

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: P301573

Luminaire Tested: **GLNA-AF-03-LED-E1-T2R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301573
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-03-LED-E1-T2R-7030
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18247.2 lumens
Efficiency: N/A
Efficacy: 109.9 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): 166
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

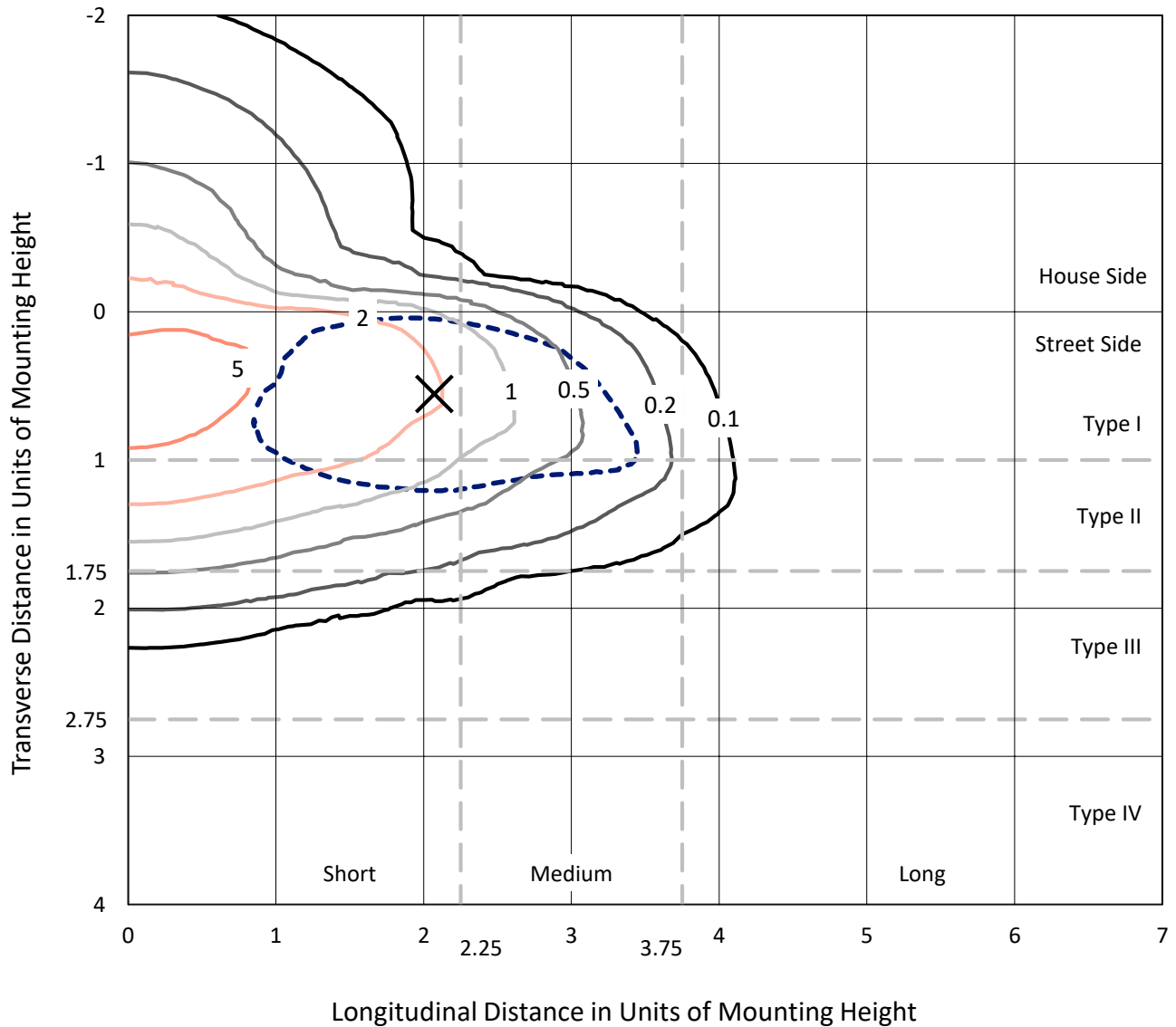


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Iso-Footcandle Lines of Horizontal Illumination

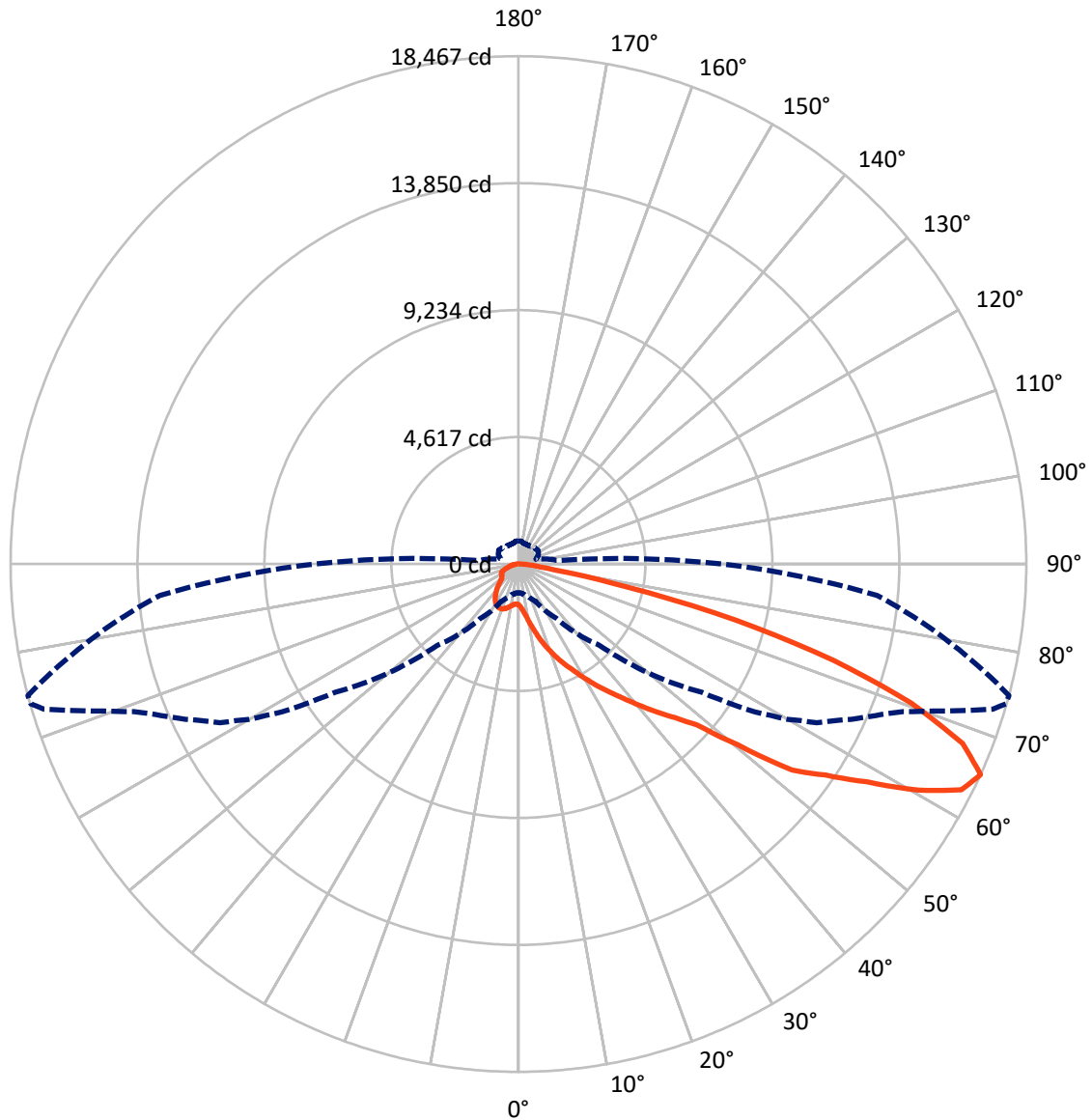
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 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	2813.3	0.0	2813.3
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	15433.9	0.0	15433.9
	% Fixture	84.6	0.0	84.6
Total	Lumens	18247.2	0.0	18247.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.3	1.0
10°-20°	716.2	3.9
20°-30°	1469.4	8.1
30°-40°	2472.1	13.5
40°-50°	3415.8	18.7
50°-60°	4263.9	23.4
60°-70°	3837.1	21.0
70°-80°	1608.5	8.8
80°-90°	281.0	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°	18247.2	100.0
0°-180°	18247.2	100.0

Coefficient of Utilization



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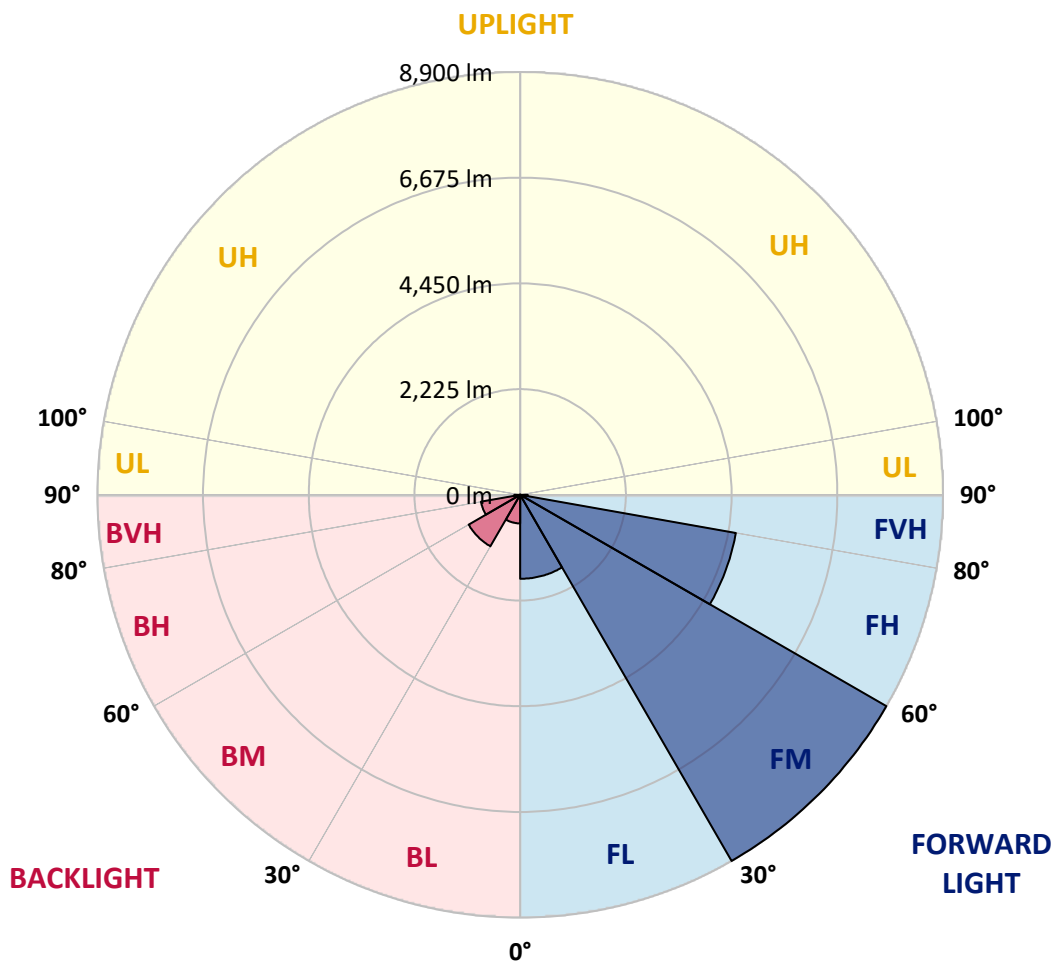
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1767.2	9.7			
FM (30°-60°)	8899.6	48.8			
FH (60°-80°)	4609.2	25.3			G2/5000
FVH (80°-90°)	158.0	0.9			G2/225
BL (0°-30°)	601.6	3.3	B2/1000		
BM (30°-60°)	1252.2	6.9	B2/2500		
BH (60°-80°)	836.4	4.6	B2/1000		G2/1000
BVH (80°-90°)	123.1	0.7			G2/225
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°	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9
