

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: P453616

Luminaire Tested: **GALN-SA4C-830-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453616
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-SA4C-830-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22317 lumens
Efficiency: N/A
Efficacy: 104.8 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): 213
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

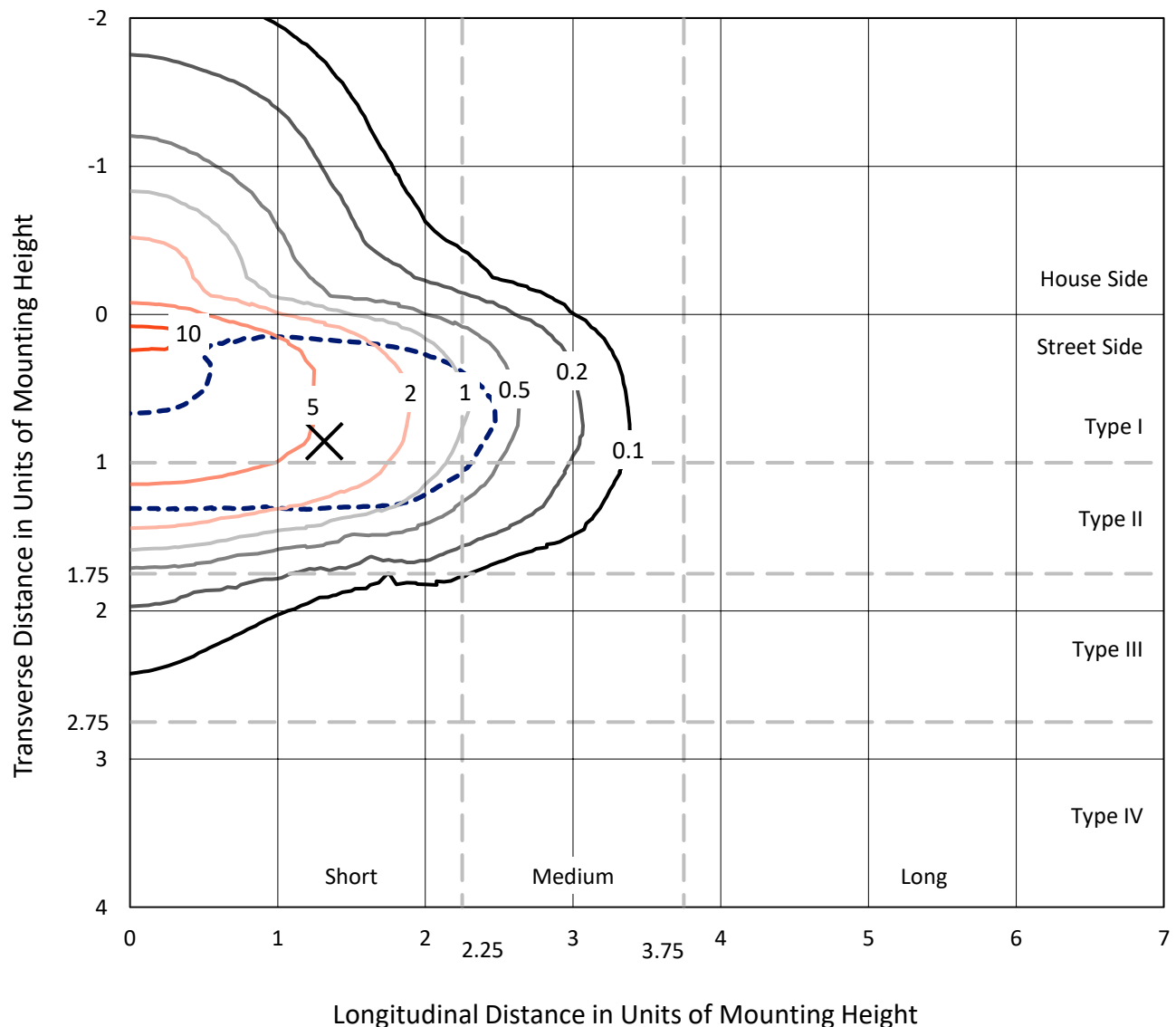


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
- - - 1/2 Max cd

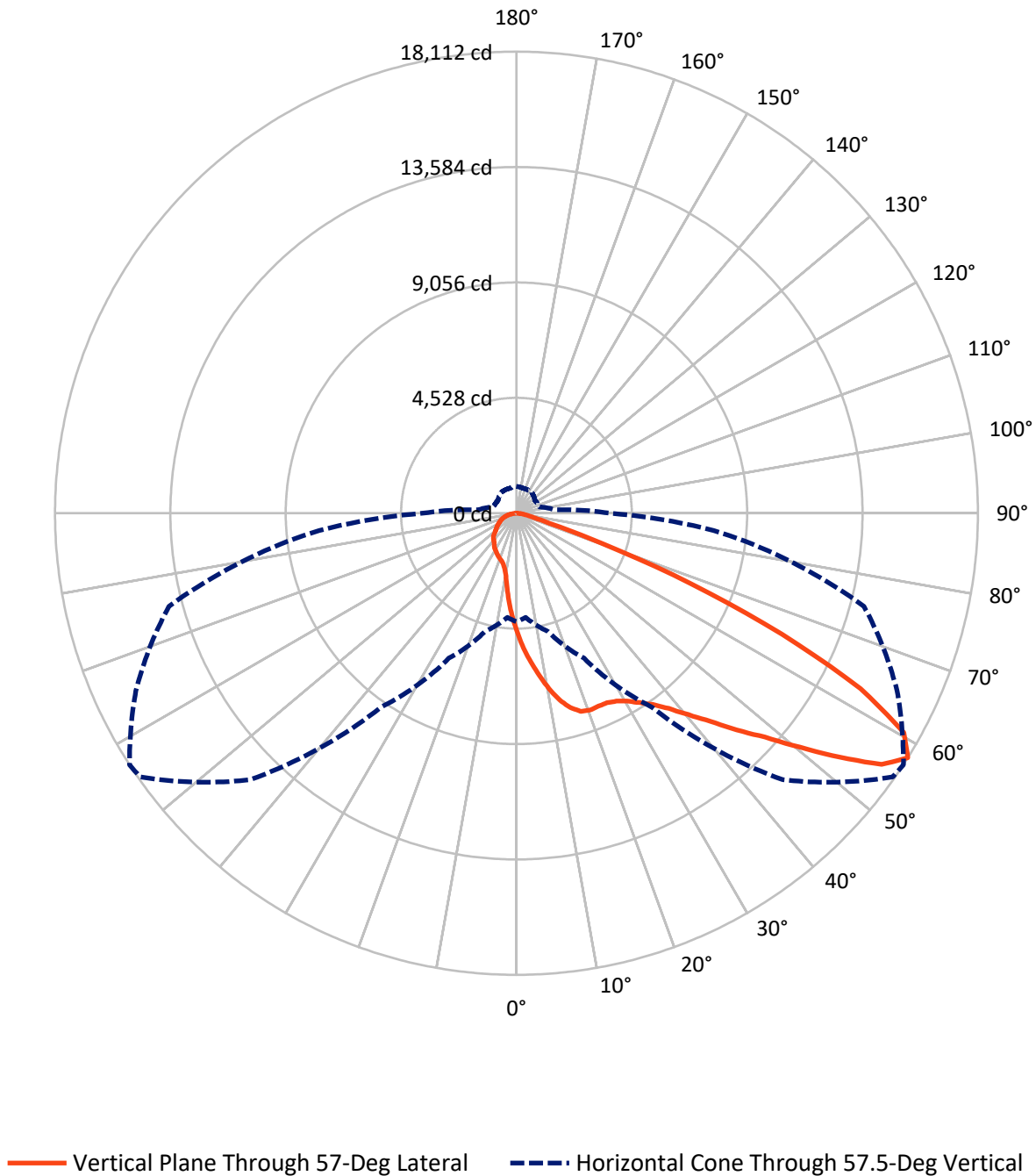


Based on 25 foot mounting height. Maximum calculated value = 11.4 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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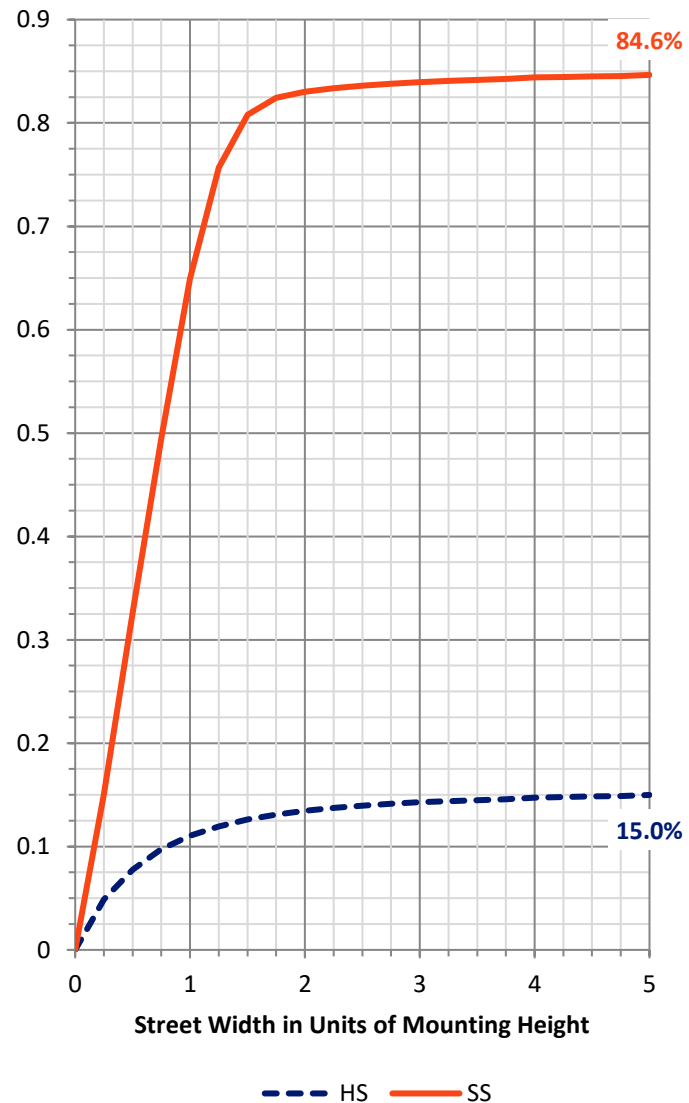
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3393.8	0.0	3393.8
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	18923.2	0.0	18923.2
	% Fixture	84.8	0.0	84.8
Total	Lumens	22317.0	0.0	22317.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	450.6	2.0
10°-20°	1328.0	6.0
20°-30°	2205.1	9.9
30°-40°	3321.6	14.9
40°-50°	4987.1	22.3
50°-60°	5589.9	25.0
60°-70°	3271.5	14.7
70°-80°	967.7	4.3
80°-90°	195.6	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°	22317.0	100.0
