

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: P453152

Luminaire Tested: **GALN-SA4A-830-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453152
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-SA4A-830-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14517 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 121
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

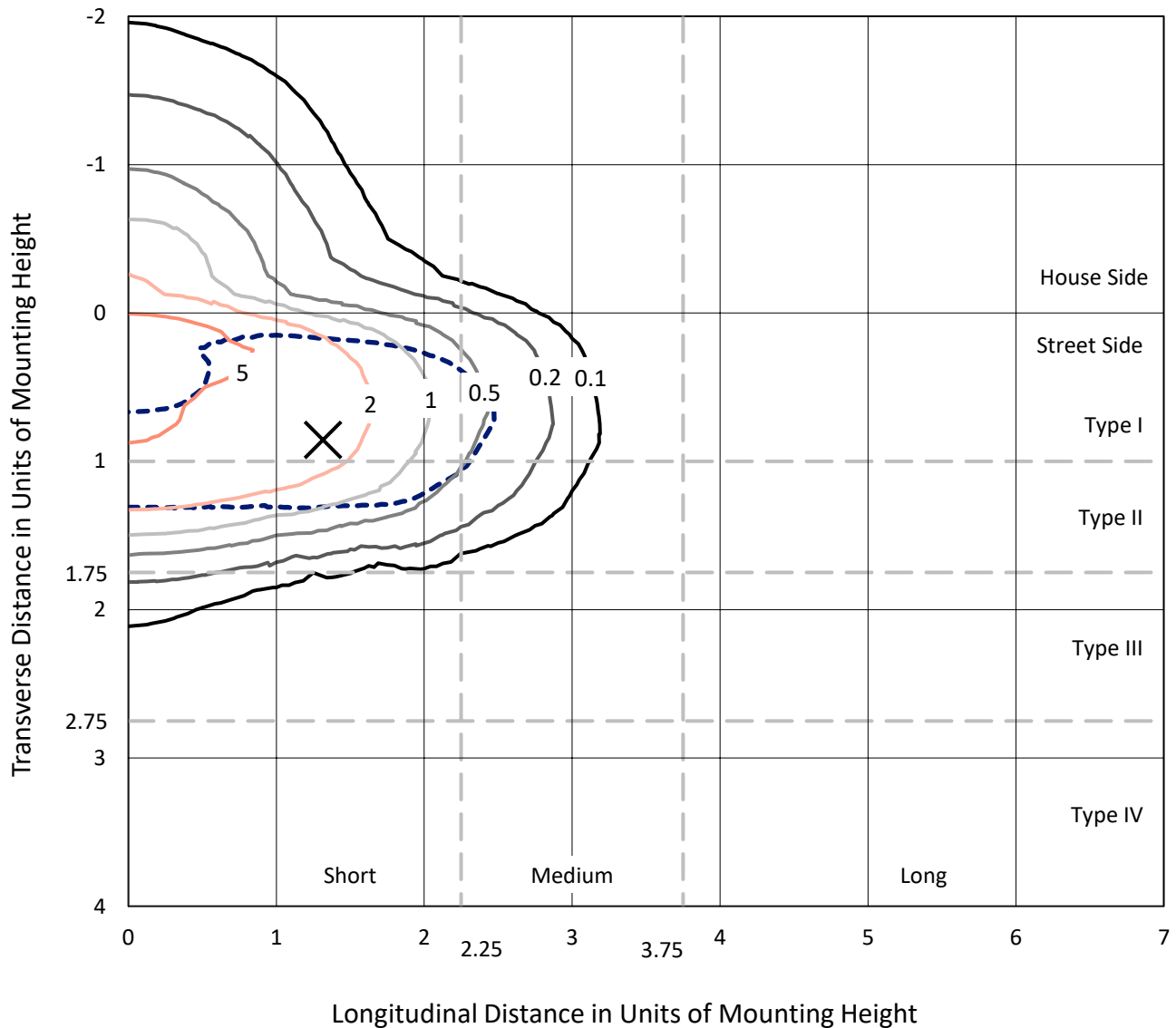


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

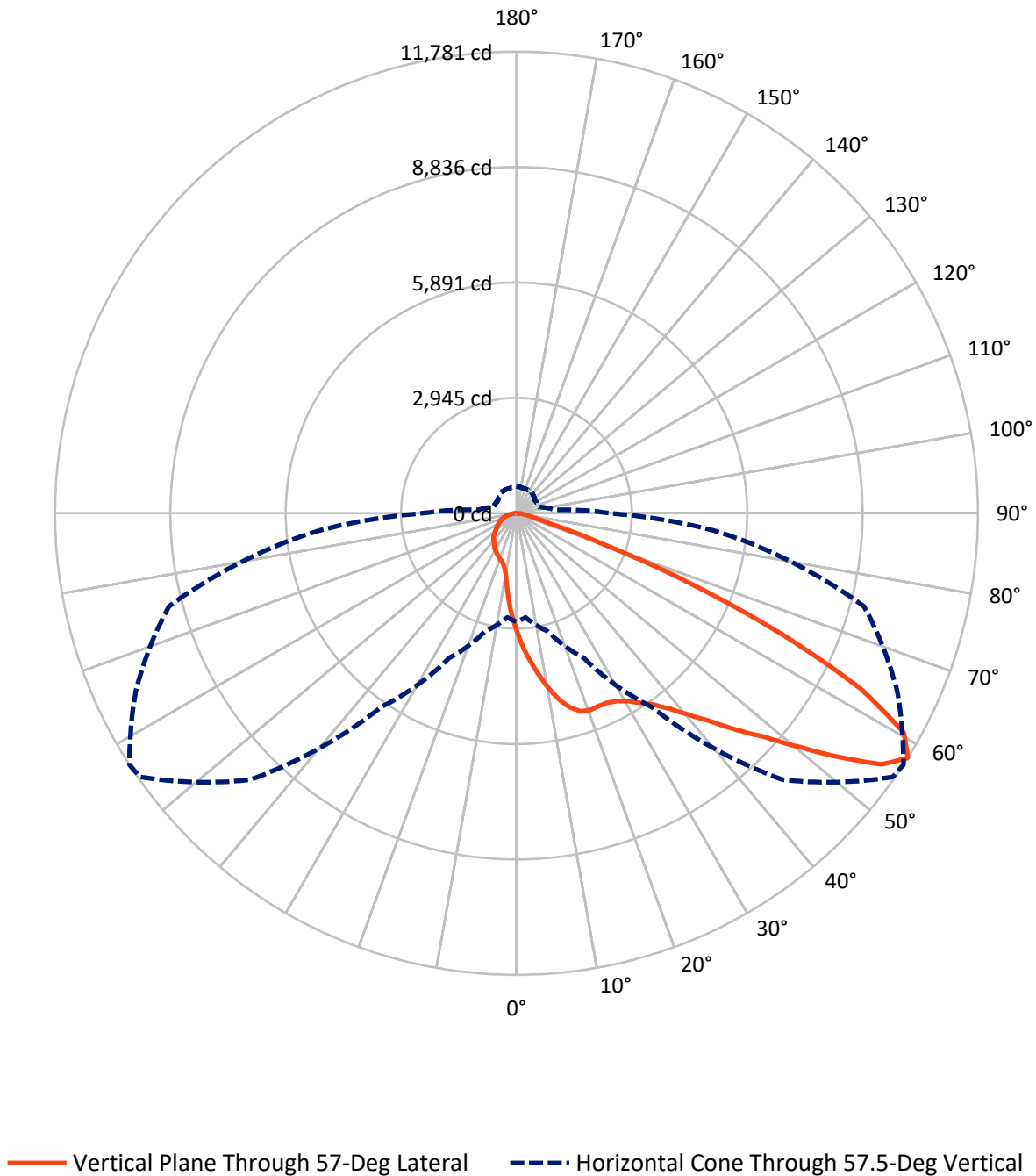


Based on 25 foot mounting height. Maximum calculated value = 7.4 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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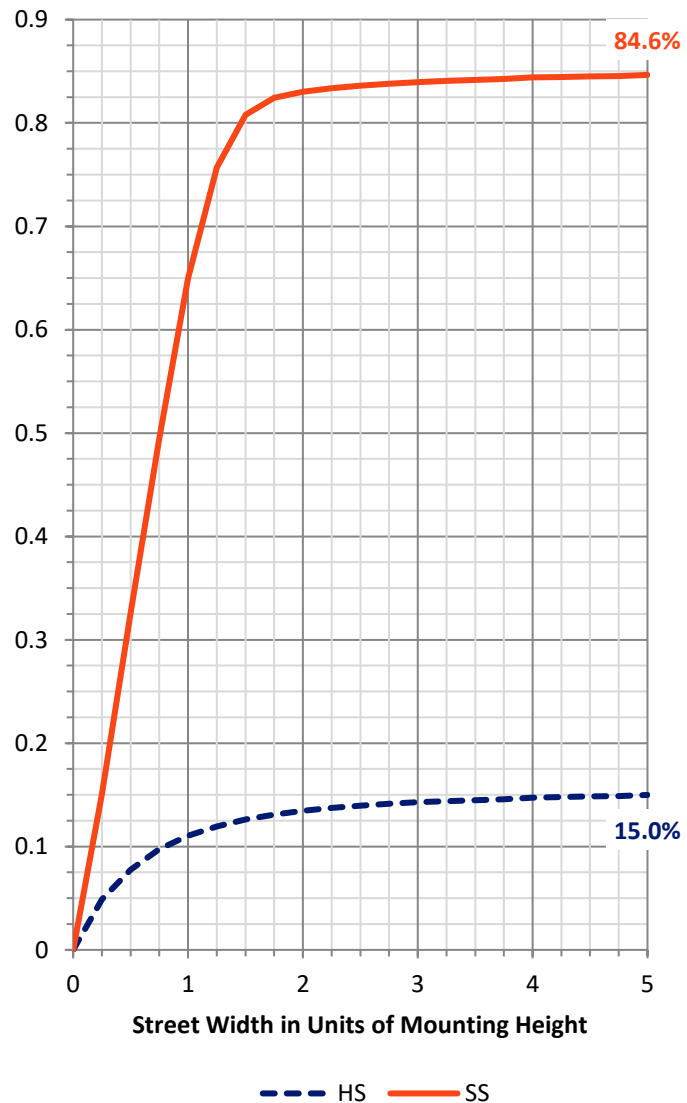
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2207.6	0.0	2207.6
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	12309.4	0.0	12309.4
	% Fixture	84.8	0.0	84.8
Total	Lumens	14517.0	0.0	14517.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	293.1	2.0
10°-20°	863.8	6.0
20°-30°	1434.4	9.9
30°-40°	2160.7	14.9
40°-50°	3244.0	22.3
50°-60°	3636.2	25.0
60°-70°	2128.1	14.7
70°-80°	629.5	4.3
80°-90°	127.2	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°	14517.0	100.0
