

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: P299434

Luminaire Tested: **GLNA-AF-07-LED-E1-SLR-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299434
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194679)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-SLR-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29794.1 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

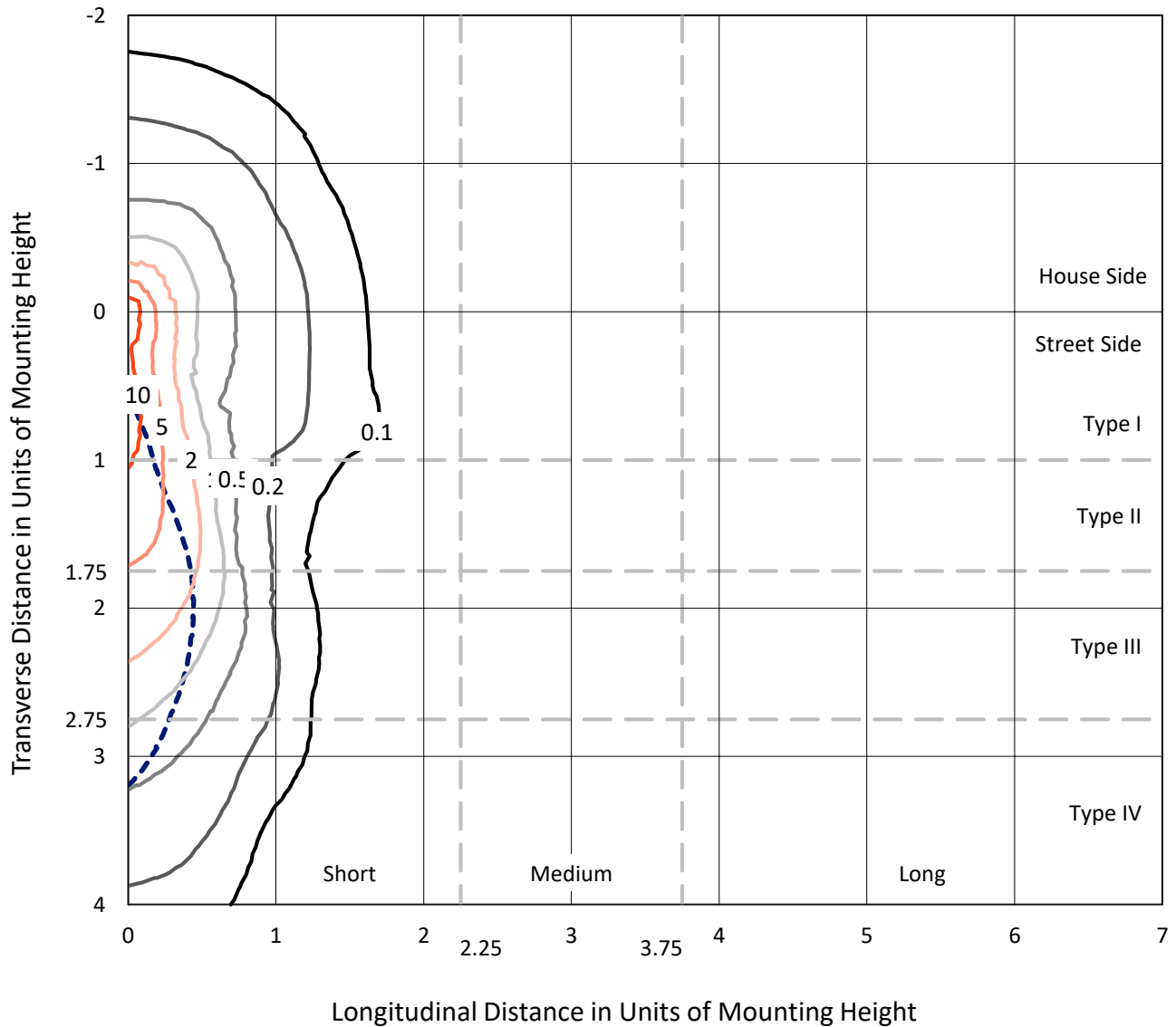
Input Watts (W): 295
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

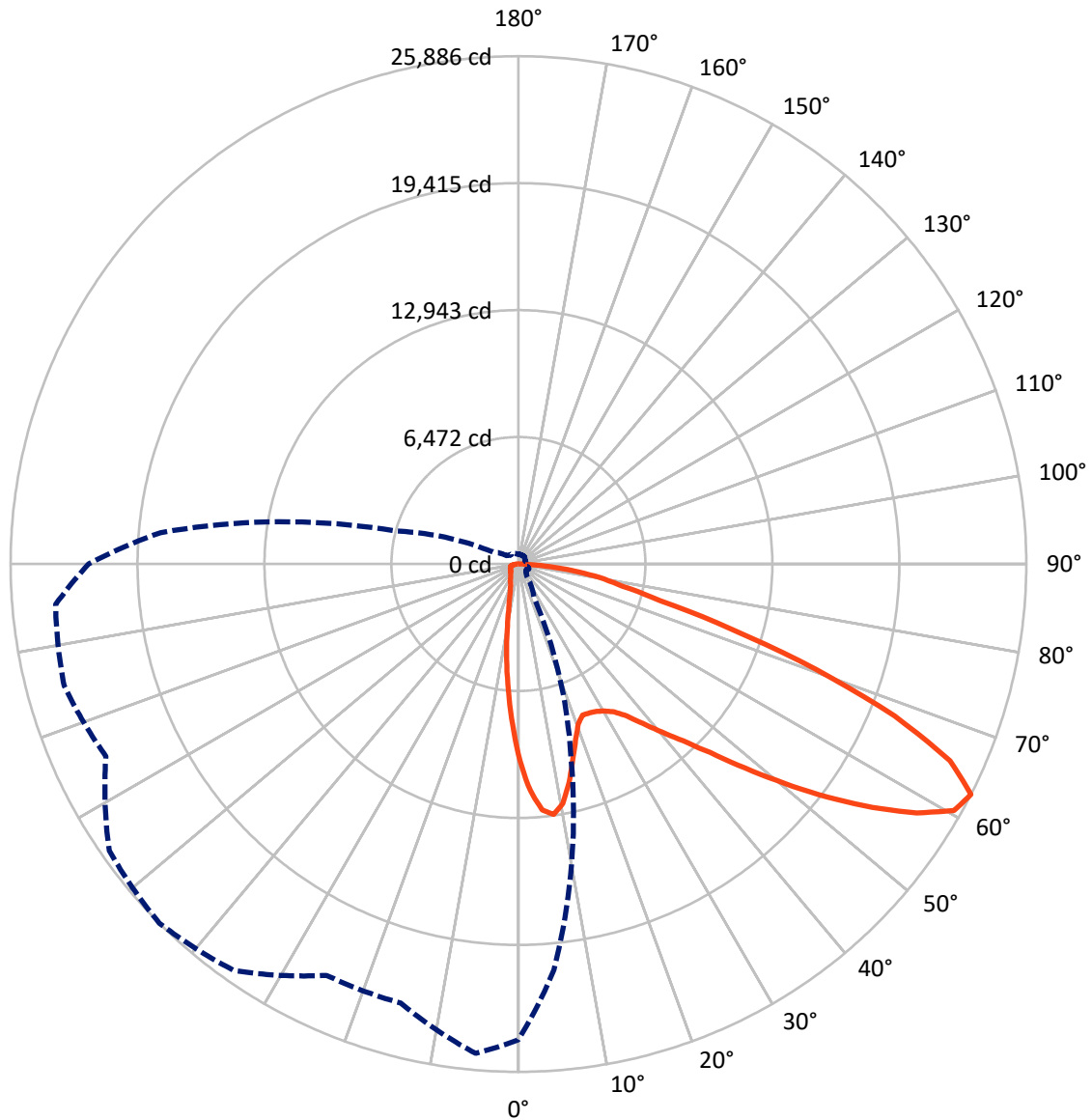
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 16.1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4930.5	0.0	4930.5
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	24863.5	0.0	24863.5
	% Fixture	83.5	0.0	83.5
Total	Lumens	29794.1	0.0	29794.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	732.8	2.5
10°-20°	1343.7	4.5
20°-30°	1959.1	6.6
30°-40°	3017.3	10.1
40°-50°	4440.7	14.9
50°-60°	6513.5	21.9
60°-70°	7281.1	24.4
70°-80°	3564.8	12.0
80°-90°	941.2	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°	29794.1	100.0
0°-180°	29794.1	100.0



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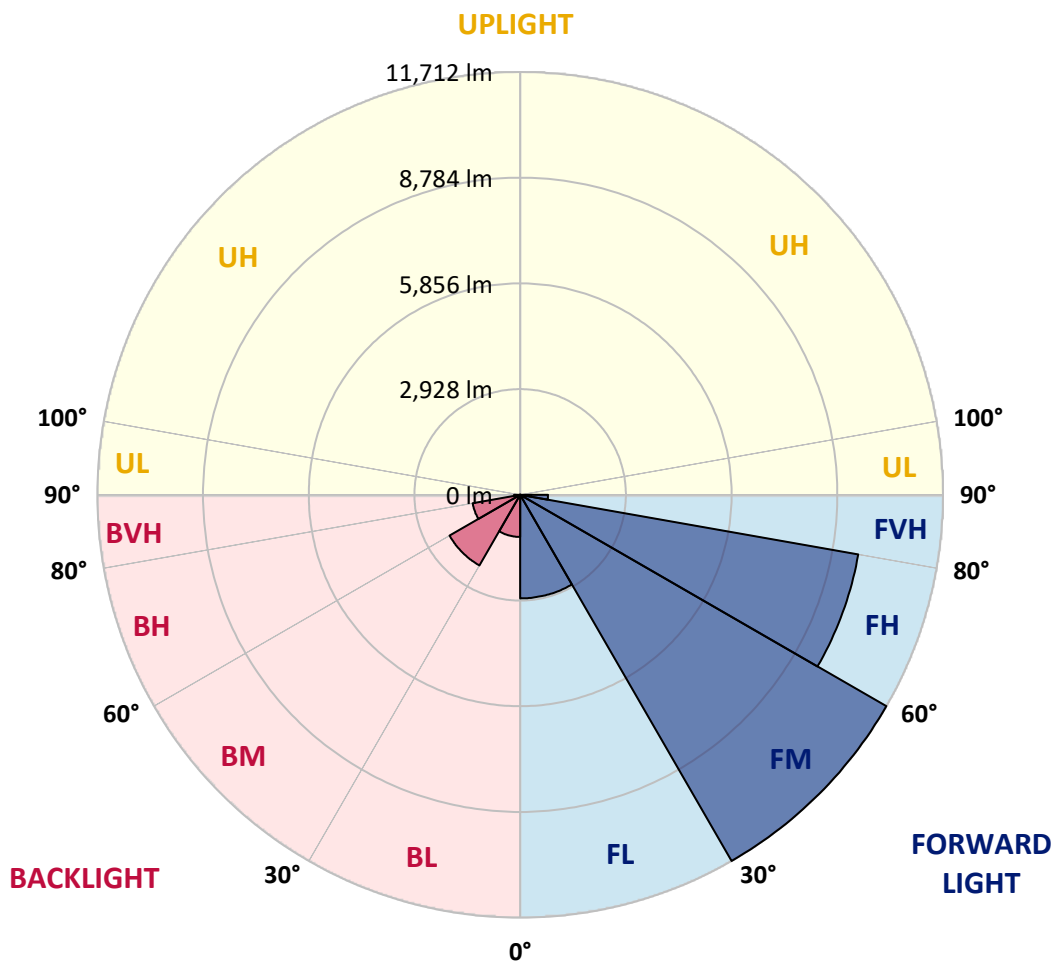
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2869.1	9.6			
FM	(30°-60°)	11712.3	39.3			
FH	(60°-80°)	9509.2	31.9			G4/12000
FVH	(80°-90°)	772.9	2.6			G5
BL	(0°-30°)	1166.5	3.9	B3/2500		
BM	(30°-60°)	2259.1	7.6	B2/2500		
BH	(60°-80°)	1336.7	4.5	B3/2500		G3/2500
BVH	(80°-90°)	168.3	0.6			G2/225
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°	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2
2.5°	10458.9	10246.2	9892.2	9523.8	9299.7	9037.4	8832.6	8652.6	8292.2	8221.7	8285.7
5°	9835.2	9407.8	8740.9	8069.5	7622.3	7142.3	6769.0	6469.5	6012.4	5932.0	6028.7