0°-180°	22317.0	100.0

Coefficient of Utilization



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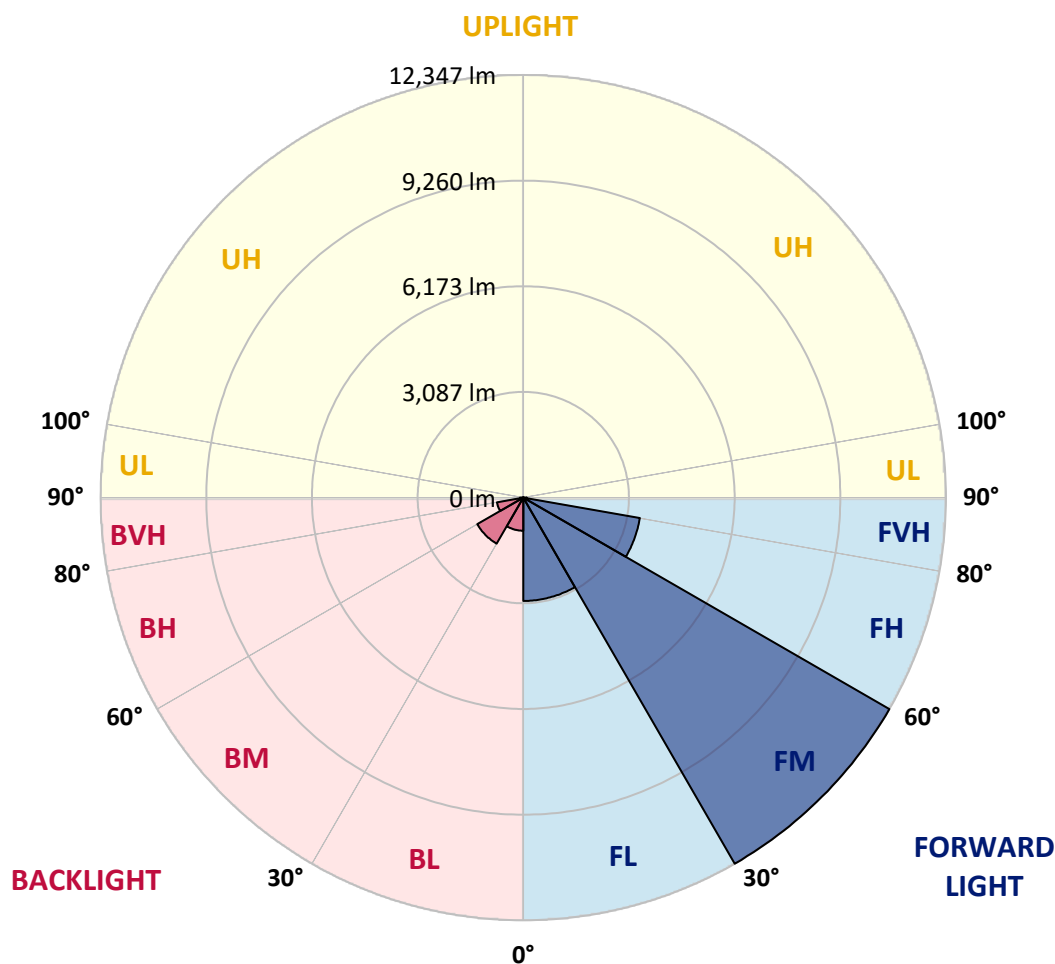
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3016.7	13.5			
FM	(30°-60°)	12346.7	55.3			
FH	(60°-80°)	3458.2	15.5			G2/5000
FVH	(80°-90°)	101.5	0.5			G2/225
BL	(0°-30°)	967.0	4.3	B2/1000		
BM	(30°-60°)	1551.8	7.0	B2/2500		
BH	(60°-80°)	780.9	3.5	B2/1000		G2/1000
BVH	(80°-90°)	94.1	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°	4688.5	4688.5	4688.5	4688.5	4688.5	4688.5	4688.5	4688.5	4688.5	4688.5	4688.5
2.5°	5825.9	5762.3	5712.3	5668.3	5610.9	5455.7	5300.6	5298.1	5174.7	4984.2	4788.7
5°	6775.1	6689.5	6700.5	6563.7	6426.9	6202.1	5873.5	5856.4	5593.8	5237.0	4874.2
7.5°	7393.2	7394.4	7360.2	7282.0	7134.2	6878.9	6506.3	6422.0	6056.8	5515.6	4972.0
10°	7361.4	7394.4	7451.8	7519.0	7564.2	7438.4	7098.8	6996.2	6521.0	5852.7	5080.7
12.5°	6938.8	6990.1	7071.9	7240.5	7512.9	7720.6	7604.5	7521.5	7058.5	6188.7	5200.4
15°	6674.9	6705.4	6750.6	6864.2	7157.4	7654.6	7955.1	7911.2	7565.4	6568.6	5334.8
17.5°	6594.3	6624.8	6639.5	6709.1	6918.0	7427.4	8093.2	8171.4	8015.0	6918.0	5470.4
20°	6674.9	6689.5	6689.5	6731.1	6894.8	7294.2	8087.1	8244.7	8383.9	7337.0	5597.4
