

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: P301687

Luminaire Tested: **GLNA-AF-02-LED-E1-T2R-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301687
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194759)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-02-LED-E1-T2R-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8055.7 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

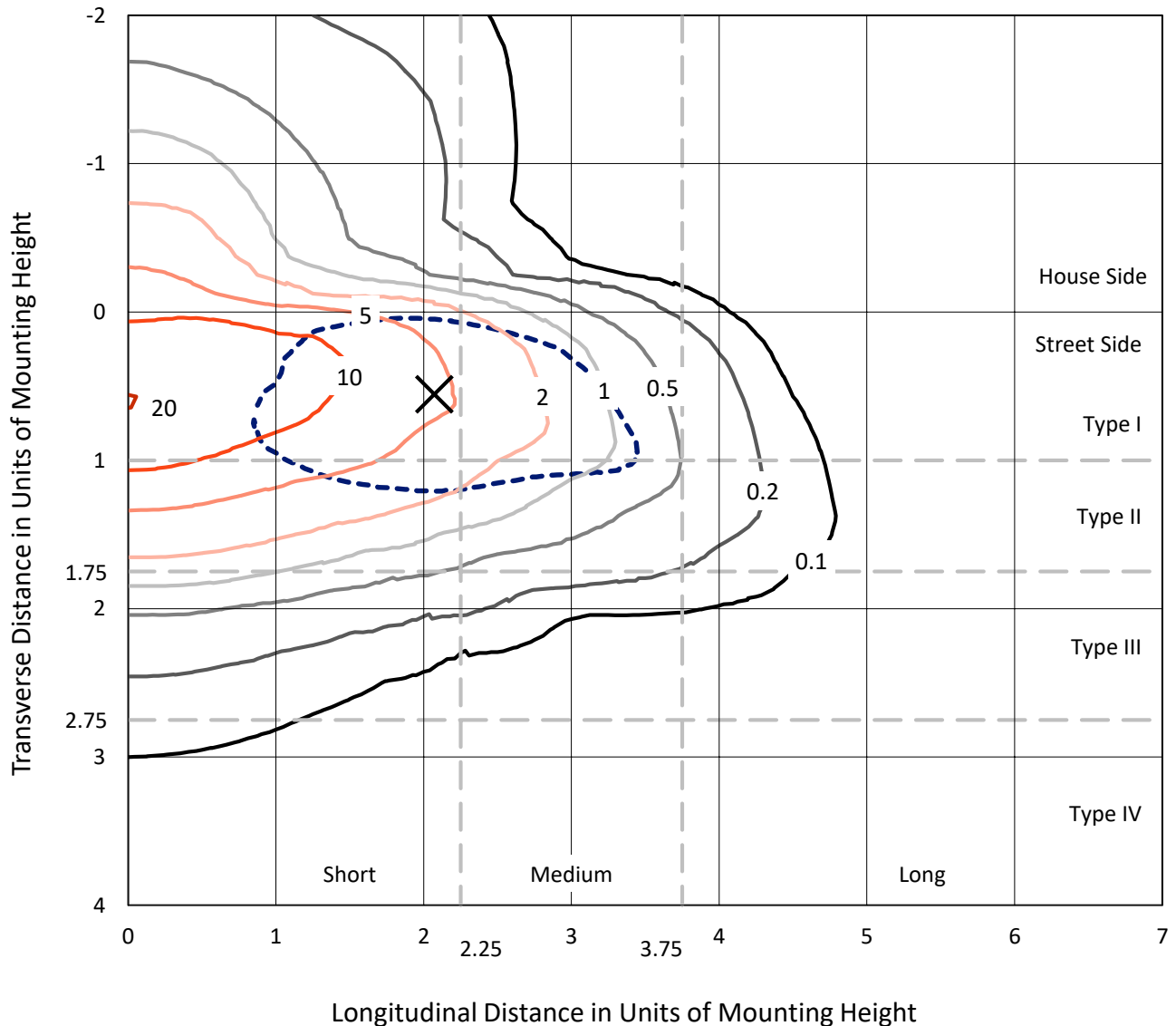
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

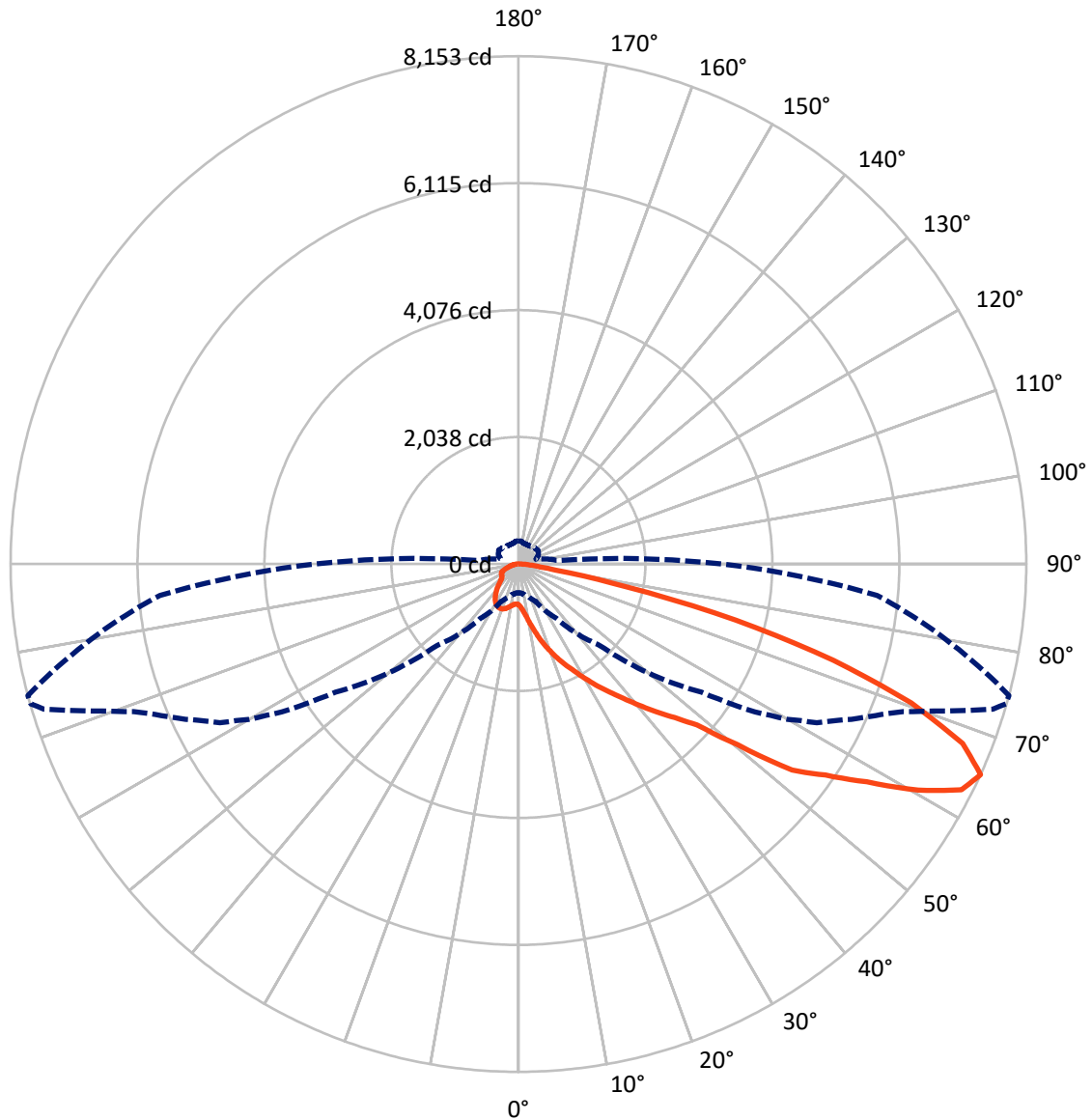
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20.3 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	1242.0	0.0	1242.0
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	6813.7	0.0	6813.7
	% Fixture	84.6	0.0	84.6
Total	Lumens	8055.7	0.0	8055.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.9	1.0
10°-20°	316.2	3.9
20°-30°	648.7	8.1
30°-40°	1091.4	13.5
40°-50°	1508.0	18.7
50°-60°	1882.4	23.4
60°-70°	1694.0	21.0
70°-80°	710.1	8.8
80°-90°	124.1	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°	8055.7	100.0
0°-180°	8055.7	100.0

Coefficient of Utilization



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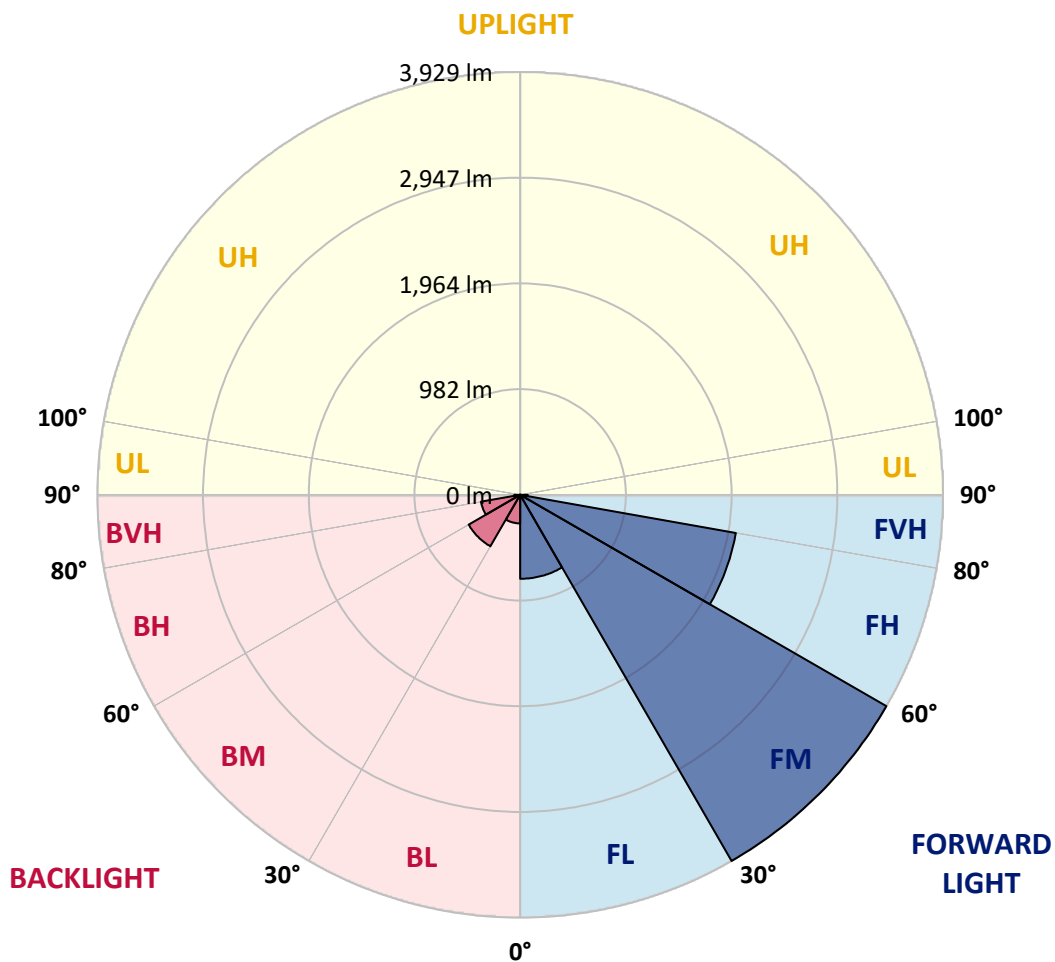
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	780.2	9.7			
FM (30°-60°)	3929.0	48.8			
FH (60°-80°)	2034.9	25.3			G2/5000
FVH (80°-90°)	69.7	0.9			G1/100
BL (0°-30°)	265.6	3.3	B1/500		
BM (30°-60°)	552.8	6.9	B1/1000		
BH (60°-80°)	369.2	4.6	B1/500		G1/500
BVH (80°-90°)	54.3	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7
2.5°	831.3	822.1	824.4	809.1	790.4	766.0	739.0	738.6	739.0	736.2	726.4
