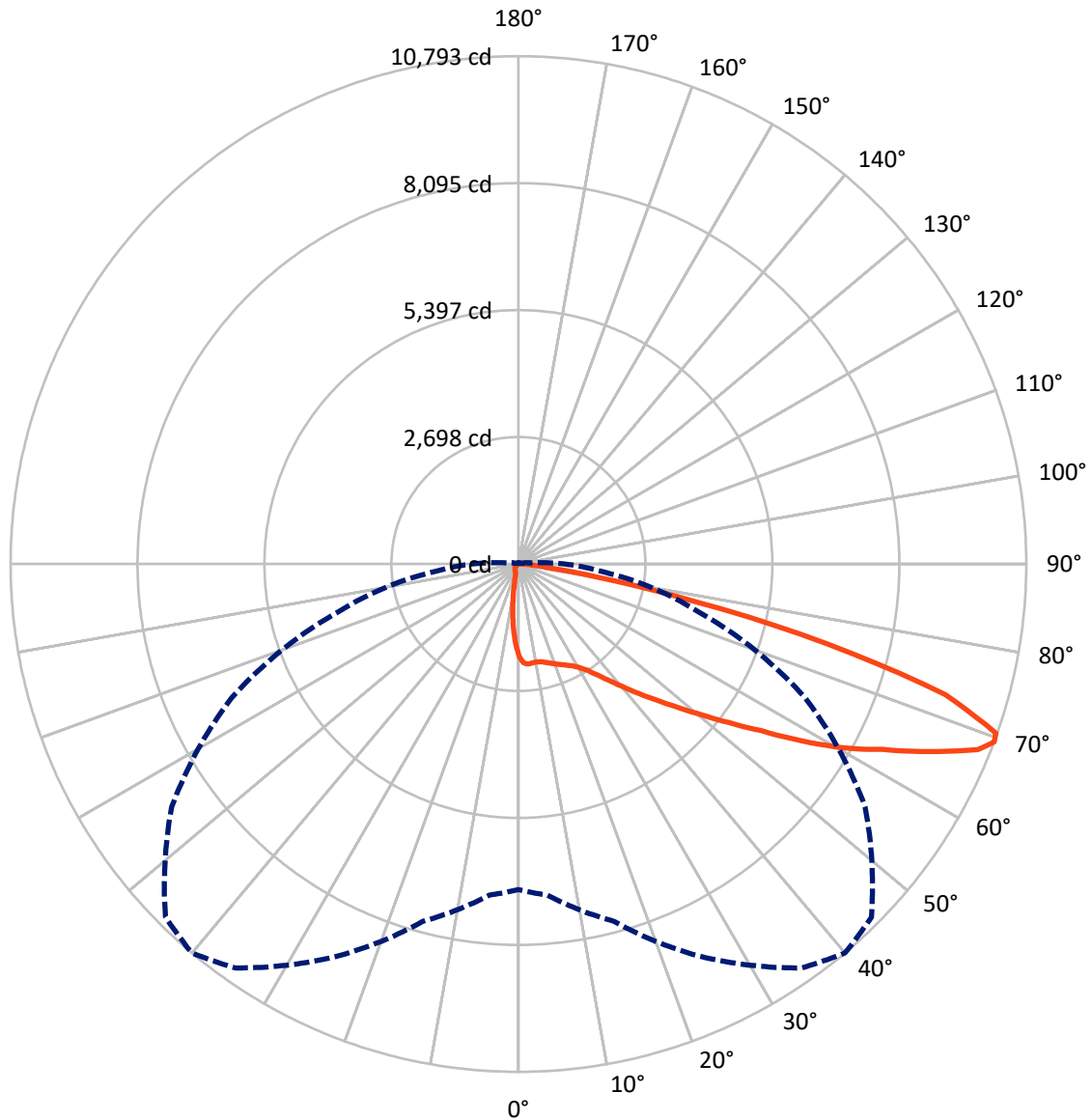
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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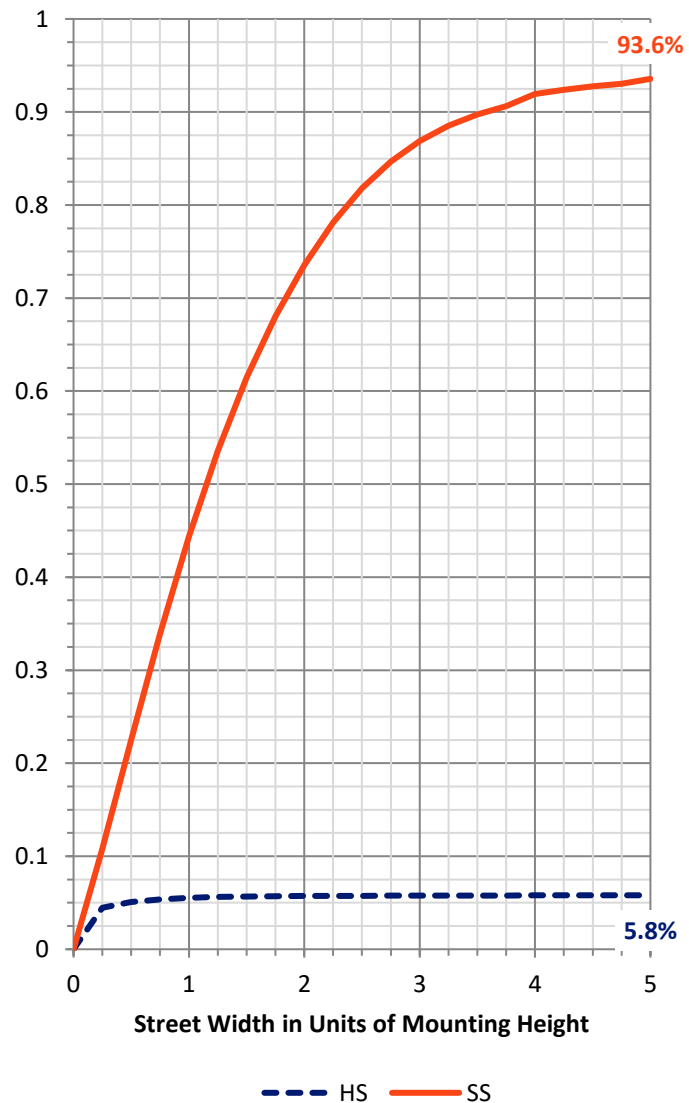
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	768.5	0.0	768.5
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	12366.2	0.0	12366.2
	% Fixture	94.1	0.0	94.1
Total	Lumens	13134.7	0.0	13134.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.1	1.2
10°-20°	391.3	3.0
20°-30°	659.1	5.0
30°-40°	1078.9	8.2
40°-50°	1868.1	14.2
50°-60°	2942.4	22.4
60°-70°	3842.7	29.3
70°-80°	1979.1	15.1
80°-90°	214.1	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°	13134.7	100.0
0°-180°	13134.7	100.0



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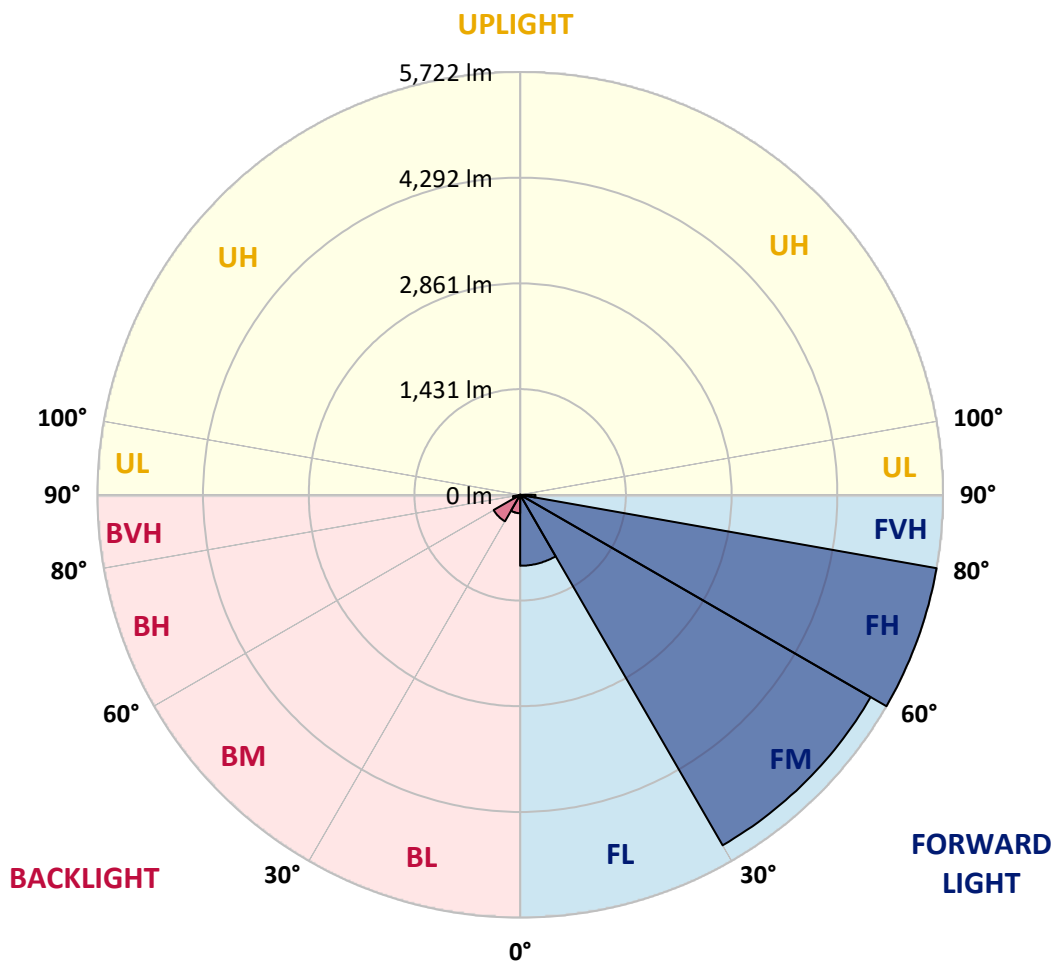
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	960.5	7.3			
FM	(30°-60°)	5476.3	41.7			
FH	(60°-80°)	5722.0	43.6			G3/7500
FVH	(80°-90°)	207.4	1.6			G2/225
BL	(0°-30°)	248.9	1.9	B1/500		
BM	(30°-60°)	413.0	3.1	B1/1000		
BH	(60°-80°)	99.8	0.8	B0/110		G0/110
BVH	(80°-90°)	6.7	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1962.4	1962.4	1962.4	1962.4	1962.4	1962.4	1962.4	1962.4	1962.4	1962.4	1962.4
2.5°	2154.7	2143.0	2135.9	2126.6	2114.8	2104.7	2100.7	2071.9	2044.5	2006.9	1964.0
5°	2194.6	2190.6	2178.2	2165.7	2151.6	2135.9	2127.3	2093.0	2053.9	1999.2	1924.1
