

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: P300978

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300978  
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-04-LED-E1-SL4-7027-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 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: 13013.2 lumens  
Efficiency: N/A  
Efficacy: 100.9 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

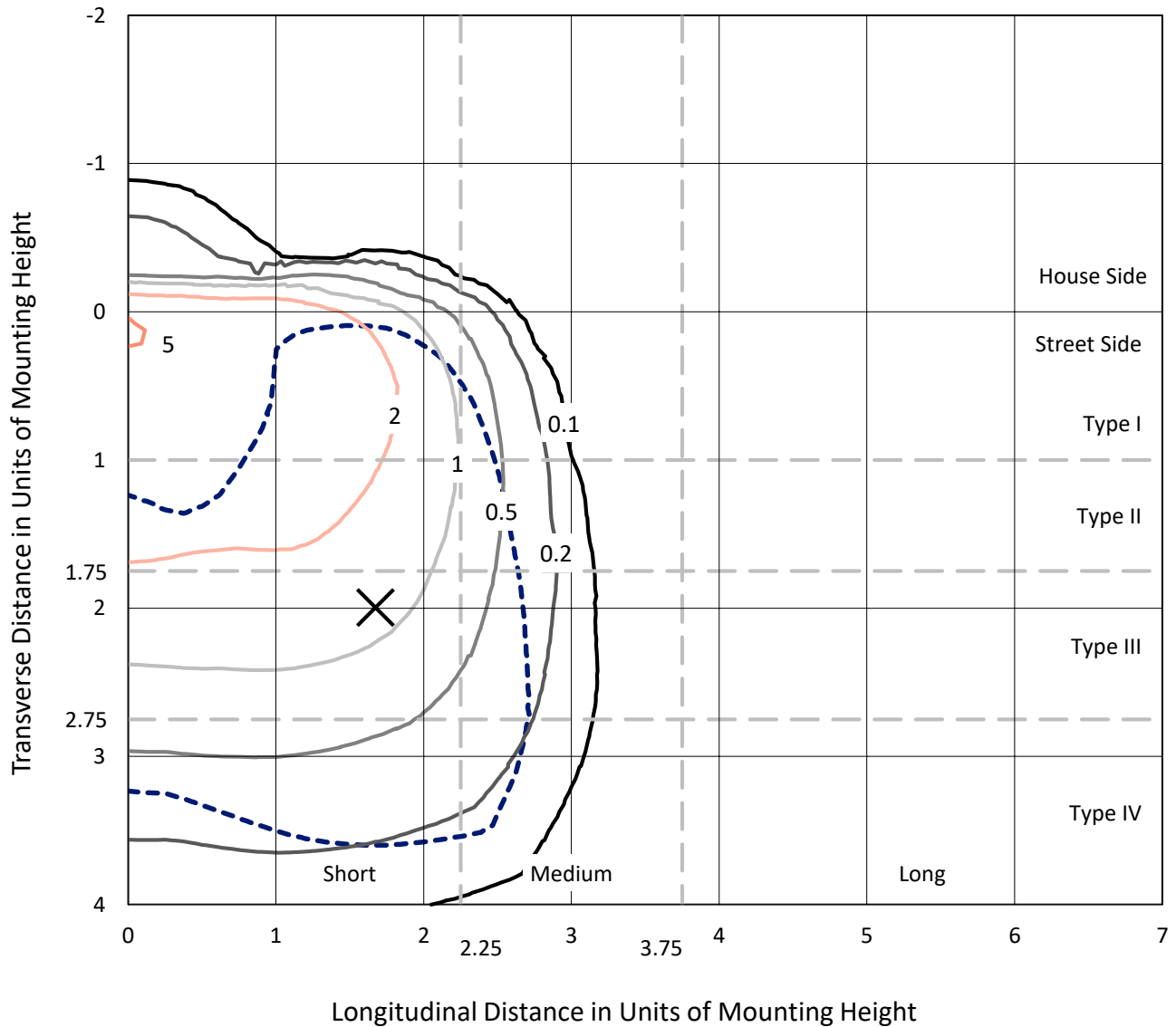
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

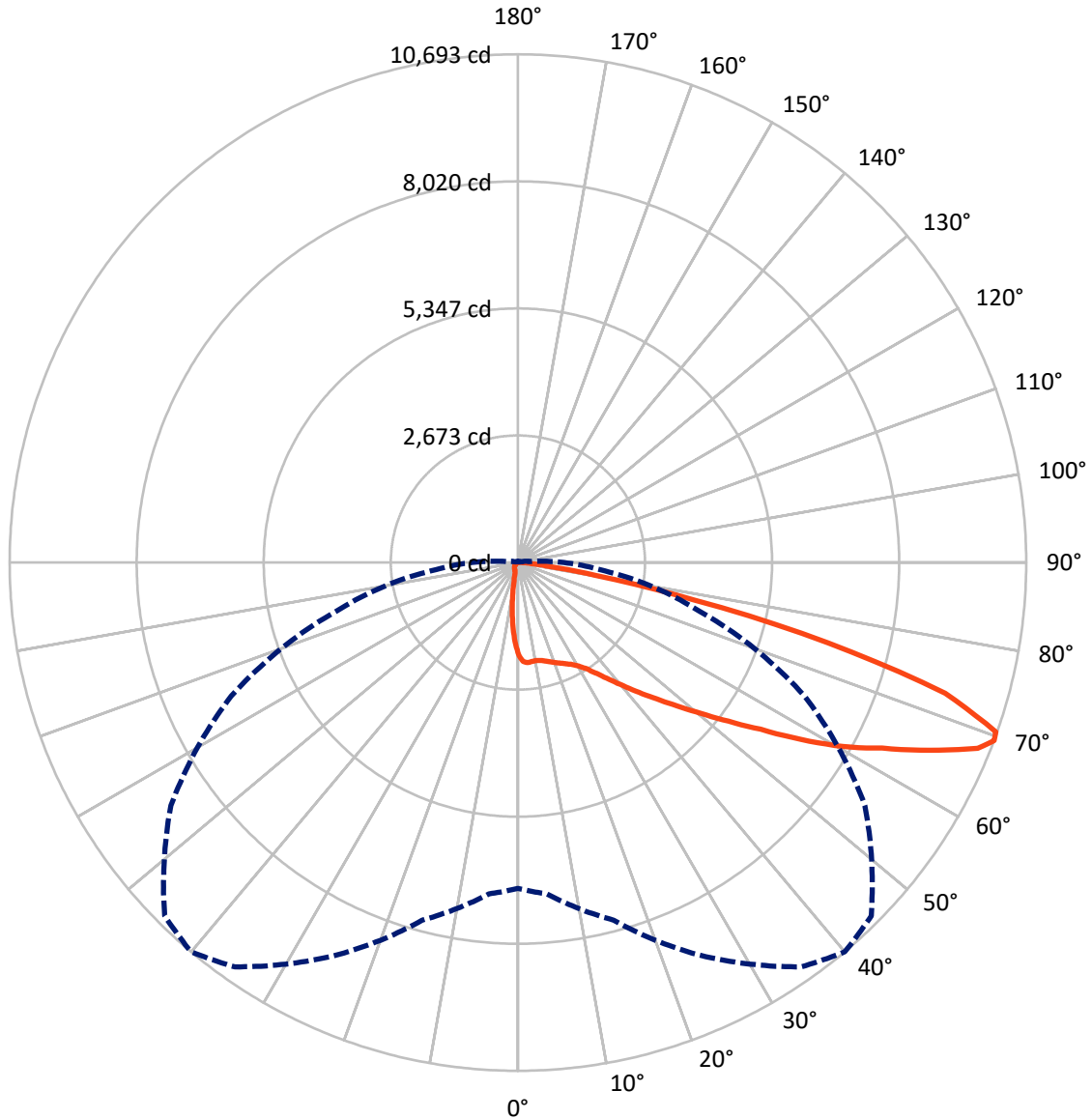
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.3 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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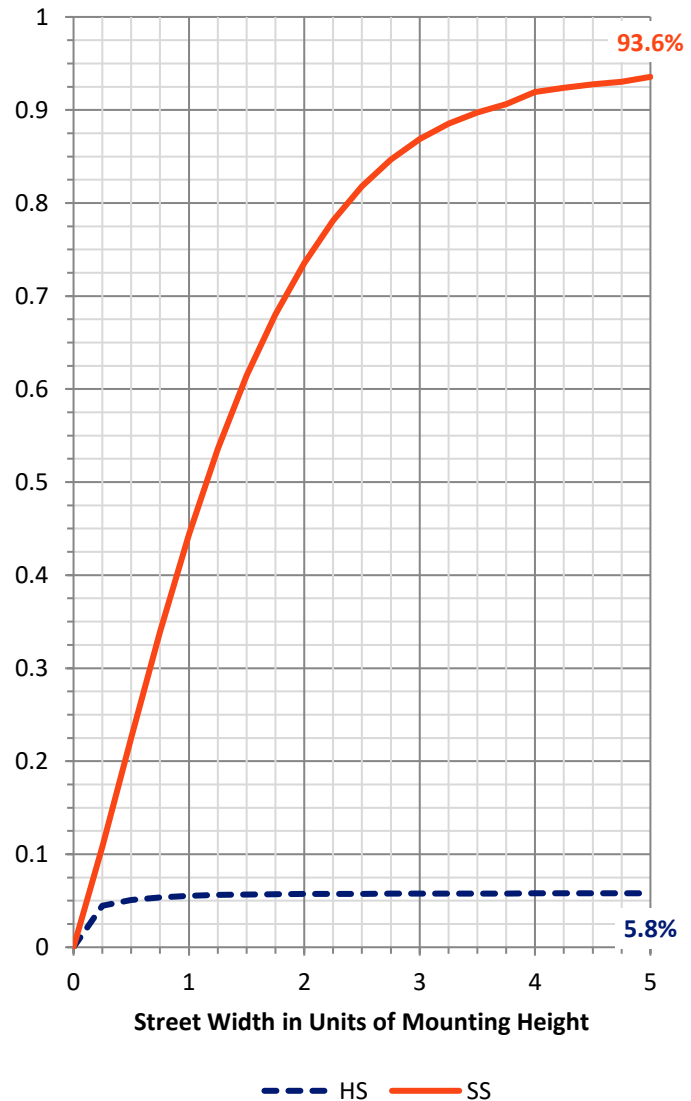
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	761.3	0.0	761.3
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	12251.9	0.0	12251.9
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	13013.2	0.0	13013.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.6	1.2
10°-20°	387.7	3.0
20°-30°	653.0	5.0
30°-40°	1068.9	8.2
40°-50°	1850.8	14.2
50°-60°	2915.2	22.4
60°-70°	3807.1	29.3
70°-80°	1960.8	15.1
80°-90°	212.1	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°	13013.2	100.0