5°	1152.6	1141.6	1137.4	1103.1	1052.7	981.1	903.3	894.9	891.4	882.7	862.5
7.5°	1387.2	1381.1	1374.5	1348.6	1302.9	1222.8	1118.3	1100.5	1083.3	1079.1	1056.2
10°	1538.5	1536.9	1523.3	1516.4	1487.9	1418.4	1316.6	1299.4	1280.8	1274.3	1250.2
12.5°	1658.2	1657.9	1651.4	1653.3	1628.5	1578.2	1490.5	1474.8	1461.2	1441.3	1424.2
15°	1741.0	1741.3	1751.0	1761.6	1757.7	1723.8	1641.5	1634.6	1622.8	1609.1	1588.9
17.5°	1808.9	1810.8	1820.6	1840.1	1861.1	1858.4	1793.3	1787.5	1777.2	1758.5	1747.9
20°	1962.1	1969.4	1950.4	1950.4	1952.6	1962.9	1931.6	1927.1	1912.6	1902.6	1894.3
22.5°	2221.0	2229.4	2186.3	2142.5	2099.4	2068.1	2036.9	2042.6	2032.7	2025.8	2020.8
25°	2557.3	2563.9	2494.1	2420.1	2332.3	2218.0	2140.6	2137.1	2131.8	2127.6	2125.3
27.5°	2873.8	2876.5	2810.6	2702.2	2600.4	2436.1	2245.8	2241.6	2235.2	2227.1	2220.2
30°	3144.6	3143.8	3075.9	2972.5	2863.5	2681.6	2405.6	2392.6	2373.5	2351.8	2335.1
32.5°	3379.1	3377.9	3303.5	3196.4	3082.0	2924.9	2624.5	2597.8	2568.1	2525.6	2500.2
35°	3563.6	3562.9	3492.6	3381.0	3249.8	3154.1	2875.4	2842.6	2804.8	2748.0	2708.8
37.5°	3633.3	3633.3	3594.1	3517.9	3401.9	3336.3	3154.1	3114.4	3074.0	3009.5	2965.3
40°	3592.5	3593.3	3601.7	3587.6	3531.2	3480.9	3414.1	3390.5	3355.8	3297.9	3251.7
42.5°	3455.6	3459.8	3515.6	3583.8	3612.0	3604.0	3644.8	3634.1	3609.7	3565.1	3528.5
45°	3282.1	3295.1	3356.1	3485.1	3634.5	3710.4	3838.1	3839.2	3834.7	3810.7	3782.4
47.5°	3043.9	3062.1	3142.7	3316.9	3581.9	3813.8	4034.4	4044.7	4054.3	4038.7	4025.7
50°	2727.4	2749.2	2869.6	3100.7	3474.8	3920.9	4405.4	4452.0	4495.5	4490.2	4498.9
52.5°	2388.4	2414.0	2561.5	2818.9	3290.6	3945.6	4642.6	4718.5	4794.4	4856.5	4922.5