7.5°	8834.6	8323.4	7442.3	6585.5	5953.4	5353.9	4951.3	4630.0	4273.0	4119.3	4128.7
10°	7971.4	7394.7	6353.0	5421.3	4903.7	4499.1	4160.0	3830.7	3468.8	3231.3	3165.8
12.5°	7487.9	6825.0	5624.1	4792.1	4312.2	3886.8	3521.3	3169.3	2782.6	2540.1	2471.7
15°	7404.6	6683.7	5350.9	4389.5	3788.1	3249.6	2818.8	2425.6	2027.4	1831.1	1789.9
17.5°	7766.6	6936.1	5262.2	4030.6	3295.2	2630.3	2101.3	1662.5	1338.2	1240.1	1231.6
20°	8460.7	7421.0	5250.8	3693.4	2808.8	2029.4	1464.2	1144.9	1002.6	974.3	976.3
22.5°	9435.5	8172.7	5391.6	3439.5	2361.6	1513.3	1100.7	957.9	902.4	876.1	876.1
25°	10696.4	9207.9	5715.9	3254.6	1973.4	1208.8	971.3	886.0	833.5	815.6	819.1
27.5°	11918.6	10215.0	6092.7	3108.8	1719.5	1097.3	920.2	843.4	797.8	779.4	787.9
30°	12871.6	11109.4	6407.0	2910.5	1590.1	1066.0	938.6	859.8	794.3	766.5	768.0
32.5°	13660.9	11892.3	6670.8	2767.7	1475.6	913.8	809.2	774.5	766.5	733.8	717.5
35°	14669.9	12745.6	6847.8	2771.2	1421.5	815.6	720.4	659.9	615.8	578.1	578.1
37.5°	15852.5	13724.9	7036.2	2808.8	1402.2	758.1	689.7	628.7	588.0	551.9	545.4
40°	17021.6	14684.8	7208.3	2845.0	1390.3	723.9	664.9	609.4	571.7	535.5	525.6
42.5°	18016.3	15474.2	7362.0	2862.9	1351.1	720.4	647.1	596.0	560.3	520.6	511.2
45°	18751.6	16135.6	7527.6	2890.7	1311.9	733.8	647.1	594.5	550.4	512.7	502.8
47.5°	19408.0	16912.1	7804.3	2890.7	1264.4	709.0	668.4	596.0	548.9	509.2	501.3
50°	20287.6	17976.6	8328.4	2823.7	1197.4	682.7	704.1	589.5	534.0	502.8	492.8
52.5°	21499.4	19341.1	9160.3	2707.2	1094.3	632.2	699.1	586.6	519.1	486.4	475.0
55°	22932.8	20801.8	10067.7	2571.3	940.1	596.0	674.8	578.1	502.8	466.6	455.2
57.5°	24051.4	21807.3	10706.3	2361.6	805.7	576.6	598.0	570.2	482.9	445.2	435.8
60°	24496.7	21768.2	10881.8	2081.5	740.3	560.3	522.6	638.6	466.6	428.9	417.5
