

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: P192097

Luminaire Tested: **GLEON-AF-09-LED-E1-SLL-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P192097
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24296)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-09-LED-E1-SLL-7050
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 5000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46765 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

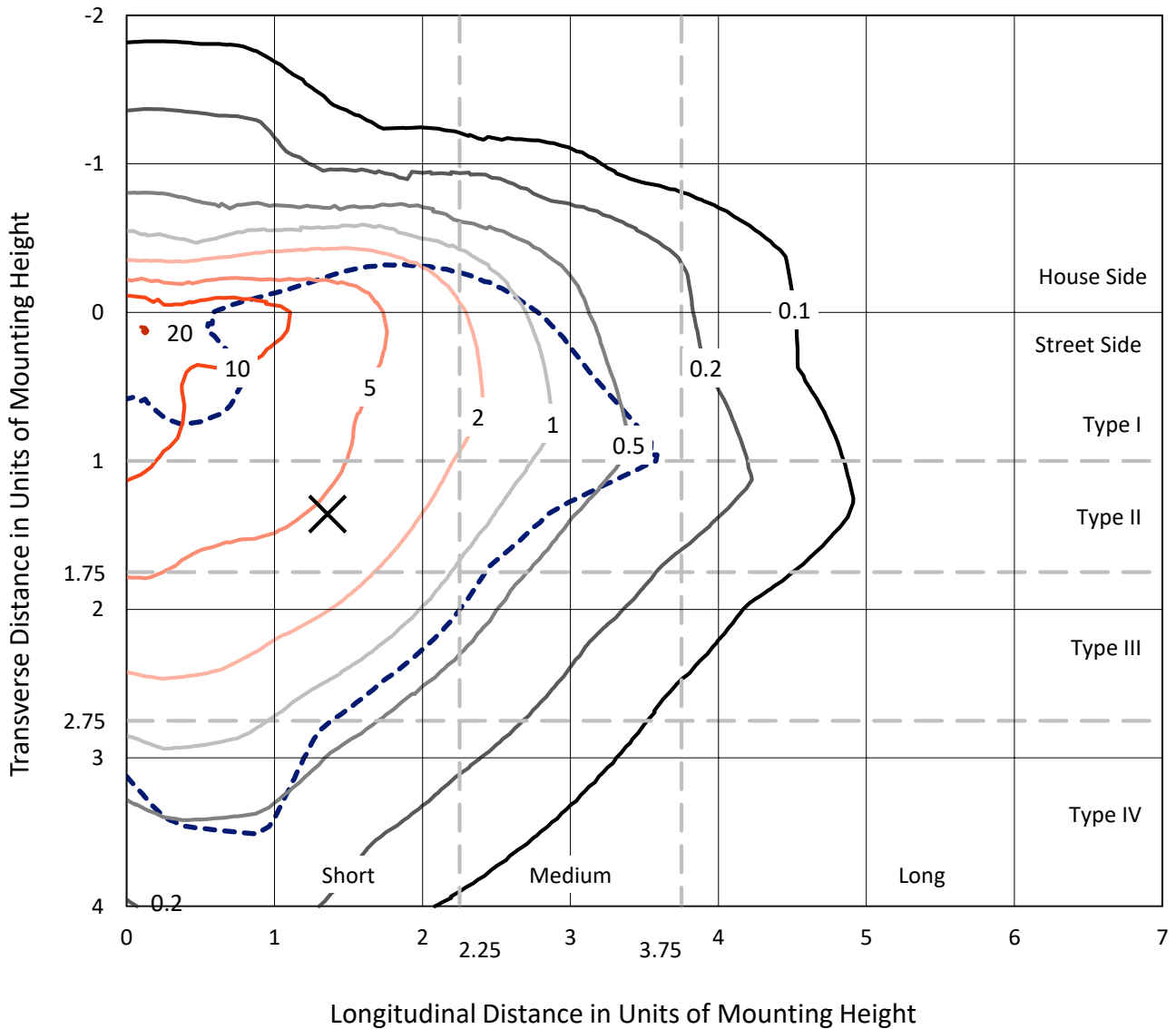
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

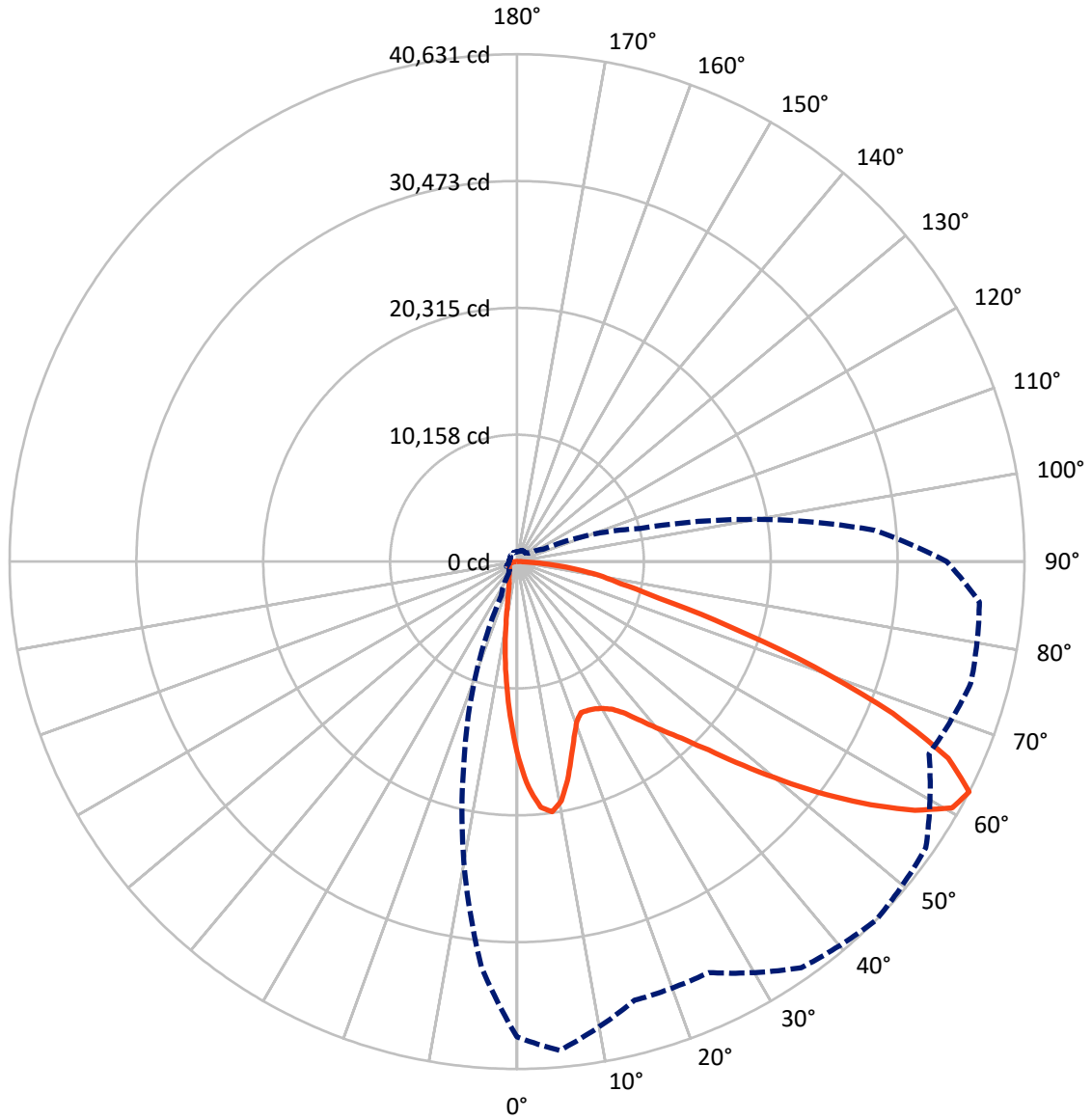
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 20.7 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7739.0	0.0	7739.0
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	39026.0	0.0	39026.0
	% Fixture	83.5	0.0	83.5
Total	Lumens	46765.0	0.0	46765.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1150.2	2.5
10°-20°	2109.1	4.5
20°-30°	3075.0	6.6
30°-40°	4736.0	10.1
40°-50°	6970.1	14.9
50°-60°	10223.6	21.9
60°-70°	11428.5	24.4
70°-80°	5595.3	12.0
80°-90°	1477.3	3.2
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°	46765.0	100.0
0°-180°	46765.0	100.0



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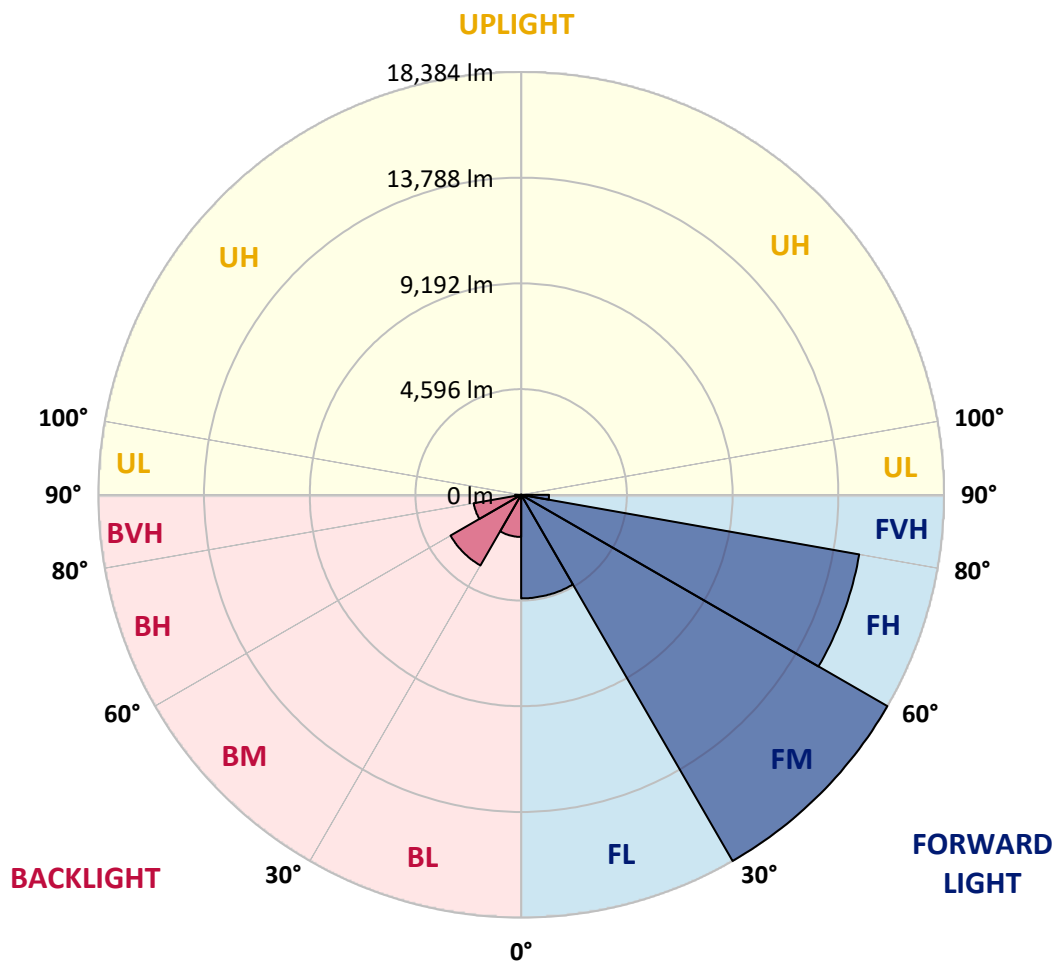
CATALOG NUMBER: GLEON-AF-09-LED-E1-SLL-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4503.3	9.6			
FM	(30°-60°)	18383.7	39.3			
FH	(60°-80°)	14925.8	31.9			G5
FVH	(80°-90°)	1213.2	2.6			G5
BL	(0°-30°)	1830.9	3.9	B3/2500		
BM	(30°-60°)	3545.9	7.6	B3/5000		
BH	(60°-80°)	2098.0	4.5	B3/2500		G3/2500