22.5°	6886.2	6892.3	6883.8	6898.4	7020.6	7330.9	8029.7	8225.1	8682.0	7692.5	5696.4
25°	7229.5	7239.3	7183.1	7148.9	7238.1	7492.1	8061.4	8241.0	8915.3	8032.1	5762.3
27.5°	7619.2	7631.4	7563.0	7483.6	7525.1	7691.3	8186.0	8347.3	9090.0	8366.8	5803.9
30°	8096.8	8101.7	7986.9	7891.6	7864.7	7988.1	8398.6	8548.8	9307.5	8761.4	5866.2
32.5°	8585.5	8622.1	8474.3	8339.9	8294.7	8332.6	8712.5	8857.9	9566.4	9185.3	5966.4
35°	9250.0	9256.2	9079.0	8915.3	8766.3	8815.2	9114.4	9219.5	9924.4	9675.2	6108.1
37.5°	10079.5	10135.7	9891.4	9586.0	9402.7	9331.9	9600.6	9715.5	10426.5	10276.2	6321.8
40°	11000.6	11021.4	10812.5	10621.9	10287.2	10082.0	10267.6	10392.3	11045.8	10993.3	6569.8
42.5°	11579.7	11624.9	11640.7	11621.2	11369.5	11025.0	11095.9	11154.5	11778.8	11666.4	6823.9
45°	11775.1	11842.3	12069.5	12550.8	12577.7	12238.1	12073.2	12129.4	12577.7	12345.6	7067.0
47.5°	11451.4	11566.2	11985.2	12972.3	13711.4	13737.0	13239.8	13116.4	13305.8	12908.8	7242.9
50°	10614.6	10639.0	11280.4	12709.6	14242.8	15170.0	14655.7	14426.0	13997.2	13325.3	7363.9
52.5°	9319.7	9347.8	9885.3	11489.3	13915.4	16171.7	16312.2	15901.7	14699.7	13649.1	7443.3
55°	6918.0	7080.5	7671.7	9221.9	12363.9	16077.6	17629.1	17395.8	15548.7	13905.6	7567.9
57.5°	4253.7	4104.6	4805.8	6274.2	9298.9	14785.2	18035.9	18111.6	16483.2	14120.6	7776.8
