

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: P191423

Luminaire Tested: **GLEON-AF-05-LED-E1-T2R-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191423
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24657)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-05-LED-E1-T2R-1200
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34780.3 lumens
Efficiency: N/A
Efficacy: 108.7 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

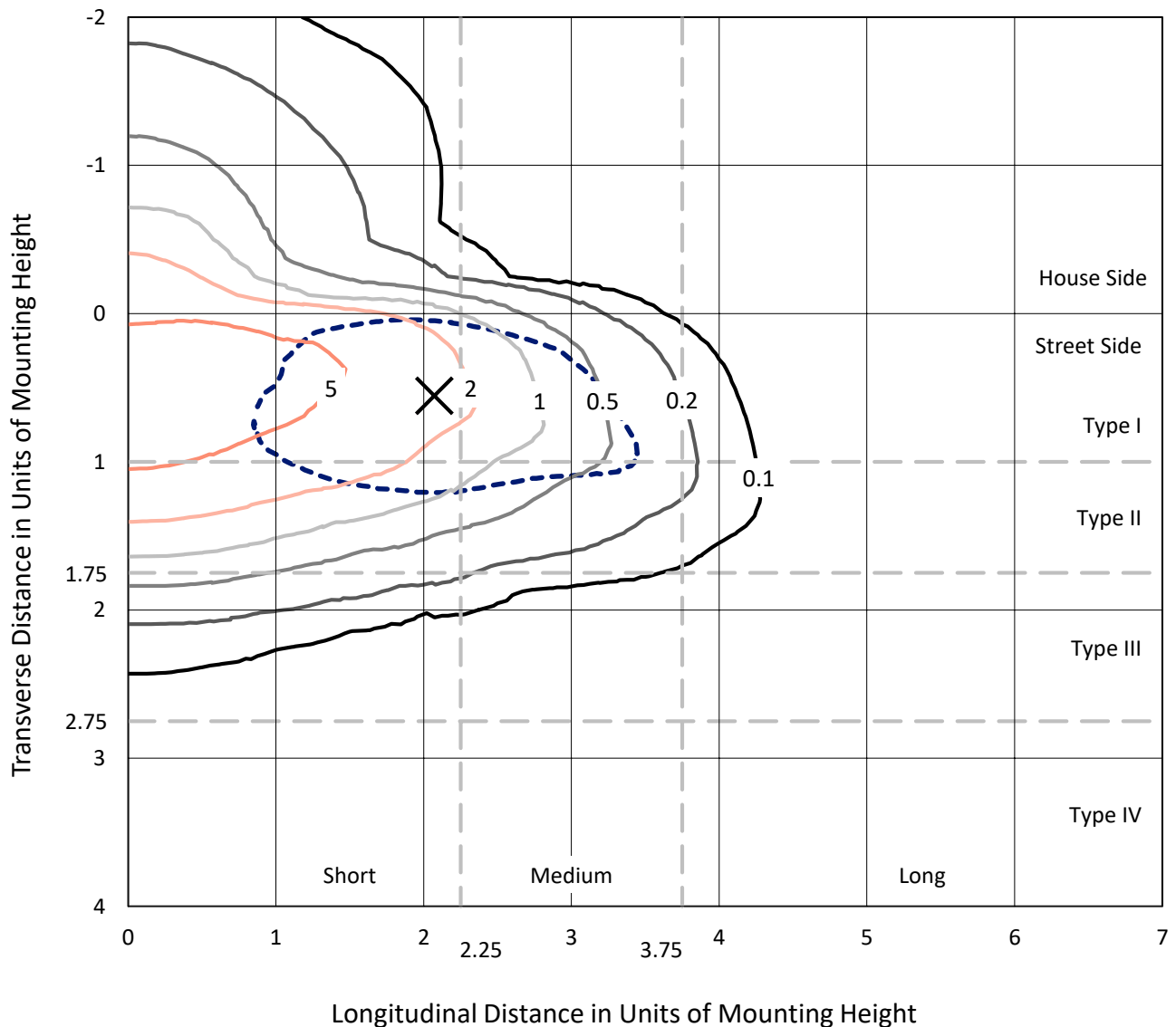
Input Watts (W): 320
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

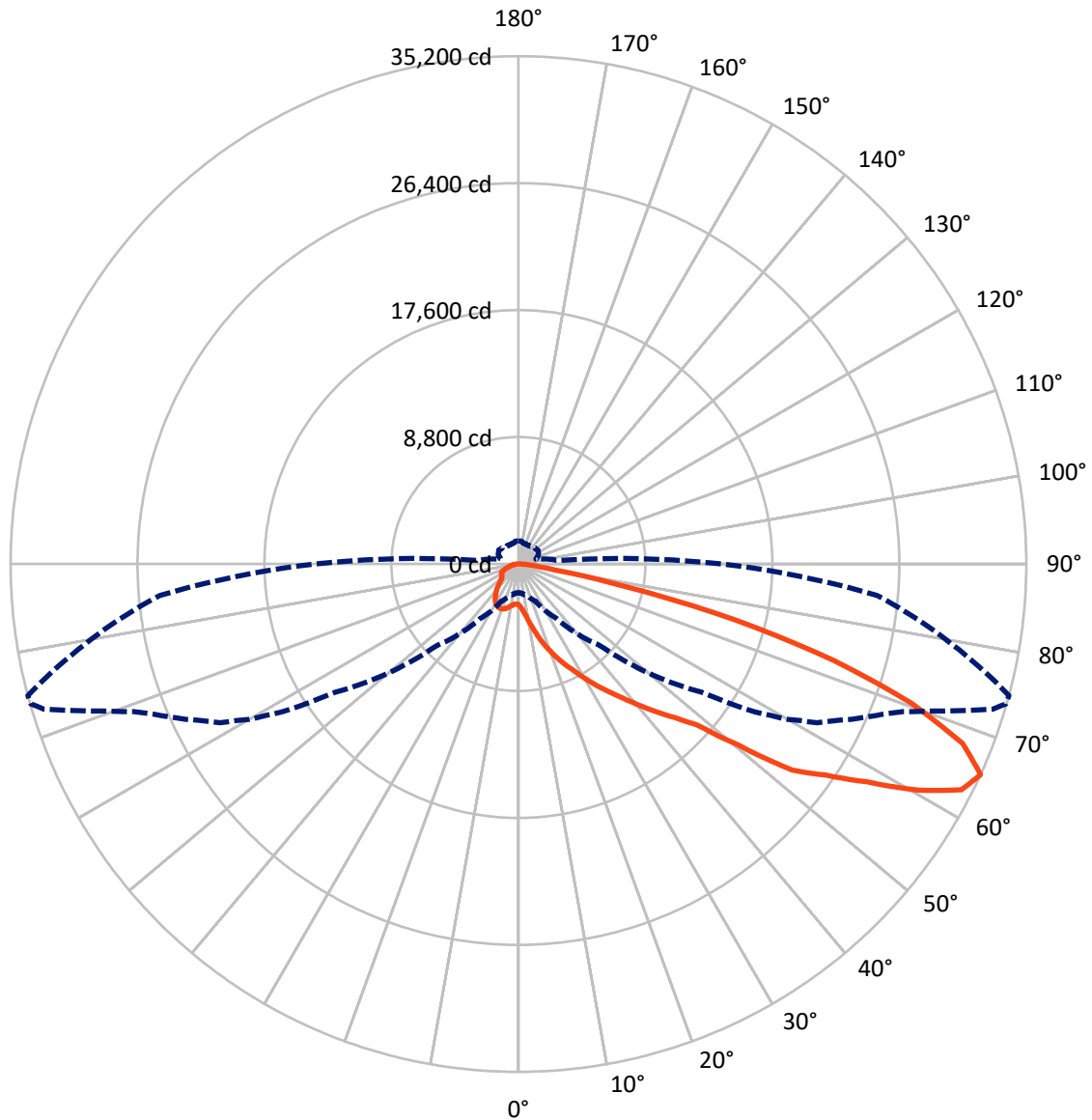
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.7 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	5362.3	0.0	5362.3
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	29418.0	0.0	29418.0
	% Fixture	84.6	0.0	84.6
Total	Lumens	34780.3	0.0	34780.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	349.4	1.0
10°-20°	1365.1	3.9
20°-30°	2800.7	8.1
30°-40°	4712.0	13.5
40°-50°	6510.7	18.7
50°-60°	8127.3	23.4
60°-70°	7313.7	21.0
70°-80°	3065.8	8.8
80°-90°	535.6	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°	34780.3	100.0
0°-180°	34780.3	100.0

Coefficient of Utilization



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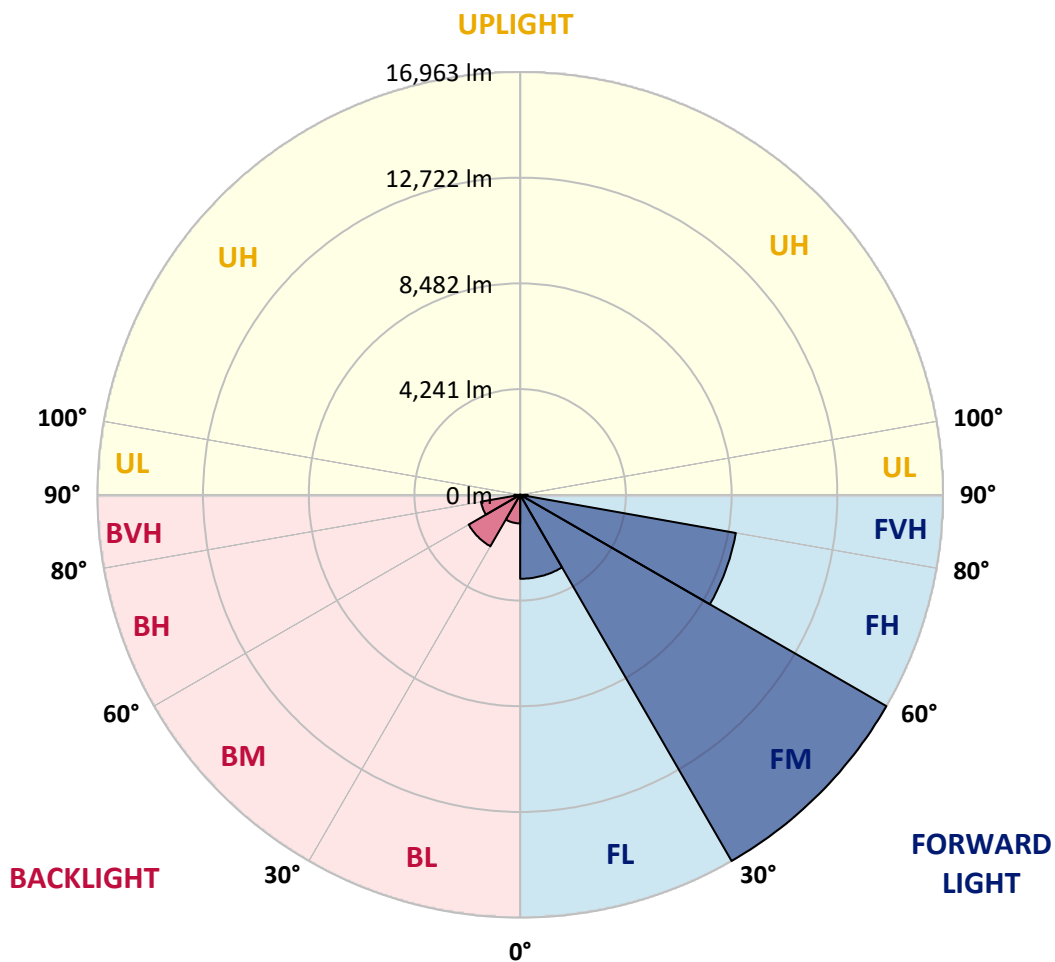
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3368.4	9.7			
FM	(30°-60°)	16963.2	48.8			
FH	(60°-80°)	8785.4	25.3			G4/12000
FVH	(80°-90°)	301.1	0.9			G3/500
BL	(0°-30°)	1146.8	3.3	B3/2500		
BM	(30°-60°)	2386.8	6.9	B2/2500		