2.5°	1882.9	1862.1	1867.2	1832.7	1790.4	1735.0	1673.8	1673.0	1673.8	1667.7	1645.4
5°	2610.8	2585.9	2576.4	2498.5	2384.5	2222.4	2046.1	2027.1	2019.2	1999.5	1953.6
7.5°	3142.1	3128.3	3113.4	3054.8	2951.3	2769.9	2533.1	2492.7	2453.7	2444.2	2392.5
10°	3485.0	3481.4	3450.4	3434.7	3370.2	3212.9	2982.3	2943.3	2901.1	2886.4	2831.9
12.5°	3756.0	3755.3	3740.6	3745.0	3688.6	3574.9	3376.1	3340.7	3309.7	3264.6	3225.9
15°	3943.6	3944.3	3966.1	3990.2	3981.5	3904.6	3718.1	3702.5	3675.8	3644.8	3599.0
17.5°	4097.3	4101.6	4123.9	4168.0	4215.7	4209.5	4061.9	4048.9	4025.6	3983.3	3959.2
20°	4444.5	4460.8	4417.8	4417.8	4422.9	4446.2	4375.3	4365.0	4332.2	4309.7	4290.7
22.5°	5030.9	5049.9	4952.3	4853.1	4755.5	4684.5	4613.8	4626.6	4604.3	4588.7	4577.4
25°	5792.6	5807.5	5649.4	5481.8	5283.0	5024.0	4848.7	4840.8	4828.8	4819.3	4814.2
27.5°	6509.5	6515.6	6366.3	6120.8	5890.2	5518.0	5087.0	5077.5	5062.9	5044.7	5029.1
30°	7122.9	7121.1	6967.3	6733.2	6486.2	6074.2	5449.0	5419.6	5376.3	5327.1	5289.2
32.5°	7654.0	7651.4	7482.8	7240.2	6981.2	6625.3	5944.8	5884.3	5817.0	5720.9	5663.2
35°	8071.9	8070.3	7911.2	7658.3	7361.1	7144.4	6513.1	6438.8	6353.2	6224.6	6135.7
37.5°	8229.9	8229.9	8141.0	7968.3	7705.7	7557.1	7144.4	7054.4	6963.0	6816.9	6716.8
40°	8137.4	8139.2	8158.2	8126.4	7998.6	7884.6	7733.4	7679.9	7601.2	7470.0	7365.5
42.5°	7827.4	7836.9	7963.2	8117.7	8181.5	8163.6	8255.8	8231.7	8176.4	8075.4	7992.4
45°	7434.4	7463.9	7602.0	7894.0	8232.5	8404.4	8693.7	8696.2	8686.0	8631.7	8567.6
47.5°	6894.8	6936.1	7118.5	7513.1	8113.4	8638.6	9138.5	9161.8	9183.5	9148.2	9118.7
50°	6178.0	6227.2	6500.0	7023.4	7870.7	8881.2	9978.8	10084.4	10182.8	10170.7	10190.4
52.5°	5410.1	5468.0	5802.1	6385.2	7453.6	8937.3	10516.1	10688.0	10859.9	11000.6	11149.9
