

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: P320136

Luminaire Tested: **GAN-SA2D-827-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P320136
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-827-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 2700K, 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: 11089 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

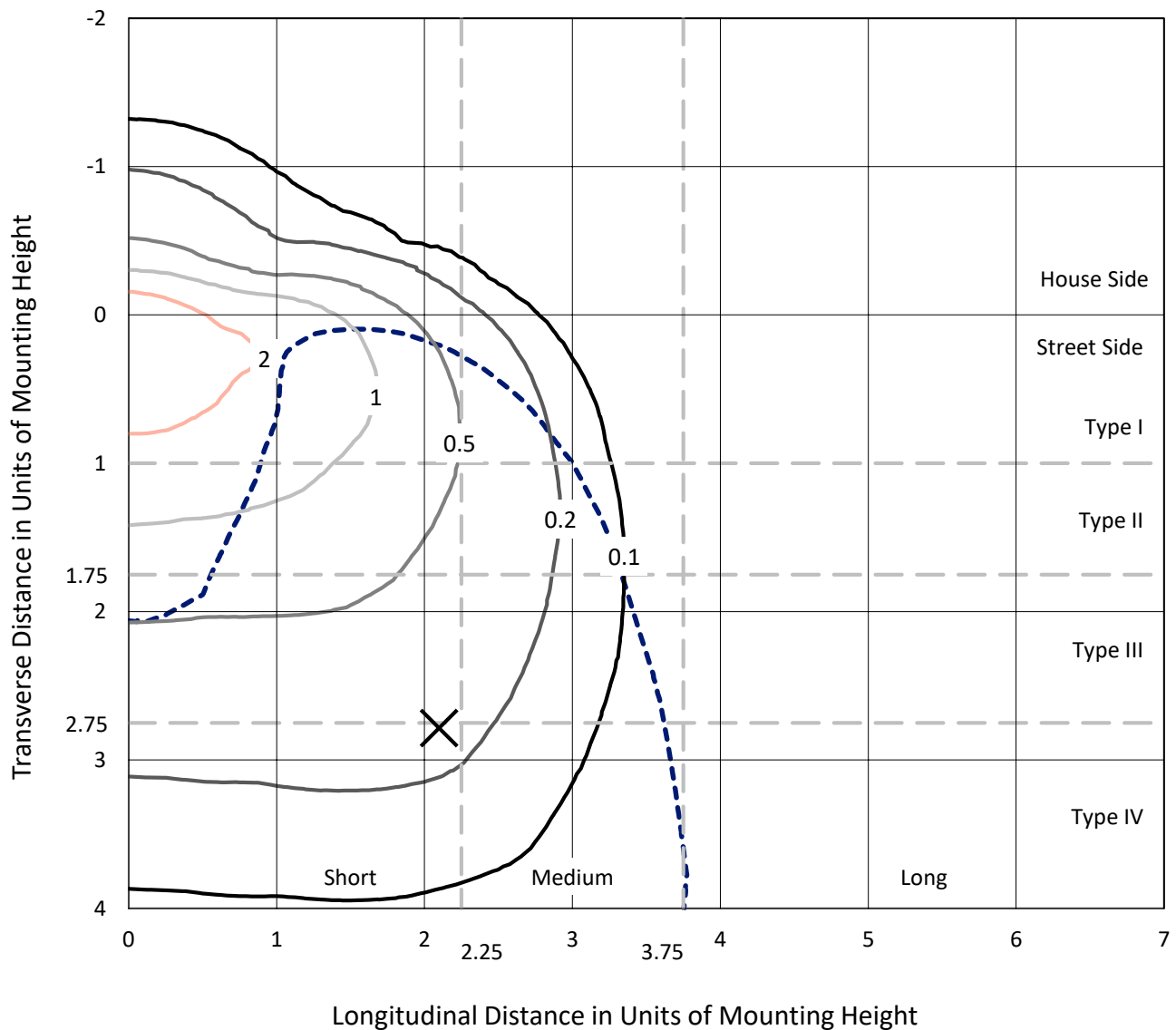
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

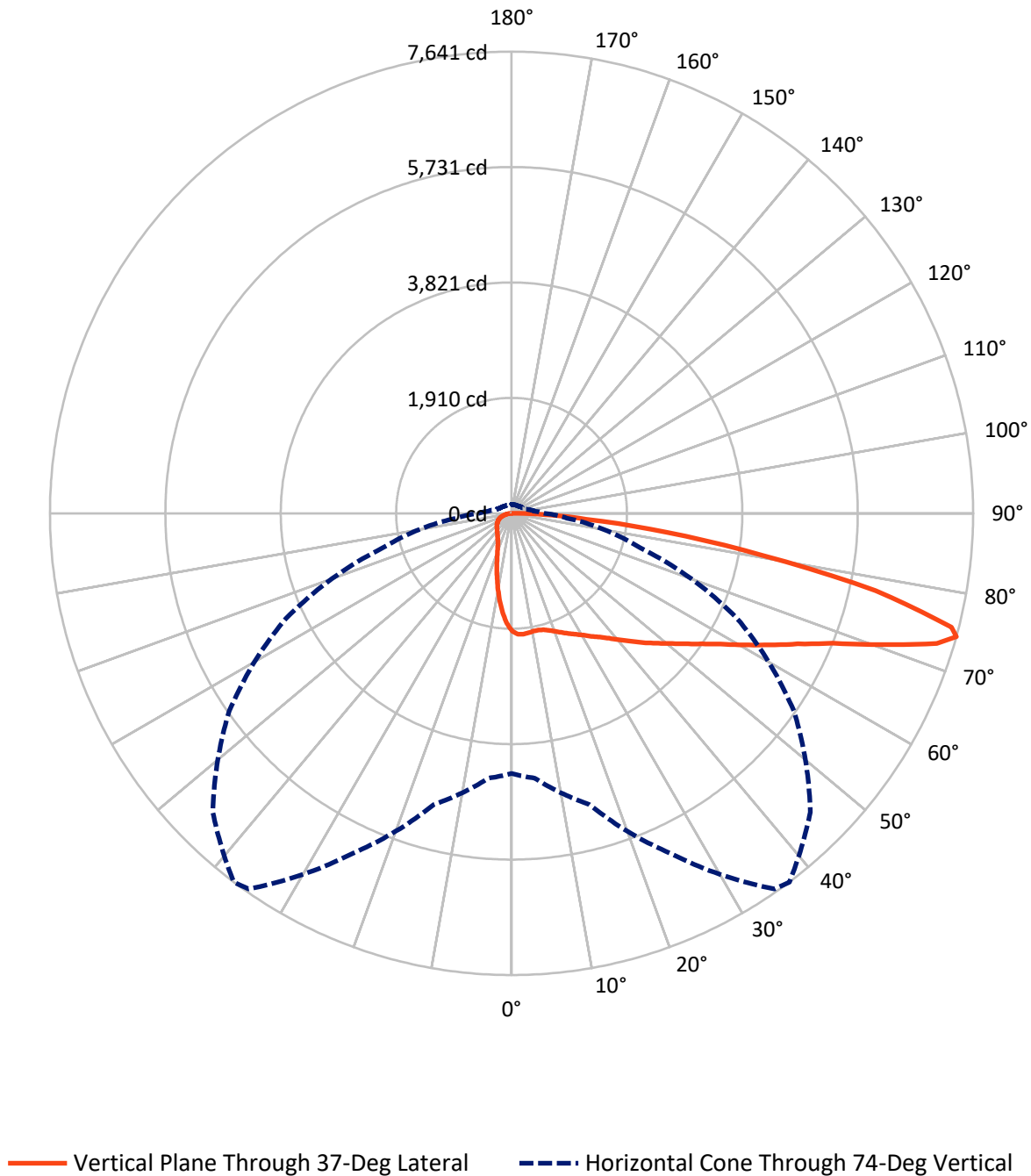
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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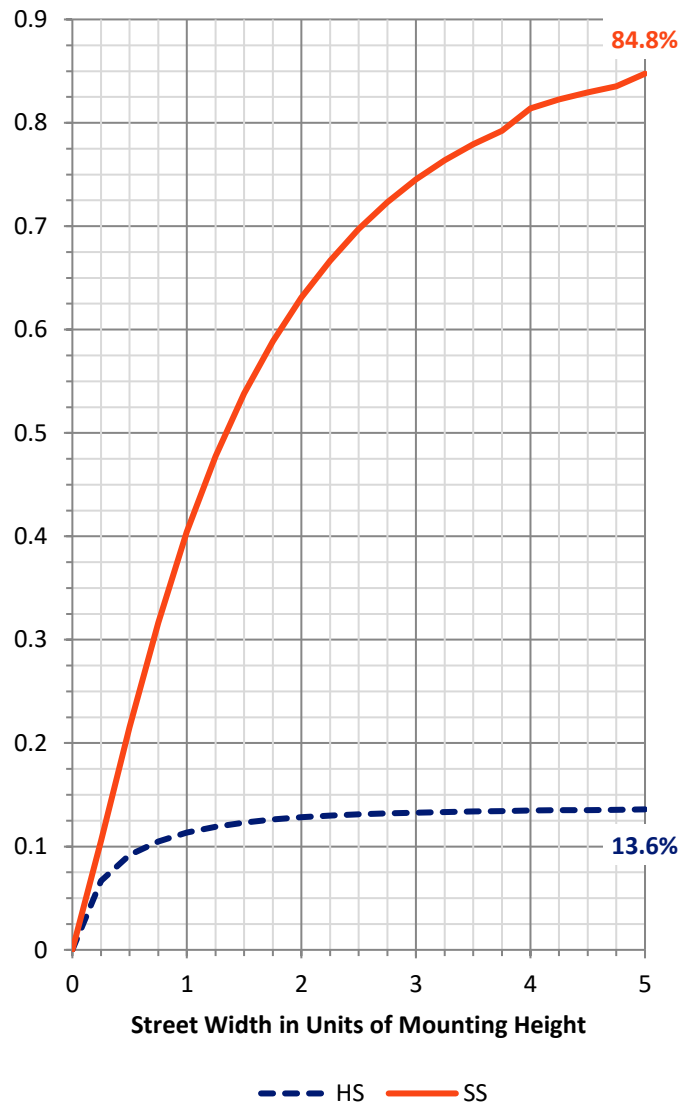
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1525.8	0.0	1525.8
	% Fixture	13.8	0.0	13.8
Street Side	Lumens	9563.2	0.0	9563.2
	% Fixture	86.2	0.0	86.2
Total	Lumens	11089.0	0.0	11089.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.1	1.6
10°-20°	441.0	4.0
20°-30°	679.5	6.1
30°-40°	988.2	8.9
40°-50°	1454.4	13.1
50°-60°	2042.4	18.4
60°-70°	2585.1	23.3
70°-80°	2276.3	20.5
80°-90°	450.1	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°	11089.0	100.0
0°-180°	11089.0	100.0

Coefficient of Utilization



