

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: P301630

Luminaire Tested: **GLNA-AF-02-LED-E1-T2R-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301630
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-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10213.4 lumens
Efficiency: N/A
Efficacy: 120.2 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

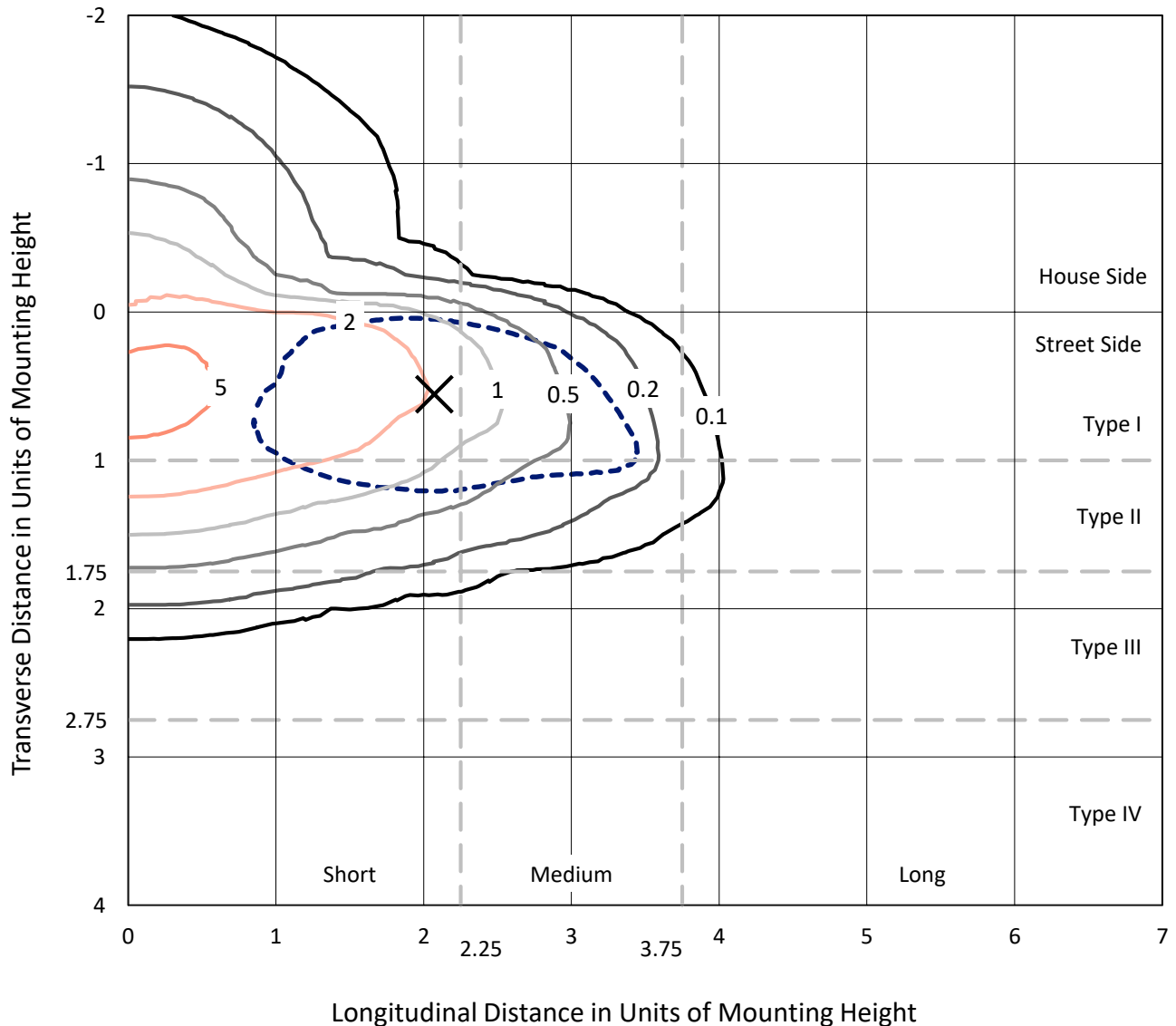
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

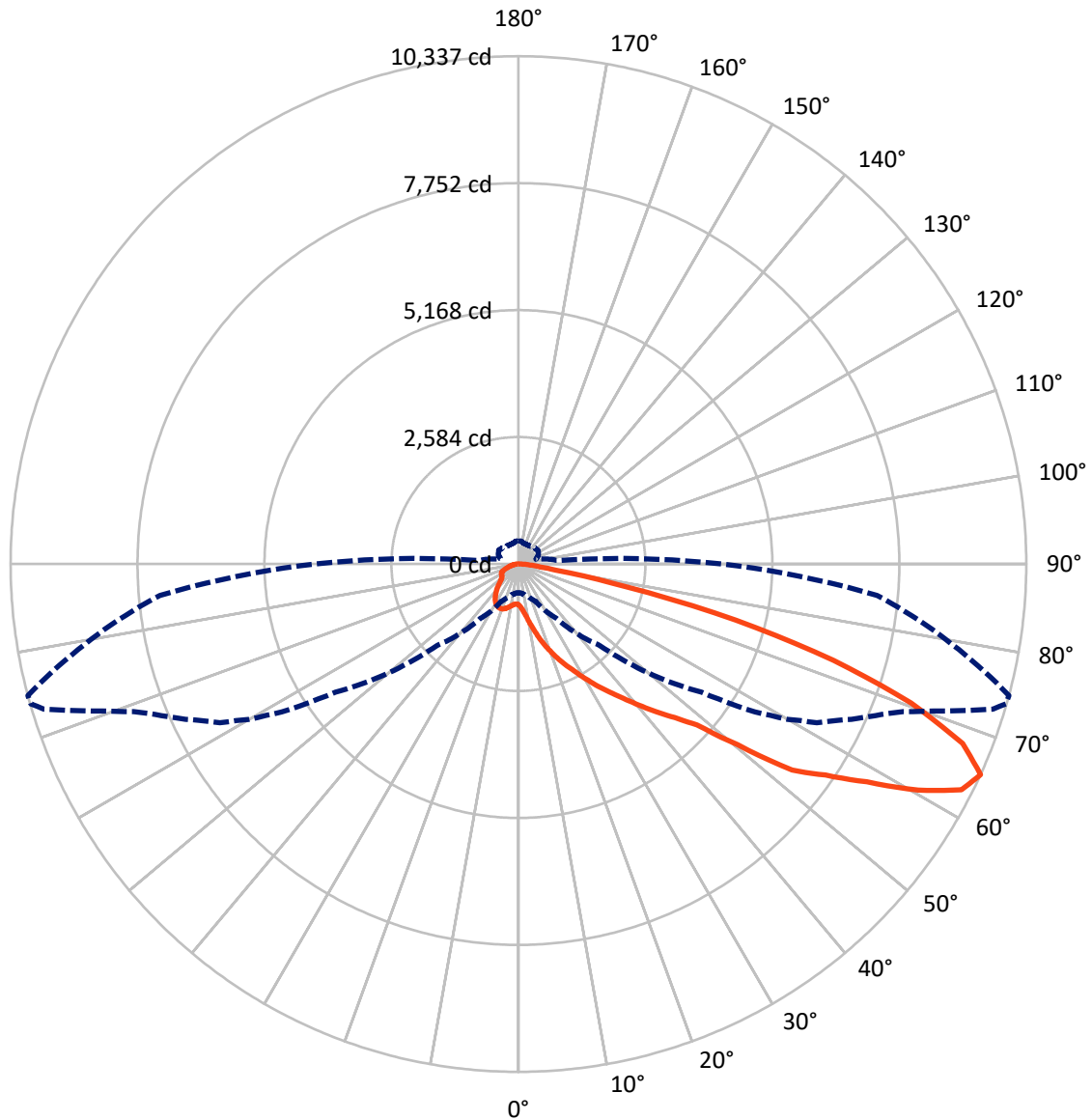
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.4 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	1574.7	0.0	1574.7
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	8638.8	0.0	8638.8
	% Fixture	84.6	0.0	84.6
Total	Lumens	10213.4	0.0	10213.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.6	1.0
10°-20°	400.9	3.9
20°-30°	822.4	8.1
30°-40°	1383.7	13.5
40°-50°	1911.9	18.7
50°-60°	2386.6	23.4
60°-70°	2147.7	21.0
70°-80°	900.3	8.8
80°-90°	157.3	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°	10213.4	100.0
0°-180°	10213.4	100.0



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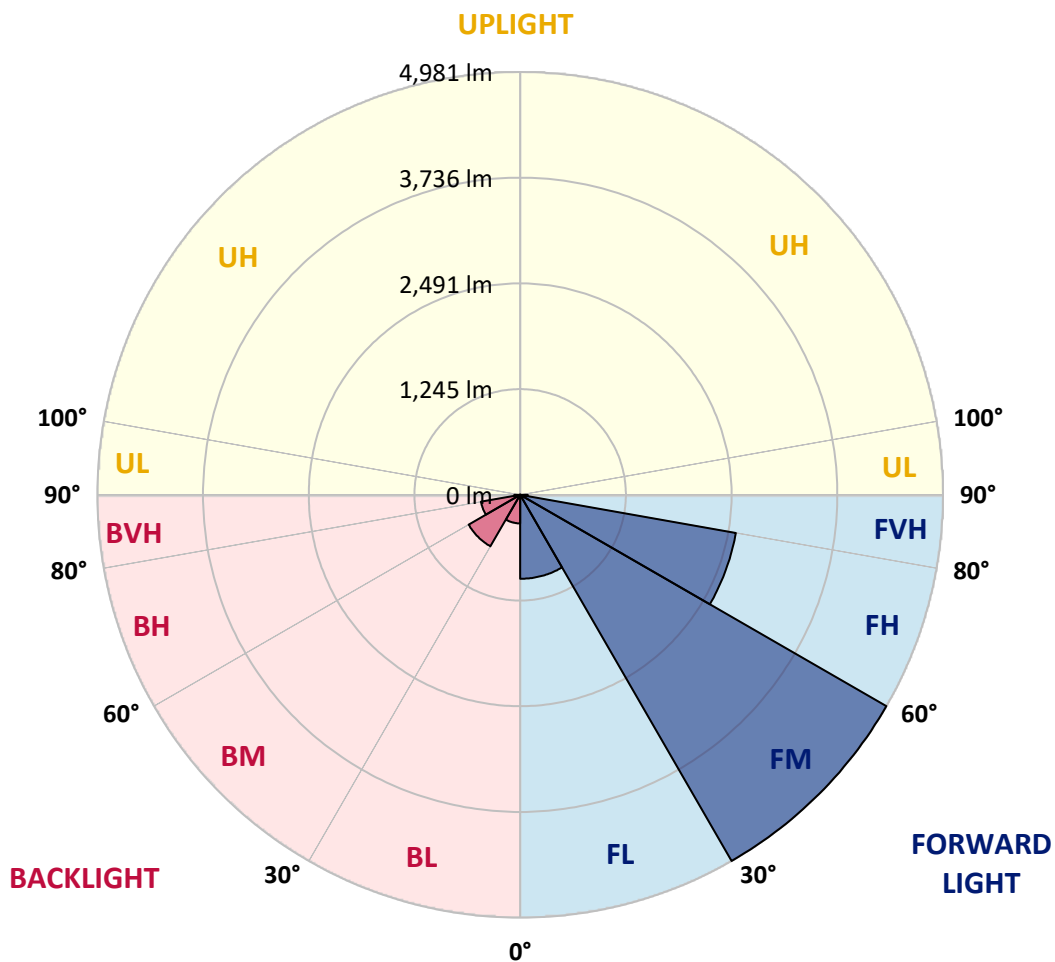
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	989.1	9.7			
FM	(30°-60°)	4981.3	48.8			
FH	(60°-80°)	2579.9	25.3			G2/5000
FVH	(80°-90°)	88.4	0.9			G1/100
BL	(0°-30°)	336.8	3.3	B1/500		
BM	(30°-60°)	700.9	6.9	B1/1000		
BH	(60°-80°)	468.1	4.6	B1/500		G1/500
BVH	(80°-90°)	68.9	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°	830.0	830.0	830.0	830.0	830.0	830.0	830.0	830.0	830.0	830.0	830.0
2.5°	1053.9	1042.3	1045.1	1025.8	1002.1	971.1	936.9	936.4	936.9	933.4	921.0