BH	(60°-80°)	1594.1	4.6	B3/2500		G3/2500
BVH	(80°-90°)	234.6	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°	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6
2.5°	3588.8	3549.2	3559.2	3493.3	3412.7	3307.3	3190.4	3188.7	3190.4	3178.8	3136.1
5°	4976.6	4928.8	4910.7	4762.6	4545.2	4235.7	3899.9	3863.7	3848.9	3811.0	3723.7
7.5°	5989.0	5962.6	5934.6	5822.7	5625.1	5279.4	4828.3	4751.0	4676.9	4658.8	4560.0
10°	6642.5	6635.9	6576.7	6547.0	6423.5	6124.0	5684.4	5610.4	5529.7	5501.6	5398.0
12.5°	7159.4	7157.8	7129.8	7138.0	7031.0	6813.7	6435.1	6367.6	6308.3	6222.7	6148.7
15°	7516.6	7518.3	7559.5	7605.5	7589.1	7442.6	7087.0	7057.3	7006.3	6947.1	6859.8
17.5°	7809.7	7817.9	7860.8	7944.6	8035.2	8023.7	7742.2	7717.4	7673.1	7592.3	7546.3
20°	8471.5	8502.8	8420.4	8420.4	8430.3	8474.7	8339.8	8320.1	8257.5	8214.7	8178.5
22.5°	9589.2	9625.5	9439.5	9250.1	9064.1	8929.1	8794.1	8818.9	8776.0	8746.4	8725.0
25°	11041.2	11069.2	10768.0	10448.6	10069.9	9576.0	9242.0	9227.1	9204.0	9185.9	9176.1
27.5°	12407.6	12419.1	12134.3	11666.8	11227.3	10517.8	9696.2	9678.1	9650.2	9615.6	9586.0
30°	13576.4	13573.1	13280.0	12833.9	12363.2	11577.9	10386.0	10330.1	10247.7	10153.9	10081.5
32.5°	14588.8	14583.9	14262.9	13800.3	13306.4	12628.2	11330.9	11215.7	11087.4	10904.6	10794.3
35°	15385.6	15382.3	15079.4	14597.1	14030.8	13617.5	12414.2	12272.6	12109.6	11864.4	11694.8
37.5°	15686.8	15686.8	15517.3	15188.1	14687.6	14404.5	13617.5	13446.4	13271.9	12993.6	12802.6
40°	15510.7	15514.0	15550.3	15489.3	15245.6	15028.4	14740.3	14638.2	14488.5	14238.1	14039.0