BVH	(80°-90°)	264.1	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7
2.5°	16416.7	16678.9	17190.5	17573.5	18038.8	18146.8	18295.9	18149.4	17889.7	17545.3	17432.2
5°	15437.3	15997.7	17239.3	18331.9	19303.6	19756.1	19882.1	19509.3	18756.1	17766.3	17162.2
7.5°	13866.5	14663.5	16344.7	17954.0	19385.9	20231.7	20211.1	19344.8	17959.2	16347.3	15378.1
10°	12511.8	13421.8	15349.9	17149.4	18668.7	19488.7	19172.5	18064.6	16411.6	14555.5	13504.1
12.5°	11753.4	12645.4	14601.8	16409.0	17678.9	17961.7	17720.1	16635.2	15077.4	13200.7	12280.4
15°	11622.3	12601.7	14303.6	15774.0	16486.1	16239.3	15951.4	15465.5	14365.3	12763.7	11804.8
17.5°	12190.4	13270.1	14645.5	15331.9	15211.0	14781.7	14699.5	14753.4	14488.7	13249.6	12144.2
20°	13280.4	14576.1	15460.4	15123.6	14241.9	13650.6	13671.2	14496.4	15280.4	14480.9	13218.7
22.5°	14810.0	16288.2	16635.2	15234.2	13833.1	13131.3	13301.0	14637.8	16542.7	16280.5	14668.6
25°	16789.5	18136.5	17887.2	15635.2	13874.3	13195.6	13331.8	15126.2	18033.7	18080.0	16463.0
27.5°	18707.2	19956.6	18938.6	16167.4	14043.9	13347.3	13527.2	15894.9	19457.9	20033.7	18514.4
30°	20203.4	21072.3	19355.1	16653.2	14378.1	13642.9	13866.5	16624.9	20105.7	21352.5	20092.9
32.5°	21442.5	22067.2	20018.3	17254.8	14992.5	14108.2	14501.5	17511.8	21038.9	22607.0	21637.9
35°	23026.1	23203.5	20843.5	17925.7	15941.1	14918.0	15406.4	18380.8	21928.4	23874.4	23159.7
37.5°	24882.1	24653.3	21622.5	18843.5	17167.4	16185.3	16589.0	19334.5	22661.0	25311.5	24715.0
40°	26717.6	26167.5	22599.3	20267.7	18956.6	17678.9	18157.1	20352.5	23344.8	26751.1	26234.3
