

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: STREETWORKS

Report Number: P320176

Luminaire Tested: **GAN-SA2D-830-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P320176
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-24)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA2D-830-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11987 lumens
Efficiency: N/A
Efficacy: 92.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

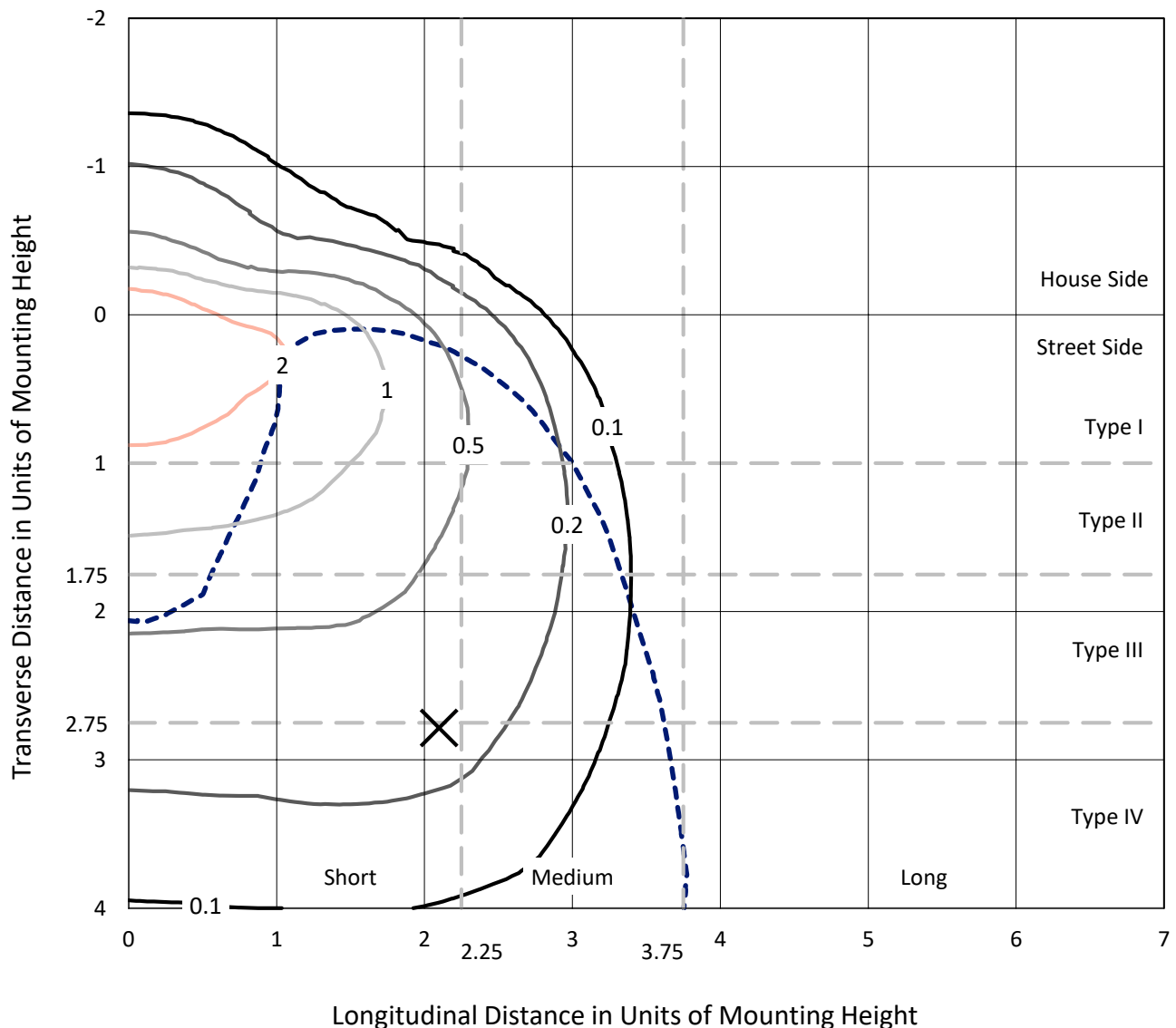
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

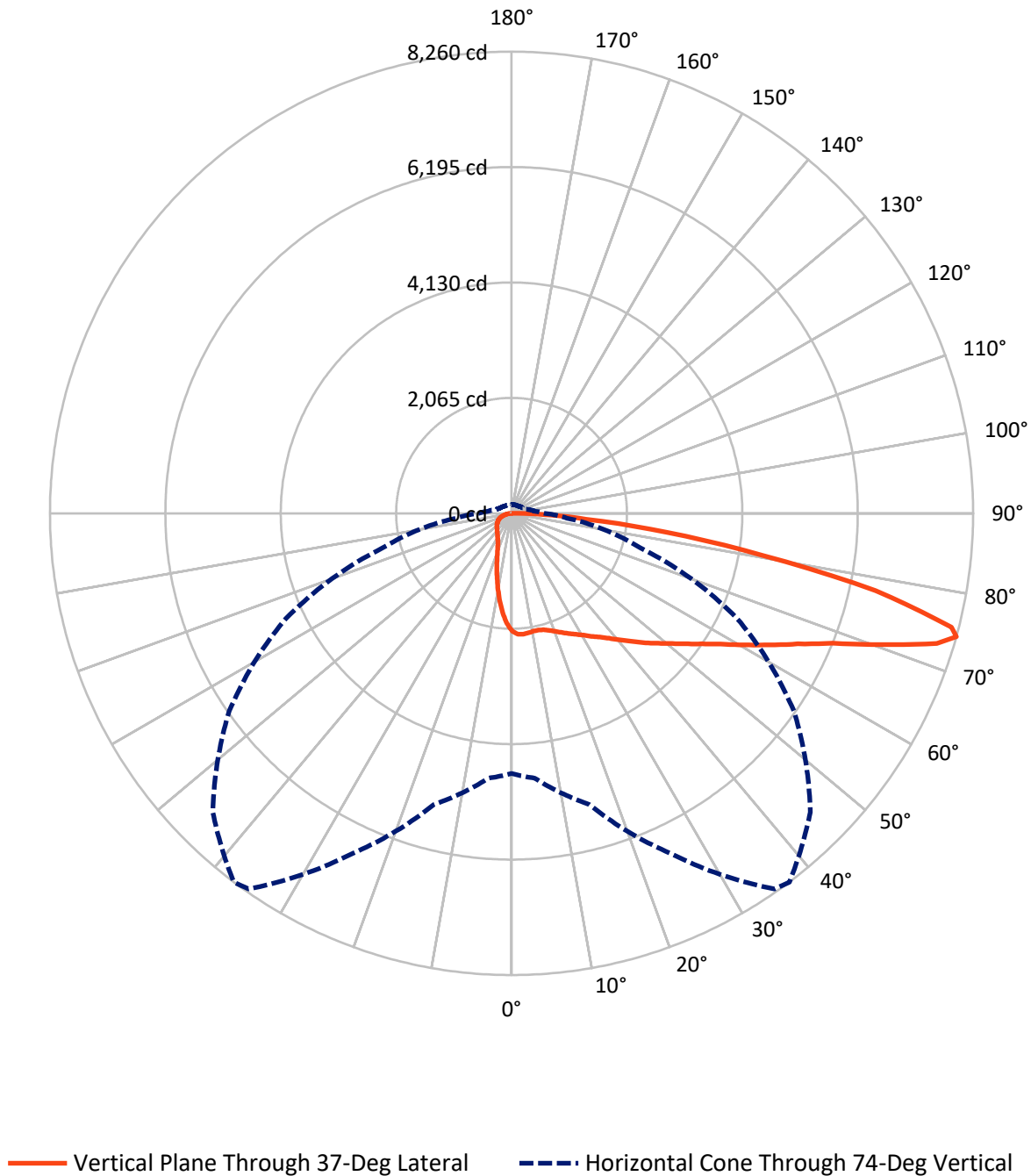
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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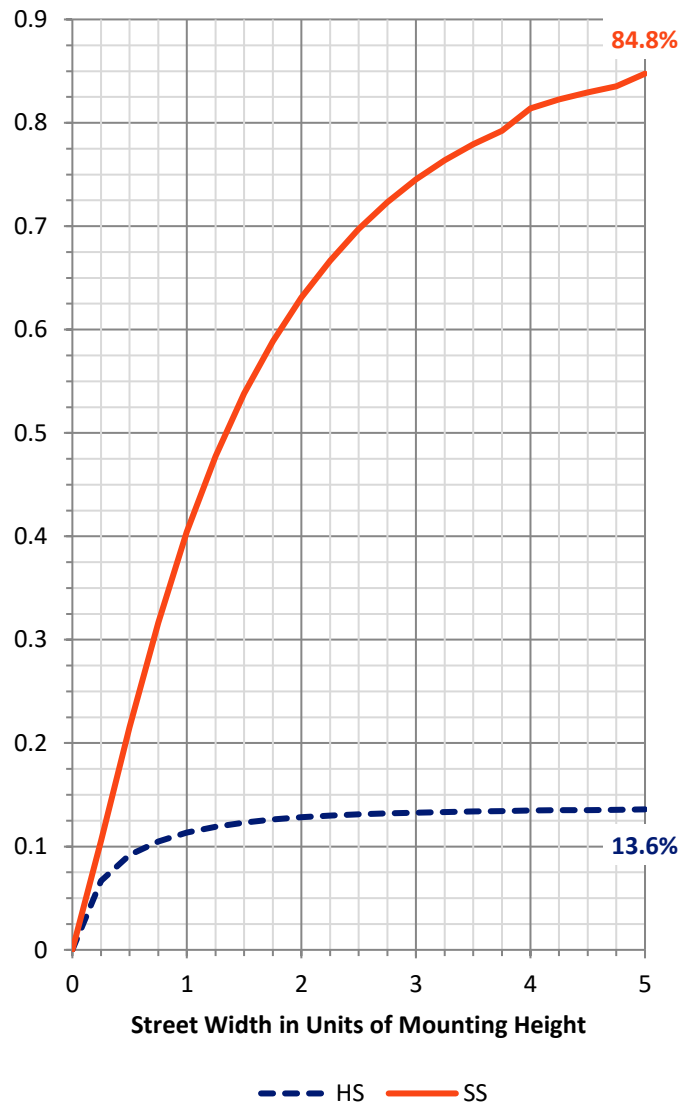
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1649.3	0.0	1649.3
	% Fixture	13.8	0.0	13.8
Street Side	Lumens	10337.7	0.0	10337.7
	% Fixture	86.2	0.0	86.2
Total	Lumens	11987.0	0.0	11987.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.0	1.6
10°-20°	476.7	4.0
20°-30°	734.6	6.1
30°-40°	1068.2	8.9
40°-50°	1572.2	13.1
50°-60°	2207.8	18.4
60°-70°	2794.4	23.3
70°-80°	2460.6	20.5
80°-90°	486.5	4.1
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°	11987.0	100.0
0°-180°	11987.0	100.0

Coefficient of Utilization