55°	4717.3	4686.3	5020.7	5634.5	6767.8	8684.2	10999.0	11206.3	11398.0	11570.6	11748.7
57.5°	3778.6	3829.6	4164.7	4771.9	5860.0	7969.9	11331.3	11634.7	11910.1	12196.0	12448.2
60°	2761.9	2812.9	3176.5	3793.2	4874.6	6886.9	11077.4	11537.1	11978.3	12416.1	12758.2
62.5°	1667.7	1705.8	2026.1	2613.6	3758.8	5602.8	9946.0	10548.9	11198.4	11721.8	12246.0
65°	1038.2	1059.7	1178.0	1501.1	2414.0	4182.9	8126.4	8783.6	9483.1	10147.4	10692.4
67.5°	849.8	857.5	879.3	948.2	1325.6	2727.6	6048.3	6630.4	7261.7	7904.3	8510.7
70°	764.3	759.1	759.1	763.5	849.8	1466.5	3960.0	4339.2	4865.1	5423.9	5978.4
72.5°	690.0	684.8	675.4	662.6	693.6	894.7	2046.9	2332.8	2712.0	3208.5	3739.6
75°	620.0	613.1	602.1	585.7	607.2	675.4	982.8	1103.0	1287.7	1552.1	1848.3
77.5°	547.5	538.8	528.6	516.5	544.2	525.2	576.0	619.3	690.0	774.8	886.2
80°	465.5	457.8	454.3	448.4	481.2	399.9	406.9	433.5	475.0	520.9	572.6
82.5°	364.6	364.6	378.2	381.0	417.1	287.7	304.1	327.4	349.0	373.0	397.4
85°	240.1	241.9	288.5	306.7	329.0	193.4	228.0	235.7	253.1	267.0	277.2
87.5°	75.1	81.2	176.3	195.2	189.1	109.7	139.9	143.5	155.5	165.0	173.7
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°	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9
2.5°	1645.4	1634.9	1625.4	1624.6	1617.7	1608.2	1611.6	1596.9	1597.7	1590.0	1581.3
5°	1934.6	1927.7	1893.1	1883.6	1857.8	1841.4	1838.8	1804.2	1799.9	1780.1	1758.4
7.5°	2351.0	2328.4	2280.0	2256.7	2212.6	2179.8	2164.5	2118.6	2096.0	2044.3	2021.0
10°	2787.0	2758.6	2698.9	2666.1	2623.8	2571.1	2542.6	2476.3	2450.1	2402.7	2345.8
12.5°	3191.3	3162.9	3101.4	3076.3	3020.2	2964.1	2933.1	2858.0	2824.2	2748.1	2703.3
15°	3565.1	3536.7	3483.2	3457.3	3401.2	3355.3	3313.8	3239.8	3200.0	3129.1	3070.4
17.5°	3927.9	3897.7	3851.1	3827.8	3773.4	3726.8	3682.0	3611.8	3571.3	3500.6	3447.8