42.5°	28278.1	27463.2	23563.4	21833.3	20622.4	19326.8	19897.5	21378.2	23997.8	27979.9	27553.1
45°	29432.3	28419.5	24481.1	23337.1	22918.1	21517.1	21787.0	22553.1	24704.8	29005.6	28638.0
47.5°	30463.2	29380.9	25519.7	24853.9	24925.8	24365.4	23931.0	23920.7	25537.7	29843.7	29663.7
50°	31843.7	30715.1	26635.4	26416.9	27938.7	27566.0	26607.1	25517.1	26591.7	30794.8	30774.3
52.5°	33746.0	32828.3	27997.9	28100.7	30751.1	30995.3	29807.7	27434.9	28242.1	32540.4	32417.0
55°	35995.4	35460.7	29853.9	30036.5	34201.1	34375.9	33195.9	29833.4	30668.9	35067.4	34725.5
57.5°	37751.2	37638.1	31890.0	32360.4	36776.9	37563.6	36478.7	32609.8	33404.1	37196.0	36337.3
60°	38450.5	38998.0	34057.1	34704.9	39160.0	40031.5	39080.3	35049.4	35828.3	38077.7	36226.8
62.5°	38072.6	39296.3	36365.6	36311.6	39692.1	40630.5	39962.1	36406.7	37625.3	37167.7	34393.9
65°	36327.1	38224.3	37705.0	35897.7	37872.1	37949.2	37733.2	35800.1	38049.4	34291.0	30851.4
67.5°	32524.9	35255.1	35941.4	32350.1	32962.0	32460.7	32098.2	32478.7	35838.6	29979.9	25928.4
70°	26491.4	30599.5	30928.5	25874.4	25596.8	25260.0	24537.7	26627.7	31476.1	24571.1	20573.6
72.5°	19478.5	23797.3	24807.6	18977.2	17691.8	17761.2	17190.5	20067.2	25591.7	18252.2	15360.1
75°	13326.7	17231.6	19409.0	13241.9	11699.4	11727.7	11655.7	14218.7	20383.4	12696.9	11493.8
77.5°	9735.4	12311.2	14637.8	8902.5	8642.8	8483.4	8444.9	9948.7	15627.5	9218.7	8925.6
80°	7812.5	9095.3	9833.1	6169.8	6635.1	6622.2	6408.8	6840.7	10205.8	6743.0	6676.2
82.5°	5419.1	6989.8	7966.7	4835.6	4478.2	4403.7	4455.1	5095.2	7213.5	4609.3	4383.1
85°	2858.7	4642.7	7889.6	4285.4	2658.1	2120.9	2637.6	4172.3	6249.5	2442.2	2138.9
