

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: P454776

Luminaire Tested: **GALN-SA5D-830-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454776
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA5D-830-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31086 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

Input Watts (W): 309
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

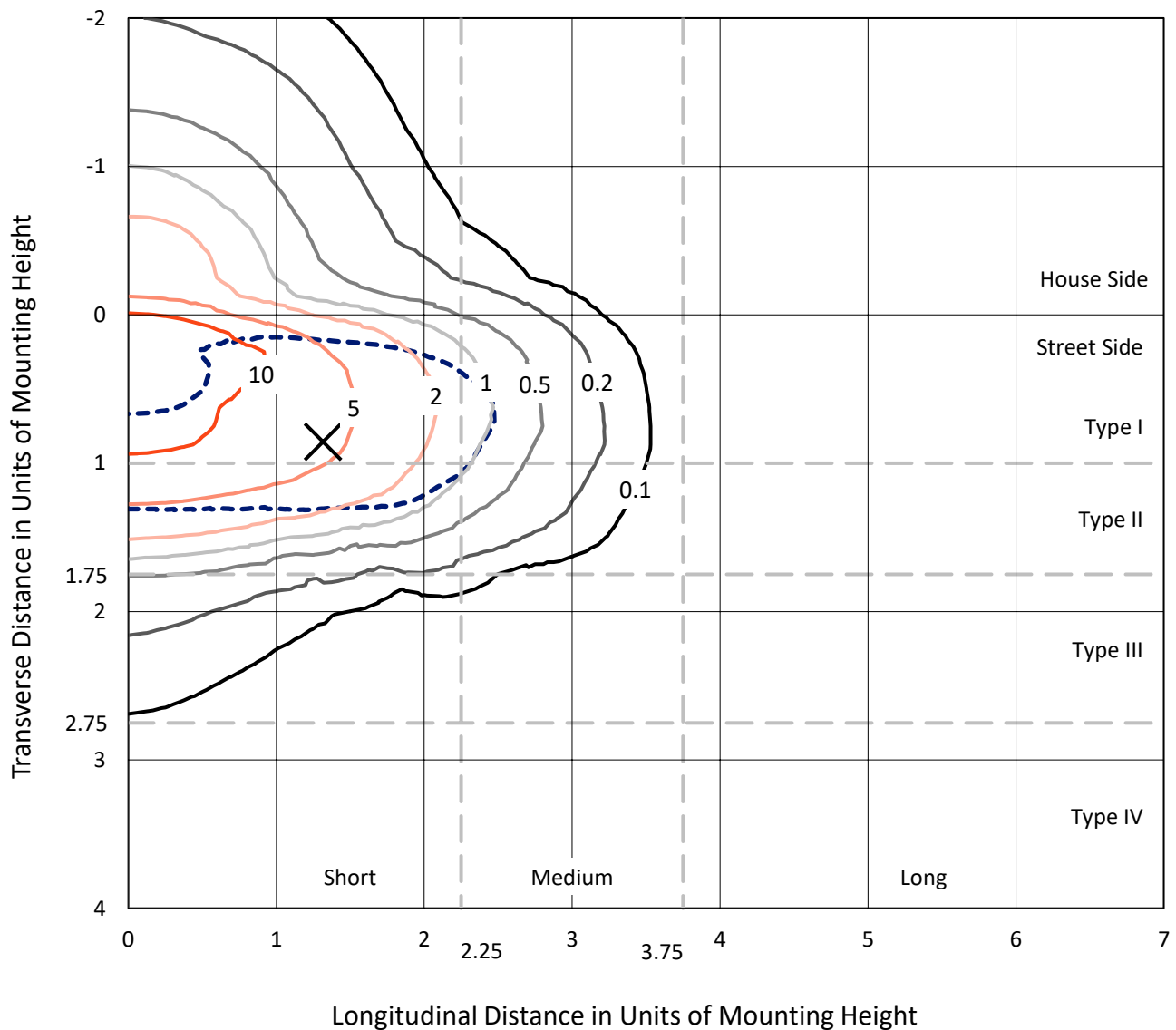


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

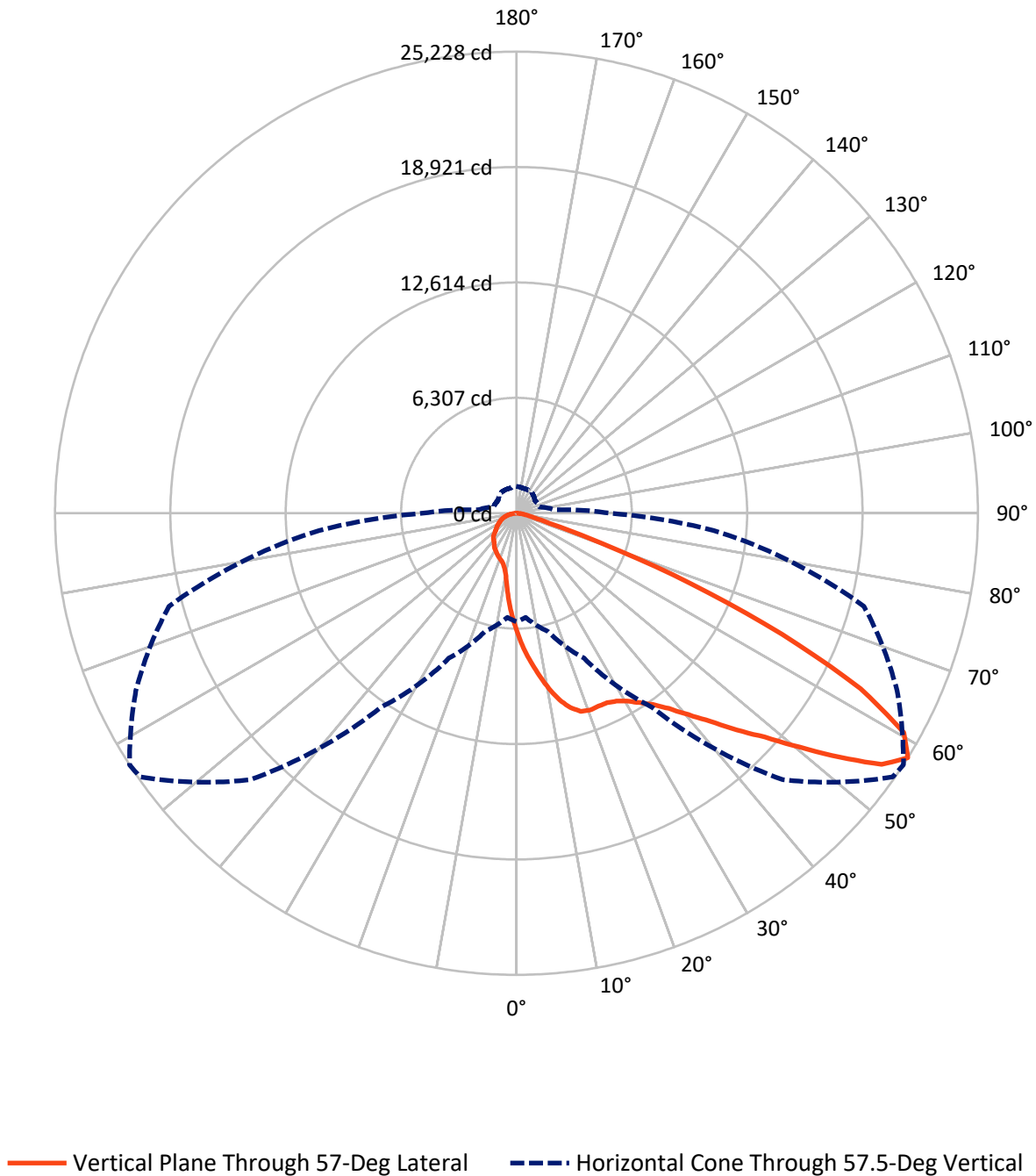


Based on 25 foot mounting height. Maximum calculated value = 15.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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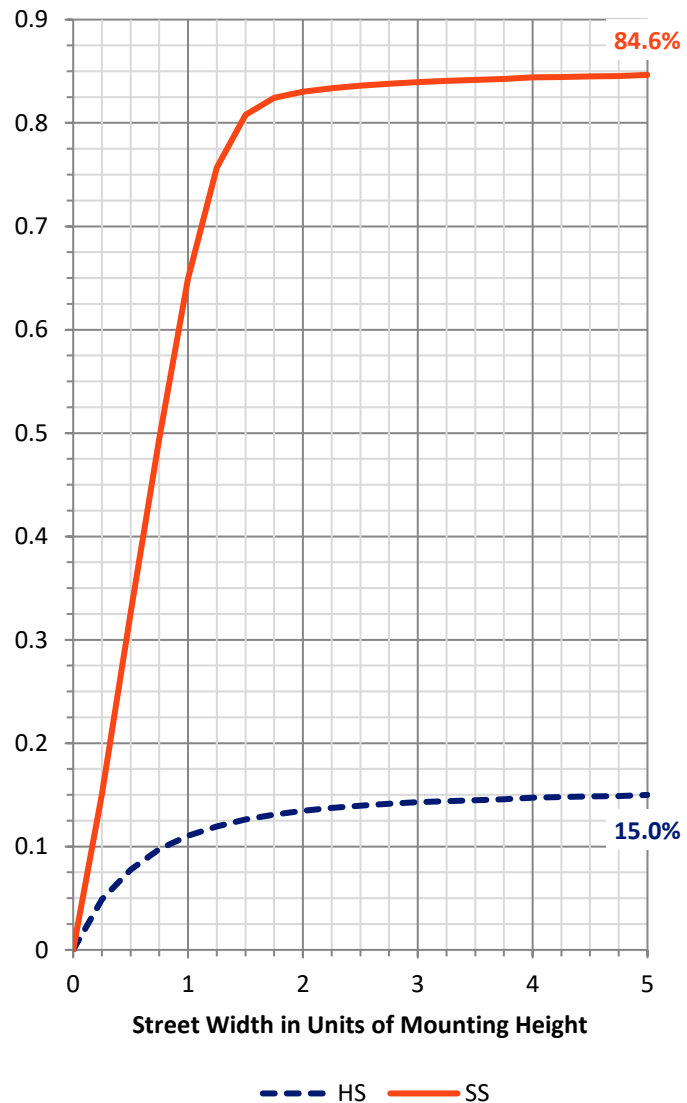
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4727.3	0.0	4727.3
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	26358.7	0.0	26358.7
	% Fixture	84.8	0.0	84.8
Total	Lumens	31086.0	0.0	31086.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	627.7	2.0
10°-20°	1849.8	6.0
20°-30°	3071.6	9.9
30°-40°	4626.7	14.9
40°-50°	6946.6	22.3
50°-60°	7786.3	25.0
60°-70°	4556.9	14.7
70°-80°	1347.9	4.3
80°-90°	272.4	0.9
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°	31086.0	100.0
0°-180°	31086.0	100.0

Coefficient of Utilization