42.5°	14919.7	14937.8	15178.2	15472.8	15594.7	15560.1	15736.3	15690.1	15584.8	15392.2	15234.2
45°	14170.7	14226.7	14490.1	15046.5	15691.8	16019.4	16570.9	16575.8	16556.0	16452.3	16330.6
47.5°	13141.8	13220.8	13568.2	14320.5	15464.7	16465.5	17418.7	17463.1	17504.3	17436.8	17380.9
50°	11775.4	11869.3	12389.5	13387.1	15002.1	16928.1	19020.4	19221.3	19409.0	19385.9	19423.8
52.5°	10312.0	10422.2	11059.3	12170.6	14206.9	17035.1	20044.4	20372.1	20699.6	20967.9	21252.7
55°	8991.6	8932.4	9569.5	10740.0	12899.8	16552.8	20964.7	21359.7	21725.2	22054.5	22393.6
57.5°	7202.2	7299.4	7938.1	9095.4	11169.6	15191.3	21598.5	22176.2	22701.4	23246.4	23727.0
60°	5264.6	5361.8	6054.8	7230.2	9291.3	13127.0	21114.4	21990.3	22831.4	23666.1	24318.0
62.5°	3178.8	3251.2	3862.0	4981.5	7164.3	10679.1	18957.9	20107.0	21344.9	22342.6	23341.8
65°	1978.8	2019.9	2245.5	2861.1	4601.2	7972.7	15489.3	16742.1	18075.5	19341.4	20380.2
67.5°	1619.8	1634.7	1675.9	1807.6	2527.0	5198.7	11528.6	12638.0	13841.4	15066.2	16221.9
70°	1456.9	1447.1	1447.1	1455.2	1619.8	2795.3	7547.9	8270.7	9273.2	10338.2	11395.2
72.5°	1315.3	1305.5	1287.4	1262.6	1322.0	1705.5	3901.5	4446.5	5169.2	6115.7	7128.1
75°	1182.0	1168.8	1147.4	1116.1	1157.3	1287.4	1873.4	2102.3	2454.6	2958.3	3522.9
77.5°	1043.7	1027.2	1007.5	984.5	1037.2	1000.9	1098.0	1180.4	1315.3	1476.6	1689.0
80°	887.3	872.5	865.9	854.4	917.0	762.2	775.4	826.4	905.4	992.7	1091.5
82.5°	694.7	694.7	721.1	726.0	795.1	548.2	579.5	623.9	665.1	711.2	757.3
85°	457.7	460.9	549.8	584.4	627.2	368.8	434.7	449.4	482.3	508.7	528.5