87.5°	365.0	1341.9	5223.7	1709.5	1048.9	565.6	1251.9	2349.7	4012.9	498.7	434.5
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7
2.5°	17141.7	16799.8	16352.4	15938.6	15509.2	15082.5	14524.7	14175.0	13933.4	13887.1	13784.3
5°	16725.2	15588.9	14730.3	13987.4	13313.8	12362.7	11835.7	11398.6	11164.7	11141.6	11085.0
7.5°	14804.9	13236.7	12077.3	11025.9	10072.1	9303.5	8455.1	8059.3	7897.3	7935.9	7974.4
10°	12807.4	11054.2	9722.5	8648.0	7807.3	7159.5	6478.3	6018.1	5699.3	5635.1	5622.2
12.5°	11347.2	9424.3	8131.2	7372.9	6722.5	6113.2	5390.8	4848.4	4434.5	4293.1	4198.0
15°	10730.2	8627.4	7272.6	6455.1	5737.9	4964.1	4293.1	3725.0	3344.5	3221.1	3151.7
17.5°	10861.4	8406.3	6681.3	5635.1	4717.3	3910.1	3064.3	2578.4	2349.7	2290.5	2290.5
20°	11550.3	8365.2	6192.9	4879.3	3735.3	2799.5	2105.4	1827.8	1753.2	1745.5	1766.1
22.5°	12516.9	8509.1	5827.9	4223.7	2902.4	2043.7	1640.1	1537.3	1503.9	1511.6	1534.7
25°	13956.5	8995.0	5563.1	3640.2	2277.7	1673.5	1462.7	1401.1	1385.6	1406.2	1434.5
27.5°	15663.5	9480.9	5398.5	3200.6	1922.9	1529.6	1390.8	1326.5	1336.8	1362.5	1388.2
30°	17162.2	9879.3	5138.9	2886.9	1812.4	1537.3	1390.8	1303.4	1293.1	1298.2	1305.9
32.5°	18506.7	10149.3	4835.6	2588.7	1563.0	1365.1	1298.2	1285.4	1228.8	1208.2	1210.8
35°	19666.1	10149.3	4653.0	2413.9	1401.1	1210.8	1102.8	1038.6	1010.3	1012.9	1041.1
37.5°	20784.4	9946.2	4563.1	2316.2	1313.6	1151.7	1056.6	1000.0	961.5	953.7	958.9
40°	21771.6	9650.5	4460.2	2275.1	1246.8	1115.7	1025.7	979.4	938.3	925.5	928.0
42.5°	22563.3	9411.5	4347.1	2221.1	1205.7	1090.0	1005.2	964.0	917.8	904.9	902.3