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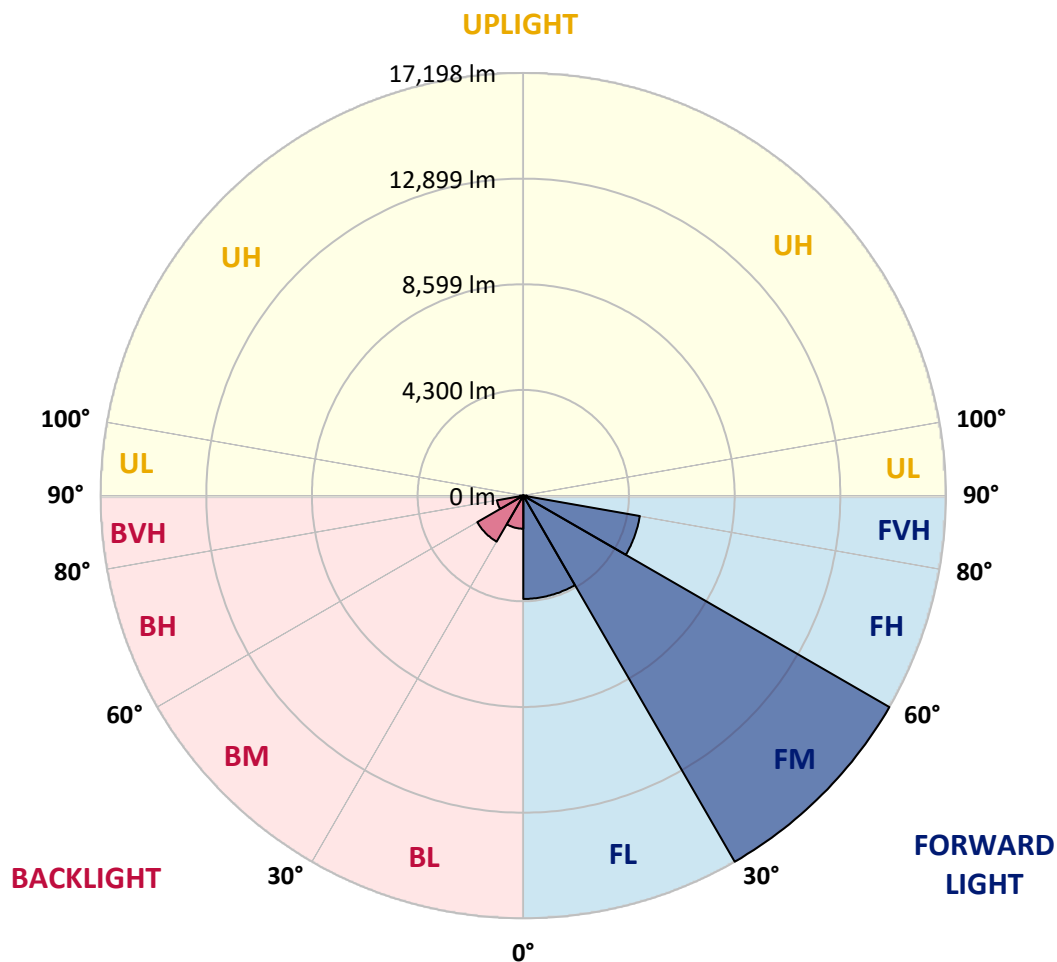
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4202.1	13.5			
FM	(30°-60°)	17198.1	55.3			
FH	(60°-80°)	4817.1	15.5			G2/5000
FVH	(80°-90°)	141.4	0.5			G2/225
BL	(0°-30°)	1347.0	4.3	B3/2500		
BM	(30°-60°)	2161.5	7.0	B2/2500		
BH	(60°-80°)	1087.7	3.5	B3/2500		G3/2500
BVH	(80°-90°)	131.1	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	6530.8	6530.8	6530.8	6530.8	6530.8	6530.8	6530.8	6530.8	6530.8	6530.8	6530.8
2.5°	8115.0	8026.5	7956.8	7895.5	7815.5	7599.4	7383.3	7379.9	7208.1	6942.6	6670.3
5°	9437.2	9318.1	9333.4	9142.8	8952.2	8639.1	8181.4	8157.6	7791.7	7294.8	6789.5
7.5°	10298.2	10299.9	10252.3	10143.3	9937.5	9581.8	9062.8	8945.4	8436.6	7682.8	6925.6
10°	10254.0	10299.9	10379.9	10473.5	10536.4	10361.2	9888.1	9745.2	9083.2	8152.5	7077.0
12.5°	9665.2	9736.7	9850.7	10085.5	10465.0	10754.2	10592.6	10476.9	9832.0	8620.4	7243.8
15°	9297.6	9340.2	9403.1	9561.4	9969.8	10662.3	11080.9	11019.7	10538.1	9149.6	7431.0
17.5°	9185.3	9227.9	9248.3	9345.3	9636.3	10345.8	11273.2	11382.1	11164.3	9636.3	7619.8
20°	9297.6	9318.1	9318.1	9375.9	9603.9	10160.4	11264.7	11484.2	11678.2	10219.9	7796.8
22.5°	9592.0	9600.5	9588.6	9609.0	9779.2	10211.4	11184.7	11457.0	12093.4	10715.1	7934.6