62.5°	24256.2	20762.6	10390.5	1885.1	725.4	539.0	489.9	591.0	453.7	417.5	401.1
65°	23144.1	18980.6	9088.4	1832.6	768.0	517.6	468.6	463.6	435.8	401.1	384.8
67.5°	20721.5	16317.6	7276.7	1837.5	822.1	496.3	447.2	424.4	411.0	383.3	368.4
70°	16877.8	12901.3	5424.3	1850.9	849.8	471.5	424.4	399.6	384.8	357.0	347.1
72.5°	12410.0	9943.3	3940.8	1765.6	854.8	443.8	393.2	371.9	357.0	327.7	319.3
75°	8490.5	7605.9	2733.5	1462.7	745.2	404.6	358.5	339.1	329.2	293.0	288.1
77.5°	6202.3	5709.4	1749.3	1085.9	574.7	355.5	316.3	301.5	295.0	255.3	248.9
80°	4977.6	4517.0	1094.3	743.7	421.0	298.0	265.3	257.3	250.4	211.2	206.3
82.5°	3452.4	3025.0	702.6	482.9	316.3	231.1	209.7	206.3	196.3	160.6	155.7
85°	1821.2	1642.7	445.2	329.2	229.1	158.7	145.8	145.8	140.8	106.6	103.1
87.5°	232.5	378.3	226.1	172.1	125.9	70.4	70.4	68.9	73.9	60.5	52.6
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2
2.5°	8135.0	8213.8	8138.5	8143.4	8226.7	8475.6	8588.7	8681.9	8782.0	8847.5	8876.7
5°	5896.3	6079.8	6141.8	6272.7	6466.0	6783.9	6909.8	7001.5	7062.5	7098.2	7113.1
7.5°	4032.5	4143.6	4268.1	4479.3	4900.2	5087.2	5170.5	5149.1	5080.7	5055.9	5031.6
10°	3039.9	2995.8	2972.5	3089.0	3429.6	3618.0	3677.0	3619.5	3581.8	3590.3	3630.9
12.5°	2355.2	2278.3	2185.1	2171.7	2396.3	2564.9	2602.6	2605.6	2674.5	2735.0	2825.2
15°	1716.5	1708.1	1662.5	1634.7	1762.2	1900.0	1916.4	1945.6	2008.1	2052.2	2130.6
17.5°	1210.3	1254.4	1290.6	1308.5	1405.2	1503.3	1485.5	1470.6	1459.2	1459.2	1496.9
20°	976.3	1005.5	1051.6	1103.7	1202.4	1270.8	1226.7	1167.7	1125.0	1112.1	1117.1
22.5°	879.6	902.4	928.7	974.3	1063.0	1110.6	1063.0	1020.4	977.8	962.9	957.9
25°	830.5	859.8	884.5	918.8	984.2	1016.9	971.3	940.1	913.8	896.0	882.6
27.5°	802.7	828.5	835.5	851.8	907.4	936.6	913.8	900.9	884.5	868.2	851.8