0°-180°	14517.0	100.0

Coefficient of Utilization



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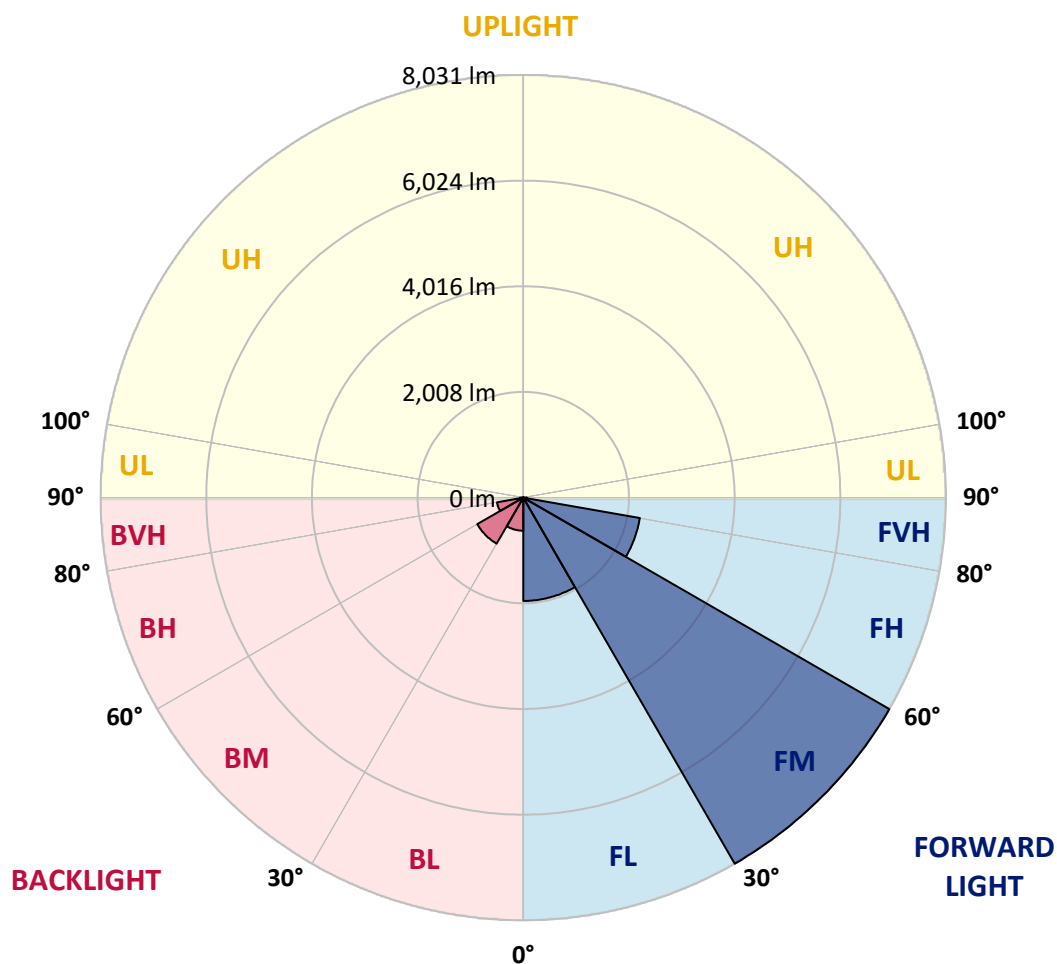
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1962.4	13.5			
FM	(30°-60°)	8031.4	55.3			
FH	(60°-80°)	2249.6	15.5			G2/5000
FVH	(80°-90°)	66.0	0.5			G1/100
BL	(0°-30°)	629.0	4.3	B2/1000		
BM	(30°-60°)	1009.4	7.0	B2/2500		
BH	(60°-80°)	508.0	3.5	B2/1000		G2/1000
BVH	(80°-90°)	61.2	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	3049.9	3049.9	3049.9	3049.9	3049.9	3049.9	3049.9	3049.9	3049.9	3049.9	3049.9
2.5°	3789.7	3748.4	3715.8	3687.2	3649.8	3548.9	3448.0	3446.4	3366.1	3242.2	3115.0
5°	4407.1	4351.5	4358.6	4269.6	4180.6	4034.4	3820.7	3809.5	3638.7	3406.7	3170.6
7.5°	4809.2	4810.0	4787.7	4736.9	4640.7	4474.7	4232.3	4177.5	3939.9	3587.8	3234.2
10°	4788.5	4810.0	4847.3	4891.1	4920.5	4838.6	4617.7	4550.9	4241.8	3807.2	3304.9
12.5°	4513.6	4547.0	4600.2	4709.9	4887.1	5022.2	4946.7	4892.6	4591.5	4025.7	3382.8
15°	4342.0	4361.8	4391.2	4465.1	4655.8	4979.3	5174.7	5146.1	4921.2	4272.8	3470.2
17.5°	4289.5	4309.4	4318.9	4364.2	4500.1	4831.5	5264.5	5315.4	5213.7	4500.1	3558.4
20°	4342.0	4351.5	4351.5	4378.5	4485.0	4744.8	5260.6	5363.1	5453.7	4772.7	3641.1