20°	4264.8	4242.3	4208.7	4177.5	4123.2	4080.9	4027.3	3966.9	3908.2	3856.2	3806.2
22.5°	4558.5	4549.8	4513.6	4499.8	4453.2	4416.8	4370.2	4310.7	4268.2	4202.6	4156.0
25°	4811.6	4809.0	4791.6	4787.3	4754.5	4719.9	4709.6	4660.4	4621.5	4563.6	4515.4
27.5°	5029.1	5031.7	5027.6	5039.6	5030.9	5015.3	5016.3	4999.9	4977.4	4928.9	4886.7
30°	5271.0	5257.1	5265.1	5282.3	5287.4	5289.2	5317.6	5327.1	5325.6	5293.5	5272.8
32.5°	5613.0	5580.2	5550.0	5547.4	5564.6	5571.5	5619.9	5645.0	5666.6	5674.3	5677.8
35°	6049.1	5983.5	5920.5	5886.9	5857.4	5865.1	5899.7	5940.5	5987.9	6020.6	6059.6
37.5°	6598.4	6518.2	6406.8	6327.3	6307.3	6264.3	6286.6	6318.6	6365.2	6416.2	6483.6
40°	7264.3	7142.6	7017.3	6912.0	6855.1	6775.4	6774.7	6768.5	6797.2	6844.6	6939.7
42.5°	7905.3	7797.2	7664.2	7553.8	7479.5	7373.2	7351.7	7295.5	7308.4	7349.9	7442.3
45°	8505.4	8416.5	8335.2	8207.6	8144.4	8029.6	7993.2	7926.8	7889.7	7908.6	8001.1
47.5°	9086.7	9029.8	8945.0	8862.3	8813.8	8711.1	8664.5	8616.8	8569.4	8567.6	8664.5
50°	10219.9	10189.7	10089.5	10003.2	10026.5	9900.4	9908.1	9780.3	9838.2	9845.1	10048.0
52.5°	11284.7	11390.3	11464.6	11555.0	11613.9	11625.2	11663.9	11721.8	11791.7	11929.8	12118.2
55°	11894.5	12026.7	12103.6	12172.7	12286.7	12310.8	12375.6	12452.5	12513.7	12669.3	12829.1
57.5°	12619.3	12864.5	12983.6	13093.3	13247.0	13305.7	13413.8	13497.6	13577.0	13761.0	13954.4
60°	13065.6	13364.6	13607.2	13780.7	13973.4	14111.7	14274.9	14406.1	14592.6	14813.0	15101.5
62.5°	12710.8	13149.4	13471.7	13769.7	14031.3	14295.7	14529.6	14775.0	15058.2	15391.5	15839.1
65°	11297.0	11743.3	12295.2	12604.4	12950.8	13358.5	13714.3	14111.7	14497.6	14983.1	15644.6
67.5°	9094.6	9613.5	10233.7	10545.5	10943.7	11398.7	11797.9	12283.2	12734.1	13322.1	14140.2