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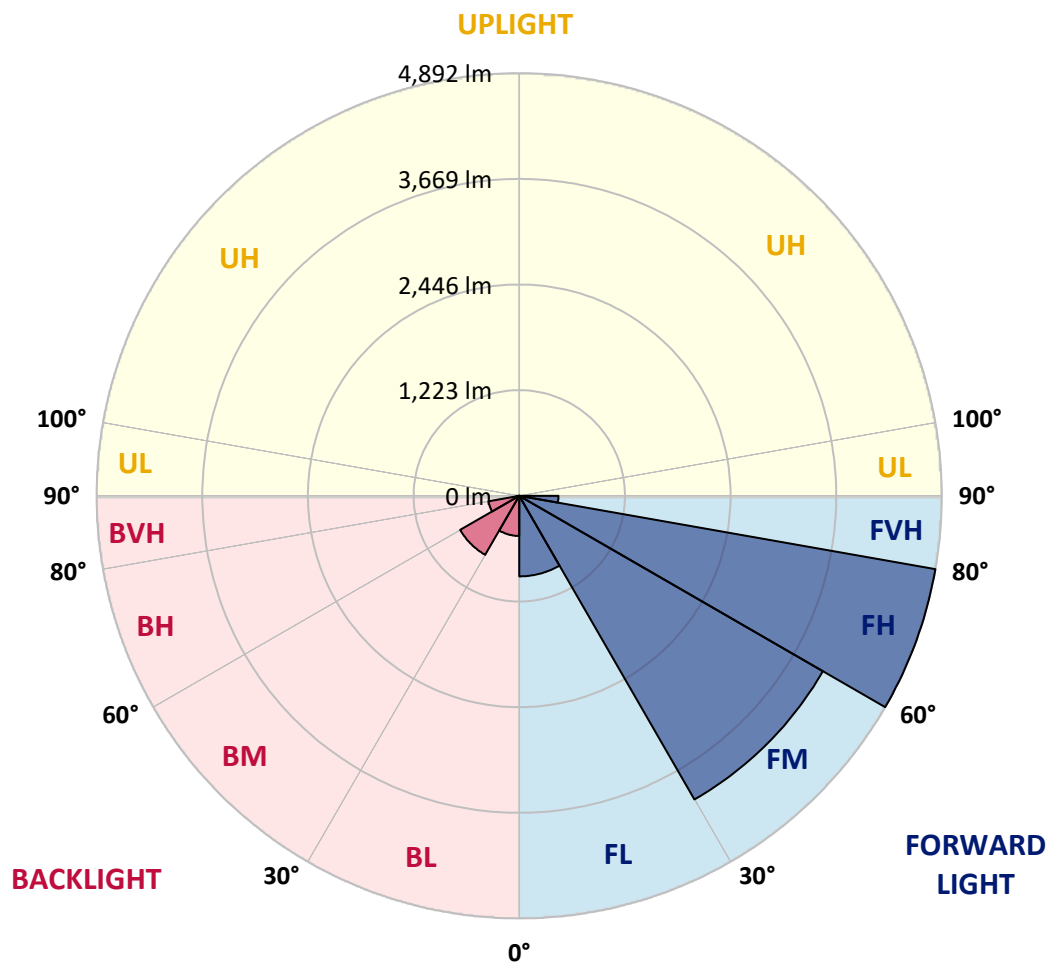
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	932.7	7.8			
FM	(30°-60°)	4058.9	33.9			
FH	(60°-80°)	4892.5	40.8			G2/5000
FVH	(80°-90°)	453.6	3.8			G3/500
BL	(0°-30°)	464.6	3.9	B1/500		
BM	(30°-60°)	789.3	6.6	B1/1000		
BH	(60°-80°)	362.5	3.0	B1/500		G1/500
BVH	(80°-90°)	32.9	0.3			G1/100
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°	37°	45°	55°	65°	75°	85°
0°	2112.1	2112.1	2112.1	2112.1	2112.1	2112.1	2112.1	2112.1	2112.1	2112.1	2112.1
2.5°	2184.3	2184.7	2184.3	2180.9	2172.9	2166.1	2160.6	2152.6	2134.9	2121.4	2101.1
5°	2205.0	2202.4	2200.7	2194.4	2181.7	2174.1	2163.6	2148.4	2119.2	2092.2	2059.3
7.5°	2195.2	2192.3	2188.5	2180.9	2166.5	2160.2	2145.4	2125.6	2090.5	2055.1	2007.8
10°	2165.3	2164.4	2162.7	2161.0	2148.8	2143.7	2130.2	2109.1	2074.5	2031.4	1976.1
12.5°	2131.9	2134.0	2140.8	2149.6	2144.2	2141.6	2133.2	2118.8	2083.4	2036.9	1970.2
15°	2110.8	2116.7	2134.9	2158.1	2162.7	2161.9	2159.8	2150.5	2112.9	2061.4	1983.7
17.5°	2103.6	2113.3	2148.0	2186.4	2199.9	2202.8	2203.7	2187.6	2145.8	2091.4	1997.6
20°	2116.7	2129.0	2179.6	2232.4	2253.9	2255.6	2251.8	2224.0	2177.1	2117.1	2005.2
22.5°	2156.4	2167.4	2230.7	2290.2	2314.7	2317.3	2305.9	2263.6	2210.0	2147.5	2015.8