22.5°	4479.4	4483.4	4477.8	4487.4	4566.8	4768.7	5223.2	5350.4	5647.6	5003.9	3705.4
25°	4702.7	4709.1	4672.5	4650.3	4708.3	4873.6	5243.9	5360.7	5799.3	5224.8	3748.4
27.5°	4956.2	4964.2	4919.7	4868.0	4895.0	5003.1	5324.9	5429.8	5913.0	5442.5	3775.4
30°	5266.9	5270.1	5195.4	5133.4	5115.9	5196.2	5463.2	5560.9	6054.4	5699.2	3815.9
32.5°	5584.8	5608.6	5512.5	5425.1	5395.7	5420.3	5667.4	5762.0	6222.9	5975.0	3881.1
35°	6017.1	6021.0	5905.8	5799.3	5702.4	5734.2	5928.9	5997.2	6455.7	6293.6	3973.2
37.5°	6556.6	6593.2	6434.3	6235.6	6116.4	6070.3	6245.1	6319.8	6782.3	6684.6	4112.3
40°	7155.8	7169.3	7033.4	6909.5	6691.7	6558.2	6679.0	6760.1	7185.2	7151.0	4273.6
42.5°	7532.5	7561.9	7572.2	7559.5	7395.8	7171.7	7217.8	7255.9	7662.0	7588.9	4438.9
45°	7659.6	7703.3	7851.1	8164.2	8181.7	7960.8	7853.5	7890.1	8181.7	8030.7	4597.0
47.5°	7449.0	7523.7	7796.3	8438.4	8919.1	8935.8	8612.4	8532.1	8655.3	8397.0	4711.5
50°	6904.7	6920.6	7337.8	8267.5	9264.8	9867.9	9533.4	9384.0	9105.1	8668.0	4790.1
52.5°	6062.4	6080.6	6430.3	7473.7	9051.8	10519.5	10610.9	10343.9	9562.0	8878.6	4841.8
55°	4500.1	4605.8	4990.4	5998.8	8042.6	10458.4	11467.6	11315.8	10114.3	9045.5	4922.8
57.5°	2767.0	2670.0	3126.1	4081.3	6048.9	9617.6	11732.2	11781.4	10722.2	9185.3	5058.7