7.5°	2198.5	2193.8	2178.2	2161.0	2141.4	2122.6	2107.8	2073.4	2037.4	1982.0	1890.4
10°	2192.3	2186.8	2175.0	2156.3	2132.0	2114.0	2099.2	2066.4	2035.9	1985.9	1884.2
12.5°	2185.2	2179.7	2174.3	2164.9	2143.8	2131.2	2118.7	2087.4	2060.1	2017.9	1906.9
15°	2192.3	2189.1	2195.4	2191.5	2179.7	2168.8	2156.3	2128.1	2103.1	2067.9	1948.3
17.5°	2222.0	2222.0	2241.5	2243.8	2232.9	2217.2	2199.2	2171.1	2150.0	2120.3	1997.6
20°	2291.5	2289.2	2314.2	2318.9	2292.3	2268.1	2241.5	2207.1	2190.6	2171.9	2046.0
22.5°	2411.2	2400.3	2415.1	2410.4	2358.0	2320.5	2287.6	2245.4	2236.8	2228.2	2100.0
25°	2566.8	2560.4	2570.7	2524.5	2432.3	2381.4	2342.4	2294.7	2294.7	2303.3	2161.0
27.5°	2792.7	2769.2	2734.9	2653.5	2515.1	2450.3	2408.0	2357.2	2370.5	2402.6	2241.5
30°	3024.1	2998.3	2919.4	2794.3	2616.0	2548.0	2498.8	2445.6	2476.9	2535.5	2349.4
32.5°	3252.4	3223.5	3111.7	2953.8	2760.6	2692.6	2644.9	2586.3	2638.7	2737.2	2507.4
35°	3473.6	3447.9	3318.9	3132.8	2953.0	2896.7	2852.9	2802.1	2869.3	3007.0	2730.2
37.5°	3722.3	3694.2	3537.0	3335.3	3186.7	3146.1	3114.1	3063.2	3180.5	3382.2	3040.5
40°	4028.0	3980.3	3768.4	3567.4	3457.3	3437.7	3415.8	3408.8	3591.0	3870.0	3454.1
42.5°	4378.2	4300.1	4010.8	3812.2	3754.3	3768.4	3762.9	3794.2	4104.6	4476.7	3957.6
45°	4728.5	4627.6	4280.5	4073.3	4081.2	4130.4	4160.9	4286.0	4748.0	5172.6	4499.4