0°-180°	13013.2	100.0

**Coefficient of Utilization**



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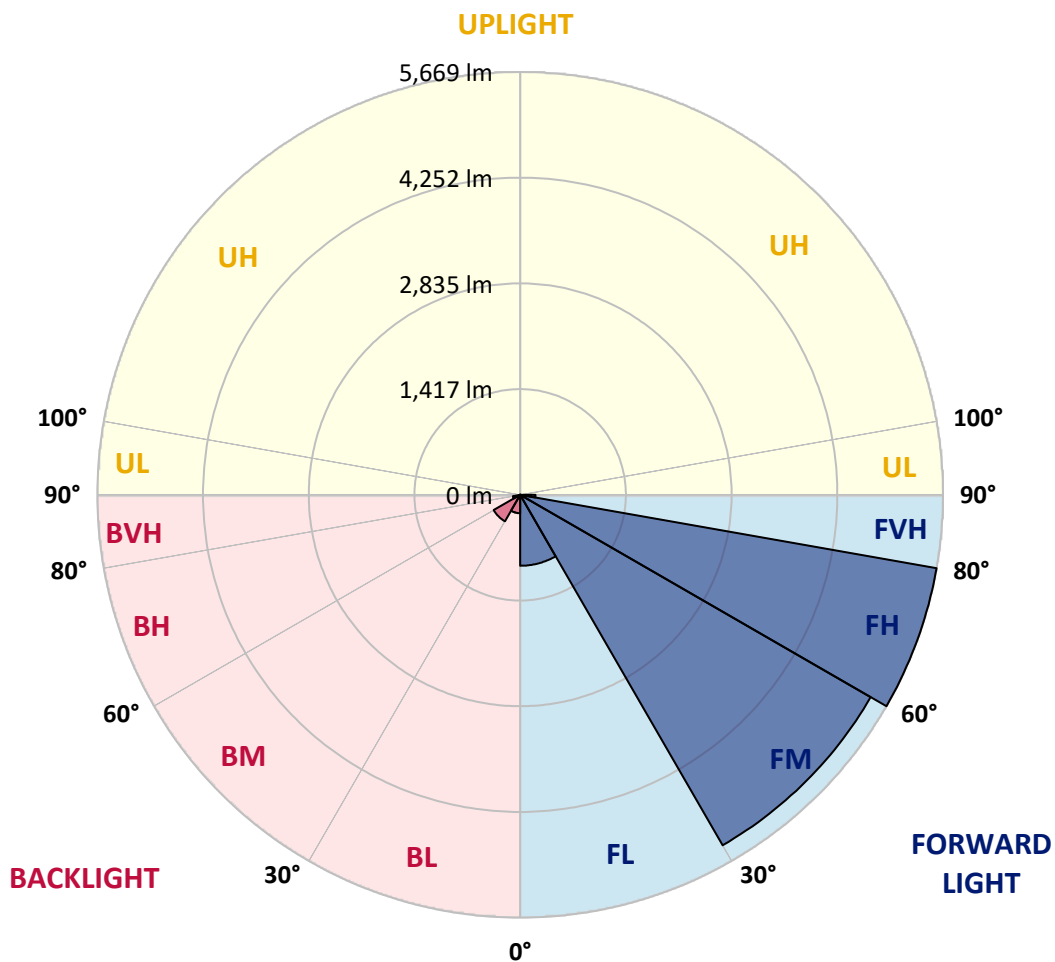
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	951.6	7.3			
FM	(30°-60°)	5425.7	41.7			
FH	(60°-80°)	5669.1	43.6			G3/7500
FVH	(80°-90°)	205.4	1.6			G2/225
BL	(0°-30°)	246.6	1.9	B1/500		
BM	(30°-60°)	409.2	3.1	B1/1000		
BH	(60°-80°)	98.9	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°	1944.2	1944.2	1944.2	1944.2	1944.2	1944.2	1944.2	1944.2	1944.2	1944.2	1944.2
2.5°	2134.8	2123.2	2116.2	2106.9	2095.3	2085.2	2081.3	2052.7	2025.6	1988.4	1945.8
5°	2174.3	2170.4	2158.0	2145.6	2131.7	2116.2	2107.7	2073.6	2034.9	1980.6	1906.3
7.5°	2178.2	2173.5	2158.0	2141.0	2121.6	2103.0	2088.3	2054.2	2018.6	1963.6	1873.0
10°	2172.0	2166.6	2154.9	2136.3	2112.3	2094.5	2079.8	2047.3	2017.1	1967.5	1866.8
12.5°	2165.0	2159.6	2154.2	2144.9	2123.9	2111.6	2099.2	2068.2	2041.1	1999.2	1889.2
15°	2172.0	2168.9	2175.1	2171.2	2159.6	2148.7	2136.3	2108.5	2083.7	2048.8	1930.3
17.5°	2201.4	2201.4	2220.8	2223.1	2212.3	2196.8	2178.9	2151.1	2130.1	2100.7	1979.1
20°	2270.3	2268.0	2292.8	2297.5	2271.1	2247.1	2220.8	2186.7	2170.4	2151.8	2027.1
