

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: P453848

Luminaire Tested: **GALN-SA4D-830-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453848
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-SA4D-830-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 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: 24556 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): 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

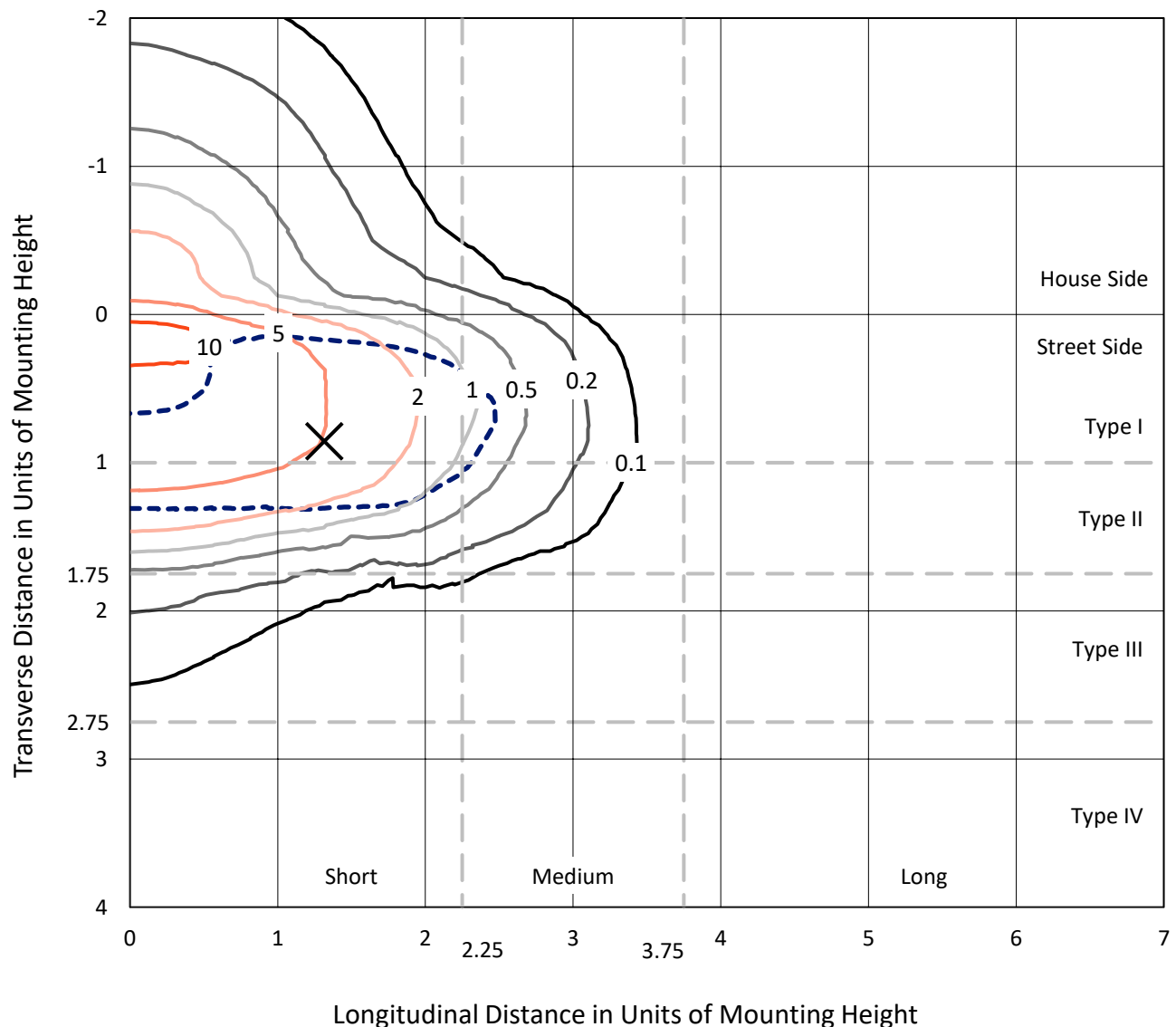


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

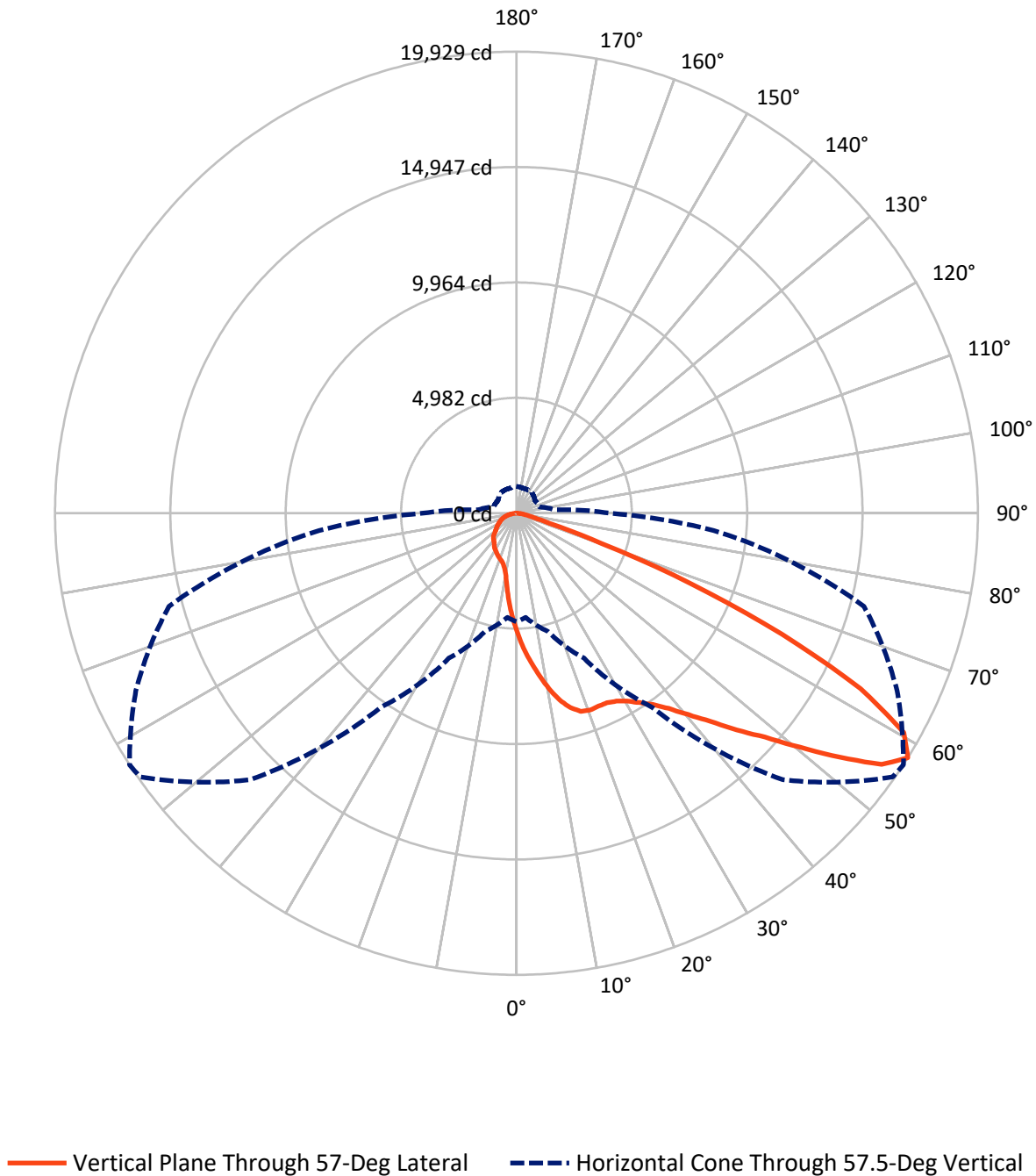


Based on 25 foot mounting height. Maximum calculated value = 12.6 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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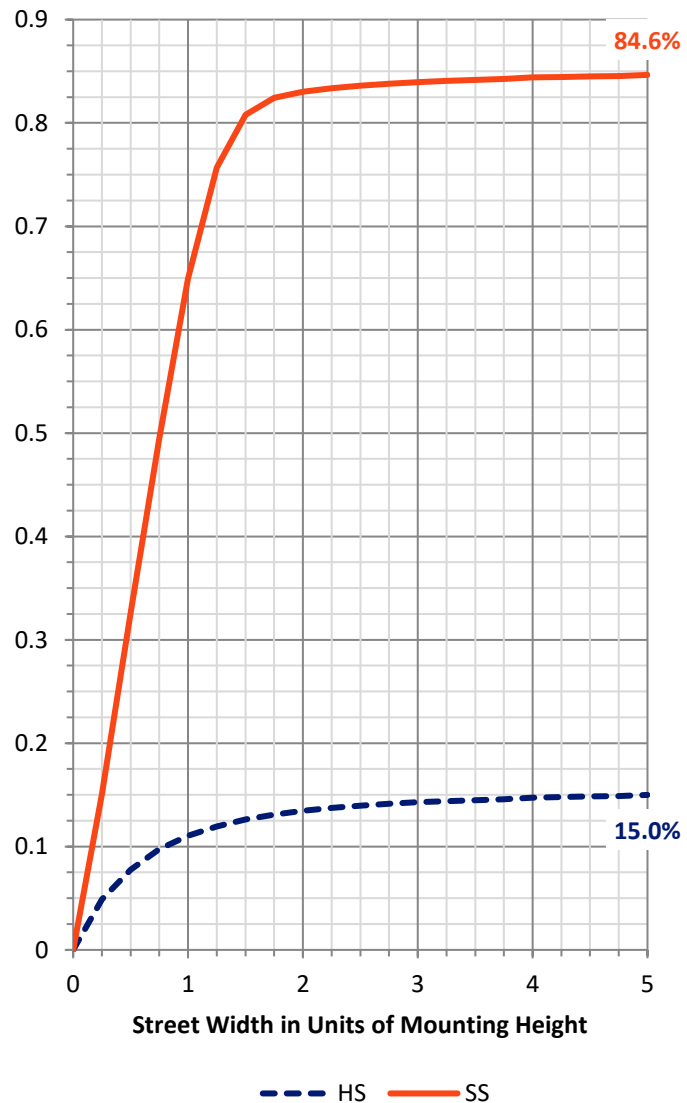
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3734.3	0.0	3734.3
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	20821.7	0.0	20821.7
	% Fixture	84.8	0.0	84.8
Total	Lumens	24556.0	0.0	24556.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	495.8	2.0
10°-20°	1461.2	6.0
20°-30°	2426.4	9.9
30°-40°	3654.8	14.9
40°-50°	5487.4	22.3
50°-60°	6150.7	25.0
60°-70°	3599.7	14.7
70°-80°	1064.8	4.3
80°-90°	215.2	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°	24556.0	100.0