47.5°	5025.6	4926.3	4539.3	4355.5	4449.4	4546.3	4629.2	4866.1	5409.5	5857.4	4920.8
50°	5279.7	5185.8	4813.7	4666.0	4877.0	5033.4	5167.8	5518.9	6120.9	6378.9	5216.3
52.5°	5487.6	5425.1	5098.3	5021.7	5365.7	5594.7	5791.7	6212.4	6751.1	6802.7	5446.2
55°	5690.2	5645.6	5404.0	5444.7	5939.6	6251.5	6501.0	6948.1	7293.6	7156.1	5666.7
57.5°	5923.1	5882.5	5752.7	5981.0	6694.0	7086.5	7358.6	7600.1	7771.4	7517.3	5874.7
60°	6160.8	6137.4	6140.5	6576.8	7560.3	7937.1	8087.2	8149.7	8240.5	7857.4	5886.4
62.5°	6387.5	6432.1	6583.8	7239.7	8389.8	8679.1	8754.9	8816.7	8710.3	7911.3	5438.4
65°	6771.4	6844.2	7206.1	8127.1	9302.2	9611.9	9690.0	9478.2	8784.6	7214.0	4423.5
67.5°	6959.0	7092.0	7737.8	8954.3	10187.3	10531.3	10502.3	9521.1	7883.2	5500.9	2838.8
69°	6920.0	7061.4	7860.5	9207.6	10481.2	10793.2	10609.4	8994.9	6715.9	3985.0	1742.7
70°	6765.2	6908.2	7797.1	9198.2	10518.7	10765.7	10410.9	8345.2	5678.4	2913.9	1089.9
72.5°	5649.5	5773.0	6922.3	8313.9	9690.0	9489.1	8709.6	5781.6	2766.9	793.6	245.5
75°	3477.6	3546.4	4966.9	6263.2	7318.7	6802.7	5802.7	2876.3	824.8	224.4	136.1
77.5°	1837.3	1868.5	2719.2	3691.8	4639.4	3838.8	2974.1	1122.0	379.9	140.8	98.5
80°	1086.0	1109.4	1464.4	1688.0	2007.7	1677.0	1189.2	688.8	272.1	88.4	87.6
82.5°	621.5	636.4	1061.7	938.1	791.3	675.5	591.9	652.8	163.4	59.4	90.7
85°	228.3	231.4	597.3	713.8	470.7	279.9	294.0	541.0	43.8	37.5	71.2