60°	1273.0	1292.1	1480.4	2105.0	3687.2	7523.7	11050.4	11361.9	11058.3	9180.6	5092.9
62.5°	877.3	859.8	812.1	924.2	1681.5	4758.3	9333.9	9861.6	10384.4	8895.3	4957.0
65°	784.3	766.8	674.7	643.7	772.4	2074.0	6785.5	7451.4	8743.5	8175.3	4618.5
67.5°	732.7	708.8	613.5	553.1	551.5	825.6	4001.0	4802.8	6485.1	6911.8	4001.8
70°	678.6	659.6	565.0	498.2	469.6	518.9	1758.6	2302.1	4210.8	4980.8	3117.4
72.5°	624.6	602.3	517.3	445.8	408.4	388.6	673.9	876.5	2379.2	2986.3	1911.1
75°	545.9	534.8	462.5	403.7	363.2	313.9	427.5	487.9	1137.9	1371.6	959.1
77.5°	477.6	465.7	410.8	352.8	323.4	255.1	303.6	331.4	480.0	556.3	433.1
80°	349.6	361.6	346.5	311.5	288.5	200.3	204.2	227.3	285.3	315.5	264.6
82.5°	221.7	244.0	267.0	240.0	218.5	158.1	141.4	150.2	194.7	206.6	117.6
85°	93.0	94.6	155.0	146.2	124.8	93.8	85.0	89.8	104.1	108.9	54.8
87.5°	35.8	35.0	54.8	50.9	38.9	27.0	27.0	30.2	41.3	38.1	17.5
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°	3049.9	3049.9	3049.9	3049.9	3049.9	3049.9	3049.9	3049.9	3049.9	3049.9	3049.9
2.5°	3060.2	3003.8	2891.7	2752.7	2650.9	2536.5	2435.6	2363.3	2336.3	2323.5	2299.7
5°	3057.8	2946.6	2714.5	2471.4	2275.9	2075.6	1906.4	1796.7	1787.2	1714.1	1706.9
7.5°	3058.6	2888.5	2519.0	2161.4	1863.4	1658.4	1518.6	1482.0	1438.3	1427.2	1432.7
