

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: P191391

Luminaire Tested: **GLEON-AF-03-LED-E1-T2R-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191391
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24657)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-03-LED-E1-T2R-600
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12760.3 lumens
Efficiency: N/A
Efficacy: 132.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 96
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: 25 FT

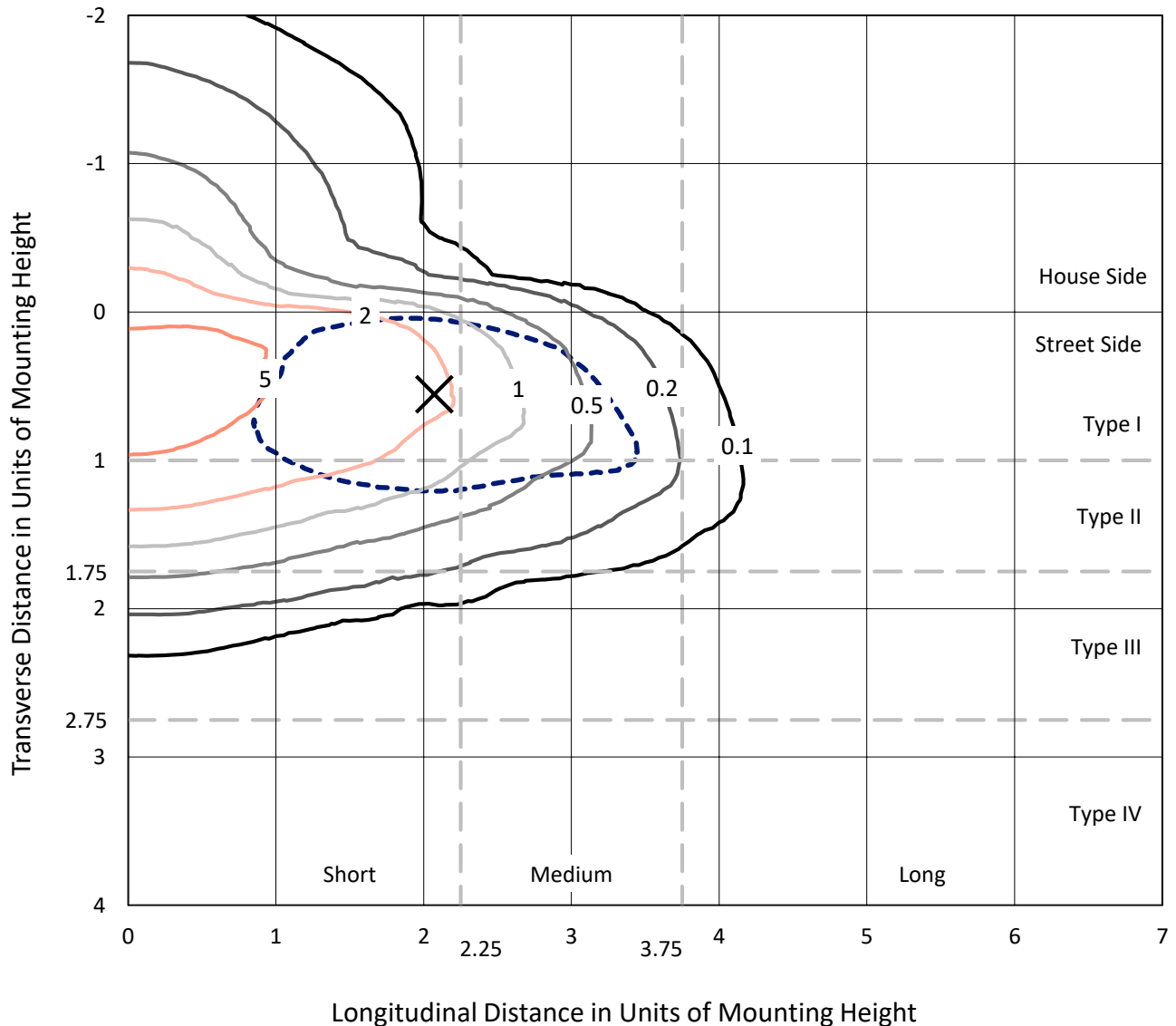


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Iso-Footcandle Lines of Horizontal Illumination

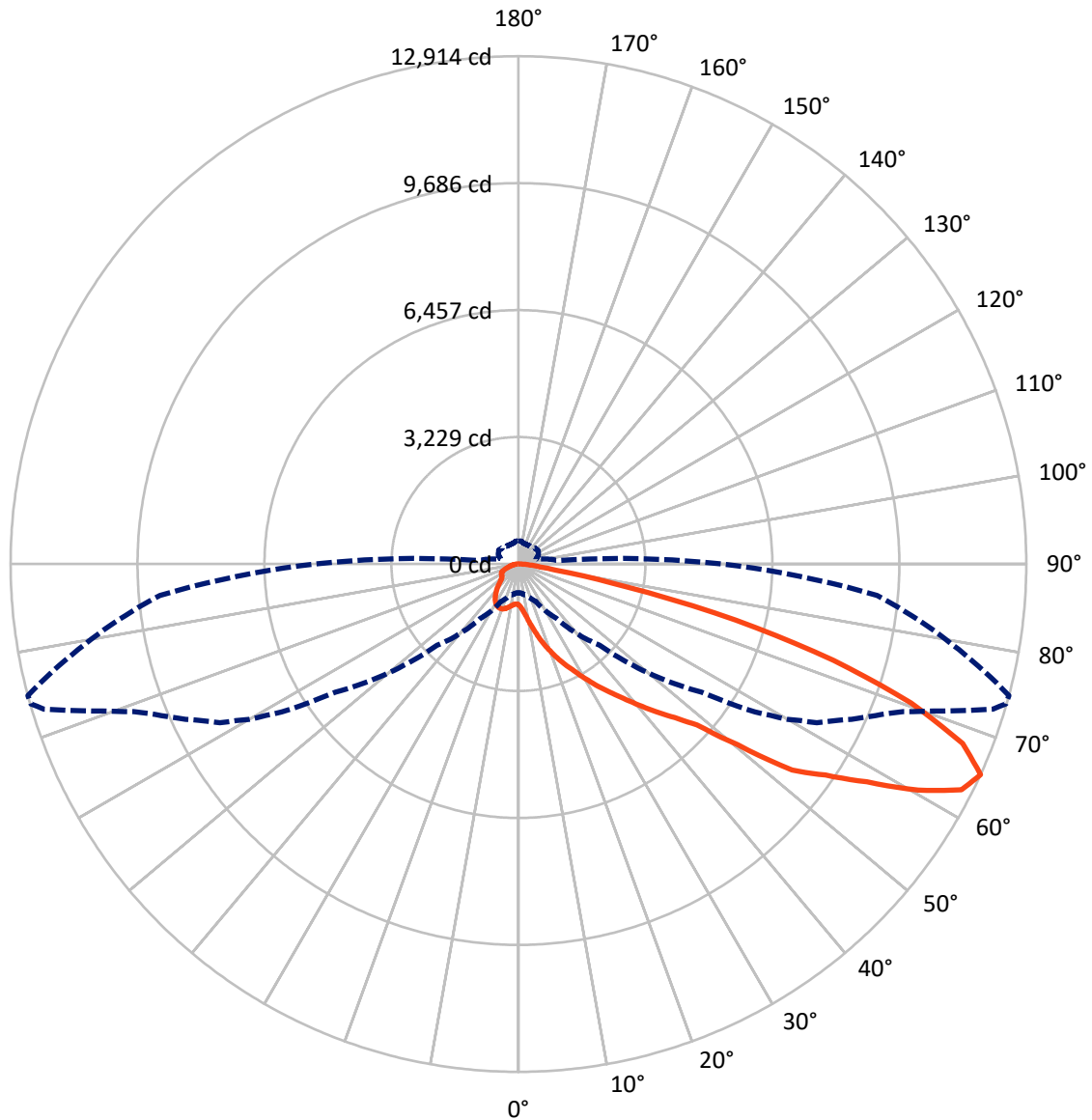
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1967.3	0.0	1967.3
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	10792.9	0.0	10792.9
	% Fixture	84.6	0.0	84.6
Total	Lumens	12760.3	0.0	12760.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.2	1.0
10°-20°	500.8	3.9
20°-30°	1027.5	8.1
30°-40°	1728.8	13.5
40°-50°	2388.7	18.7
50°-60°	2981.8	23.4
60°-70°	2683.3	21.0
70°-80°	1124.8	8.8
80°-90°	196.5	1.5
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°	12760.3	100.0
0°-180°	12760.3	100.0



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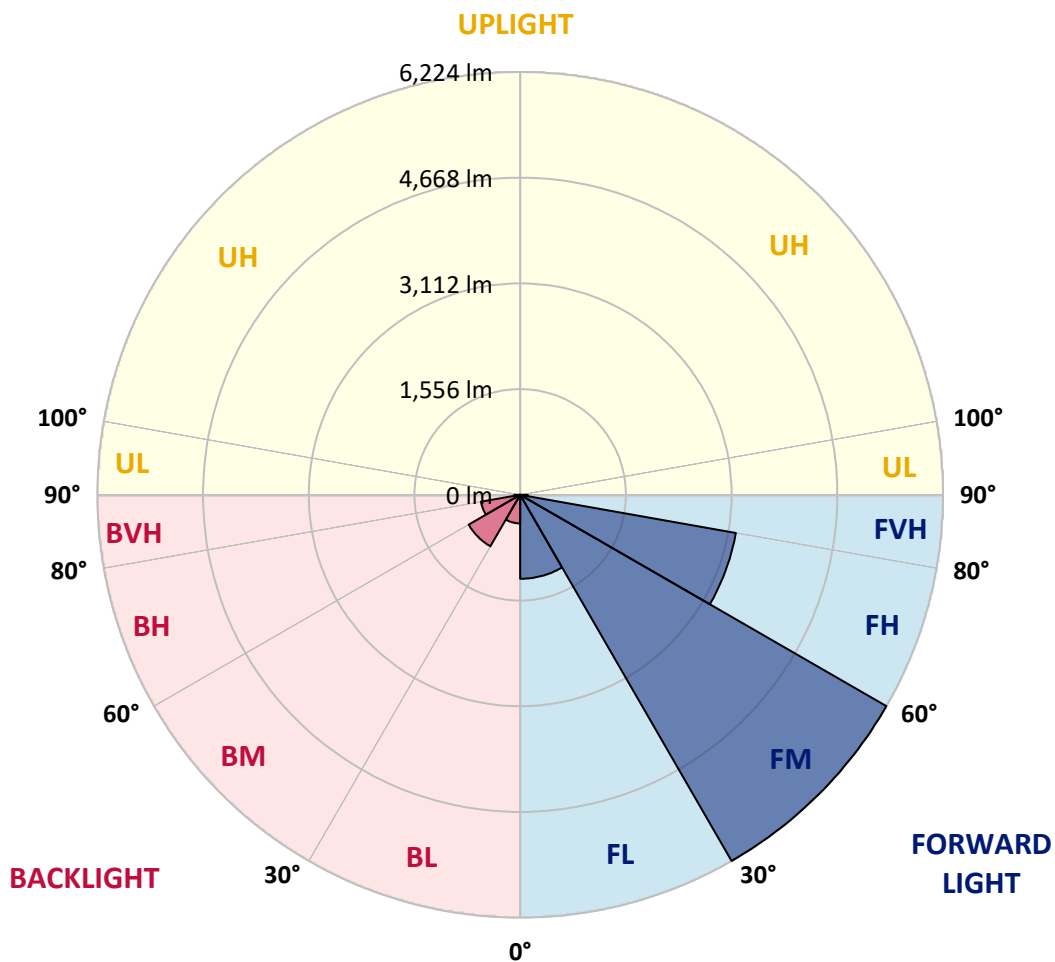
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1235.8	9.7			
FM	(30°-60°)	6223.5	48.8			
FH	(60°-80°)	3223.2	25.3			G2/5000
FVH	(80°-90°)	110.5	0.9			G2/225
BL	(0°-30°)	420.7	3.3	B1/500		
BM	(30°-60°)	875.7	6.9	B1/1000		
BH	(60°-80°)	584.9	4.6	B2/1000		G2/1000
BVH	(80°-90°)	86.1	0.7			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°	56°	57°	58°	59°