87.5°	143.2	154.8	335.8	372.0	360.5	209.1	266.7	273.2	296.3	314.5	330.9
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°	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6
2.5°	3136.1	3116.3	3098.2	3096.6	3083.4	3065.3	3071.8	3043.9	3045.5	3030.7	3014.2
5°	3687.5	3674.3	3608.6	3590.5	3541.0	3509.7	3504.8	3439.0	3430.8	3392.8	3351.7
7.5°	4481.0	4438.2	4346.0	4301.6	4217.6	4155.0	4125.5	4038.2	3995.3	3896.6	3852.1
10°	5312.4	5258.1	5144.4	5081.9	5001.2	4900.9	4846.4	4719.7	4670.4	4579.8	4471.1
12.5°	6082.8	6028.5	5911.6	5863.9	5756.9	5649.9	5590.5	5447.3	5383.2	5238.3	5152.7
15°	6795.6	6741.2	6639.3	6589.8	6482.8	6395.6	6316.5	6174.9	6099.2	5964.3	5852.3
17.5°	7487.0	7429.4	7340.5	7296.1	7192.4	7103.5	7017.9	6884.5	6807.1	6672.2	6571.7
20°	8129.1	8086.2	8022.1	7962.8	7859.0	7778.4	7676.3	7561.1	7449.1	7350.4	7254.9
22.5°	8688.7	8672.3	8603.1	8576.8	8487.9	8418.8	8329.9	8216.3	8135.6	8010.5	7921.6
25°	9171.2	9166.2	9133.2	9125.0	9062.4	8996.6	8976.9	8883.0	8808.9	8698.7	8606.5
27.5°	9586.0	9590.9	9582.7	9605.7	9589.2	9559.6	9561.3	9530.0	9487.2	9395.0	9314.4
30°	10046.9	10020.5	10035.4	10068.3	10078.2	10081.5	10135.8	10153.9	10150.6	10089.7	10050.2
32.5°	10698.8	10636.2	10578.6	10573.7	10606.7	10619.8	10711.9	10759.7	10800.8	10815.7	10822.3
35°	11530.2	11405.1	11284.9	11220.6	11164.7	11179.5	11245.4	11322.7	11413.3	11475.9	11549.9
37.5°	12577.2	12424.0	12211.7	12060.3	12022.3	11940.1	11982.8	12043.8	12132.7	12229.8	12358.2
40°	13846.4	13614.2	13375.6	13174.7	13066.0	12914.7	12913.0	12901.5	12955.8	13046.3	13227.4