22.5°	2388.9	2378.0	2392.7	2388.1	2336.2	2299.0	2266.5	2224.6	2216.1	2207.6	2080.6
25°	2543.0	2536.8	2546.9	2501.2	2409.8	2359.4	2320.7	2273.4	2273.4	2282.0	2141.0
27.5°	2766.9	2743.6	2709.5	2629.0	2491.9	2427.6	2385.8	2335.4	2348.6	2380.3	2220.8
30°	2996.1	2970.6	2892.4	2768.4	2591.8	2524.4	2475.6	2422.9	2453.9	2512.0	2327.7
32.5°	3222.3	3193.7	3082.9	2926.4	2735.1	2667.7	2620.5	2562.4	2614.3	2711.9	2484.1
35°	3441.5	3416.0	3288.2	3103.8	2925.7	2869.9	2826.5	2776.2	2842.8	2979.1	2704.9
37.5°	3687.9	3660.0	3504.3	3304.4	3157.3	3117.0	3085.2	3034.9	3151.1	3350.9	3012.4
40°	3990.7	3943.5	3733.6	3534.5	3425.3	3405.9	3384.2	3377.2	3557.7	3834.3	3422.2
42.5°	4337.8	4260.3	3973.7	3776.9	3719.6	3733.6	3728.1	3759.1	4066.6	4435.4	3921.0
45°	4684.8	4584.8	4240.9	4035.7	4043.4	4092.2	4122.4	4246.3	4704.1	5124.7	4457.8
47.5°	4979.1	4880.7	4497.3	4315.3	4408.2	4504.3	4586.4	4821.1	5359.4	5803.3	4875.3
50°	5230.9	5137.9	4769.2	4622.8	4831.9	4986.9	5120.1	5467.9	6064.3	6319.9	5168.1
52.5°	5436.9	5374.9	5051.2	4975.2	5316.1	5543.0	5738.2	6155.0	6688.7	6739.8	5395.9
55°	5637.5	5593.4	5354.0	5394.3	5884.6	6193.7	6440.8	6883.9	7226.2	7089.9	5614.3
57.5°	5868.4	5828.1	5699.5	5925.7	6632.1	7021.0	7290.5	7529.9	7699.5	7447.8	5820.3