55°	2082.6	2068.9	2216.5	2487.5	2987.8	3833.9	4855.8	4947.3	5032.0	5108.2	5186.8
57.5°	1668.2	1690.7	1838.6	2106.7	2587.1	3518.5	5002.5	5136.5	5258.1	5384.3	5495.6
60°	1219.3	1241.8	1402.3	1674.6	2152.0	3040.4	4890.5	5093.4	5288.1	5481.5	5632.5
62.5°	736.2	753.1	894.5	1153.8	1659.4	2473.5	4391.0	4657.1	4943.8	5174.9	5406.3
65°	458.3	467.8	520.1	662.7	1065.7	1846.6	3587.6	3877.8	4186.6	4479.9	4720.4
67.5°	375.2	378.6	388.2	418.6	585.2	1204.2	2670.2	2927.2	3205.9	3489.6	3757.3
70°	337.4	335.1	335.1	337.1	375.2	647.4	1748.2	1915.6	2147.9	2394.6	2639.3
72.5°	304.6	302.3	298.2	292.5	306.2	395.0	903.6	1029.9	1197.3	1416.5	1651.0
75°	273.7	270.7	265.8	258.6	268.1	298.2	433.9	486.9	568.5	685.2	816.0
77.5°	241.7	237.9	233.3	228.0	240.2	231.9	254.3	273.4	304.6	342.0	391.2
80°	205.5	202.1	200.5	197.9	212.4	176.6	179.6	191.4	209.7	230.0	252.8
82.5°	161.0	161.0	167.0	168.2	184.1	127.0	134.3	144.6	154.1	164.7	175.4
85°	106.0	106.8	127.4	135.4	145.2	85.4	100.7	104.1	111.8	117.9	122.4
87.5°	33.1	35.9	77.8	86.2	83.5	48.4	61.8	63.3	68.7	72.8	76.7
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7
2.5°	726.4	721.8	717.6	717.2	714.2	710.0	711.5	705.0	705.4	702.0	698.1
5°	854.1	851.0	835.8	831.6	820.2	812.9	811.8	796.5	794.6	785.9	776.3
7.5°	1037.9	1027.9	1006.6	996.3	976.8	962.3	955.6	935.3	925.4	902.5	892.2
10°	1230.4	1217.9	1191.5	1177.0	1158.4	1135.1	1122.5	1093.2	1081.7	1060.8	1035.6
12.5°	1408.9	1396.4	1369.2	1358.1	1333.3	1308.6	1294.9	1261.7	1246.8	1213.2	1193.4
15°	1573.9	1561.4	1537.7	1526.3	1501.5	1481.3	1463.0	1430.3	1412.8	1381.4	1355.5
17.5°	1734.1	1720.8	1700.2	1689.9	1665.9	1645.3	1625.5	1594.5	1576.6	1545.4	1522.1
