

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: P301591

Luminaire Tested: **GLNA-AF-06-LED-E1-T2R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301591
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-06-LED-E1-T2R-7030
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(6) 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: 35748.5 lumens
Efficiency: N/A
Efficacy: 107.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 333
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

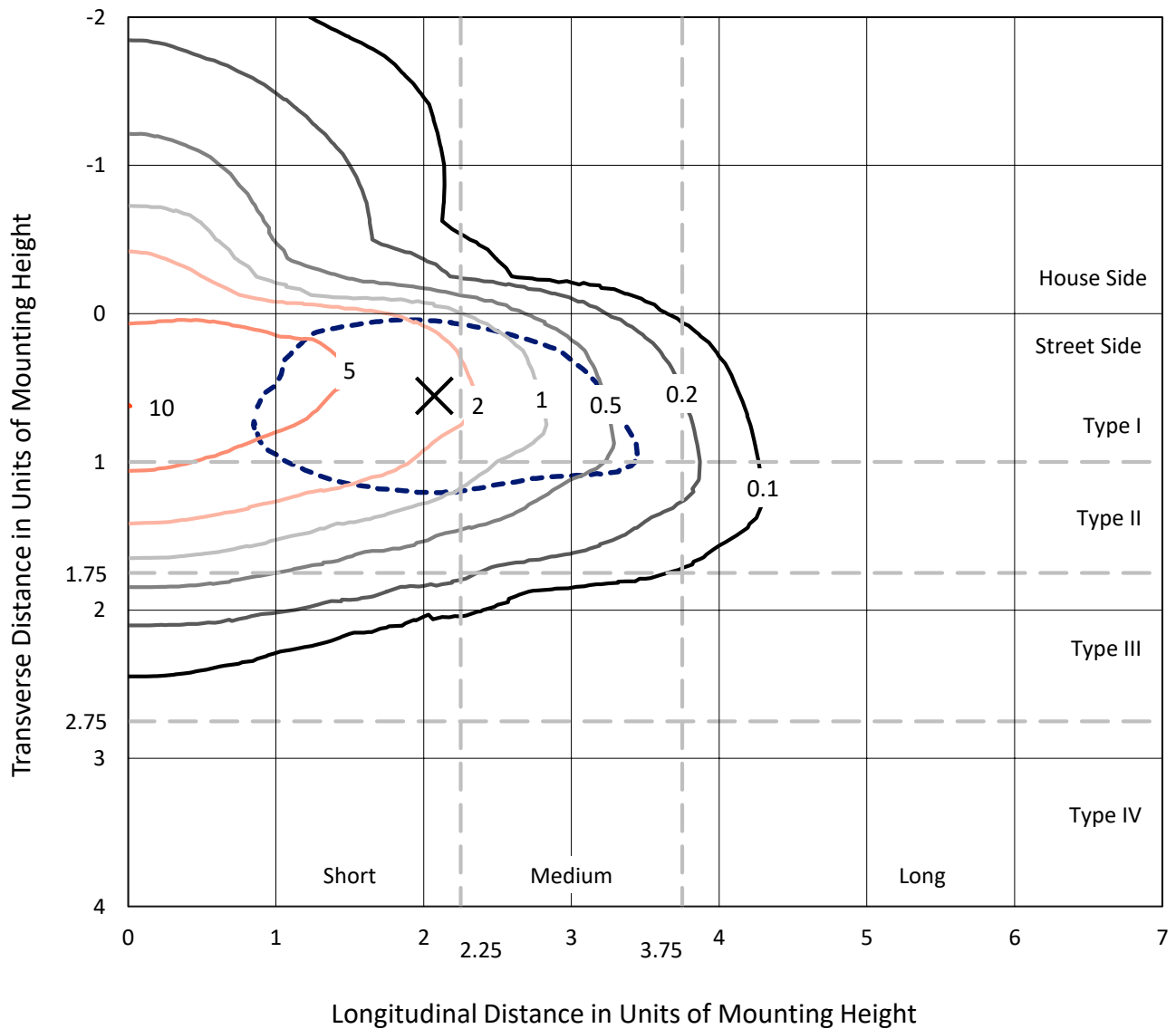


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Iso-Footcandle Lines of Horizontal Illumination

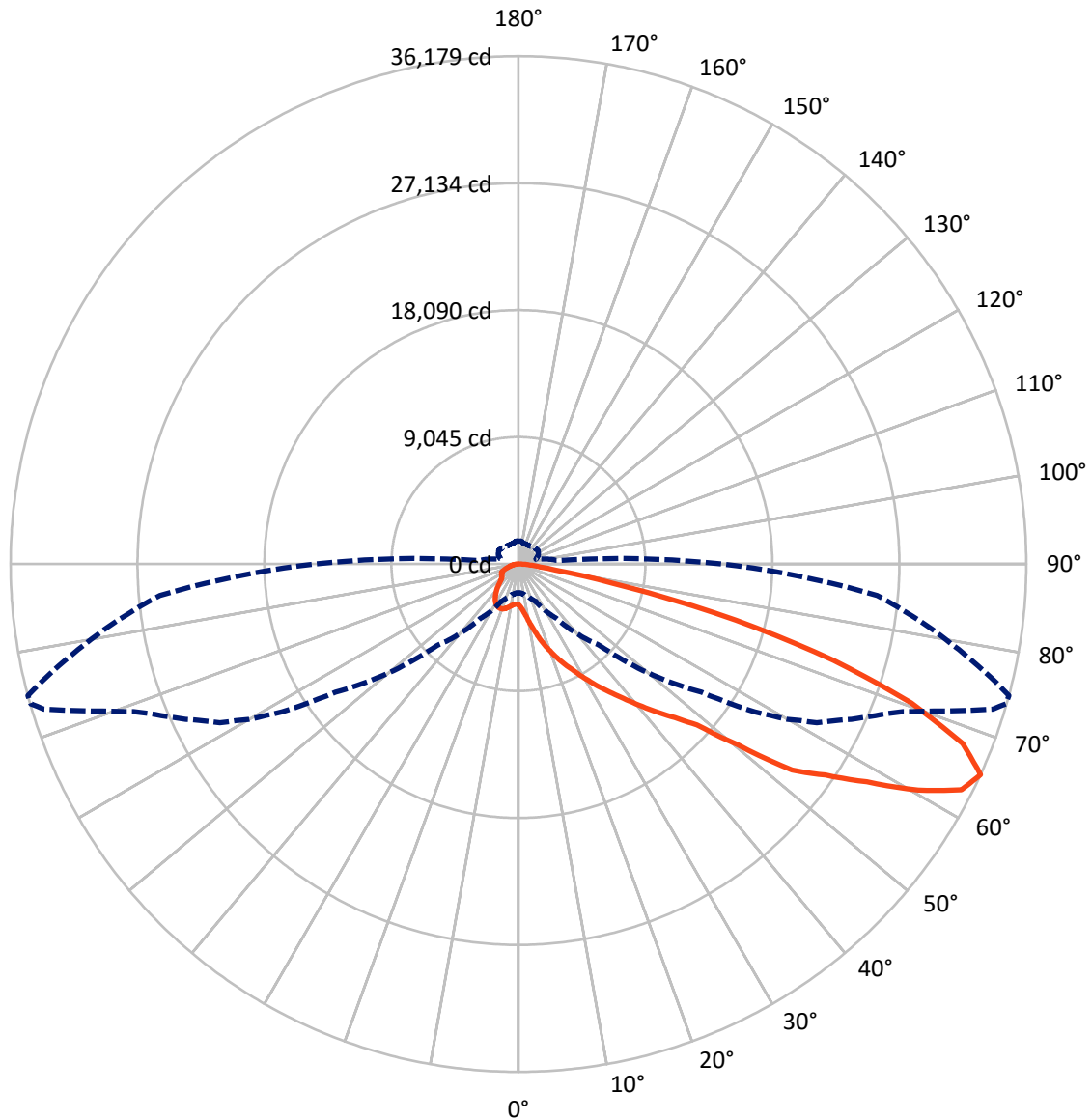
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10 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	5511.6	0.0	5511.6
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	30236.9	0.0	30236.9
	% Fixture	84.6	0.0	84.6
Total	Lumens	35748.5	0.0	35748.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	359.1	1.0
10°-20°	1403.1	3.9
20°-30°	2878.7	8.1
30°-40°	4843.2	13.5
40°-50°	6691.9	18.7
50°-60°	8353.5	23.4
60°-70°	7517.3	21.0
70°-80°	3151.2	8.8
80°-90°	550.5	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°	35748.5	100.0
0°-180°	35748.5	100.0



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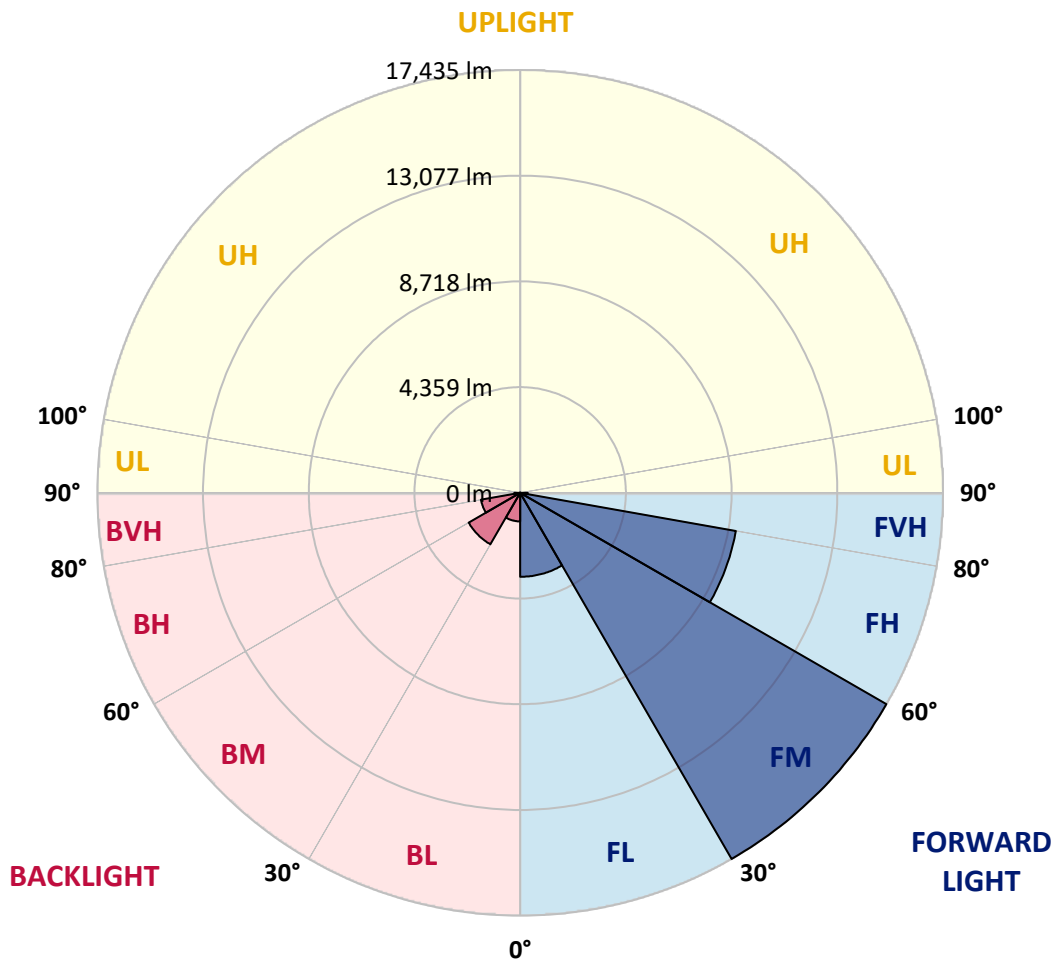
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3462.1	9.7			
FM (30°-60°)	17435.4	48.8			
FH (60°-80°)	9029.9	25.3			G4/12000
FVH (80°-90°)	309.4	0.9			G3/500
BL (0°-30°)	1178.7	3.3	B3/2500		
BM (30°-60°)	2453.3	6.9	B2/2500		
BH (60°-80°)	1638.5	4.6	B3/2500		G3/2500
BVH (80°-90°)	241.1	0.7			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3
2.5°	3688.8	3648.1	3658.2	3590.4	3507.6	3399.2	3279.2	3277.7	3279.2	3267.2	3223.5