30°	773.0	768.0	756.6	758.1	802.7	832.0	830.5	833.5	832.0	827.0	824.1
32.5°	706.1	696.1	686.2	696.1	736.8	763.1	765.1	771.5	771.5	770.0	782.9
35°	588.0	605.9	617.3	647.1	696.1	718.9	709.0	692.7	663.4	645.1	643.6
37.5°	543.9	546.9	566.7	607.4	661.9	682.7	668.4	630.7	610.9	607.4	612.3
40°	522.6	525.6	537.0	574.7	628.7	650.0	637.1	609.4	591.0	589.5	598.0
42.5°	507.7	511.2	517.6	543.9	588.0	614.3	615.8	596.0	574.7	576.6	584.6
45°	499.3	501.3	499.3	512.7	553.3	584.6	598.0	584.6	566.7	570.2	579.6
47.5°	497.8	492.8	486.4	489.9	532.5	563.3	579.6	574.7	566.7	570.2	578.1
50°	491.4	480.0	471.5	470.0	512.7	545.4	560.3	560.3	563.3	570.2	578.1
52.5°	471.5	458.6	458.6	453.7	499.3	530.5	540.4	541.9	546.9	558.3	570.2
55°	447.2	442.3	447.2	438.8	489.9	519.1	524.1	527.6	530.5	540.4	556.8
57.5°	425.9	419.5	430.9	427.4	481.4	507.7	507.7	514.2	514.2	527.6	540.4
60°	414.5	401.1	406.1	409.6	470.0	497.8	494.8	501.3	504.3	516.2	525.6
62.5°	399.6	388.2	388.2	396.2	457.1	482.9	481.4	486.4	499.3	502.8	512.7
65°	381.8	376.8	371.9	381.8	443.8	466.6	468.6	475.0	486.4	489.9	497.8
67.5°	363.4	365.4	355.5	365.4	432.4	450.2	450.2	463.6	468.6	475.0	482.9
70°	344.1	345.6	337.2	349.1	424.4	432.4	430.9	448.7	452.2	457.1	465.1
72.5°	319.3	319.3	316.3	332.7	411.0	414.5	411.0	425.9	427.4	432.4	435.8
75°	293.0	293.0	290.1	312.9	403.1	394.7	384.8	396.2	399.6	403.1	403.1
77.5°	258.8	262.3	262.3	290.1	374.8	386.7	353.5	360.5	365.4	366.9	362.0
80°	216.2	224.6	227.6	263.8	314.4	357.0	316.3	320.8	322.8	322.8	316.3
82.5°	165.6	180.0	188.4	227.6	241.0	299.5	275.2	280.1	275.2	265.3	262.3
85°	114.5	134.4	144.3	173.5	182.0	231.1	229.1	229.1	219.6	206.3	204.8
87.5°	62.5	73.9	80.3	103.1	124.5	155.7	168.6	163.6	155.7	147.3	149.2
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°	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2