20°	1882.8	1872.9	1858.1	1844.3	1820.3	1801.6	1778.0	1751.3	1725.4	1702.4	1680.4
22.5°	2012.5	2008.6	1992.7	1986.6	1966.0	1949.9	1929.3	1903.1	1884.3	1855.4	1834.8
25°	2124.2	2123.1	2115.4	2113.5	2099.0	2083.7	2079.2	2057.5	2040.3	2014.7	1993.5
27.5°	2220.2	2221.4	2219.6	2224.9	2221.0	2214.1	2214.6	2207.4	2197.4	2176.0	2157.4
30°	2327.0	2320.9	2324.4	2332.0	2334.3	2335.1	2347.6	2351.8	2351.1	2337.0	2327.8
32.5°	2478.0	2463.5	2450.2	2449.1	2456.7	2459.7	2481.1	2492.2	2501.7	2505.1	2506.6
35°	2670.5	2641.6	2613.8	2598.9	2585.9	2589.3	2604.6	2622.6	2643.5	2658.0	2675.2
37.5°	2913.1	2877.6	2828.4	2793.4	2784.6	2765.6	2775.4	2789.5	2810.1	2832.6	2862.4
40°	3207.0	3153.3	3098.0	3051.5	3026.4	2991.2	2990.9	2988.2	3000.8	3021.8	3063.7
42.5°	3490.0	3442.3	3383.6	3334.8	3302.0	3255.1	3245.6	3220.8	3226.5	3244.8	3285.6
45°	3754.9	3715.7	3679.8	3623.5	3595.6	3544.9	3528.8	3499.5	3483.1	3491.5	3532.3
47.5°	4011.6	3986.5	3949.0	3912.5	3891.1	3845.8	3825.2	3804.1	3783.2	3782.4	3825.2
50°	4511.9	4498.5	4454.3	4416.2	4426.5	4370.8	4374.2	4317.8	4343.3	4346.4	4436.0
52.5°	4982.0	5028.6	5061.4	5101.3	5127.3	5132.3	5149.4	5174.9	5205.8	5266.8	5349.9
55°	5251.2	5309.5	5343.5	5374.0	5424.3	5435.0	5463.6	5497.5	5524.6	5593.2	5663.8
57.5°	5571.2	5679.4	5732.0	5780.4	5848.3	5874.2	5921.9	5958.9	5994.0	6075.2	6160.6
60°	5768.2	5900.2	6007.3	6083.9	6168.9	6230.0	6302.1	6360.0	6442.3	6539.6	6667.0
62.5°	5611.5	5805.2	5947.5	6079.0	6194.5	6311.2	6414.5	6522.9	6647.9	6795.0	6992.6
65°	4987.4	5184.4	5428.1	5564.6	5717.5	5897.5	6054.6	6230.0	6400.4	6614.7	6906.8
67.5°	4015.1	4244.1	4518.0	4655.6	4831.4	5032.3	5208.5	5422.8	5621.8	5881.4	6242.6