5°	1461.3	1447.4	1442.1	1398.5	1334.7	1243.9	1145.2	1134.6	1130.2	1119.1	1093.5
7.5°	1758.7	1751.0	1742.7	1709.8	1651.9	1550.4	1417.9	1395.2	1373.4	1368.1	1339.1
10°	1950.6	1948.6	1931.3	1922.5	1886.4	1798.3	1669.3	1647.5	1623.8	1615.6	1585.1
12.5°	2102.3	2101.9	2093.7	2096.2	2064.6	2001.0	1889.7	1869.9	1852.5	1827.3	1805.6
15°	2207.3	2207.7	2219.9	2233.4	2228.5	2185.5	2081.1	2072.4	2057.5	2040.1	2014.4
17.5°	2293.4	2295.8	2308.3	2332.9	2359.6	2356.2	2273.6	2266.3	2253.2	2229.5	2216.1
20°	2487.7	2496.9	2472.8	2472.8	2475.6	2488.7	2449.0	2443.2	2424.9	2412.2	2401.6
22.5°	2815.9	2826.5	2771.9	2716.4	2661.8	2622.0	2582.5	2589.6	2577.2	2568.4	2562.1
25°	3242.3	3250.6	3162.1	3068.3	2957.0	2812.1	2714.0	2709.5	2702.8	2697.5	2694.6
27.5°	3643.5	3647.0	3563.4	3426.0	3296.9	3088.5	2847.3	2842.0	2833.9	2823.7	2814.9
30°	3986.8	3985.8	3899.8	3768.7	3630.5	3399.9	3050.0	3033.5	3009.2	2981.7	2960.5
32.5°	4284.1	4282.7	4188.3	4052.5	3907.5	3708.4	3327.5	3293.6	3255.9	3202.1	3169.9
35°	4518.0	4517.2	4428.1	4286.6	4120.2	3998.9	3645.5	3604.0	3556.1	3484.1	3434.3
37.5°	4606.5	4606.5	4556.7	4460.1	4313.1	4229.9	3998.9	3948.6	3897.4	3815.6	3759.5
40°	4554.7	4555.7	4566.4	4548.6	4477.0	4413.2	4328.6	4298.6	4254.6	4181.2	4122.7
42.5°	4381.2	4386.5	4457.2	4543.7	4579.4	4569.4	4621.0	4607.5	4576.5	4520.0	4473.6
45°	4161.2	4177.7	4255.0	4418.5	4607.9	4704.2	4866.1	4867.5	4861.8	4831.4	4795.5
47.5°	3859.2	3882.3	3984.4	4205.3	4541.3	4835.2	5115.0	5128.1	5140.3	5120.5	5104.0
50°	3458.0	3485.5	3638.2	3931.2	4405.5	4971.0	5585.4	5644.5	5699.6	5692.8	5703.9
52.5°	3028.2	3060.6	3247.6	3574.0	4172.0	5002.5	5886.1	5982.4	6078.6	6157.3	6240.9
55°	2640.4	2623.1	2810.2	3153.8	3788.1	4860.8	6156.4	6272.5	6379.7	6476.4	6576.1