5°	5114.8	5066.1	5047.5	4895.0	4671.6	4353.9	4008.5	3971.4	3955.8	3917.2	3827.3
7.5°	6155.8	6128.7	6099.6	5984.7	5781.9	5426.5	4962.7	4883.4	4807.1	4788.5	4687.2
10°	6827.4	6820.4	6759.7	6729.1	6602.6	6294.4	5842.6	5766.3	5683.5	5654.9	5548.0
12.5°	7358.5	7357.0	7328.4	7336.9	7226.5	7003.6	6614.1	6544.8	6484.1	6395.8	6320.0
15°	7725.9	7727.4	7770.1	7817.3	7800.2	7649.6	7284.2	7253.6	7201.4	7140.7	7050.8
17.5°	8027.1	8035.6	8079.3	8165.6	8259.0	8246.9	7957.8	7932.2	7886.5	7803.7	7756.5
20°	8707.2	8739.3	8655.0	8655.0	8665.1	8710.7	8571.7	8551.6	8487.4	8443.2	8406.1
22.5°	9856.2	9893.3	9702.1	9507.8	9316.6	9177.5	9039.0	9064.1	9020.4	8989.8	8967.7
25°	11348.4	11377.6	11067.9	10739.6	10350.1	9842.6	9499.3	9483.7	9460.1	9441.6	9431.5
27.5°	12752.9	12764.9	12472.3	11991.4	11539.7	10810.4	9966.1	9947.5	9918.9	9883.3	9852.7
30°	13954.5	13951.0	13649.9	13191.1	12707.2	11900.1	10675.3	10617.6	10532.8	10436.4	10362.1
32.5°	14995.1	14990.0	14659.8	14184.4	13677.0	12979.8	11646.6	11528.1	11396.1	11207.9	11095.0
35°	15813.7	15810.7	15499.0	15003.6	14421.3	13996.7	12759.9	12614.3	12446.7	12194.7	12020.5
37.5°	16123.4	16123.4	15949.3	15611.0	15096.5	14805.3	13996.7	13820.5	13641.3	13355.2	13159.0
40°	15942.2	15945.7	15982.9	15920.7	15670.2	15446.8	15150.7	15045.8	14891.7	14634.7	14429.9
42.5°	15334.9	15353.5	15600.9	15903.6	16028.6	15993.4	16174.1	16127.0	16018.5	15820.8	15658.1
45°	14564.9	14622.6	14893.2	15465.4	16128.5	16465.3	17032.0	17037.0	17016.9	16910.5	16785.0
47.5°	13507.8	13588.6	13946.0	14719.0	15895.1	16924.0	17903.3	17949.0	17991.7	17922.4	17864.7
50°	12103.4	12199.7	12734.3	13759.8	15419.7	17399.4	19549.7	19756.5	19949.3	19925.7	19964.3
52.5°	10599.0	10712.5	11367.0	12509.4	14602.5	17509.3	20602.3	20939.1	21275.9	21551.5	21844.1