0°-180°	24556.0	100.0

Coefficient of Utilization



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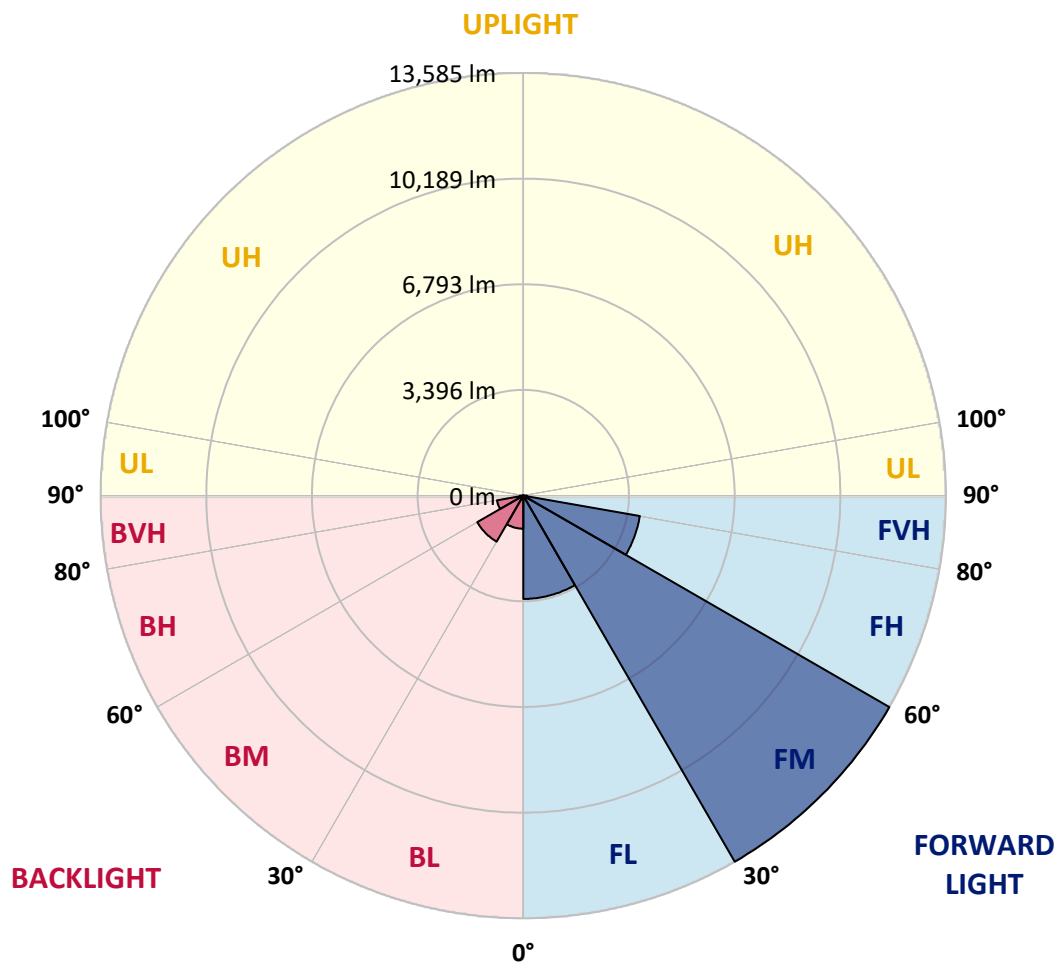
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3319.4	13.5			
FM	(30°-60°)	13585.4	55.3			
FH	(60°-80°)	3805.2	15.5			G2/5000
FVH	(80°-90°)	111.7	0.5			G2/225
BL	(0°-30°)	1064.0	4.3	B3/2500		
BM	(30°-60°)	1707.5	7.0	B2/2500		
BH	(60°-80°)	859.2	3.5	B2/1000		G2/1000
BVH	(80°-90°)	103.5	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-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	5158.9	5158.9	5158.9	5158.9	5158.9	5158.9	5158.9	5158.9	5158.9	5158.9	5158.9
2.5°	6410.4	6340.5	6285.4	6237.0	6173.8	6003.1	5832.4	5829.7	5693.9	5484.2	5269.2
5°	7454.8	7360.7	7372.8	7222.2	7071.7	6824.4	6462.8	6444.0	6155.0	5762.5	5363.2
7.5°	8134.9	8136.3	8098.6	8012.6	7850.0	7569.0	7159.1	7066.3	6664.4	6068.9	5470.8
10°	8100.0	8136.3	8199.5	8273.4	8323.1	8184.7	7811.0	7698.1	7175.2	6439.9	5590.4
12.5°	7634.9	7691.4	7781.4	7966.9	8266.7	8495.2	8367.5	8276.1	7766.6	6809.6	5722.1
15°	7344.6	7378.2	7427.9	7552.9	7875.5	8422.6	8753.3	8704.9	8324.5	7227.6	5870.0
17.5°	7255.8	7289.4	7305.6	7382.2	7612.0	8172.6	8905.1	8991.2	8819.1	7612.0	6019.2
20°	7344.6	7360.7	7360.7	7406.4	7586.5	8026.1	8898.4	9071.8	9225.1	8073.1	6159.0