42.5°	15067.9	14862.1	14608.6	14397.8	14256.3	14053.8	14012.7	13905.7	13930.3	14009.4	14185.5
45°	16212.0	16042.4	15887.8	15644.1	15523.9	15305.0	15235.8	15109.1	15038.3	15074.5	15250.7
47.5°	17319.9	17211.2	17049.9	16891.9	16799.7	16603.8	16514.9	16424.4	16333.9	16330.6	16514.9
50°	19479.7	19422.2	19231.2	19066.6	19111.0	18870.7	18885.5	18641.8	18752.1	18765.3	19152.2
52.5°	21509.6	21710.4	21852.0	22024.8	22136.8	22158.1	22232.3	22342.6	22475.9	22739.3	23098.1
55°	22671.8	22923.7	23070.2	23201.9	23419.2	23465.3	23588.7	23735.2	23852.1	24148.5	24453.0
57.5°	24052.9	24520.5	24747.7	24956.7	25249.8	25361.7	25567.5	25727.2	25878.6	26229.3	26598.1
60°	24904.0	25473.6	25936.3	26267.1	26634.3	26897.7	27208.8	27459.1	27814.6	28234.4	28784.2
62.5°	24227.5	25063.7	25677.8	26245.7	26744.5	27248.3	27694.4	28161.9	28702.0	29337.4	30190.1
65°	21532.6	22383.7	23435.6	24025.0	24685.1	25462.2	26140.4	26897.7	27633.5	28558.7	29819.7
67.5°	17334.7	18324.1	19506.1	20100.4	20859.3	21726.9	22487.4	23412.6	24272.0	25393.0	26952.0
70°	12494.8	13773.9	14768.2	15388.9	16274.5	17168.5	17902.7	18979.3	19690.5	20839.6	22451.2
72.5°	7911.7	8920.8	10139.1	10921.0	11708.0	12613.4	13364.0	14292.6	14956.0	16002.9	17463.1
75°	4253.8	4997.9	6067.9	6810.4	7653.3	8427.1	9306.1	9928.4	10419.0	11247.0	12432.3
77.5°	1993.5	2446.3	2987.9	3559.2	4130.4	4726.3	5305.7	5809.5	6020.3	6494.3	7194.0
80°	1209.9	1356.5	1514.5	1690.6	1929.4	2122.0	2377.1	2561.6	2574.7	2724.5	2938.5
82.5°	808.3	862.7	910.3	954.8	1015.7	1063.5	1117.8	1182.0	1208.3	1242.9	1312.0