45°	23419.4	9331.8	4198.0	2113.1	1226.2	1092.6	1000.0	956.3	910.0	894.6	889.5
47.5°	24547.9	9581.1	4043.8	1984.6	1269.9	1105.4	1007.7	956.3	907.5	894.6	889.5
50°	25969.6	10167.3	3848.4	1796.9	1226.2	1141.4	1005.2	948.6	907.5	894.6	884.3
52.5°	27794.8	10959.0	3591.3	1581.0	1200.5	1228.8	1000.0	933.2	894.6	876.6	858.6
55°	30013.3	11606.9	3285.4	1403.6	1141.4	1205.7	992.3	915.2	874.0	848.3	832.9
57.5°	31638.0	11840.8	2892.1	1287.9	1059.1	1167.1	982.0	892.0	848.3	827.8	807.2
60°	31316.7	11388.4	2560.5	1216.0	1010.3	1054.0	974.3	871.5	825.2	809.8	791.8
62.5°	28743.4	10205.8	2347.1	1182.5	979.4	961.5	982.0	850.9	804.6	789.2	784.1
65°	24884.7	8460.3	2262.2	1174.8	953.7	907.5	912.6	827.8	781.5	768.6	763.5
67.5°	20527.3	6827.9	2187.7	1200.5	920.3	868.9	843.2	796.9	758.4	745.5	735.2
70°	16187.9	5678.8	2154.3	1185.1	879.2	830.3	802.1	763.5	730.1	717.2	709.5
72.5°	13036.2	4797.0	2136.3	1169.7	825.2	778.9	753.2	719.8	683.8	678.7	671.0
75°	11031.0	3771.3	1956.3	1120.8	763.5	717.2	699.2	668.4	632.4	632.4	627.3
77.5°	8509.1	2727.5	1627.3	992.3	699.2	647.8	632.4	609.3	568.1	575.8	573.3
80°	6285.4	1778.9	1272.5	822.6	619.5	570.7	563.0	539.9	496.2	506.4	506.4
82.5°	4306.0	1167.1	915.2	673.5	529.6	483.3	483.3	460.2	411.3	416.5	431.9
85°	2162.0	802.1	683.8	521.9	411.3	388.2	388.2	370.2	321.3	323.9	344.5
87.5°	658.1	483.3	452.4	372.8	295.6	290.5	277.6	264.8	233.9	231.4	244.2
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7
2.5°	13627.5	13480.9	13303.6	12912.8	12781.7	12774.0	12892.2	12768.8	13005.3	12905.1	13015.6
5°	10989.9	10845.9	10648.0	10149.3	9845.9	9640.3	9542.6	9254.6	9462.9	9311.2	9437.2