0°	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1
2.5°	1316.6	1302.1	1305.8	1281.7	1252.0	1213.4	1170.5	1169.8	1170.5	1166.3	1150.6
5°	1825.8	1808.3	1801.6	1747.3	1667.5	1554.1	1430.8	1417.5	1412.1	1398.2	1366.2
7.5°	2197.2	2187.6	2177.4	2136.2	2063.8	1937.0	1771.4	1743.1	1715.9	1709.2	1673.0
10°	2437.0	2434.6	2412.8	2402.0	2356.7	2246.8	2085.5	2058.4	2028.7	2018.5	1980.4
12.5°	2626.6	2626.0	2615.8	2618.9	2579.6	2499.8	2361.0	2336.1	2314.4	2283.0	2255.8
15°	2757.8	2758.3	2773.4	2790.3	2784.3	2730.6	2600.1	2589.2	2570.5	2548.8	2516.8
17.5°	2865.3	2868.3	2884.0	2914.8	2947.9	2943.7	2840.4	2831.4	2815.1	2785.5	2768.6
20°	3108.0	3119.5	3089.3	3089.3	3092.9	3109.3	3059.7	3052.5	3029.5	3013.8	3000.5
22.5°	3518.1	3531.4	3463.2	3393.7	3325.5	3275.9	3226.4	3235.5	3219.7	3208.9	3201.0
25°	4050.8	4061.1	3950.5	3833.4	3694.5	3513.3	3390.7	3385.3	3376.8	3370.1	3366.5
27.5°	4552.1	4556.3	4451.9	4280.3	4119.1	3858.8	3557.4	3550.8	3540.4	3527.7	3516.9
30°	4981.0	4979.7	4872.2	4708.5	4535.9	4247.7	3810.5	3789.9	3759.8	3725.3	3698.7
32.5°	5352.4	5350.5	5232.8	5063.1	4881.9	4633.0	4157.2	4114.8	4067.8	4000.7	3960.3
35°	5644.7	5643.5	5532.3	5355.5	5147.6	4996.1	4554.6	4502.6	4442.8	4352.9	4290.6
37.5°	5755.2	5755.2	5693.0	5572.2	5388.6	5284.8	4996.1	4933.3	4869.2	4767.2	4697.1
40°	5690.6	5691.8	5705.1	5682.8	5593.4	5513.6	5407.9	5370.5	5315.6	5223.7	5150.7
42.5°	5473.8	5480.5	5568.6	5676.8	5721.4	5708.7	5773.3	5756.5	5717.8	5647.1	5589.1
45°	5198.9	5219.5	5316.2	5520.3	5757.1	5877.3	6079.6	6081.3	6074.2	6036.1	5991.4
47.5°	4821.5	4850.5	4977.9	5254.0	5673.7	6040.9	6390.6	6406.9	6422.0	6397.2	6376.8
50°	4320.2	4354.6	4545.5	4911.5	5504.0	6210.6	6978.3	7051.9	7120.9	7112.4	7126.3