70°	6555.4	7226.4	7748.0	8073.6	8538.4	9007.3	9392.6	9957.3	10330.3	10933.2	11778.9
72.5°	4150.8	4680.2	5319.4	5729.6	6142.3	6617.6	7011.4	7498.5	7846.4	8395.7	9161.8
75°	2231.8	2622.0	3183.4	3573.1	4015.3	4421.1	4882.3	5208.7	5466.2	5900.7	6522.6
77.5°	1045.8	1283.3	1567.5	1867.2	2167.0	2479.6	2783.7	3047.9	3158.5	3407.3	3774.2
80°	634.9	711.7	794.5	887.0	1012.3	1113.2	1247.2	1343.8	1350.7	1429.4	1541.6
82.5°	424.0	452.5	477.6	500.9	532.9	558.0	586.5	620.0	633.9	652.1	688.4
85°	289.3	303.1	308.2	323.1	319.5	328.2	339.5	350.7	356.6	355.9	372.3
87.5°	177.8	184.7	188.3	191.6	189.1	185.8	190.9	197.0	198.6	193.4	195.2
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°	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9
2.5°	1583.1	1575.4	1567.5	1562.4	1560.6	1515.0	1495.0	1482.2	1454.5	1432.0	1413.8
5°	1746.3	1729.9	1717.1	1701.5	1692.8	1577.0	1534.7	1505.5	1457.1	1428.6	1402.5
7.5°	2008.9	1963.1	1936.4	1906.2	1880.3	1671.2	1601.3	1555.4	1488.1	1450.1	1420.7
10°	2306.9	2259.5	2217.0	2170.3	2129.9	1796.5	1694.6	1623.6	1534.7	1485.5	1446.6
12.5°	2639.5	2592.8	2539.3	2479.6	2427.8	1955.4	1813.7	1712.8	1590.8	1525.2	1470.9
15°	3032.5	2950.2	2885.4	2816.5	2756.0	2145.5	1952.8	1812.9	1650.5	1561.6	1489.1
17.5°	3397.6	3311.2	3223.4	3162.9	3093.0	2358.7	2092.7	1914.6	1699.7	1584.9	1492.4
20°	3754.5	3660.2	3584.4	3503.1	3429.6	2579.8	2242.1	2004.6	1731.7	1585.7	1470.9
22.5°	4068.9	4009.9	3925.4	3837.2	3762.9	2800.9	2382.0	2080.7	1743.8	1565.9	1432.7
25°	4426.3	4364.3	4260.5	4186.2	4103.4	3026.3	2519.3	2139.3	1736.8	1528.8	1374.0
27.5°	4808.0	4739.1	4632.8	4555.1	4455.0	3260.3	2645.4	2181.6	1711.0	1468.3	1295.4
30°	5206.2	5143.1	5038.6	4960.2	4859.0	3508.3	2786.3	2210.1	1659.2	1384.6	1203.9
32.5°	5633.8	5581.0	5477.5	5395.5	5287.4	3776.8	2917.4	2218.8	1580.6	1285.1	1107.3