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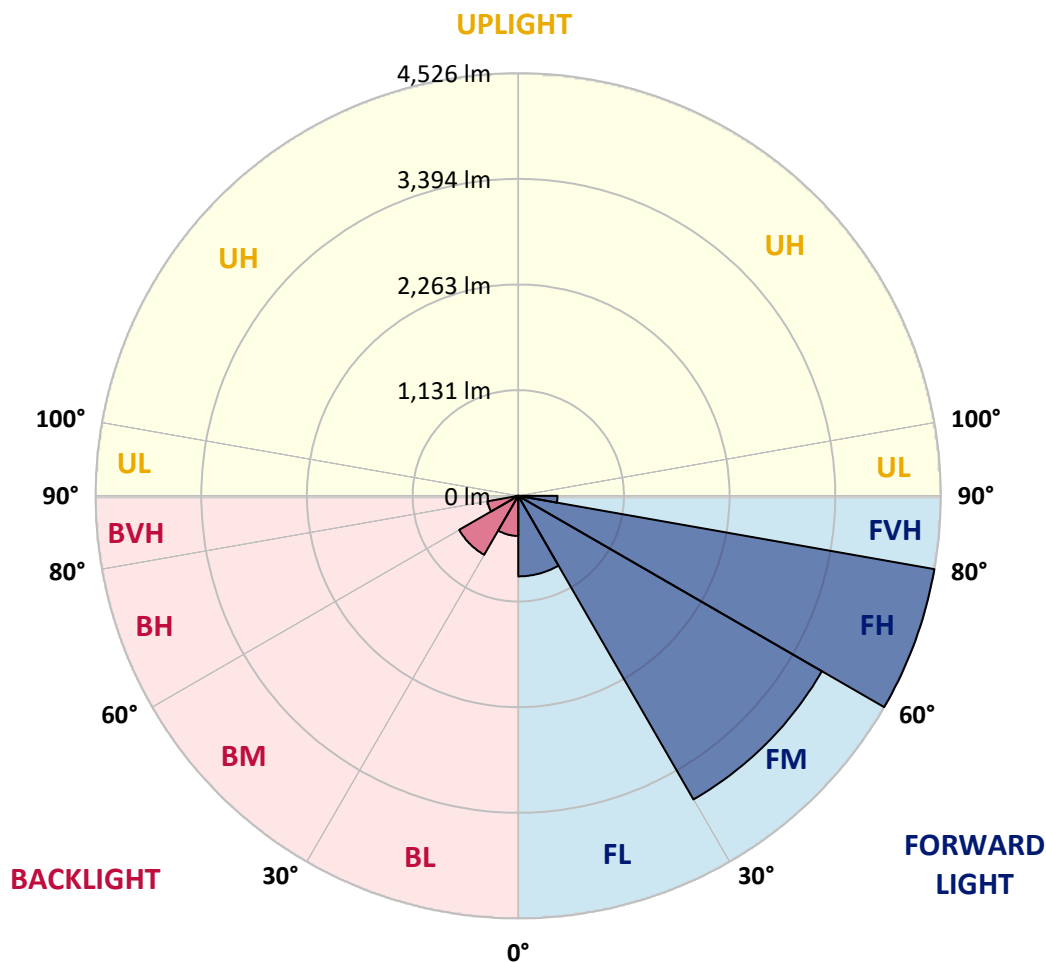
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	862.9	7.8			
FM	(30°-60°)	3754.8	33.9			
FH	(60°-80°)	4526.0	40.8			G2/5000
FVH	(80°-90°)	419.6	3.8			G3/500
BL	(0°-30°)	429.8	3.9	B1/500		
BM	(30°-60°)	730.1	6.6	B1/1000		
BH	(60°-80°)	335.4	3.0	B1/500		G1/500
BVH	(80°-90°)	30.5	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°	1953.8	1953.8	1953.8	1953.8	1953.8	1953.8	1953.8	1953.8	1953.8	1953.8	1953.8
2.5°	2020.6	2021.0	2020.6	2017.5	2010.1	2003.8	1998.8	1991.3	1974.9	1962.4	1943.7
5°	2039.8	2037.4	2035.9	2030.0	2018.3	2011.3	2001.5	1987.4	1960.5	1935.5	1905.0
7.5°	2030.8	2028.1	2024.5	2017.5	2004.2	1998.4	1984.7	1966.3	1933.9	1901.1	1857.4
10°	2003.1	2002.3	2000.7	1999.1	1987.8	1983.1	1970.6	1951.1	1919.1	1879.2	1828.1
12.5°	1972.2	1974.2	1980.4	1988.6	1983.5	1981.2	1973.4	1960.1	1927.3	1884.3	1822.6
15°	1952.7	1958.1	1974.9	1996.4	2000.7	1999.9	1998.0	1989.4	1954.6	1907.0	1835.1
17.5°	1946.0	1955.0	1987.0	2022.6	2035.1	2037.8	2038.6	2023.8	1985.1	1934.7	1848.0
20°	1958.1	1969.5	2016.3	2065.2	2085.1	2086.6	2083.1	2057.4	2014.0	1958.5	1855.0
22.5°	1994.9	2005.0	2063.6	2118.7	2141.3	2143.7	2133.1	2094.1	2044.5	1986.7	1864.8