70°	2894.0	3190.3	3420.6	3564.3	3769.5	3976.5	4146.6	4395.9	4560.6	4826.8	5200.1
72.5°	1832.5	2066.2	2348.4	2529.5	2711.7	2921.5	3095.4	3310.4	3464.0	3706.5	4044.7
75°	985.3	1157.6	1405.4	1577.4	1772.7	1951.8	2155.4	2299.5	2413.2	2605.1	2879.6
77.5°	461.7	566.6	692.0	824.4	956.7	1094.7	1228.9	1345.6	1394.4	1504.3	1666.2
80°	280.3	314.2	350.8	391.6	446.9	491.5	550.6	593.3	596.3	631.0	680.6
82.5°	187.2	199.8	210.8	221.1	235.3	246.4	258.9	273.7	279.8	287.9	303.9
85°	127.7	133.8	136.1	142.6	141.0	144.9	149.9	154.8	157.5	157.1	164.3
87.5°	78.5	81.6	83.1	84.6	83.5	82.0	84.3	87.0	87.7	85.4	86.2
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7	654.7
2.5°	698.9	695.5	692.0	689.7	689.0	668.8	660.0	654.3	642.1	632.2	624.1
5°	771.0	763.7	758.1	751.2	747.3	696.2	677.5	664.6	643.3	630.7	619.2
7.5°	886.9	866.7	854.9	841.5	830.1	737.8	706.9	686.7	656.9	640.2	627.2
10°	1018.4	997.5	978.7	958.2	940.3	793.1	748.1	716.8	677.5	655.8	638.6
12.5°	1165.3	1144.7	1121.0	1094.7	1071.8	863.3	800.7	756.1	702.3	673.3	649.4
15°	1338.8	1302.5	1273.9	1243.4	1216.7	947.2	862.1	800.4	728.7	689.4	657.4
17.5°	1500.0	1461.8	1423.0	1396.4	1365.5	1041.3	923.9	845.3	750.4	699.7	658.9
20°	1657.5	1615.9	1582.4	1546.6	1514.1	1138.9	989.8	885.0	764.5	700.0	649.4
22.5°	1796.3	1770.3	1733.0	1694.1	1661.3	1236.5	1051.6	918.6	769.8	691.3	632.5
25°	1954.1	1926.7	1880.9	1848.1	1811.6	1336.1	1112.2	944.5	766.8	674.9	606.6
27.5°	2122.6	2092.2	2045.3	2011.0	1966.8	1439.3	1167.9	963.1	755.4	648.2	571.9
30°	2298.4	2270.6	2224.4	2189.8	2145.1	1548.8	1230.1	975.7	732.5	611.2	531.5
32.5°	2487.2	2463.9	2418.2	2382.0	2334.3	1667.4	1288.0	979.5	697.8	567.4	488.9