60°	1957.0	1986.3	2275.9	3236.0	5668.3	11566.2	16987.7	17466.6	17000.0	14113.3	7829.3
62.5°	1348.7	1321.8	1248.5	1420.7	2584.9	7315.0	14349.1	15160.2	15964.0	13674.7	7620.4
65°	1205.7	1178.9	1037.1	989.5	1187.4	3188.4	10431.3	11455.1	13441.4	12567.9	7100.0
67.5°	1126.3	1089.7	943.1	850.2	847.8	1269.3	6150.8	7383.4	9969.6	10625.6	6152.0
70°	1043.3	1013.9	868.6	766.0	722.0	797.7	2703.4	3539.0	6473.3	7657.1	4792.4
72.5°	960.2	926.0	795.3	685.3	627.9	597.4	1035.9	1347.4	3657.5	4590.8	2938.0
75°	839.2	822.1	711.0	620.6	558.3	482.5	657.2	750.1	1749.3	2108.5	1474.5
77.5°	734.2	715.9	631.6	542.4	497.2	392.1	466.7	509.4	737.9	855.1	665.8
80°	537.5	555.8	532.6	478.9	443.4	307.8	314.0	349.4	438.6	485.0	406.8
82.5°	340.8	375.0	410.5	368.9	335.9	243.1	217.4	230.9	299.3	317.6	180.8
85°	142.9	145.4	238.2	224.8	191.8	144.2	130.7	138.0	160.0	167.4	84.3
87.5°	55.0	53.8	84.3	78.2	59.9	41.5	41.5	46.4	63.5	58.6	26.9
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°	4688.5	4688.5	4688.5	4688.5	4688.5	4688.5	4688.5	4688.5	4688.5	4688.5	4688.5
2.5°	4704.4	4617.7	4445.4	4231.7	4075.3	3899.4	3744.2	3633.1	3591.5	3572.0	3535.3
5°	4700.8	4529.7	4173.0	3799.2	3498.7	3190.9	2930.6	2762.1	2747.4	2635.0	2624.0
7.5°	4702.0	4440.6	3872.5	3322.8	2864.7	2549.5	2334.5	2278.3	2211.1	2194.0	2202.6