22.5°	7577.1	7583.8	7574.4	7590.5	7725.0	8066.4	8835.2	9050.3	9553.0	8464.3	6267.9
25°	7954.8	7965.6	7903.7	7866.1	7964.2	8243.8	8870.2	9067.8	9809.8	8837.9	6340.5
27.5°	8383.6	8397.0	8321.8	8234.4	8280.1	8462.9	9007.3	9184.7	10002.0	9206.2	6386.2
30°	8909.2	8914.6	8788.2	8683.4	8653.8	8789.5	9241.2	9406.5	10241.3	9640.4	6454.7
32.5°	9446.8	9487.2	9324.5	9176.7	9126.9	9168.6	9586.6	9746.6	10526.2	10106.8	6564.9
35°	10178.1	10184.8	9989.9	9809.8	9645.8	9699.5	10028.9	10144.5	10920.1	10645.8	6720.9
37.5°	11090.8	11152.6	10883.8	10547.7	10346.1	10268.1	10563.9	10690.2	11472.5	11307.2	6956.1
40°	12104.3	12127.1	11897.3	11687.6	11319.3	11093.5	11297.8	11434.9	12154.0	12096.2	7229.0
42.5°	12741.4	12791.1	12808.6	12787.1	12510.2	12131.2	12209.1	12273.6	12960.5	12836.8	7508.5
45°	12956.5	13030.4	13280.4	13810.0	13839.6	13465.9	13284.5	13346.3	13839.6	13584.2	7776.0
47.5°	12600.3	12726.6	13187.7	14273.8	15087.0	15115.2	14568.1	14432.4	14640.7	14203.9	7969.6
50°	11679.5	11706.4	12412.1	13984.8	15671.7	16691.9	16126.0	15873.3	15401.5	14662.2	8102.7
52.5°	10254.7	10285.6	10877.0	12641.9	15311.5	17794.2	17948.7	17497.1	16174.4	15018.4	8190.0
55°	7612.0	7790.8	8441.4	10147.2	13604.4	17690.7	19397.8	19141.0	17108.6	15300.7	8327.1
57.5°	4680.4	4516.4	5288.0	6903.7	10231.8	16268.5	19845.4	19928.7	18136.9	15537.3	8557.0