2.5°	9030.9	9253.6	9609.1	9880.8	10154.5	10418.2	10703.3	10921.0	11106.0	11178.3	11397.5
5°	7262.3	7540.5	7876.2	8482.1	8911.4	9384.5	9931.8	10655.7	10933.9	11319.2	11949.4
7.5°	5134.8	5386.6	5927.1	6417.0	7024.8	7694.7	8433.0	9432.1	9797.5	10414.8	11441.6
10°	3834.2	4127.2	4561.1	4974.1	5509.6	6194.3	7042.7	8159.8	8603.5	9273.4	10455.9
12.5°	3089.0	3434.6	3894.7	4282.9	4697.4	5180.4	6004.4	7229.1	7824.1	8410.2	9605.6
15°	2373.0	2735.0	3162.9	3655.7	4112.4	4633.5	5496.7	6836.4	7520.7	8132.0	9151.9
17.5°	1642.7	1952.1	2491.0	3005.2	3590.3	4256.6	5355.9	6919.7	7736.8	8441.4	9230.8
20°	1164.7	1341.2	1783.5	2380.0	3108.8	3945.3	5329.6	7358.5	8421.6	9225.8	9735.0
22.5°	979.3	1044.7	1302.0	1848.9	2690.8	3712.7	5421.3	7974.3	9345.3	10372.1	10539.2
25°	892.5	932.1	1066.0	1451.3	2319.0	3544.1	5730.7	8891.6	10488.7	11519.0	11489.2
27.5°	844.9	886.0	974.3	1225.2	2039.3	3439.5	6040.1	9979.4	11795.6	12763.5	12396.6
30°	830.5	886.0	979.3	1154.8	1839.5	3273.9	6294.0	10933.9	12801.2	13603.9	12809.6
32.5°	819.1	827.0	869.7	995.6	1649.1	3080.6	6466.0	11790.7	13785.4	14403.2	13404.1
35°	661.9	702.6	771.5	892.5	1538.0	2964.5	6466.0	12529.5	14755.2	15210.4	13970.8
37.5°	637.1	673.3	733.8	837.0	1475.6	2907.0	6336.6	13242.0	15745.9	16126.2	14437.4
40°	624.2	653.5	711.0	794.3	1449.3	2841.6	6148.2	13870.7	16713.7	17043.0	14873.2
42.5°	614.3	640.6	694.6	768.0	1415.1	2769.7	5996.0	14374.9	17554.1	17825.9	15289.2
45°	609.4	637.1	696.1	781.4	1346.2	2674.5	5945.4	14920.3	18245.3	18479.4	15739.4
47.5°	609.4	642.1	704.1	809.2	1264.4	2576.3	6104.1	15639.8	18898.8	19013.4	16270.0
50°	604.4	640.6	727.4	781.4	1144.9	2451.8	6477.4	16545.1	19606.4	19619.3	16941.8
52.5°	594.5	637.1	782.9	765.1	1007.0	2288.2	6982.2	17708.3	20653.0	20731.4	17992.9