87.5°	106.3	104.0	307.3	437.0	275.2	177.5	229.0	118.9	17.2	24.2	19.5
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°	1962.4	1962.4	1962.4	1962.4	1962.4	1962.4	1962.4	1962.4	1962.4	1962.4	1962.4
2.5°	1938.9	1910.1	1857.6	1803.7	1748.9	1706.7	1665.3	1632.4	1621.5	1601.2	1602.8
5°	1879.5	1826.4	1716.9	1605.8	1490.1	1394.8	1304.9	1232.1	1197.0	1161.0	1161.0
7.5°	1827.9	1750.5	1579.3	1398.7	1211.8	1054.7	913.2	806.8	748.2	701.3	700.5
10°	1808.4	1703.6	1464.4	1205.5	945.2	731.0	562.9	455.0	399.6	363.6	362.0
12.5°	1817.0	1687.2	1376.0	1027.3	700.5	469.8	326.0	256.5	233.0	222.1	222.1
15°	1842.0	1682.4	1287.7	852.9	494.9	294.0	216.6	197.8	196.2	196.2	196.2
17.5°	1872.5	1684.1	1197.0	683.3	337.0	210.3	186.9	184.5	186.1	186.1	186.1
20°	1903.7	1684.8	1099.3	526.2	237.6	182.9	175.9	175.1	176.7	176.7	177.5
22.5°	1942.1	1688.8	1001.6	393.2	196.2	172.8	167.4	167.4	168.1	168.1	167.4
25°	1985.9	1696.6	899.9	291.6	179.0	165.7	161.0	160.3	161.0	160.3	159.5
27.5°	2040.6	1707.5	786.5	228.3	171.2	158.8	154.8	154.8	154.1	153.2	152.4
30°	2109.3	1720.0	659.1	193.8	163.4	152.4	148.5	147.8	147.0	145.5	145.5
32.5°	2214.2	1747.4	533.2	175.9	154.8	143.8	140.8	140.8	139.1	137.6	136.9
35°	2375.2	1801.3	420.6	165.0	145.5	134.5	130.5	130.5	129.0	128.2	127.5
37.5°	2598.0	1883.5	326.8	154.8	136.1	124.3	120.4	119.6	118.0	116.5	115.7
40°	2894.3	1985.0	257.3	145.5	126.6	114.2	111.0	109.5	106.3	104.0	104.0