55°	9241.8	9181.1	9836.1	11038.7	13258.8	17013.4	21548.4	21954.5	22330.0	22668.3	23017.1
57.5°	7402.7	7502.6	8159.1	9348.7	11480.5	15614.0	22199.5	22793.8	23333.4	23893.5	24387.4
60°	5411.0	5510.8	6223.1	7431.3	9550.0	13492.2	21702.0	22602.5	23466.9	24324.7	24994.8
62.5°	3267.2	3341.9	3969.4	5120.3	7364.0	10976.5	19485.5	20666.5	21939.0	22964.4	23991.4
65°	2033.9	2076.0	2307.9	2940.9	4729.3	8194.7	15920.7	17208.1	18578.4	19880.0	20947.6
67.5°	1664.9	1680.0	1722.7	1857.7	2597.1	5343.7	11849.4	12989.8	14226.6	15485.5	16673.6
70°	1497.3	1487.3	1487.3	1495.8	1664.9	2873.1	7758.0	8500.9	9531.4	10626.1	11712.4
72.5°	1351.7	1341.7	1323.1	1298.0	1358.8	1752.8	4010.0	4570.2	5313.1	6285.8	7326.4
75°	1214.7	1201.2	1179.6	1147.4	1189.6	1323.1	1925.5	2160.9	2522.8	3040.8	3621.0
77.5°	1072.7	1055.6	1035.5	1011.9	1066.1	1029.0	1128.4	1213.2	1351.7	1517.9	1736.2
80°	912.0	897.0	889.9	878.4	942.7	783.5	797.1	849.3	930.6	1020.5	1121.8
82.5°	714.3	714.3	740.9	746.4	817.2	563.7	595.8	641.5	683.6	730.8	778.5
85°	470.3	473.8	565.2	600.8	644.5	379.0	446.7	461.8	495.9	523.0	543.1
87.5°	147.1	159.1	345.3	382.5	370.4	214.8	274.1	281.1	304.7	323.3	340.3
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3
2.5°	3223.5	3202.9	3184.3	3182.8	3169.3	3150.7	3157.2	3128.6	3130.1	3115.1	3098.0
5°	3790.2	3776.6	3708.9	3690.3	3639.6	3607.5	3602.5	3534.7	3526.2	3487.5	3444.8
7.5°	4605.8	4561.7	4466.8	4421.1	4334.8	4270.5	4240.4	4150.6	4106.4	4005.0	3959.3
10°	5460.1	5404.4	5287.5	5223.2	5140.4	5037.0	4981.3	4851.3	4800.1	4707.2	4595.8
12.5°	6252.2	6196.5	6076.0	6026.8	5916.9	5807.0	5746.3	5599.2	5532.9	5383.8	5296.0
15°	6984.5	6928.8	6823.9	6773.2	6663.3	6573.5	6492.1	6347.1	6269.3	6130.2	6015.3
17.5°	7695.3	7636.1	7544.7	7499.0	7392.6	7301.3	7213.4	7075.9	6996.6	6858.1	6754.7
20°	8355.4	8311.2	8245.4	8184.2	8077.8	7995.0	7890.1	7771.6	7656.6	7554.8	7456.9