10°	4705.6	4326.9	3550.0	2851.2	2407.8	2201.3	2120.7	2098.7	2101.2	2108.5	2109.7
12.5°	4710.5	4217.0	3215.3	2493.3	2151.3	2065.7	2057.2	2076.7	2097.5	2113.4	2117.1
15°	4716.6	4091.2	2889.1	2205.0	2023.0	2015.7	2043.8	2076.7	2106.1	2129.3	2132.9
17.5°	4709.3	3944.6	2615.5	2027.9	1952.1	1987.6	2034.0	2075.5	2102.4	2124.4	2126.8
20°	4692.2	3780.9	2351.6	1903.3	1908.2	1965.6	2015.7	2054.8	2084.1	2095.1	2103.6
22.5°	4626.2	3585.4	2121.9	1806.8	1855.6	1935.0	1994.9	2018.1	1985.1	1961.9	1968.0
25°	4513.9	3331.3	1908.2	1728.6	1808.0	1892.3	1953.4	1897.2	1870.3	1860.5	1865.4
27.5°	4373.4	3052.8	1746.9	1646.7	1746.9	1844.6	1827.5	1817.8	1805.5	1789.7	1793.3
30°	4221.9	2780.4	1610.1	1583.2	1680.9	1737.1	1744.5	1760.3	1746.9	1722.5	1732.2
32.5°	4081.4	2523.9	1506.2	1529.5	1634.5	1626.0	1680.9	1699.3	1637.0	1555.1	1558.8
35°	3961.7	2285.6	1428.1	1476.9	1555.1	1558.8	1613.7	1550.2	1483.0	1443.9	1446.4
37.5°	3871.3	2100.0	1376.8	1431.7	1453.7	1500.1	1470.8	1437.8	1429.3	1402.4	1403.6
40°	3817.5	1937.5	1343.8	1396.3	1392.6	1424.4	1330.3	1363.3	1375.5	1367.0	1368.2
42.5°	3763.8	1822.6	1309.6	1347.4	1346.2	1283.9	1263.1	1291.2	1323.0	1326.7	1324.2
45°	3721.0	1733.5	1274.1	1272.9	1297.4	1199.6	1193.5	1210.6	1255.8	1277.8	1276.6