60°	6103.8	6080.6	6083.7	6515.9	7490.4	7863.7	8012.4	8074.4	8164.3	7784.7	5832.0
62.5°	6328.5	6372.6	6522.9	7172.8	8312.2	8598.8	8674.0	8735.1	8629.8	7838.2	5388.1
65°	6708.8	6780.8	7139.5	8052.0	9216.2	9522.9	9600.4	9390.5	8703.4	7147.2	4382.7
67.5°	6894.7	7026.4	7666.2	8871.5	10093.0	10433.8	10405.2	9433.1	7810.3	5450.1	2812.6
69°	6856.0	6996.2	7787.8	9122.4	10384.3	10693.3	10511.3	8911.8	6653.8	3948.1	1726.6
70°	6702.6	6844.4	7725.1	9113.2	10421.4	10666.2	10314.6	8268.1	5625.9	2886.9	1079.8
72.5°	5597.2	5719.6	6858.3	8237.1	9600.4	9401.3	8629.0	5728.2	2741.3	786.2	243.2
75°	3445.4	3513.6	4921.0	6205.3	7251.0	6739.8	5749.1	2849.7	817.2	222.3	134.8
77.5°	1820.3	1851.3	2694.1	3657.7	4596.5	3803.3	2946.6	1111.5	376.5	139.4	97.6
80°	1075.9	1099.2	1450.8	1672.4	1989.2	1661.5	1178.2	682.4	269.6	87.5	86.8
82.5°	615.8	630.5	1051.9	929.5	783.9	669.3	586.4	646.8	161.9	58.9	89.9
85°	226.2	229.3	591.8	707.2	466.3	277.3	291.2	536.0	43.4	37.2	70.5
87.5°	105.3	103.0	304.4	433.0	272.7	175.8	227.0	117.7	17.0	24.0	19.4
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°	1944.2	1944.2	1944.2	1944.2	1944.2	1944.2	1944.2	1944.2	1944.2	1944.2	1944.2
2.5°	1921.0	1892.3	1840.4	1787.0	1732.8	1690.9	1649.9	1617.4	1606.5	1586.4	1587.9