52.5°	3783.3	3823.7	4057.4	4465.2	5212.2	6249.9	7354.0	7474.1	7594.3	7692.8	7797.2
55°	3298.9	3277.1	3510.9	3940.3	4732.7	6073.0	7691.6	7836.5	7970.6	8091.4	8215.8
57.5°	2642.4	2678.0	2912.3	3337.0	4097.9	5573.4	7924.1	8136.0	8328.8	8528.6	8705.0
60°	1931.5	1967.1	2221.4	2652.6	3408.8	4816.1	7746.5	8067.8	8376.4	8682.7	8921.9
62.5°	1166.3	1192.9	1416.9	1827.6	2628.5	3918.0	6955.3	7376.9	7831.1	8197.1	8563.7
65°	726.0	741.0	823.8	1049.6	1688.1	2925.0	5682.8	6142.4	6631.6	7096.0	7477.2
67.5°	594.3	599.8	614.8	663.2	927.1	1907.3	4229.6	4636.7	5078.2	5527.5	5951.5
70°	534.5	530.9	530.9	533.9	594.3	1025.5	2769.2	3034.4	3402.1	3792.9	4180.7
72.5°	482.5	478.9	472.3	463.3	485.0	625.7	1431.4	1631.3	1896.4	2243.7	2615.2
75°	433.6	428.8	420.9	409.5	424.6	472.3	687.3	771.3	900.5	1085.4	1292.5
77.5°	382.9	376.9	369.6	361.2	380.5	367.2	402.8	433.0	482.5	541.8	619.7
80°	325.5	320.1	317.7	313.4	336.4	279.7	284.5	303.2	332.2	364.2	400.4
82.5°	254.9	254.9	264.5	266.4	291.7	201.1	212.6	228.9	244.0	261.0	277.8
85°	167.9	169.1	201.7	214.4	230.2	135.3	159.5	164.9	177.0	186.6	193.8
87.5°	52.6	56.8	123.2	136.5	132.3	76.7	97.8	100.2	108.7	115.4	121.4
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1
2.5°	1150.6	1143.4	1136.7	1136.1	1131.3	1124.6	1127.0	1116.8	1117.4	1111.9	1105.9
5°	1352.9	1348.0	1323.9	1317.3	1299.1	1287.7	1285.8	1261.7	1258.6	1244.8	1229.7
7.5°	1644.0	1628.3	1594.5	1578.2	1547.4	1524.4	1513.6	1481.5	1465.8	1429.6	1413.3
10°	1949.0	1929.1	1887.4	1864.4	1834.9	1798.0	1778.1	1731.5	1713.4	1680.2	1640.4
12.5°	2231.7	2211.7	2168.9	2151.4	2112.1	2072.8	2051.1	1998.5	1975.0	1921.8	1890.4
15°	2493.2	2473.3	2435.9	2417.7	2378.5	2346.4	2317.4	2265.5	2237.7	2188.2	2147.1