60°	2153.4	2185.6	2504.2	3560.7	6237.0	12726.6	18692.1	19219.0	18705.5	15529.2	8614.8
62.5°	1484.0	1454.4	1373.7	1563.3	2844.3	8048.9	15788.7	16681.2	17565.6	15046.7	8384.9
65°	1326.7	1297.1	1141.2	1088.8	1306.5	3508.3	11477.9	12604.3	14789.9	13828.8	7812.3
67.5°	1239.3	1199.0	1037.7	935.5	932.9	1396.6	6767.9	8124.2	10969.8	11691.6	6769.3
70°	1147.9	1115.7	955.7	842.8	794.4	877.7	2974.7	3894.1	7122.8	8425.3	5273.2
72.5°	1056.5	1018.9	875.1	754.1	690.9	657.3	1139.9	1482.6	4024.5	5051.4	3232.7
75°	923.4	904.6	782.3	682.8	614.3	530.9	723.2	825.3	1924.9	2320.0	1622.4
77.5°	807.8	787.7	694.9	596.8	547.1	431.5	513.5	560.5	811.9	940.9	732.6
80°	591.4	611.6	586.1	526.9	487.9	338.7	345.5	384.4	482.6	533.6	447.6
82.5°	375.0	412.7	451.6	405.9	369.6	267.5	239.3	254.0	329.3	349.5	198.9
85°	157.3	160.0	262.1	247.3	211.0	158.6	143.8	151.9	176.1	184.2	92.7
87.5°	60.5	59.1	92.7	86.0	65.9	45.7	45.7	51.1	69.9	64.5	29.6
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°	5158.9	5158.9	5158.9	5158.9	5158.9	5158.9	5158.9	5158.9	5158.9	5158.9	5158.9
2.5°	5176.4	5081.0	4891.4	4656.2	4484.2	4290.6	4119.9	3997.6	3951.9	3930.4	3890.0
5°	5172.4	4984.2	4591.7	4180.4	3849.7	3511.0	3224.7	3039.2	3023.0	2899.4	2887.3
7.5°	5173.7	4886.1	4261.0	3656.1	3152.1	2805.3	2568.7	2506.9	2433.0	2414.1	2423.5