25°	2065.6	2078.1	2136.6	2191.7	2203.4	2203.8	2188.6	2140.2	2084.3	2026.1	1885.9
27.5°	2157.7	2170.2	2223.0	2276.9	2270.6	2267.1	2246.4	2198.0	2136.3	2080.4	1923.4
30°	2260.5	2274.1	2324.1	2362.4	2347.6	2340.5	2323.7	2261.3	2208.5	2154.6	1980.8
32.5°	2366.7	2379.2	2423.0	2449.1	2430.4	2427.3	2401.9	2344.8	2302.7	2267.9	2073.8
35°	2475.7	2484.7	2527.6	2542.5	2517.5	2516.7	2509.7	2457.3	2430.8	2447.2	2208.9
37.5°	2587.0	2589.4	2626.1	2626.9	2619.4	2622.6	2630.0	2597.2	2604.6	2655.8	2384.7
40°	2686.2	2692.5	2719.0	2727.2	2740.1	2751.1	2788.2	2766.7	2824.1	2914.7	2603.4
42.5°	2759.7	2771.8	2814.4	2835.4	2877.2	2894.4	2946.8	2966.7	3082.3	3218.2	2863.6
45°	2821.8	2840.5	2908.9	2952.2	3022.9	3053.0	3128.0	3194.8	3374.1	3547.5	3137.4
47.5°	2889.0	2912.8	2998.3	3081.1	3177.2	3211.2	3347.5	3447.5	3685.4	3878.8	3395.6
50°	2987.8	3006.1	3089.7	3219.8	3339.7	3383.5	3572.1	3715.5	4001.8	4194.4	3619.4
52.5°	3125.7	3118.6	3189.3	3371.8	3532.7	3586.6	3812.0	4000.6	4322.5	4479.9	3808.5
55°	3264.3	3252.6	3302.2	3530.7	3757.7	3814.3	4076.0	4287.0	4627.6	4736.9	3953.4
57.5°	3418.6	3396.4	3438.2	3710.0	4013.9	4081.5	4371.7	4591.2	4927.6	4944.8	4045.6
60°	3577.6	3547.5	3594.4	3932.3	4339.3	4419.0	4717.8	4888.1	5210.4	5111.2	4075.2
62.5°	3716.7	3695.6	3767.8	4180.3	4706.1	4793.6	5057.6	5203.7	5489.3	5180.3	3968.2