25°	2232.8	2246.3	2309.7	2369.2	2381.9	2382.3	2365.8	2313.5	2253.1	2190.2	2038.6
27.5°	2332.5	2346.0	2403.0	2461.3	2454.5	2450.7	2428.3	2376.0	2309.3	2248.9	2079.1
30°	2443.5	2458.3	2512.3	2553.7	2537.7	2530.1	2511.9	2444.4	2387.4	2329.1	2141.2
32.5°	2558.4	2571.9	2619.2	2647.5	2627.2	2623.8	2596.4	2534.7	2489.1	2451.5	2241.7
35°	2676.2	2685.9	2732.3	2748.4	2721.4	2720.5	2712.9	2656.3	2627.6	2645.4	2387.8
37.5°	2796.5	2799.1	2838.7	2839.6	2831.6	2834.9	2843.0	2807.5	2815.5	2870.8	2577.8
40°	2903.8	2910.5	2939.2	2948.1	2962.0	2973.9	3014.0	2990.8	3052.8	3150.8	2814.3
42.5°	2983.2	2996.2	3042.3	3065.1	3110.2	3128.8	3185.4	3206.9	3331.9	3478.9	3095.5
45°	3050.3	3070.6	3144.4	3191.3	3267.7	3300.3	3381.3	3453.5	3647.3	3834.8	3391.5
47.5°	3122.9	3148.7	3241.1	3330.7	3434.5	3471.3	3618.6	3726.7	3983.9	4192.9	3670.6
50°	3229.7	3249.6	3339.9	3480.6	3610.2	3657.5	3861.4	4016.4	4325.9	4534.1	3912.5
52.5°	3378.8	3371.2	3447.6	3644.8	3818.8	3877.0	4120.7	4324.6	4672.5	4842.7	4116.9
55°	3528.7	3516.0	3569.6	3816.7	4062.0	4123.2	4406.1	4634.1	5002.3	5120.5	4273.5
57.5°	3695.5	3671.4	3716.6	4010.5	4339.0	4412.0	4725.8	4963.1	5326.6	5345.2	4373.2
60°	3867.3	3834.8	3885.5	4250.7	4690.7	4776.8	5099.9	5284.0	5632.3	5525.1	4405.3