5°	1862.1	1809.5	1701.0	1591.0	1476.4	1381.9	1292.8	1220.8	1185.9	1150.3	1150.3
7.5°	1811.0	1734.3	1564.7	1385.8	1200.6	1044.9	904.7	799.4	741.3	694.8	694.0
10°	1791.6	1687.9	1450.8	1194.4	936.5	724.2	557.7	450.8	395.8	360.2	358.6
12.5°	1800.2	1671.6	1363.3	1017.8	694.0	465.5	323.0	254.1	230.8	220.0	220.0
15°	1825.0	1666.9	1275.8	845.1	490.3	291.2	214.6	196.0	194.4	194.4	194.4
17.5°	1855.2	1668.5	1185.9	677.0	333.9	208.4	185.1	182.8	184.4	184.4	184.4
20°	1886.1	1669.3	1089.1	521.3	235.5	181.3	174.3	173.5	175.1	175.1	175.8
22.5°	1924.1	1673.1	992.3	389.6	194.4	171.2	165.8	165.8	166.5	166.5	165.8
25°	1967.5	1680.9	891.6	288.9	177.4	164.2	159.6	158.8	159.6	158.8	158.0
27.5°	2021.7	1691.7	779.2	226.2	169.6	157.2	153.4	153.4	152.6	151.8	151.0
30°	2089.9	1704.1	653.0	192.1	161.9	151.0	147.2	146.4	145.6	144.1	144.1
32.5°	2193.7	1731.2	528.3	174.3	153.4	142.5	139.4	139.4	137.9	136.3	135.6
35°	2353.2	1784.7	416.7	163.4	144.1	133.2	129.4	129.4	127.8	127.0	126.3
37.5°	2574.0	1866.0	323.8	153.4	134.8	123.2	119.3	118.5	117.0	115.4	114.6
40°	2867.6	1966.7	254.8	144.1	125.5	113.1	110.0	108.4	105.3	103.0	103.0
42.5°	3236.3	2081.3	206.8	134.0	114.6	103.8	101.5	99.1	93.7	91.4	90.6