65°	3838.1	3841.7	3966.7	4459.2	5115.1	5208.4	5447.5	5592.8	5708.8	5139.3	3717.8
67.5°	3983.1	4003.0	4216.3	4826.4	5629.9	5732.2	6014.6	6017.0	5831.4	4898.7	3224.9
70°	4194.4	4235.4	4559.6	5335.8	6361.9	6502.5	6720.5	6266.2	5659.2	4246.3	2537.4
72.5°	4381.9	4458.4	4924.8	5918.5	7254.0	7360.7	7133.3	6122.4	4939.3	3182.3	1580.8
74°	4305.7	4400.6	4991.2	6205.6	7590.0	7641.1	6993.9	5702.9	4118.2	2203.8	918.7
75°	4141.7	4244.8	4894.4	6202.9	7547.4	7518.9	6657.2	5223.6	3391.7	1503.1	611.3
77.5°	3342.5	3451.4	4124.1	5316.2	6188.5	6161.5	5113.9	3504.2	1485.5	493.0	310.5
80°	1943.3	2026.5	2560.1	3376.1	4172.9	4221.7	3363.2	1733.9	584.4	276.9	210.5
82.5°	863.3	920.7	1236.7	1723.4	2518.3	2581.2	1761.3	908.6	360.9	168.4	126.6
85°	566.4	609.0	750.8	820.7	1199.2	1242.1	862.1	707.4	238.3	92.6	93.0
87.5°	407.4	448.4	557.8	487.1	550.4	521.1	469.1	654.7	95.7	52.7	31.2
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°	1953.8	1953.8	1953.8	1953.8	1953.8	1953.8	1953.8	1953.8	1953.8	1953.8	1953.8
2.5°	1935.5	1929.2	1915.2	1888.6	1873.8	1861.3	1840.6	1828.5	1823.0	1822.6	1824.9
5°	1887.4	1873.0	1836.7	1792.1	1756.6	1724.2	1683.9	1659.7	1642.5	1632.4	1635.1
7.5°	1831.6	1808.9	1751.9	1680.8	1623.8	1560.9	1498.8	1461.7	1432.8	1411.3	1415.2