62.5°	4017.6	3994.8	4073.0	4518.9	5087.2	5181.8	5467.2	5625.1	5933.8	5599.8	4289.6
65°	4149.0	4152.8	4287.9	4820.3	5529.3	5630.2	5888.6	6045.7	6171.1	5555.5	4018.9
67.5°	4305.6	4327.2	4557.7	5217.2	6085.8	6196.4	6501.7	6504.2	6303.7	5295.4	3486.0
70°	4534.1	4578.4	4928.9	5767.8	6877.1	7029.1	7264.7	6773.6	6117.5	4590.2	2742.9
72.5°	4736.7	4819.5	5323.6	6397.8	7841.5	7956.8	7711.0	6618.2	5339.3	3440.0	1708.8
74°	4654.4	4757.0	5395.4	6708.2	8204.6	8259.9	7560.3	6164.8	4451.7	2382.3	993.1
75°	4477.0	4588.5	5290.7	6705.2	8158.6	8127.8	7196.3	5646.7	3666.3	1624.8	660.8
77.5°	3613.1	3730.9	4458.0	5746.7	6689.6	6660.5	5528.0	3787.9	1605.8	532.9	335.7
80°	2100.7	2190.6	2767.4	3649.5	4510.8	4563.6	3635.5	1874.3	631.7	299.4	227.6
82.5°	933.2	995.2	1336.8	1862.9	2722.2	2790.2	1903.9	982.1	390.2	182.0	136.8
85°	612.3	658.3	811.6	887.1	1296.3	1342.7	931.9	764.7	257.6	100.1	100.5
87.5°	440.4	484.7	603.0	526.5	594.9	563.3	507.1	707.7	103.4	57.0	33.8
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°	2112.1	2112.1	2112.1	2112.1	2112.1	2112.1	2112.1	2112.1	2112.1	2112.1	2112.1
2.5°	2092.2	2085.5	2070.3	2041.5	2025.5	2012.0	1989.6	1976.5	1970.6	1970.2	1972.7
5°	2040.3	2024.7	1985.4	1937.3	1898.8	1863.8	1820.3	1794.1	1775.5	1764.6	1767.5