22.5°	8930.6	8913.5	8842.7	8815.6	8724.3	8653.0	8561.7	8445.2	8361.9	8233.4	8142.0
25°	9426.5	9421.5	9387.4	9378.8	9314.6	9246.8	9226.7	9130.4	9054.1	8940.6	8846.3
27.5°	9852.7	9857.7	9849.6	9873.2	9856.2	9825.5	9827.6	9795.4	9751.3	9656.4	9573.6
30°	10326.5	10299.4	10314.9	10348.6	10358.6	10362.1	10417.8	10436.4	10433.4	10370.7	10330.0
32.5°	10996.6	10932.3	10873.1	10868.1	10901.7	10915.3	11010.1	11059.3	11101.5	11116.5	11123.6
35°	11850.9	11722.4	11598.9	11533.2	11475.4	11490.5	11558.3	11638.1	11730.9	11795.2	11871.5
37.5°	12927.1	12770.0	12551.6	12396.0	12356.9	12272.5	12316.2	12378.9	12470.3	12570.2	12702.2
40°	14231.6	13993.2	13747.7	13541.4	13430.0	13273.9	13272.4	13260.3	13316.6	13409.4	13595.6
42.5°	15487.5	15275.7	15015.1	14798.8	14653.2	14444.9	14402.8	14292.8	14317.9	14399.3	14580.5
45°	16663.0	16488.9	16329.7	16079.8	15955.8	15730.9	15659.6	15529.6	15456.9	15494.0	15675.2
47.5°	17801.9	17690.5	17524.4	17362.2	17267.4	17066.1	16974.7	16881.4	16788.5	16785.0	16974.7
50°	20022.0	19962.8	19766.5	19597.4	19643.1	19396.1	19411.2	19160.7	19274.1	19287.7	19685.2
52.5°	22108.1	22314.9	22460.5	22637.7	22753.1	22775.2	22851.0	22964.4	23101.5	23372.0	23740.9
55°	23302.7	23561.7	23712.3	23847.8	24071.2	24118.4	24245.4	24396.0	24515.9	24820.6	25133.8
57.5°	24722.7	25203.1	25436.5	25651.3	25952.5	26067.4	26279.3	26443.4	26599.0	26959.4	27338.4
60°	25597.1	26182.9	26658.2	26998.0	27375.5	27646.6	27966.3	28223.3	28588.7	29020.4	29585.6
62.5°	24901.9	25761.3	26392.7	26976.5	27488.9	28007.0	28465.2	28946.1	29500.7	30153.8	31030.7
65°	22132.2	23006.6	24087.8	24693.6	25372.3	26170.8	26868.0	27646.6	28402.5	29353.7	30649.7
67.5°	17817.5	18833.9	20049.1	20660.0	21440.0	22331.5	23113.5	24064.2	24947.6	26099.6	27702.3