7.5°	8082.4	8115.8	7984.7	7691.6	7031.0	6699.3	6504.0	6329.1	6480.8	6465.4	6707.0
10°	5681.3	5771.3	5678.8	5383.1	4848.4	4665.9	4701.9	4771.3	4969.2	5072.1	5444.8
12.5°	4090.0	4084.9	4025.8	3761.0	3408.8	3429.4	3575.9	3696.7	3879.2	3987.2	4367.7
15°	3054.0	3007.8	2982.1	2766.1	2565.6	2609.3	2681.3	2694.1	2809.8	2874.1	3182.6
17.5°	2308.5	2331.7	2359.9	2205.7	2054.0	2025.7	1969.2	1899.8	1933.2	1946.0	2100.3
20°	1832.9	1925.5	1994.9	1886.9	1732.7	1650.4	1578.4	1532.2	1532.2	1529.6	1573.3
22.5°	1601.6	1668.4	1743.0	1668.4	1529.6	1457.6	1416.5	1380.5	1375.3	1375.3	1416.5
25°	1475.6	1524.4	1596.4	1545.0	1442.2	1388.2	1349.6	1303.4	1285.4	1280.2	1308.5
27.5°	1413.9	1434.5	1470.5	1424.2	1336.8	1311.1	1300.8	1259.7	1236.5	1223.7	1251.9
30°	1308.5	1303.4	1305.9	1259.7	1190.3	1187.7	1205.7	1213.4	1205.7	1203.1	1246.8
32.5°	1210.8	1200.5	1198.0	1156.8	1092.6	1077.1	1092.6	1108.0	1126.0	1151.7	1203.1
35°	1087.4	1113.1	1128.6	1092.6	1015.4	969.2	951.2	922.9	907.5	907.5	966.6
37.5°	989.7	1048.9	1072.0	1038.6	953.7	889.5	858.6	853.5	856.1	866.3	922.9
40°	956.3	1000.0	1020.6	987.2	902.3	843.2	825.2	820.1	825.2	840.6	897.2
42.5°	935.7	966.6	964.0	922.9	853.5	812.4	802.1	796.9	802.1	817.5	879.2
45°	917.8	938.3	917.8	868.9	804.6	784.1	786.6	784.1	789.2	804.6	863.8
47.5°	902.3	910.0	884.3	835.5	768.6	763.5	773.8	781.5	786.6	799.5	861.2
50°	879.2	879.2	856.1	804.6	737.8	740.4	753.2	771.2	773.8	789.2	838.1
52.5°	850.9	848.3	832.9	784.1	712.1	719.8	719.8	740.4	745.5	763.5	814.9
55°	827.8	822.6	814.9	768.6	689.0	701.8	694.1	701.8	714.7	732.7	789.2