25°	10070.2	10083.8	10005.5	9957.9	10082.1	10436.0	11229.0	11479.1	12418.4	11188.1	8026.5
27.5°	10613.0	10630.0	10534.7	10424.1	10482.0	10713.4	11402.5	11627.2	12661.7	11654.4	8084.4
30°	11278.3	11285.1	11125.2	10992.5	10955.0	11126.9	11698.6	11907.9	12964.6	12204.0	8171.2
32.5°	11959.0	12010.0	11804.1	11617.0	11554.0	11606.7	12135.9	12338.4	13325.4	12794.5	8310.7
35°	12884.7	12893.2	12646.4	12418.4	12210.8	12278.9	12695.8	12842.1	13824.0	13476.8	8508.1
37.5°	14040.1	14118.3	13778.0	13352.6	13097.4	12998.7	13373.0	13533.0	14523.3	14314.0	8805.9
40°	15323.1	15352.0	15061.0	14795.6	14329.3	14043.5	14302.1	14475.7	15386.0	15312.9	9151.3
42.5°	16129.6	16192.6	16214.7	16187.5	15837.0	15357.1	15455.8	15537.5	16407.0	16250.5	9505.2
45°	16401.9	16495.5	16812.0	17482.4	17519.9	17046.8	16817.1	16895.4	17519.9	17196.6	9843.9
47.5°	15951.0	16110.9	16694.6	18069.5	19099.0	19134.7	18442.1	18270.3	18534.0	17981.0	10088.9
50°	14785.4	14819.4	15712.7	17703.6	19839.2	21130.7	20414.3	20094.4	19497.1	18561.3	10257.4
52.5°	12981.6	13020.8	13769.5	16003.7	19383.1	22526.0	22721.7	22150.0	20475.6	19012.2	10368.0
55°	9636.3	9862.6	10686.2	12845.5	17222.1	22395.0	24556.1	24231.1	21658.2	19369.5	10541.5
57.5°	5925.0	5717.4	6694.2	8739.5	12952.7	20594.7	25122.7	25228.2	22959.9	19669.0	10832.5