70°	12842.7	14157.3	15179.3	15817.3	16727.8	17646.3	18401.3	19507.5	20238.4	21419.4	23076.4
72.5°	8132.0	9169.0	10421.4	11225.0	12033.6	12964.7	13736.2	14690.4	15372.0	16448.2	17949.0
75°	4372.4	5136.9	6236.7	7000.1	7866.5	8661.5	9565.0	10204.5	10709.0	11560.3	12778.5
77.5°	2048.9	2514.2	3070.9	3658.2	4245.4	4857.8	5453.6	5971.1	6188.0	6675.3	7394.1
80°	1243.8	1394.4	1556.5	1737.7	1983.2	2180.9	2443.5	2632.7	2646.2	2800.3	3020.2
82.5°	830.7	886.4	935.6	981.3	1044.0	1093.2	1148.9	1214.7	1241.8	1277.4	1348.7
85°	566.7	593.8	603.8	633.0	625.9	643.0	665.1	687.2	698.7	697.2	729.3
87.5°	348.3	361.9	368.9	375.5	370.4	363.9	373.9	386.0	389.0	379.0	382.5
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3
2.5°	3101.5	3086.5	3070.9	3060.9	3057.3	2968.0	2928.8	2903.7	2849.5	2805.4	2769.7
5°	3421.2	3389.1	3364.0	3333.4	3316.3	3089.5	3006.6	2949.4	2854.6	2798.8	2747.6
7.5°	3935.7	3845.9	3793.7	3734.5	3683.8	3274.2	3137.1	3047.3	2915.3	2841.0	2783.3
10°	4519.5	4426.6	4343.3	4252.0	4172.7	3519.6	3319.9	3180.8	3006.6	2910.3	2834.0
12.5°	5171.0	5079.7	4974.8	4857.8	4756.4	3830.8	3553.3	3355.5	3116.6	2988.1	2881.7
15°	5941.0	5779.9	5652.9	5517.9	5399.4	4203.3	3825.8	3551.8	3233.5	3059.3	2917.3
17.5°	6656.3	6487.1	6315.0	6196.5	6059.5	4620.9	4099.9	3751.0	3329.9	3105.0	2923.8
20°	7355.5	7170.8	7022.2	6863.1	6719.0	5054.1	4392.5	3927.2	3392.6	3106.5	2881.7
22.5°	7971.4	7855.9	7690.3	7517.6	7372.0	5487.2	4666.6	4076.3	3416.2	3067.9	2806.9
25°	8671.6	8550.1	8346.8	8201.3	8039.1	5929.0	4935.6	4191.2	3402.7	2995.1	2691.9
27.5°	9419.5	9284.5	9076.1	8924.1	8727.8	6387.2	5182.6	4274.1	3352.0	2876.6	2537.8
30°	10199.5	10076.0	9871.2	9717.6	9519.4	6873.1	5458.6	4329.8	3250.6	2712.5	2358.6
32.5°	11037.2	10933.8	10731.1	10570.4	10358.6	7399.2	5715.6	4346.8	3096.5	2517.7	2169.4
35°	11832.3	11761.5	11590.4	11439.8	11219.9	7896.6	5988.2	4338.3	2913.8	2304.4	1996.7