57.5°	807.2	796.9	796.9	755.8	671.0	676.1	658.1	668.4	683.8	699.2	758.4
60°	786.6	776.4	781.5	737.8	642.7	637.5	629.8	650.4	655.5	673.5	732.7
62.5°	763.5	755.8	758.4	717.2	622.1	609.3	609.3	627.3	629.8	655.5	712.1
65°	745.5	735.2	732.7	696.7	599.0	583.6	591.3	599.0	604.1	629.8	683.8
67.5°	727.5	707.0	707.0	678.7	573.3	557.8	573.3	570.7	578.4	601.6	645.3
70°	704.4	676.1	678.7	665.8	547.6	529.6	542.4	539.9	545.0	560.4	604.1
72.5°	668.4	645.3	650.4	645.3	521.9	496.2	501.3	501.3	501.3	514.1	560.4
75°	622.1	604.1	619.5	632.4	491.0	455.0	460.2	460.2	452.4	460.2	516.7
77.5°	565.6	555.3	606.7	588.7	455.0	411.3	411.3	406.2	390.8	401.0	462.7
80°	503.9	496.2	560.4	493.6	413.9	357.3	352.2	339.3	323.9	331.6	393.3
82.5°	439.6	431.9	470.4	377.9	357.3	295.6	282.8	259.6	244.2	251.9	308.5
85°	359.9	359.9	362.5	285.4	272.5	226.2	210.8	180.0	162.0	167.1	221.1
87.5°	257.1	264.8	244.2	195.4	162.0	126.0	115.7	97.7	82.3	95.1	115.7
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7	15799.7
2.5°	13581.2	13864.0	14185.3	14596.6	14948.8	15527.2	16082.5	16416.7
5°	10154.4	10624.8	11211.0	11964.2	12666.0	13720.0	14766.3	15437.3
7.5°	7267.5	7771.3	8403.7	9344.6	10336.9	11681.4	13064.5	13866.5
10°	6012.9	6529.7	7061.8	7696.8	8509.1	9971.9	11606.9	12511.8
12.5°	4974.4	5527.1	6100.4	6768.7	7522.0	8827.9	10712.3	11753.4
15°	3807.3	4424.2	5100.3	5946.1	6889.6	8398.6	10491.2	11622.3
17.5°	2609.3	3298.3	4128.6	5172.3	6326.6	8259.8	10887.1	12190.4
20°	1796.9	2298.2	3185.1	4408.8	5797.0	8241.8	11648.0	13280.4
22.5°	1503.9	1727.5	2375.4	3707.0	5398.5	8462.9	12828.0	14810.0
25°	1390.8	1524.4	1897.2	3097.7	5108.1	8971.9	14452.7	16789.5