7.5°	1979.9	1955.4	1893.8	1816.9	1755.3	1687.3	1620.1	1580.0	1548.8	1525.6	1529.8
10°	1938.5	1904.7	1814.8	1704.2	1601.6	1502.8	1410.3	1355.0	1311.1	1277.3	1279.8
12.5°	1924.6	1879.0	1754.4	1606.6	1462.7	1327.5	1206.8	1121.9	1076.7	1038.3	1041.3
15°	1926.7	1865.5	1703.8	1518.8	1337.7	1167.5	1021.0	921.8	860.5	833.9	834.4
17.5°	1928.4	1849.8	1650.6	1424.7	1214.0	1018.0	858.8	758.3	700.5	676.0	676.4
20°	1922.9	1824.5	1584.7	1316.6	1084.7	880.8	726.7	641.4	597.5	578.5	578.5
22.5°	1915.7	1794.5	1510.4	1208.0	957.2	761.7	632.1	567.1	541.7	529.1	528.6
25°	1919.1	1772.2	1434.4	1096.6	839.8	666.7	569.2	526.1	509.2	501.2	500.8
27.5°	1937.3	1761.6	1364.3	985.5	737.2	595.4	527.0	496.6	485.6	480.5	480.5
30°	1970.2	1761.6	1291.2	890.9	651.9	542.6	494.4	473.8	466.2	462.8	462.8
32.5°	2027.6	1771.3	1220.7	797.2	584.0	501.2	467.4	453.5	447.6	445.9	445.9
35°	2126.4	1804.2	1151.9	708.5	529.1	467.4	441.7	433.6	429.4	429.0	430.3
37.5°	2265.3	1871.4	1087.3	643.1	490.2	440.0	420.1	413.8	411.3	413.4	415.1
40°	2440.1	1962.6	1028.6	584.0	460.7	418.0	400.3	396.1	394.8	397.8	400.3
42.5°	2651.3	2085.9	980.4	541.3	437.9	399.4	383.4	378.3	377.1	380.4	383.8
45°	2879.7	2218.5	946.7	509.6	420.1	385.5	368.6	363.1	360.6	362.3	366.1
47.5°	3087.4	2343.9	933.2	487.3	403.2	373.7	355.5	348.8	344.6	343.7	346.7