57.5°	2115.0	2143.5	2331.1	2670.9	3280.0	4460.9	6342.4	6512.2	6666.4	6826.4	6967.6
60°	1545.9	1574.5	1778.0	2123.1	2728.5	3854.8	6200.3	6457.6	6704.5	6949.6	7141.1
62.5°	933.4	954.8	1134.1	1462.9	2103.9	3136.0	5567.0	5904.5	6268.0	6561.0	6854.4
65°	581.1	593.1	659.4	840.2	1351.2	2341.3	4548.6	4916.4	5307.9	5679.8	5984.8
67.5°	475.7	480.0	492.2	530.7	742.0	1526.7	3385.4	3711.2	4064.6	4424.2	4763.7
70°	427.8	424.9	424.9	427.4	475.7	820.9	2216.5	2428.7	2723.1	3035.9	3346.2
72.5°	386.2	383.3	378.0	370.8	388.2	500.8	1145.7	1305.7	1518.0	1795.9	2093.2
75°	347.0	343.2	337.0	327.8	339.9	378.0	550.1	617.4	720.8	868.8	1034.5
77.5°	306.5	301.6	295.8	289.1	304.6	294.0	322.4	346.6	386.2	433.7	496.0
80°	260.6	256.3	254.3	251.0	269.3	223.9	227.7	242.6	265.9	291.5	320.5
82.5°	204.1	204.1	211.7	213.2	233.5	161.0	170.2	183.3	195.3	208.8	222.4
85°	134.4	135.4	161.5	171.7	184.1	108.3	127.6	131.9	141.7	149.4	155.2
87.5°	42.0	45.5	98.7	109.3	105.8	61.4	78.3	80.3	87.0	92.4	97.2
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	830.0	830.0	830.0	830.0	830.0	830.0	830.0	830.0	830.0	830.0	830.0
2.5°	921.0	915.1	909.8	909.3	905.5	900.2	902.0	893.9	894.3	890.0	885.1
5°	1082.9	1079.0	1059.6	1054.3	1039.8	1030.7	1029.2	1009.9	1007.4	996.4	984.2
7.5°	1315.9	1303.3	1276.2	1263.1	1238.5	1220.1	1211.5	1185.8	1173.2	1144.2	1131.2
10°	1560.0	1544.1	1510.6	1492.3	1468.6	1439.1	1423.2	1386.0	1371.4	1344.9	1313.0
12.5°	1786.3	1770.4	1735.9	1721.9	1690.5	1659.1	1641.7	1599.7	1580.8	1538.2	1513.1
15°	1995.5	1979.6	1949.6	1935.1	1903.7	1878.1	1854.8	1813.4	1791.1	1751.4	1718.6
17.5°	2198.6	2181.6	2155.5	2142.5	2112.1	2086.0	2060.9	2021.6	1998.9	1959.4	1929.8