10°	1793.3	1762.0	1678.8	1576.5	1481.6	1390.2	1304.6	1253.5	1212.8	1181.6	1183.9
12.5°	1780.4	1738.2	1623.0	1486.3	1353.1	1228.1	1116.4	1037.9	996.1	960.5	963.2
15°	1782.4	1725.7	1576.1	1405.0	1237.5	1080.0	944.5	852.7	796.1	771.5	771.8
17.5°	1783.9	1711.3	1526.9	1317.9	1123.0	941.8	794.5	701.5	648.0	625.4	625.8
20°	1778.8	1687.8	1466.0	1217.9	1003.5	814.8	672.2	593.3	552.7	535.1	535.1
22.5°	1772.2	1660.1	1397.2	1117.5	885.5	704.7	584.7	524.6	501.2	489.4	489.0
25°	1775.3	1639.4	1326.9	1014.4	776.9	616.8	526.5	486.7	471.1	463.7	463.3
27.5°	1792.1	1629.6	1262.1	911.7	682.0	550.8	487.5	459.4	449.2	444.5	444.5
30°	1822.6	1629.6	1194.5	824.2	603.1	501.9	457.4	438.3	431.2	428.1	428.1
32.5°	1875.7	1638.6	1129.3	737.5	540.2	463.7	432.4	419.5	414.0	412.5	412.5
35°	1967.1	1669.1	1065.6	655.4	489.4	432.4	408.6	401.2	397.3	396.9	398.0
37.5°	2095.6	1731.2	1005.8	594.9	453.5	407.0	388.7	382.8	380.5	382.4	384.0
40°	2257.3	1815.6	951.5	540.2	426.2	386.7	370.3	366.4	365.2	368.0	370.3
42.5°	2452.6	1929.6	907.0	500.8	405.1	369.5	354.7	350.0	348.8	351.9	355.1
45°	2664.0	2052.3	875.8	471.5	388.7	356.6	341.0	335.9	333.6	335.1	338.7
47.5°	2856.2	2168.3	863.3	450.8	373.0	345.7	328.9	322.6	318.7	318.0	320.7