37.5°	12727.8	12685.1	12600.8	12409.6	12140.5	8571.7	6315.0	4302.7	2690.4	2093.1	1864.7
40°	13682.0	13685.5	13594.1	13463.6	13213.2	9390.9	6704.0	4233.4	2446.5	1906.9	1744.3
42.5°	14691.9	14744.6	14700.4	14607.6	14367.1	10216.6	7169.3	4149.1	2210.1	1725.7	1626.3
45°	15849.4	15913.6	15981.4	15844.4	15611.0	11306.3	7781.6	4039.1	1954.1	1575.1	1545.0
47.5°	17184.5	17285.9	17346.7	17348.7	17115.3	12656.5	8776.5	3972.9	1727.7	1473.7	1505.8
50°	20001.5	20034.1	20177.6	20428.1	20248.9	15781.6	10514.2	3932.2	1573.6	1411.0	1477.2
52.5°	24060.7	24414.5	24663.5	24646.4	24402.5	17766.3	11471.9	3722.4	1482.2	1387.4	1463.7
55°	25714.1	26155.8	26616.1	26737.5	26548.3	19460.4	12377.4	3512.6	1438.1	1404.4	1468.7
57.5°	27917.1	28661.5	29292.9	29558.5	29284.4	21627.8	13568.5	3402.7	1424.5	1450.1	1500.8
60°	30490.6	31411.1	32240.3	32717.2	32717.2	24118.4	14803.8	3357.0	1405.9	1517.9	1555.0
62.5°	32144.0	33495.7	34748.1	35446.8	35426.2	25852.6	15351.9	3201.4	1363.8	1565.1	1629.3
65°	32150.5	33758.2	35353.4	36138.9	36179.1	25639.8	14446.9	2827.4	1286.0	1572.1	1704.1
67.5°	29470.6	31184.3	33044.0	33922.4	34125.1	23602.4	12505.9	2325.0	1159.0	1504.3	1731.2
70°	24889.9	26563.4	28461.7	29325.1	29685.5	20119.9	10072.5	1791.9	996.9	1355.2	1675.0
72.5°	19608.9	21250.3	22571.9	23202.9	23483.9	15379.1	7334.9	1353.7	817.2	1141.9	1524.4
75°	13883.3	15115.0	15817.3	15957.8	16001.5	9270.9	4456.8	1006.9	673.6	888.4	1287.5
77.5°	7835.8	8363.9	8306.2	8368.9	7847.9	3578.9	1941.0	720.8	555.1	675.1	998.4
80°	3059.3	3154.2	2963.0	2903.7	2663.3	1331.7	856.3	502.4	443.2	511.0	698.7
82.5°	1348.7	1392.4	1351.7	1362.3	1303.0	687.2	512.5	363.9	338.3	373.9	463.8
85°	742.9	756.4	752.9	775.0	742.9	274.1	243.4	223.4	236.9	254.0	297.7
87.5°	361.9	365.4	353.9	372.4	360.4	138.5	120.0	127.0	138.5	142.1	142.1