47.5°	3673.4	1658.9	1220.4	1186.2	1193.5	1147.1	1137.3	1144.7	1199.6	1235.0	1244.8
50°	3613.5	1584.4	1153.2	1106.8	1076.2	1098.2	1100.7	1101.9	1156.9	1197.2	1205.7
52.5°	3565.9	1528.2	1076.2	1042.0	1005.4	1054.3	1072.6	1075.0	1108.0	1141.0	1147.1
55°	3594.0	1496.5	1000.5	976.1	943.1	1009.1	1044.5	1049.4	1056.7	1081.1	1084.8
57.5°	3678.3	1503.8	939.4	907.7	883.2	955.3	1015.2	1018.8	1013.9	1043.3	1048.1
60°	3703.9	1500.1	894.2	831.9	817.3	897.9	972.4	979.7	978.5	1021.3	1029.8
62.5°	3596.4	1453.7	849.0	768.4	758.6	839.2	912.5	941.9	948.0	1009.1	1020.0
65°	3343.6	1358.4	789.2	701.2	701.2	776.9	855.1	895.4	912.5	994.4	1006.6
67.5°	3010.1	1246.0	728.1	643.8	641.3	717.1	794.0	835.6	862.5	973.6	981.0
70°	2498.2	1094.6	652.3	581.5	581.5	649.9	719.5	769.6	808.7	934.5	934.5
72.5°	1711.5	910.1	560.7	510.6	511.9	575.4	646.2	702.4	748.8	856.3	858.8
75°	1082.3	711.0	460.5	434.9	439.8	499.6	572.9	631.6	724.4	846.6	850.2
77.5°	575.4	499.6	366.5	360.4	366.5	421.5	503.3	583.9	726.9	734.2	722.0
80°	372.6	354.3	289.5	277.3	279.7	339.6	448.3	554.6	583.9	591.3	564.4
82.5°	202.8	224.8	205.2	193.0	193.0	265.1	382.4	441.0	419.0	348.2	332.3
85°	86.7	105.1	106.3	92.8	89.2	163.7	256.5	240.7	223.6	213.8	211.3
87.5°	24.4	34.2	34.2	25.7	19.5	45.2	51.3	14.7	0.0	1.2	2.4
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)