60°	2726.0	2766.8	3170.1	4507.6	7895.5	16110.9	23662.7	24329.7	23679.7	19658.8	10905.7
62.5°	1878.6	1841.2	1739.1	1979.0	3600.6	10189.3	19987.2	21117.1	22236.8	19047.9	10614.7
65°	1679.5	1642.1	1444.7	1378.3	1654.0	4441.2	14530.1	15956.1	18722.9	17506.3	9889.8
67.5°	1568.9	1517.8	1313.6	1184.3	1180.9	1768.0	8567.7	10284.6	13886.9	14800.7	8569.4
70°	1453.2	1412.3	1209.9	1066.9	1005.7	1111.2	3765.7	4929.6	9016.9	10665.7	6675.5
72.5°	1337.5	1289.8	1107.8	954.6	874.6	832.1	1443.0	1876.9	5094.6	6394.7	4092.4
75°	1169.0	1145.2	990.3	864.4	777.6	672.1	915.5	1044.8	2436.7	2937.0	2053.9
77.5°	1022.7	997.1	879.7	755.5	692.6	546.2	650.0	709.6	1027.8	1191.1	927.4
80°	748.7	774.2	741.9	667.0	617.7	428.8	437.3	486.7	610.9	675.5	566.6
82.5°	474.8	522.4	571.7	513.9	467.9	338.6	302.9	321.6	416.9	442.4	251.8
85°	199.1	202.5	331.8	313.1	267.2	200.8	182.1	192.3	222.9	233.1	117.4
87.5°	76.6	74.9	117.4	108.9	83.4	57.9	57.9	64.7	88.5	81.7	37.4
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°	6530.8	6530.8	6530.8	6530.8	6530.8	6530.8	6530.8	6530.8	6530.8	6530.8	6530.8
2.5°	6552.9	6432.1	6192.2	5894.4	5676.6	5431.6	5215.5	5060.6	5002.8	4975.5	4924.5
5°	6547.8	6309.6	5812.7	5292.0	4873.4	4444.6	4082.2	3847.4	3826.9	3670.4	3655.1
7.5°	6549.5	6185.4	5394.1	4628.4	3990.3	3551.3	3251.8	3173.5	3079.9	3056.1	3068.0