42.5°	3266.5	2100.7	208.8	135.2	115.7	104.8	102.4	100.0	94.6	92.3	91.5
45°	3655.8	2204.8	176.7	123.6	104.8	95.3	93.8	89.9	82.9	80.5	80.5
47.5°	3936.5	2229.0	155.6	112.6	94.6	85.2	84.4	77.4	71.2	69.6	68.8
50°	4111.6	2181.3	138.4	101.7	85.2	75.8	73.4	64.9	61.0	59.4	58.6
52.5°	4229.7	2096.1	124.3	92.3	76.6	67.2	61.8	55.5	52.4	50.8	50.8
55°	4324.3	1975.7	110.3	83.7	69.6	60.3	52.4	47.7	44.6	43.0	43.0
57.5°	4350.9	1812.3	96.2	76.6	62.5	53.2	44.6	41.4	37.5	36.7	36.7
60°	4157.8	1517.5	85.2	68.0	56.3	46.1	39.1	35.2	31.3	30.5	29.7
62.5°	3648.8	1174.3	75.1	60.3	49.3	39.9	33.7	28.9	25.8	25.8	25.8
65°	2783.3	787.3	65.7	52.4	43.0	33.7	28.9	23.4	21.9	21.9	22.7
67.5°	1666.1	428.4	56.3	44.6	36.7	28.1	24.2	20.4	19.5	20.4	20.4
69°	976.5	251.7	50.8	39.9	32.0	25.1	21.1	18.0	19.5	20.4	20.4
70°	602.8	169.7	47.0	36.0	28.9	22.7	19.5	17.2	18.7	19.5	19.5
72.5°	168.1	87.6	37.5	28.1	23.4	18.7	15.7	15.7	18.0	18.7	18.7
75°	109.5	64.9	28.9	21.1	18.0	14.8	13.3	14.8	17.2	18.0	18.0
77.5°	90.7	53.2	23.4	17.2	14.8	14.1	12.5	13.3	15.7	16.5	16.5
80°	82.9	37.5	18.7	15.7	13.3	12.5	11.8	10.9	14.1	14.8	14.8
82.5°	79.0	29.7	16.5	14.1	12.5	10.9	10.1	10.9	12.5	13.3	14.1
85°	49.3	19.5	14.8	13.3	10.9	10.1	10.1	10.1	11.8	12.5	12.5
87.5°	18.0	15.7	13.3	10.9	9.4	9.4	9.4	9.4	10.1	11.8	11.8
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)