10°	5177.8	4761.1	3906.2	3137.3	2649.4	2422.2	2333.5	2309.3	2312.0	2320.0	2321.4
12.5°	5183.1	4640.1	3537.9	2743.5	2367.1	2273.0	2263.6	2285.1	2307.9	2325.4	2329.5
15°	5189.9	4501.6	3179.0	2426.2	2225.9	2217.9	2248.8	2285.1	2317.4	2342.9	2346.9
17.5°	5181.8	4340.3	2877.9	2231.3	2148.0	2187.0	2238.0	2283.7	2313.3	2337.5	2340.2
20°	5163.0	4160.2	2587.5	2094.2	2099.6	2162.8	2217.9	2260.9	2293.2	2305.3	2314.7
22.5°	5090.4	3945.1	2334.8	1988.0	2041.8	2129.2	2195.0	2220.6	2184.3	2158.7	2165.5
25°	4966.7	3665.6	2099.6	1902.0	1989.4	2082.1	2149.3	2087.5	2057.9	2047.2	2052.6
27.5°	4812.1	3359.1	1922.2	1811.9	1922.2	2029.7	2010.9	2000.1	1986.7	1969.2	1973.2
30°	4645.5	3059.3	1771.6	1742.0	1849.6	1911.4	1919.5	1937.0	1922.2	1895.3	1906.0
32.5°	4490.9	2777.1	1657.4	1682.9	1798.5	1789.1	1849.6	1869.7	1801.2	1711.1	1715.2
35°	4359.2	2514.9	1571.3	1625.1	1711.1	1715.2	1775.7	1705.8	1631.8	1588.8	1591.5
37.5°	4259.7	2310.6	1514.9	1575.4	1599.6	1650.6	1618.4	1582.1	1572.7	1543.1	1544.5
40°	4200.5	2131.9	1478.6	1536.4	1532.4	1567.3	1463.8	1500.1	1513.5	1504.1	1505.5
42.5°	4141.4	2005.5	1441.0	1482.6	1481.3	1412.7	1389.9	1420.8	1455.7	1459.8	1457.1
45°	4094.3	1907.4	1402.0	1400.6	1427.5	1320.0	1313.3	1332.1	1381.8	1406.0	1404.7