10°	6554.6	6027.1	4944.9	3971.6	3353.9	3066.3	2954.0	2923.4	2926.8	2937.0	2938.7
12.5°	6561.4	5874.0	4478.7	3473.0	2996.6	2877.4	2865.5	2892.8	2921.7	2943.8	2948.9
15°	6570.0	5698.7	4024.3	3071.4	2817.9	2807.7	2846.8	2892.8	2933.6	2965.9	2971.0
17.5°	6559.7	5494.5	3643.2	2824.7	2719.2	2768.5	2833.2	2891.1	2928.5	2959.1	2962.5
20°	6535.9	5266.5	3275.6	2651.1	2657.9	2737.9	2807.7	2862.1	2903.0	2918.3	2930.2
22.5°	6444.0	4994.3	2955.7	2516.7	2584.8	2695.4	2778.7	2811.1	2765.1	2732.8	2741.3
25°	6287.5	4640.3	2657.9	2407.8	2518.4	2635.8	2720.9	2642.6	2605.2	2591.6	2598.4
27.5°	6091.8	4252.3	2433.3	2293.8	2433.3	2569.4	2545.6	2532.0	2515.0	2492.9	2498.0
30°	5880.8	3872.9	2242.7	2205.3	2341.4	2419.7	2429.9	2452.0	2433.3	2399.3	2412.9
32.5°	5685.1	3515.5	2098.1	2130.4	2276.8	2264.9	2341.4	2367.0	2280.2	2166.2	2171.3
35°	5518.3	3183.7	1989.2	2057.3	2166.2	2171.3	2247.8	2159.4	2065.8	2011.3	2014.7
37.5°	5392.4	2925.1	1917.7	1994.3	2024.9	2089.6	2048.7	2002.8	1990.9	1953.5	1955.2
40°	5317.6	2698.8	1871.8	1945.0	1939.8	1984.1	1853.1	1899.0	1916.0	1904.1	1905.8
42.5°	5242.7	2538.8	1824.1	1876.9	1875.2	1788.4	1759.5	1798.6	1842.9	1848.0	1844.6
45°	5183.1	2414.6	1774.8	1773.1	1807.1	1671.0	1662.5	1686.3	1749.3	1779.9	1778.2
47.5°	5116.8	2310.8	1699.9	1652.3	1662.5	1597.8	1584.2	1594.4	1671.0	1720.3	1733.9