27.5°	1323.9	1444.8	1722.4	2699.3	4879.3	9563.1	16033.7	18707.2
30°	1349.6	1473.0	1673.5	2496.2	4568.2	10056.7	17437.3	20203.4
32.5°	1216.0	1269.9	1434.5	2316.2	4344.5	10470.6	18666.1	21442.5
35°	1036.0	1131.1	1280.2	2231.4	4349.7	10748.2	20005.5	23026.1
37.5°	987.2	1082.3	1190.3	2200.5	4408.8	11043.9	21542.8	24882.1
40°	956.3	1043.7	1136.3	2182.6	4465.4	11313.8	23049.2	26717.6
42.5°	935.7	1015.4	1131.1	2120.9	4493.6	11555.5	24288.3	28278.1
45°	933.2	1015.4	1151.7	2059.2	4537.3	11815.1	25326.9	29432.3
47.5°	935.7	1048.9	1113.1	1984.6	4537.3	12249.6	26545.4	30463.2
50°	925.5	1105.4	1072.0	1879.2	4431.9	13072.2	28216.4	31843.7
52.5°	920.3	1097.7	992.3	1717.3	4249.4	14378.1	30357.8	33746.0
55°	907.5	1059.1	935.7	1475.6	4036.1	15802.3	32650.9	35995.4
57.5°	894.6	938.3	904.9	1264.8	3707.0	16804.9	34229.3	37751.2
60°	1002.6	820.1	879.2	1162.0	3267.4	17080.0	34167.6	38450.5
62.5°	928.0	768.6	845.8	1138.8	2958.9	16308.7	32589.2	38072.6
65°	727.5	735.2	812.4	1205.7	2876.7	14265.0	29792.2	36327.1
67.5°	665.8	701.8	778.9	1290.5	2884.4	11421.8	25612.2	32524.9
70°	627.3	665.8	740.4	1334.2	2904.9	8514.3	20249.7	26491.4
72.5°	583.6	617.0	696.7	1341.9	2771.3	6185.2	15606.9	19478.5
75°	532.1	563.0	635.0	1169.7	2295.7	4290.6	11938.5	13326.7
77.5°	473.0	496.2	557.8	902.3	1704.4	2745.5	8961.6	9735.4
80°	403.6	416.5	467.9	660.7	1167.1	1717.3	7090.1	7812.5
82.5°	323.9	329.1	362.5	496.2	758.4	1102.8	4748.1	5419.1
85°	228.8	228.8	249.4	359.9	516.7	699.2	2578.4	2858.7
87.5°	108.0	110.5	110.5	197.9	269.9	354.8	593.8	365.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)