17.5°	2746.8	2725.8	2693.1	2676.8	2638.7	2606.2	2574.8	2525.8	2497.4	2447.9	2411.1
20°	2982.4	2966.7	2943.1	2921.4	2883.4	2853.7	2816.3	2774.0	2733.0	2696.7	2661.7
22.5°	3187.7	3181.7	3156.3	3146.7	3114.1	3088.7	3056.1	3014.4	2984.9	2938.9	2906.3
25°	3364.7	3363.0	3350.9	3347.8	3324.9	3300.7	3293.5	3259.0	3231.8	3191.4	3157.5
27.5°	3516.9	3518.7	3515.7	3524.2	3518.1	3507.3	3507.9	3496.3	3480.7	3446.8	3417.3
30°	3686.0	3676.4	3681.8	3693.9	3697.6	3698.7	3718.6	3725.3	3724.1	3701.8	3687.2
32.5°	3925.2	3902.3	3881.1	3879.3	3891.4	3896.2	3930.1	3947.6	3962.6	3968.1	3970.5
35°	4230.2	4184.3	4140.2	4116.7	4096.1	4101.5	4125.8	4154.1	4187.3	4210.3	4237.5
37.5°	4614.3	4558.2	4480.2	4424.7	4410.8	4380.6	4396.3	4418.6	4451.3	4486.9	4534.0
40°	5080.0	4994.9	4907.3	4833.5	4793.8	4738.1	4737.6	4733.3	4753.2	4786.5	4852.9
42.5°	5528.1	5452.6	5359.6	5282.3	5230.3	5156.1	5141.0	5101.8	5110.8	5139.8	5204.4
45°	5947.9	5885.6	5828.9	5739.6	5695.5	5615.1	5589.7	5543.3	5517.3	5530.6	5595.2
47.5°	6354.4	6314.5	6255.3	6197.3	6163.5	6091.7	6059.0	6025.8	5992.5	5991.4	6059.0
50°	7146.7	7125.7	7055.6	6995.1	7011.5	6923.3	6928.8	6839.3	6879.9	6884.7	7026.5
52.5°	7891.5	7965.2	8017.1	8080.5	8121.6	8129.5	8156.6	8197.1	8246.0	8342.7	8474.3
55°	8317.9	8410.3	8464.0	8512.4	8592.1	8608.9	8654.3	8708.1	8750.9	8859.7	8971.4
57.5°	8824.6	8996.1	9079.5	9156.2	9263.7	9304.8	9380.3	9438.9	9494.4	9623.1	9758.3
60°	9136.9	9345.9	9515.6	9636.9	9771.6	9868.3	9982.5	10074.2	10204.7	10358.7	10560.4
62.5°	8888.6	9195.4	9420.8	9629.1	9812.1	9996.9	10160.6	10332.1	10530.3	10763.4	11076.2
65°	7899.9	8212.1	8598.1	8814.4	9056.5	9341.6	9590.5	9868.3	10138.3	10477.7	10940.4
67.5°	6359.8	6722.8	7156.5	7374.5	7652.9	7971.2	8250.2	8589.7	8905.0	9316.2	9888.3