50°	3262.7	2437.2	939.5	473.8	389.7	360.6	342.9	335.3	328.9	325.1	327.2
52.5°	3390.2	2495.9	945.4	467.8	379.2	346.2	328.9	321.7	313.3	307.0	307.0
55°	3482.7	2509.4	932.3	463.2	371.2	330.6	313.3	306.5	298.1	290.9	290.1
57.5°	3519.0	2471.4	883.8	456.4	365.7	315.8	296.8	291.8	284.6	276.1	275.7
60°	3470.0	2354.0	790.0	442.1	358.5	303.6	280.4	277.0	273.6	265.6	265.2
62.5°	3273.2	2096.4	668.8	413.0	344.1	290.5	265.2	266.9	267.3	261.8	260.9
65°	2916.4	1742.6	550.6	375.0	322.6	274.9	249.5	257.6	262.2	261.4	260.1
67.5°	2397.9	1356.2	466.6	334.8	294.3	253.3	232.7	241.9	245.7	248.7	247.9
70°	1779.8	956.4	385.9	292.6	260.1	228.0	210.7	215.3	212.8	216.2	217.5
72.5°	992.3	573.8	314.6	250.4	224.6	198.5	186.2	185.4	179.9	179.9	179.9
74°	595.4	421.0	276.6	224.2	203.1	179.0	168.5	164.7	159.6	160.0	159.6
75°	478.8	361.9	253.8	206.9	187.9	167.6	157.1	152.0	148.2	148.2	147.8
77.5°	302.3	274.9	204.4	164.7	150.3	138.1	130.9	124.1	124.1	123.7	123.3
80°	228.4	218.7	159.2	124.6	115.3	106.0	101.3	98.4	98.4	99.6	99.2
82.5°	156.7	164.7	111.9	87.0	82.3	75.6	74.7	75.2	73.9	72.2	71.8
85°	114.4	123.7	75.6	54.9	50.2	46.0	49.4	51.1	49.0	45.2	43.5
87.5°	43.9	81.1	40.5	22.8	21.1	18.2	21.1	22.0	23.6	18.6	19.0
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)