20°	2387.1	2374.5	2355.7	2338.2	2307.8	2284.2	2254.2	2220.4	2187.5	2158.4	2130.4
22.5°	2551.5	2546.6	2526.4	2518.7	2492.6	2472.2	2446.1	2412.8	2389.0	2352.3	2326.2
25°	2693.2	2691.7	2682.0	2679.6	2661.2	2641.8	2636.1	2608.6	2586.8	2554.4	2527.4
27.5°	2814.9	2816.4	2814.1	2820.8	2815.9	2807.2	2807.8	2798.6	2786.0	2758.9	2735.2
30°	2950.3	2942.6	2947.0	2956.6	2959.5	2960.5	2976.4	2981.7	2980.8	2962.9	2951.3
32.5°	3141.8	3123.4	3106.5	3105.0	3114.6	3118.5	3145.6	3159.7	3171.7	3176.0	3178.0
35°	3385.8	3349.1	3313.8	3295.1	3278.6	3282.9	3302.2	3325.0	3351.6	3369.9	3391.7
37.5°	3693.3	3648.4	3586.0	3541.6	3530.4	3506.3	3518.8	3536.7	3562.8	3591.3	3629.0
40°	4066.0	3997.9	3927.8	3868.8	3837.0	3792.4	3792.0	3788.5	3804.6	3831.1	3884.3
42.5°	4424.8	4364.3	4289.9	4228.1	4186.5	4127.0	4114.9	4083.5	4090.7	4113.9	4165.7
45°	4760.7	4710.9	4665.4	4594.0	4558.6	4494.4	4474.0	4436.9	4416.1	4426.7	4478.4
47.5°	5086.1	5054.2	5006.8	4960.4	4933.3	4875.8	4849.7	4823.1	4796.5	4795.5	4849.7
50°	5720.3	5703.4	5647.4	5599.0	5612.1	5541.5	5545.8	5474.3	5506.7	5510.5	5624.1
52.5°	6316.3	6375.4	6417.0	6467.6	6500.6	6506.9	6528.6	6561.0	6600.1	6677.4	6782.8
55°	6657.7	6731.6	6774.7	6813.4	6877.2	6890.7	6927.0	6970.0	7004.3	7091.3	7180.8
57.5°	7063.3	7200.6	7267.3	7328.7	7414.7	7447.5	7508.1	7554.9	7599.4	7702.4	7810.6
60°	7313.2	7480.5	7616.3	7713.4	7821.3	7898.7	7990.0	8063.5	8167.9	8291.2	8452.7
62.5°	7114.5	7360.1	7540.5	7707.2	7853.7	8001.7	8132.6	8270.0	8428.4	8615.0	8865.5
65°	6323.2	6573.0	6881.9	7055.0	7248.9	7477.1	7676.3	7898.7	8114.7	8386.4	8756.7
67.5°	5090.5	5380.9	5728.1	5902.6	6125.5	6380.2	6603.6	6875.2	7127.6	7456.7	7914.6