70°	4584.1	5053.4	5418.3	5645.9	5970.9	6298.8	6568.2	6963.2	7224.1	7645.6	8236.9
72.5°	2902.7	3272.9	3719.9	4006.7	4295.5	4627.6	4903.0	5243.6	5487.1	5871.2	6406.9
75°	1560.6	1833.6	2226.2	2498.7	2807.9	3091.8	3414.2	3642.5	3822.6	4126.3	4561.2
77.5°	731.4	897.5	1096.2	1305.8	1515.4	1734.0	1946.6	2131.4	2208.8	2382.7	2639.3
80°	444.0	497.7	555.7	620.3	707.9	778.6	872.2	939.8	944.6	999.5	1078.1
82.5°	296.6	316.5	334.0	350.3	372.7	390.2	410.1	433.6	443.3	456.0	481.4
85°	202.3	212.0	215.6	225.9	223.5	229.6	237.3	245.2	249.4	248.9	260.3
87.5°	124.4	129.2	131.7	134.1	132.3	129.8	133.5	137.7	138.9	135.3	136.5
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1
2.5°	1107.0	1101.6	1096.2	1092.6	1091.4	1059.4	1045.5	1036.5	1017.1	1001.4	988.7
5°	1221.2	1209.7	1200.7	1189.8	1183.8	1102.8	1073.3	1052.7	1018.9	999.0	980.8
7.5°	1404.8	1372.8	1354.1	1333.0	1314.8	1168.7	1119.7	1087.7	1040.6	1014.1	993.5
10°	1613.2	1579.9	1550.4	1517.8	1489.4	1256.3	1185.0	1135.5	1073.3	1038.8	1011.7
12.5°	1845.7	1813.1	1775.6	1734.0	1697.8	1367.4	1268.4	1197.7	1112.6	1066.6	1028.6
15°	2120.6	2063.2	2017.9	1969.6	1927.2	1500.3	1365.5	1267.7	1154.2	1092.0	1041.3
17.5°	2376.0	2315.7	2254.0	2211.7	2162.8	1649.4	1463.4	1339.0	1188.6	1108.3	1043.6
20°	2625.5	2559.6	2506.4	2449.7	2398.4	1804.1	1567.9	1401.9	1211.0	1108.9	1028.6
22.5°	2845.3	2804.2	2745.1	2683.4	2631.5	1958.6	1665.8	1454.9	1219.5	1095.0	1002.0
25°	3095.3	3051.9	2979.3	2927.5	2869.5	2116.3	1761.8	1496.1	1214.5	1069.0	961.0
27.5°	3362.3	3314.0	3239.7	3185.4	3115.3	2280.0	1850.0	1525.6	1196.4	1026.7	905.9
30°	3640.8	3596.7	3523.6	3468.6	3397.9	2453.3	1948.4	1545.6	1160.2	968.1	841.9