50°	5033.4	2207.0	1606.3	1541.7	1499.1	1529.8	1533.2	1534.9	1611.4	1667.6	1679.5
52.5°	4967.0	2128.7	1499.1	1451.5	1400.4	1468.5	1494.0	1497.4	1543.4	1589.3	1597.8
55°	5006.2	2084.5	1393.6	1359.6	1313.6	1405.5	1454.9	1461.7	1471.9	1505.9	1511.0
57.5°	5123.6	2094.7	1308.5	1264.3	1230.3	1330.7	1414.0	1419.2	1412.3	1453.2	1460.0
60°	5159.3	2089.6	1245.6	1158.8	1138.4	1250.7	1354.5	1364.7	1363.0	1422.6	1434.5
62.5°	5009.6	2024.9	1182.6	1070.3	1056.7	1169.0	1271.1	1311.9	1320.5	1405.5	1420.9
65°	4657.3	1892.2	1099.2	976.7	976.7	1082.2	1191.1	1247.3	1271.1	1385.1	1402.1
67.5°	4192.8	1735.7	1014.2	896.8	893.3	998.9	1106.1	1163.9	1201.3	1356.2	1366.4
70°	3479.8	1524.7	908.7	810.0	810.0	905.3	1002.3	1072.0	1126.5	1301.7	1301.7
72.5°	2384.0	1267.7	781.0	711.3	713.0	801.5	900.2	978.4	1043.1	1192.8	1196.2
75°	1507.6	990.3	641.5	605.8	612.6	696.0	798.1	879.7	1009.1	1179.2	1184.3
77.5°	801.5	696.0	510.5	502.0	510.5	587.1	701.1	813.4	1012.5	1022.7	1005.7
80°	519.0	493.5	403.3	386.3	389.7	473.1	624.5	772.5	813.4	823.6	786.1
82.5°	282.5	313.1	285.9	268.9	268.9	369.3	532.6	614.3	583.7	485.0	462.8
85°	120.8	146.3	148.0	129.3	124.2	228.0	357.3	335.2	311.4	297.8	294.4
87.5°	34.0	47.6	47.6	35.7	27.2	63.0	71.5	20.4	0.0	1.7	3.4
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)