35°	6039.6	6003.5	5916.1	5839.3	5727.0	4030.7	3056.6	2214.4	1487.3	1176.3	1019.2
37.5°	6496.7	6474.9	6431.9	6334.2	6196.9	4375.3	3223.4	2196.2	1373.3	1068.4	951.8
40°	6983.7	6985.5	6938.9	6872.3	6744.4	4793.4	3421.9	2160.9	1248.8	973.3	890.3
42.5°	7499.2	7526.1	7503.6	7456.2	7333.5	5214.9	3659.4	2117.8	1128.1	880.8	830.1
45°	8090.0	8122.8	8157.4	8087.5	7968.3	5771.1	3972.0	2061.7	997.4	804.0	788.6
47.5°	8771.6	8823.3	8854.3	8855.3	8736.2	6460.3	4479.8	2027.9	881.9	752.2	768.6
50°	10209.4	10226.1	10299.3	10427.2	10335.7	8055.5	5366.8	2007.1	803.2	720.2	754.0
52.5°	12281.4	12462.0	12589.1	12580.4	12455.8	9068.5	5855.6	1900.0	756.6	708.2	747.1
55°	13125.3	13350.8	13585.7	13647.7	13551.1	9933.2	6317.8	1792.9	734.0	716.9	749.7
57.5°	14249.8	14629.8	14952.1	15087.6	14947.7	11039.5	6925.8	1736.8	727.1	740.2	766.1
60°	15563.4	16033.3	16456.5	16699.9	16699.9	12310.8	7556.4	1713.5	717.6	774.8	793.7
62.5°	16407.3	17097.3	17736.6	18093.2	18082.7	13196.0	7836.1	1634.1	696.1	798.9	831.7
65°	16410.7	17231.3	18045.5	18446.5	18467.0	13087.4	7374.2	1443.2	656.4	802.4	869.8
67.5°	15042.8	15917.5	16866.7	17315.1	17418.6	12047.4	6383.4	1186.8	591.6	767.9	883.7
70°	12704.6	13558.8	14527.8	14968.5	15152.4	10269.9	5141.3	914.7	508.8	691.8	855.0
72.5°	10009.0	10846.9	11521.4	11843.5	11987.0	7850.0	3744.0	691.0	417.1	582.9	778.1
75°	7086.5	7715.2	8073.6	8145.4	8167.7	4732.2	2274.9	514.0	343.8	453.5	657.2
77.5°	3999.7	4269.2	4239.7	4271.8	4005.8	1826.8	990.8	367.9	283.4	344.6	509.6
80°	1561.6	1610.0	1512.4	1482.2	1359.4	679.7	437.1	256.5	226.2	260.8	356.6
82.5°	688.4	710.7	690.0	695.4	665.1	350.7	261.6	185.8	172.7	190.9	236.7
85°	379.2	386.1	384.3	395.6	379.2	139.9	124.3	114.0	120.9	129.6	151.9