70°	3669.2	4044.8	4336.8	4519.0	4779.2	5041.6	5257.3	5573.4	5782.2	6119.6	6593.0
72.5°	2323.3	2619.6	2977.4	3207.0	3438.0	3704.0	3924.5	4197.1	4391.8	4699.3	5128.1
75°	1249.2	1467.6	1781.8	1999.9	2247.5	2474.6	2732.8	2915.5	3059.6	3302.8	3650.8
77.5°	585.4	718.3	877.4	1045.1	1212.9	1387.9	1558.1	1706.0	1767.9	1907.2	2112.5
80°	355.4	398.4	444.7	496.5	566.6	623.1	698.1	752.2	756.0	800.1	862.9
82.5°	237.3	253.3	267.3	280.4	298.3	312.3	328.3	347.0	354.8	365.0	385.3
85°	161.9	169.7	172.5	180.8	178.8	183.7	190.0	196.3	199.6	199.2	208.4
87.5°	99.5	103.4	105.4	107.3	105.8	104.0	106.8	110.3	111.1	108.3	109.3
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°	830.0	830.0	830.0	830.0	830.0	830.0	830.0	830.0	830.0	830.0	830.0
2.5°	886.1	881.8	877.4	874.5	873.5	848.0	836.8	829.6	814.1	801.5	791.3
5°	977.5	968.3	961.1	952.4	947.5	882.7	859.0	842.7	815.6	799.6	785.0
7.5°	1124.5	1098.8	1083.9	1066.9	1052.5	935.4	896.3	870.6	832.9	811.7	795.2
10°	1291.2	1264.7	1240.9	1214.8	1192.1	1005.6	948.5	908.8	859.0	831.5	809.7
12.5°	1477.4	1451.3	1421.3	1387.9	1358.9	1094.5	1015.2	958.7	890.4	853.7	823.3
15°	1697.4	1651.3	1615.0	1576.5	1542.6	1200.9	1093.0	1014.7	923.8	874.1	833.5
17.5°	1901.7	1853.4	1804.2	1770.4	1731.2	1320.2	1171.3	1071.7	951.4	887.1	835.3
20°	2101.5	2048.7	2006.3	1960.8	1919.6	1444.0	1255.0	1122.0	969.3	887.5	823.3
22.5°	2277.4	2244.5	2197.1	2147.8	2106.2	1567.7	1333.3	1164.6	976.0	876.5	801.9
25°	2477.5	2442.8	2384.7	2343.1	2296.8	1693.9	1410.1	1197.4	972.2	855.7	769.1
27.5°	2691.2	2652.6	2593.1	2549.6	2493.6	1824.8	1480.7	1221.1	957.7	821.9	725.1
30°	2914.0	2878.7	2820.2	2776.4	2719.7	1963.7	1559.5	1237.0	928.7	775.0	673.9