32.5°	3939.7	3902.9	3830.3	3773.1	3697.6	2641.2	2040.2	1551.6	1105.3	898.7	774.3
35°	4223.6	4198.2	4137.2	4083.4	4005.0	2818.7	2137.5	1548.5	1040.0	822.7	712.7
37.5°	4543.0	4528.0	4497.8	4429.5	4333.5	3059.7	2254.0	1535.9	960.3	747.1	665.5
40°	4883.7	4884.9	4852.3	4805.8	4716.4	3352.0	2392.9	1511.1	873.3	680.7	622.7
42.5°	5244.3	5263.0	5247.3	5214.1	5128.4	3646.8	2559.0	1480.9	788.8	616.0	580.4
45°	5657.4	5680.3	5704.5	5655.6	5572.2	4035.7	2777.6	1441.6	697.6	562.3	551.5
47.5°	6133.9	6170.1	6191.9	6192.5	6109.2	4517.7	3132.8	1418.1	616.6	526.1	537.6
50°	7139.6	7151.0	7202.4	7291.7	7227.8	5633.2	3753.1	1403.6	561.7	503.7	527.2
52.5°	8588.5	8714.7	8803.5	8797.5	8710.4	6341.7	4094.9	1328.7	529.1	495.2	522.4
55°	9178.5	9336.2	9500.5	9543.9	9476.3	6946.2	4418.0	1253.8	513.4	501.2	524.3
57.5°	9964.9	10230.6	10456.0	10550.7	10452.9	7719.9	4843.3	1214.5	508.5	517.6	535.7
60°	10883.6	11212.2	11508.1	11678.4	11678.4	8608.9	5284.2	1198.3	501.9	541.8	555.1
62.5°	11473.6	11956.2	12403.2	12652.6	12645.3	9228.0	5479.8	1142.7	486.8	558.6	581.6
65°	11476.1	12049.8	12619.3	12899.6	12914.1	9151.9	5156.7	1009.2	459.0	561.1	608.2
67.5°	10519.3	11131.1	11794.9	12108.4	12180.9	8424.8	4464.0	829.8	413.7	536.9	617.9
70°	8884.4	9481.7	10159.4	10467.4	10596.0	7181.8	3595.5	639.7	355.8	483.8	597.9
72.5°	6999.4	7585.3	8057.0	8282.2	8382.5	5489.5	2618.2	483.1	291.7	407.6	544.2
75°	4955.6	5395.2	5645.9	5696.1	5711.7	3309.1	1590.9	359.4	240.4	317.1	459.6
77.5°	2797.0	2985.4	2964.9	2987.2	2801.2	1277.4	692.7	257.3	198.1	241.0	356.3
80°	1092.0	1125.8	1057.5	1036.5	950.6	475.4	305.7	179.4	158.3	182.4	249.4
82.5°	481.4	497.1	482.5	486.2	465.0	245.2	183.0	129.8	120.8	133.5	165.5
85°	265.1	270.0	268.7	276.6	265.1	97.8	87.0	79.7	84.6	90.6	106.3