87.5°	184.7	186.5	180.6	190.1	184.0	70.7	61.2	64.8	70.7	72.5	72.5
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):

	135°	145°	155°	165°	175°	180°
0°	1482.9	1482.9	1482.9	1482.9	1482.9	1482.9
2.5°	1400.9	1394.0	1394.8	1393.0	1389.7	1389.7
5°	1388.9	1382.0	1382.0	1380.2	1375.8	1376.6
7.5°	1400.9	1389.7	1385.3	1379.2	1373.3	1373.3
10°	1414.8	1394.8	1382.8	1372.5	1364.6	1364.6
12.5°	1425.0	1394.0	1374.0	1360.2	1352.5	1352.5
15°	1428.6	1387.9	1360.2	1343.8	1336.9	1336.1
17.5°	1417.3	1364.6	1331.0	1312.0	1303.3	1300.8
20°	1382.8	1322.3	1281.8	1260.0	1248.0	1243.6
22.5°	1331.0	1261.8	1214.4	1191.9	1176.3	1173.7
25°	1258.5	1184.2	1137.6	1115.8	1107.3	1104.5
27.5°	1173.7	1104.5	1064.8	1051.0	1043.3	1042.5
30°	1093.5	1034.6	1005.4	994.9	985.4	983.8
32.5°	1018.2	981.0	970.0	955.1	932.9	930.3
35°	964.6	961.3	953.6	920.6	893.1	885.2
37.5°	931.8	963.9	924.1	859.3	839.6	837.8
40°	912.9	937.2	868.8	846.5	848.1	846.5
42.5°	869.8	894.7	870.6	860.3	867.0	868.8
45°	826.5	854.2	883.7	876.7	893.1	893.1
47.5°	802.4	843.7	882.6	882.6	907.0	915.4
50°	774.8	835.2	868.8	880.8	900.1	893.1
52.5°	773.0	820.4	849.1	870.6	879.3	871.4
55°	775.5	808.3	829.1	853.4	863.7	864.4
57.5°	779.1	801.4	815.3	826.5	857.5	857.5
60°	787.6	795.5	803.2	809.4	849.8	850.6
62.5°	801.4	789.4	787.6	793.7	845.5	842.2
65°	823.2	780.7	767.9	773.8	841.1	830.9
67.5°	852.4	767.9	742.7	747.1	837.8	815.3
70°	879.3	747.1	711.7	707.4	805.0	765.3
72.5°	881.9	723.0	668.4	655.6	699.7	661.5
75°	838.6	706.4	621.0	582.9	577.8	572.6
77.5°	755.8	696.9	565.7	506.0	495.8	499.1
80°	632.3	661.5	499.1	428.4	484.5	478.6
82.5°	472.4	583.9	424.0	379.2	378.2	334.4
85°	262.6	455.3	345.4	284.1	197.8	191.6
87.5°	73.5	253.1	241.9	160.6	109.7	114.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)