85°	551.5	577.9	587.7	615.7	609.1	625.5	647.0	668.4	679.9	678.2	709.5
87.5°	339.1	352.3	358.9	365.5	360.5	353.9	363.9	375.3	378.6	368.8	372.0
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6
2.5°	3017.5	3002.7	2987.9	2978.0	2974.7	2887.5	2849.6	2824.9	2772.2	2729.4	2694.9
5°	3328.7	3297.4	3272.7	3243.1	3226.6	3006.0	2925.3	2869.4	2777.2	2722.9	2673.5
7.5°	3829.1	3741.9	3690.8	3633.2	3583.8	3185.5	3052.1	2964.8	2836.4	2764.0	2708.1
10°	4397.1	4306.5	4225.8	4136.9	4059.6	3424.1	3229.9	3094.9	2925.3	2831.5	2757.5
12.5°	5030.9	4942.0	4839.9	4726.3	4627.5	3727.0	3457.1	3264.4	3032.3	2907.2	2803.5
15°	5779.9	5623.5	5500.0	5368.3	5253.1	4089.2	3722.1	3455.4	3146.0	2976.4	2838.1
17.5°	6476.2	6311.6	6143.7	6028.5	5895.2	4495.9	3988.8	3649.7	3239.8	3020.8	2844.7
20°	7156.2	6976.7	6831.9	6677.1	6537.2	4917.2	4273.6	3820.9	3300.7	3022.5	2803.5
22.5°	7755.4	7643.4	7482.1	7314.2	7172.6	5338.7	4540.3	3965.8	3323.8	2984.6	2731.1
25°	8436.9	8318.3	8120.8	7979.2	7821.2	5768.4	4802.0	4077.7	3310.6	2913.8	2619.2
27.5°	9164.5	9032.9	8830.3	8682.2	8491.2	6214.5	5042.4	4158.4	3261.2	2798.6	2469.3
30°	9923.4	9803.2	9604.1	9454.3	9261.7	6686.9	5310.8	4212.7	3162.4	2638.9	2294.8
32.5°	10738.3	10637.9	10440.3	10283.9	10078.2	7198.9	5561.0	4229.2	3012.6	2449.6	2110.4
35°	11512.1	11442.9	11276.6	11130.1	10916.1	7683.0	5826.0	4220.9	2834.8	2242.2	1942.6
37.5°	12382.9	12341.7	12259.5	12073.4	11811.7	8339.8	6143.7	4186.3	2617.5	2036.4	1814.1
40°	13311.4	13314.6	13225.7	13099.0	12855.3	9136.6	6522.3	4118.8	2380.4	1855.3	1697.3