87.5°	129.2	130.4	126.2	132.9	128.7	49.5	42.9	45.3	49.5	50.7	50.7
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):

	135°	145°	155°	165°	175°	180°
0°	1037.1	1037.1	1037.1	1037.1	1037.1	1037.1
2.5°	979.7	974.8	975.4	974.2	971.8	971.8
5°	971.2	966.4	966.4	965.2	962.1	962.7
7.5°	979.7	971.8	968.7	964.5	960.3	960.3
10°	989.3	975.4	967.0	959.7	954.3	954.3
12.5°	996.6	974.8	961.0	951.2	945.8	945.8
15°	999.0	970.6	951.2	939.8	935.0	934.4
17.5°	991.1	954.3	930.7	917.4	911.3	909.6
20°	967.0	924.6	896.3	881.2	872.8	869.7
22.5°	930.7	882.4	849.2	833.5	822.7	820.8
25°	879.9	828.1	795.4	780.3	774.3	772.4
27.5°	820.8	772.4	744.7	735.0	729.6	729.0
30°	764.7	723.5	703.0	695.8	689.2	687.9
32.5°	712.1	686.1	678.2	668.0	652.3	650.5
35°	674.6	672.2	666.8	643.8	624.5	619.1
37.5°	651.7	674.0	646.2	601.0	587.1	585.8
40°	638.4	655.3	607.6	591.9	593.1	591.9
42.5°	608.2	625.7	608.8	601.6	606.4	607.6
45°	578.0	597.3	617.9	613.1	624.5	624.5
47.5°	561.1	590.0	617.2	617.2	634.1	640.2
50°	541.8	584.0	607.6	616.0	629.3	624.5
52.5°	540.5	573.8	593.7	608.8	614.8	609.4
55°	542.4	565.3	579.8	596.7	604.0	604.6
57.5°	544.8	560.5	570.2	578.0	599.8	599.8
60°	550.9	556.3	561.7	565.9	594.3	594.9
62.5°	560.5	552.0	550.9	555.1	591.3	588.9
65°	575.6	545.9	536.9	541.1	588.3	581.0
67.5°	596.1	536.9	519.5	522.4	585.8	570.2
70°	614.8	522.4	497.7	494.7	562.9	535.1
72.5°	616.6	505.5	467.5	458.4	489.2	462.7
75°	586.5	494.1	434.2	407.6	404.1	400.4
77.5°	528.5	487.4	395.6	353.9	346.7	349.1
80°	442.1	462.7	349.1	299.5	338.8	334.6
82.5°	330.4	408.3	296.6	265.1	264.5	233.7
85°	183.6	318.3	241.6	198.7	138.3	134.1
87.5°	51.4	177.0	169.1	112.3	76.7	79.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)