50°	3018.3	2254.6	869.1	438.3	360.5	333.6	317.2	310.1	304.3	300.8	302.7
52.5°	3136.2	2308.9	874.6	432.8	350.8	320.3	304.3	297.6	289.8	284.0	284.0
55°	3221.8	2321.4	862.5	428.5	343.3	305.8	289.8	283.6	275.8	269.1	268.4
57.5°	3255.4	2286.2	817.5	422.3	338.3	292.2	274.6	269.9	263.3	255.5	255.1
60°	3210.0	2177.7	730.8	409.0	331.6	280.8	259.4	256.2	253.1	245.7	245.3
62.5°	3028.0	1939.4	618.7	382.0	318.3	268.7	245.3	246.9	247.3	242.2	241.4
65°	2698.0	1612.1	509.4	346.9	298.4	254.3	230.9	238.3	242.6	241.8	240.6
67.5°	2218.3	1254.6	431.6	309.8	272.3	234.4	215.2	223.8	227.3	230.1	229.3
70°	1646.4	884.7	357.0	270.7	240.6	210.9	194.9	199.2	196.9	200.0	201.2
72.5°	917.9	530.8	291.0	231.6	207.8	183.6	172.3	171.5	166.4	166.4	166.4
74°	550.8	389.4	255.9	207.4	187.9	165.6	155.9	152.3	147.7	148.0	147.7
75°	443.0	334.8	234.8	191.4	173.8	155.1	145.3	140.6	137.1	137.1	136.7
77.5°	279.7	254.3	189.1	152.3	139.1	127.7	121.1	114.8	114.8	114.4	114.1
80°	211.3	202.3	147.3	115.2	106.6	98.0	93.7	91.0	91.0	92.2	91.8
82.5°	144.9	152.3	103.5	80.5	76.2	69.9	69.1	69.5	68.4	66.8	66.4
85°	105.9	114.4	69.9	50.8	46.5	42.6	45.7	47.3	45.3	41.8	40.2
87.5°	40.6	75.0	37.5	21.1	19.5	16.8	19.5	20.3	21.9	17.2	17.6
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)