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°	2905.3	2905.3	2905.3	2905.3	2905.3	2905.3
2.5°	2744.6	2731.1	2732.6	2729.1	2722.5	2722.5
5°	2721.0	2707.5	2707.5	2704.0	2695.4	2696.9
7.5°	2744.6	2722.5	2714.0	2702.0	2690.4	2690.4
10°	2771.7	2732.6	2709.0	2688.9	2673.4	2673.4
12.5°	2791.8	2731.1	2691.9	2664.8	2649.8	2649.8
15°	2798.8	2719.0	2664.8	2632.7	2619.1	2617.6
17.5°	2776.8	2673.4	2607.6	2570.5	2553.4	2548.4
20°	2709.0	2590.5	2511.2	2468.6	2445.0	2436.4
22.5°	2607.6	2472.1	2379.2	2335.0	2304.4	2299.4
25°	2465.5	2320.0	2228.6	2186.0	2169.4	2163.9
27.5°	2299.4	2163.9	2086.1	2059.0	2043.9	2042.4
30°	2142.3	2026.8	1969.6	1949.0	1930.5	1927.5
32.5°	1994.7	1921.9	1900.4	1871.2	1827.6	1822.6
35°	1889.8	1883.3	1868.2	1803.5	1749.8	1734.2
37.5°	1825.6	1888.3	1810.5	1683.5	1644.9	1641.4
40°	1788.4	1836.1	1702.1	1658.4	1661.4	1658.4
42.5°	1704.1	1752.8	1705.6	1685.5	1698.6	1702.1
45°	1619.3	1673.5	1731.2	1717.7	1749.8	1749.8
47.5°	1572.1	1652.9	1729.2	1729.2	1776.9	1793.4
50°	1517.9	1636.3	1702.1	1725.7	1763.3	1749.8
52.5°	1514.4	1607.2	1663.4	1705.6	1722.7	1707.1
55°	1519.4	1583.6	1624.3	1672.0	1692.1	1693.6
57.5°	1526.4	1570.1	1597.2	1619.3	1680.0	1680.0
60°	1543.0	1558.5	1573.6	1585.6	1664.9	1666.5
62.5°	1570.1	1546.5	1543.0	1555.0	1656.4	1649.9
65°	1612.7	1529.4	1504.3	1515.9	1647.9	1627.8
67.5°	1670.0	1504.3	1455.1	1463.7	1641.4	1597.2
70°	1722.7	1463.7	1394.4	1385.9	1577.1	1499.3
72.5°	1727.7	1416.5	1309.6	1284.5	1370.8	1296.0
75°	1642.9	1383.9	1216.7	1141.9	1131.9	1121.8
77.5°	1480.7	1365.3	1108.3	991.3	971.3	977.8
80°	1238.8	1296.0	977.8	839.2	949.2	937.6
82.5°	925.6	1143.9	830.7	742.9	740.9	655.0
85°	514.5	892.0	676.6	556.7	387.5	375.5
87.5°	144.1	495.9	473.8	314.7	214.8	223.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)