47.5°	4041.9	1825.4	1342.8	1305.2	1313.3	1262.2	1251.4	1259.5	1320.0	1359.0	1369.7
50°	3976.1	1743.4	1268.9	1217.8	1184.2	1208.4	1211.1	1212.4	1272.9	1317.3	1326.7
52.5°	3923.6	1681.6	1184.2	1146.6	1106.3	1160.0	1180.2	1182.9	1219.2	1255.5	1262.2
55°	3954.6	1646.6	1100.9	1074.0	1037.7	1110.3	1149.3	1154.6	1162.7	1189.6	1193.6
57.5°	4047.3	1654.7	1033.7	998.7	971.8	1051.1	1117.0	1121.0	1115.7	1147.9	1153.3
60°	4075.5	1650.6	983.9	915.4	899.3	988.0	1070.0	1078.0	1076.7	1123.7	1133.1
62.5°	3957.2	1599.6	934.2	845.5	834.7	923.4	1004.1	1036.4	1043.1	1110.3	1122.4
65°	3679.0	1494.7	868.3	771.6	771.6	854.9	940.9	985.3	1004.1	1094.2	1107.6
67.5°	3312.0	1371.1	801.1	708.4	705.7	789.0	873.7	919.4	949.0	1071.3	1079.4
70°	2748.8	1204.4	717.8	639.8	639.8	715.1	791.7	846.8	889.8	1028.3	1028.3
72.5°	1883.2	1001.4	617.0	561.9	563.2	633.1	711.1	772.9	824.0	942.3	945.0
75°	1190.9	782.3	506.8	478.5	483.9	549.8	630.4	694.9	797.1	931.5	935.5
77.5°	633.1	549.8	403.3	396.5	403.3	463.7	553.8	642.5	799.8	807.8	794.4
80°	410.0	389.8	318.6	305.1	307.8	373.7	493.3	610.3	642.5	650.6	621.0
82.5°	223.1	247.3	225.8	212.4	212.4	291.7	420.7	485.2	461.1	383.1	365.6
85°	95.4	115.6	116.9	102.2	98.1	180.1	282.3	264.8	246.0	235.2	232.5
87.5°	26.9	37.6	37.6	28.2	21.5	49.7	56.5	16.1	0.0	1.3	2.7
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)