55°	583.1	632.2	768.0	727.4	894.5	2093.4	7394.7	19121.4	22123.7	22341.3	19539.4
57.5°	568.2	625.7	743.7	674.8	820.6	1842.5	7544.0	20156.7	23150.5	23697.4	21281.7
60°	555.3	620.8	671.3	643.6	774.5	1631.3	7255.4	19951.9	23080.1	24259.2	22826.2
62.5°	541.9	625.7	612.3	624.2	753.2	1495.4	6502.2	18312.3	21912.4	23679.6	23971.1
65°	527.6	581.6	578.1	607.4	748.7	1441.4	5390.1	15854.0	19655.4	21847.0	24241.3
67.5°	507.7	537.0	553.3	586.6	765.1	1393.8	4349.9	13077.8	16518.9	19100.1	22832.7
70°	486.4	511.2	529.0	560.3	755.1	1372.4	3618.0	10313.1	13107.6	15654.1	20053.6
72.5°	458.6	480.0	496.3	525.6	745.2	1361.0	3056.3	8305.5	9786.1	11628.6	16304.7
75°	425.9	445.2	457.1	486.4	714.0	1246.5	2402.8	7027.8	7322.8	8089.4	12986.1
77.5°	388.2	403.1	412.5	445.2	632.2	1036.8	1737.9	5421.3	5686.6	5873.0	9956.1
80°	344.1	358.5	363.4	394.7	524.1	810.7	1133.5	4004.3	4253.2	4295.8	6502.2
82.5°	293.0	307.9	307.9	337.2	428.9	583.1	743.7	2743.4	2792.5	2936.8	4595.8
85°	236.0	247.4	247.4	262.3	332.7	435.8	511.2	1377.4	1362.5	1555.9	3981.5
87.5°	168.6	177.0	184.9	188.4	237.5	288.1	307.9	419.5	276.7	317.8	2556.5
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2	10066.2
2.5°	11563.1	11656.3	11561.1	11492.7	11196.2	10952.3	10626.0	10458.9
5°	12429.3	12666.8	12586.5	12298.4	11679.1	10983.0	10192.2	9835.2
7.5°	12324.7	12876.5	12889.4	12351.0	11438.7	10413.3	9342.3	8834.6
10°	11509.1	12214.6	12416.4	11893.8	10926.0	9779.6	8551.0	7971.4
12.5°	10598.2	11289.4	11443.6	11263.1	10454.4	9302.6	8056.6	7487.9
15°	9853.0	10162.9	10345.9	10503.5	10049.9	9112.7	8028.4	7404.6
17.5°	9399.3	9365.1	9417.7	9690.9	9767.7	9330.4	8454.3	7766.6
20°	9235.7	8710.1	8696.7	9073.6	9635.3	9850.0	9286.3	8460.7
22.5°	9325.9	8474.1	8366.0	8813.3	9705.8	10598.2	10377.1	9435.5