35°	2666.4	2650.4	2611.8	2577.9	2528.4	1779.5	1349.4	977.6	656.6	519.3	450.0
37.5°	2868.1	2858.5	2839.5	2796.4	2735.8	1931.6	1423.0	969.6	606.3	471.7	420.2
40°	3083.2	3084.0	3063.4	3034.0	2977.5	2116.2	1510.7	954.0	551.3	429.7	393.1
42.5°	3310.7	3322.6	3312.7	3291.7	3237.6	2302.3	1615.6	935.0	498.0	388.9	366.5
45°	3571.6	3586.1	3601.3	3570.5	3517.9	2547.8	1753.6	910.2	440.3	354.9	348.2
47.5°	3872.5	3895.3	3909.0	3909.4	3856.8	2852.1	1977.7	895.3	389.3	332.1	339.3
50°	4507.2	4514.6	4546.9	4603.4	4563.0	3556.3	2369.3	886.1	354.6	318.0	332.9
52.5°	5422.0	5501.7	5557.8	5554.0	5499.0	4003.6	2585.1	838.8	334.0	312.6	329.8
55°	5794.5	5894.1	5997.8	6025.2	5982.5	4385.3	2789.2	791.5	324.1	316.5	331.0
57.5°	6291.0	6458.7	6601.0	6660.9	6599.1	4873.7	3057.6	766.8	321.0	326.8	338.2
60°	6870.9	7078.4	7265.2	7372.7	7372.7	5435.0	3336.0	756.5	316.8	342.0	350.4
62.5°	7243.5	7548.1	7830.3	7987.8	7983.1	5825.8	3459.5	721.4	307.3	352.7	367.2
65°	7245.0	7607.3	7966.7	8143.7	8152.8	5777.8	3255.6	637.2	289.8	354.3	384.0
67.5°	6641.1	7027.2	7446.3	7644.2	7689.9	5318.7	2818.2	523.9	261.2	339.0	390.1
70°	5608.8	5985.9	6413.7	6608.3	6689.5	4533.9	2269.8	403.8	224.6	305.4	377.5
72.5°	4418.8	4788.7	5086.5	5228.7	5292.0	3465.6	1652.9	305.1	184.1	257.3	343.5
75°	3128.5	3406.1	3564.3	3596.0	3605.9	2089.2	1004.3	226.9	151.8	200.2	290.1
77.5°	1765.8	1884.8	1871.8	1885.9	1768.5	806.5	437.4	162.4	125.1	152.1	225.0
80°	689.4	710.8	667.7	654.3	600.2	300.1	193.0	113.2	99.9	115.1	157.5
82.5°	303.9	313.8	304.6	307.0	293.6	154.8	115.5	82.0	76.2	84.3	104.5
85°	167.4	170.5	169.7	174.6	167.4	61.8	54.9	50.3	53.4	57.2	67.1