32.5°	3153.4	3123.8	3065.9	3020.0	2959.5	2114.0	1633.0	1241.9	884.7	719.3	619.8
35°	3380.5	3360.3	3311.4	3268.4	3205.6	2256.1	1710.8	1239.5	832.5	658.4	570.5
37.5°	3636.4	3624.2	3600.1	3545.4	3468.6	2449.0	1804.2	1229.3	768.7	598.0	532.8
40°	3909.0	3910.0	3883.9	3846.6	3775.0	2683.0	1915.3	1209.5	699.0	544.8	498.3
42.5°	4197.5	4212.6	4199.9	4173.4	4104.7	2918.9	2048.3	1185.4	631.4	493.0	464.6
45°	4528.2	4546.6	4565.9	4526.8	4460.1	3230.2	2223.2	1154.0	558.3	450.0	441.4
47.5°	4909.7	4938.6	4956.0	4956.6	4889.9	3616.0	2507.5	1135.1	493.6	421.0	430.2
50°	5714.5	5723.8	5764.8	5836.4	5785.2	4508.8	3003.9	1123.4	449.6	403.1	422.0
52.5°	6874.2	6975.3	7046.4	7041.6	6971.9	5075.9	3277.6	1063.5	423.5	396.4	418.2
55°	7346.6	7472.8	7604.3	7639.0	7584.9	5559.9	3536.3	1003.6	410.9	401.3	419.6
57.5°	7976.0	8188.7	8369.1	8444.9	8366.6	6179.1	3876.6	972.2	407.0	414.3	428.8
60°	8711.2	8974.2	9211.1	9347.4	9347.4	6890.7	4229.5	959.1	401.7	433.7	444.3
62.5°	9183.6	9569.8	9927.6	10127.2	10121.4	7386.2	4386.1	914.6	389.6	447.1	465.5
65°	9185.5	9644.8	10100.6	10325.0	10336.5	7325.4	4127.5	807.8	367.4	449.1	486.9
67.5°	8419.8	8909.4	9440.7	9691.7	9749.6	6743.3	3573.0	664.3	331.1	429.8	494.6
70°	7111.1	7589.2	8131.6	8378.2	8481.2	5748.3	2877.7	512.0	284.8	387.2	478.5
72.5°	5602.3	6071.3	6448.9	6629.1	6709.4	4393.8	2095.6	386.8	233.5	326.3	435.5
75°	3966.5	4318.4	4519.0	4559.2	4571.7	2648.7	1273.3	287.7	192.5	253.8	367.8
77.5°	2238.7	2389.6	2373.1	2391.0	2242.2	1022.5	554.6	205.9	158.6	192.9	285.2
80°	874.1	901.2	846.5	829.6	760.9	380.5	244.7	143.6	126.6	146.0	199.6
82.5°	385.3	397.8	386.2	389.2	372.3	196.3	146.4	104.0	96.7	106.8	132.5
85°	212.2	216.1	215.1	221.4	212.2	78.3	69.6	63.8	67.7	72.6	85.0