45°	3622.0	2184.4	175.1	122.4	103.8	94.5	93.0	89.1	82.1	79.8	79.8
47.5°	3900.1	2208.4	154.1	111.5	93.7	84.4	83.7	76.7	70.5	68.9	68.2
50°	4073.6	2161.1	137.1	100.7	84.4	75.1	72.8	64.3	60.4	58.9	58.1
52.5°	4190.6	2076.7	123.2	91.4	75.9	66.6	61.2	55.0	51.9	50.3	50.3
55°	4284.3	1957.4	109.2	82.9	68.9	59.6	51.9	47.3	44.2	42.6	42.6
57.5°	4310.6	1795.5	95.3	75.9	62.0	52.7	44.2	41.1	37.2	36.4	36.4
60°	4119.3	1503.5	84.4	67.4	55.8	45.7	38.7	34.9	31.0	30.2	29.4
62.5°	3615.1	1163.4	74.4	59.6	48.8	39.5	33.3	28.7	25.6	25.6	25.6
65°	2757.6	780.0	65.1	51.9	42.6	33.3	28.7	23.2	21.7	21.7	22.5
67.5°	1650.7	424.5	55.8	44.2	36.4	27.9	24.0	20.1	19.4	20.1	20.1
69°	967.5	249.4	50.3	39.5	31.8	24.8	20.9	17.8	19.4	20.1	20.1
70°	597.2	168.1	46.5	35.6	28.7	22.5	19.4	17.0	18.6	19.4	19.4
72.5°	166.5	86.8	37.2	27.9	23.2	18.6	15.5	15.5	17.8	18.6	18.6
75°	108.4	64.3	28.7	20.9	17.8	14.7	13.2	14.7	17.0	17.8	17.8
77.5°	89.9	52.7	23.2	17.0	14.7	13.9	12.4	13.2	15.5	16.3	16.3
80°	82.1	37.2	18.6	15.5	13.2	12.4	11.6	10.8	13.9	14.7	14.7
82.5°	78.2	29.4	16.3	13.9	12.4	10.8	10.1	10.8	12.4	13.2	13.9
85°	48.8	19.4	14.7	13.2	10.8	10.1	10.1	10.1	11.6	12.4	12.4
87.5°	17.8	15.5	13.2	10.8	9.3	9.3	9.3	9.3	10.1	11.6	11.6
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)