25°	9636.8	8494.0	8406.7	8839.5	9961.1	11396.0	11554.7	10696.4
27.5°	10126.7	8618.4	8503.4	8947.6	10300.2	12065.9	12714.4	11918.6
30°	10591.8	8834.6	8691.8	9160.3	10609.6	12331.1	13425.4	12871.6
32.5°	11157.0	9239.2	8988.3	9551.5	10992.9	12753.6	14059.1	13660.9
35°	11710.4	9815.3	9504.4	10156.0	11420.3	13279.6	14783.0	14669.9
37.5°	12318.2	10569.0	10311.6	10937.4	12005.4	13775.5	15706.7	15852.5
40°	12966.8	11568.1	11263.1	12077.3	12912.7	14398.2	16671.6	17021.6
42.5°	13620.3	12676.7	12313.3	13138.3	13909.8	15012.1	17496.6	18016.3
45°	14368.5	13880.6	13708.5	14601.0	14868.3	15597.1	18106.0	18751.6
47.5°	15240.1	15246.6	15523.3	15880.2	15834.6	16258.6	18718.8	19408.0
50°	16257.1	16951.2	17562.6	17799.6	16830.2	16969.6	19568.7	20287.6
52.5°	17478.8	18990.5	19747.2	19591.5	17903.2	17837.3	20914.8	21499.4
55°	19006.9	21149.4	21901.0	21789.5	19136.3	19019.8	22592.2	22932.8
57.5°	20775.5	23240.7	23931.9	23430.6	20616.8	20317.4	23979.5	24051.4
60°	22329.9	24898.3	25504.2	24948.9	22110.8	21697.7	24845.7	24496.7
62.5°	23194.6	25460.1	25886.0	25288.0	23134.1	23168.4	25035.6	24256.2
65°	22808.4	24040.0	24177.4	24128.3	22870.4	24021.7	24352.9	23144.1
67.5°	20692.2	20449.8	20680.8	21000.1	20610.4	22898.1	22460.8	20721.5
70°	16964.6	15632.8	16093.4	16307.6	16484.7	19704.5	19494.8	16877.8
72.5°	12784.8	10952.3	11315.7	11271.6	12090.2	15804.9	15161.3	12410.0
75°	9058.7	7426.0	7471.6	7453.7	8436.4	12365.3	10978.5	8490.5
77.5°	6338.1	5380.2	5405.0	5506.1	5671.7	9325.9	7843.4	6202.3
80°	4358.3	4083.1	4219.0	4227.4	3930.9	6264.7	5794.7	4977.6
82.5°	3246.2	2838.1	2805.4	2853.0	3080.6	5075.7	4453.0	3452.4
85°	2658.1	1680.3	1351.1	1693.7	2730.0	5026.7	2958.1	1821.2
87.5°	1496.9	797.8	360.5	668.4	1089.3	3328.0	854.8	232.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)