10°	3061.0	2814.6	2309.2	1854.7	1566.2	1432.0	1379.5	1365.2	1366.8	1371.6	1372.4
12.5°	3064.2	2743.1	2091.5	1621.9	1399.4	1343.7	1338.2	1350.9	1364.4	1374.7	1377.1
15°	3068.1	2661.3	1879.3	1434.3	1315.9	1311.2	1329.4	1350.9	1370.0	1385.1	1387.5
17.5°	3063.4	2565.9	1701.3	1319.1	1269.8	1292.9	1323.1	1350.1	1367.6	1381.9	1383.5
20°	3052.2	2459.4	1529.7	1238.1	1241.2	1278.6	1311.2	1336.6	1355.7	1362.8	1368.4
22.5°	3009.3	2332.3	1380.3	1175.3	1207.1	1258.7	1297.7	1312.8	1291.3	1276.2	1280.2
25°	2936.2	2167.0	1241.2	1124.4	1176.1	1230.9	1270.6	1234.1	1216.6	1210.2	1213.4
27.5°	2844.8	1985.8	1136.3	1071.2	1136.3	1199.9	1188.8	1182.4	1174.5	1164.2	1166.5
30°	2746.3	1808.6	1047.3	1029.9	1093.4	1130.0	1134.8	1145.1	1136.3	1120.5	1126.8
32.5°	2654.9	1641.7	979.8	994.9	1063.2	1057.7	1093.4	1105.4	1064.8	1011.6	1014.0
35°	2577.0	1486.8	928.9	960.7	1011.6	1014.0	1049.7	1008.4	964.7	939.3	940.9
37.5°	2518.2	1366.0	895.6	931.3	945.6	975.8	956.8	935.3	929.7	912.3	913.0
40°	2483.3	1260.3	874.1	908.3	905.9	926.6	865.4	886.8	894.8	889.2	890.0
42.5°	2448.3	1185.6	851.9	876.5	875.7	835.2	821.7	839.9	860.6	863.0	861.4
45°	2420.5	1127.6	828.8	828.0	843.9	780.3	776.4	787.5	816.9	831.2	830.4