87.5°	81.6	82.3	79.7	83.9	81.2	31.2	27.0	28.6	31.2	32.0	32.0
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°	654.7	654.7	654.7	654.7	654.7	654.7
2.5°	618.5	615.4	615.8	615.0	613.5	613.5
5°	613.2	610.1	610.1	609.3	607.4	607.7
7.5°	618.5	613.5	611.6	608.9	606.3	606.3
10°	624.6	615.8	610.5	605.9	602.4	602.4
12.5°	629.1	615.4	606.6	600.5	597.1	597.1
15°	630.7	612.7	600.5	593.3	590.2	589.9
17.5°	625.7	602.4	587.6	579.2	575.4	574.3
20°	610.5	583.8	565.9	556.3	551.0	549.0
22.5°	587.6	557.1	536.1	526.2	519.3	518.2
25°	555.6	522.8	502.2	492.6	488.9	487.6
27.5°	518.2	487.6	470.1	464.0	460.6	460.2
30°	482.8	456.7	443.8	439.2	435.0	434.3
32.5°	449.5	433.1	428.2	421.7	411.8	410.7
35°	425.9	424.4	421.0	406.4	394.3	390.8
37.5°	411.4	425.5	408.0	379.4	370.7	369.9
40°	403.0	413.8	383.6	373.7	374.4	373.7
42.5°	384.0	395.0	384.3	379.8	382.8	383.6
45°	364.9	377.1	390.1	387.1	394.3	394.3
47.5°	354.3	372.5	389.7	389.7	400.4	404.1
50°	342.0	368.7	383.6	388.9	397.4	394.3
52.5°	341.3	362.2	374.8	384.3	388.2	384.7
55°	342.4	356.9	366.0	376.8	381.3	381.6
57.5°	344.0	353.8	359.9	364.9	378.6	378.6
60°	347.7	351.2	354.6	357.3	375.2	375.5
62.5°	353.8	348.5	347.7	350.4	373.3	371.8
65°	363.4	344.6	339.0	341.6	371.3	366.8
67.5°	376.3	339.0	327.9	329.8	369.9	359.9
70°	388.2	329.8	314.2	312.3	355.4	337.9
72.5°	389.3	319.2	295.1	289.5	308.9	292.1
75°	370.2	311.8	274.2	257.3	255.1	252.8
77.5°	333.7	307.7	249.7	223.4	218.9	220.3
80°	279.2	292.1	220.3	189.1	213.9	211.3
82.5°	208.6	257.8	187.2	167.4	167.0	147.6
85°	115.9	201.0	152.5	125.4	87.3	84.6
87.5°	32.5	111.8	106.8	70.9	48.4	50.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)