87.5°	103.4	104.4	101.1	106.4	103.0	39.6	34.3	36.3	39.6	40.6	40.6
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):

	135°	145°	155°	165°	175°	180°
0°	830.0	830.0	830.0	830.0	830.0	830.0
2.5°	784.1	780.3	780.7	779.7	777.8	777.8
5°	777.4	773.5	773.5	772.5	770.1	770.5
7.5°	784.1	777.8	775.4	772.0	768.7	768.7
10°	791.9	780.7	774.0	768.2	763.8	763.8
12.5°	797.6	780.3	769.1	761.3	757.0	757.0
15°	799.6	776.8	761.3	752.2	748.3	747.9
17.5°	793.3	763.8	745.0	734.4	729.5	728.1
20°	774.0	740.1	717.5	705.3	698.5	696.1
22.5°	745.0	706.3	679.7	667.1	658.4	656.9
25°	704.4	662.8	636.7	624.5	619.8	618.2
27.5°	656.9	618.2	596.0	588.3	584.0	583.5
30°	612.1	579.1	562.7	556.8	551.5	550.7
32.5°	569.9	549.1	542.9	534.6	522.1	520.7
35°	539.9	538.1	533.8	515.3	499.9	495.5
37.5°	521.6	539.5	517.3	481.0	469.9	468.9
40°	511.0	524.6	486.3	473.8	474.7	473.8
42.5°	486.9	500.8	487.3	481.6	485.3	486.3
45°	462.6	478.1	494.6	490.7	499.9	499.9
47.5°	449.1	472.2	494.0	494.0	507.7	512.4
50°	433.7	467.5	486.3	493.0	503.8	499.9
52.5°	432.7	459.2	475.2	487.3	492.2	487.7
55°	434.1	452.4	464.1	477.7	483.4	483.9
57.5°	436.1	448.6	456.3	462.6	480.0	480.0
60°	440.8	445.3	449.6	453.0	475.7	476.1
62.5°	448.6	441.8	440.8	444.3	473.2	471.4
65°	460.8	437.0	429.8	433.1	470.8	465.1
67.5°	477.1	429.8	415.7	418.2	468.9	456.3
70°	492.2	418.2	398.4	395.9	450.6	428.4
72.5°	493.6	404.7	374.1	367.0	391.6	370.3
75°	469.4	395.4	347.6	326.3	323.4	320.5
77.5°	423.0	390.1	316.6	283.2	277.5	279.4
80°	353.9	370.3	279.4	239.8	271.2	267.9
82.5°	264.4	326.8	237.3	212.2	211.7	187.1
85°	147.0	254.8	193.3	159.0	110.7	107.3
87.5°	41.2	141.7	135.4	89.9	61.4	63.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)