47.5°	2389.5	1079.1	793.9	771.6	776.4	746.2	739.8	744.6	780.3	803.4	809.7
50°	2350.6	1030.7	750.1	720.0	700.1	714.4	716.0	716.8	752.5	778.8	784.3
52.5°	2319.6	994.1	700.1	677.8	654.0	685.8	697.7	699.3	720.7	742.2	746.2
55°	2337.9	973.4	650.8	634.9	613.5	656.4	679.4	682.6	687.4	703.3	705.6
57.5°	2392.7	978.2	611.1	590.4	574.5	621.4	660.4	662.7	659.6	678.6	681.8
60°	2409.4	975.8	581.7	541.2	531.6	584.1	632.5	637.3	636.5	664.3	669.9
62.5°	2339.4	945.6	552.3	499.8	493.5	545.9	593.6	612.7	616.6	656.4	663.5
65°	2174.9	883.6	513.3	456.1	456.1	505.4	556.3	582.5	593.6	646.8	654.8
67.5°	1958.0	810.5	473.6	418.8	417.2	466.5	516.5	543.5	561.0	633.3	638.1
70°	1625.1	712.0	424.3	378.3	378.3	422.8	468.0	500.6	526.1	607.9	607.9
72.5°	1113.3	592.0	364.7	332.2	333.0	374.3	420.4	456.9	487.1	557.0	558.6
75°	704.1	462.5	299.6	282.9	286.1	325.0	372.7	410.8	471.2	550.7	553.1
77.5°	374.3	325.0	238.4	234.4	238.4	274.2	327.4	379.8	472.8	477.6	469.6
80°	242.4	230.4	188.3	180.4	182.0	220.9	291.6	360.8	379.8	384.6	367.1
82.5°	131.9	146.2	133.5	125.6	125.6	172.4	248.7	286.9	272.6	226.5	216.1
85°	56.4	68.3	69.1	60.4	58.0	106.5	166.9	156.5	145.4	139.1	137.5
87.5°	15.9	22.3	22.3	16.7	12.7	29.4	33.4	9.5	0.0	0.8	1.6
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)