42.5°	14294.2	14345.2	14302.4	14211.9	13978.1	9939.9	6975.1	4036.6	2149.9	1679.2	1582.0
45°	15420.2	15482.8	15548.5	15415.3	15188.1	11000.1	7571.0	3929.6	1901.4	1532.6	1503.0
47.5°	16719.0	16817.8	16877.1	16878.7	16651.6	12313.8	8539.0	3865.3	1680.8	1433.9	1465.2
50°	19460.0	19491.3	19631.2	19874.9	19700.4	15354.3	10229.6	3825.8	1530.9	1372.9	1437.1
52.5°	23409.3	23753.3	23995.4	23978.9	23741.9	17285.3	11161.4	3621.7	1442.1	1349.9	1423.9
55°	25017.7	25447.3	25895.1	26013.6	25829.3	18933.2	12042.2	3417.6	1399.3	1366.4	1429.0
57.5°	27161.1	27885.4	28499.4	28757.9	28491.2	21042.0	13201.1	3310.6	1386.1	1410.9	1460.2
60°	29665.0	30560.6	31367.2	31831.4	31831.4	23465.3	14402.8	3266.1	1368.0	1476.6	1512.8
62.5°	31273.3	32588.7	33806.9	34486.7	34467.0	25152.6	14936.2	3114.7	1326.9	1522.8	1585.3
65°	31279.9	32843.8	34396.2	35160.0	35199.5	24945.3	14055.4	2750.8	1251.2	1529.3	1657.8
67.5°	28672.3	30339.9	32149.1	33003.5	33201.1	22963.2	12167.3	2261.9	1127.7	1463.5	1684.1
70°	24216.0	25844.0	27691.2	28530.7	28881.4	19575.3	9800.0	1743.3	969.7	1318.6	1629.8
72.5°	19078.1	20675.0	21960.6	22574.7	22847.9	14962.5	7136.4	1316.9	795.1	1111.2	1483.3
75°	13507.2	14705.7	15388.9	15525.5	15568.4	9019.7	4336.2	979.5	655.2	864.3	1252.8
77.5°	7623.6	8137.3	8081.3	8142.2	7635.2	3481.7	1888.3	701.3	539.9	656.8	971.3
80°	2976.4	3068.5	2882.6	2824.9	2591.1	1295.6	833.0	489.0	431.3	497.2	679.9
82.5°	1312.0	1354.8	1315.3	1325.2	1267.6	668.4	498.8	353.9	329.3	363.9	451.0
85°	722.7	735.9	732.5	754.0	722.7	266.7	237.0	217.3	230.5	246.9	289.7
87.5°	352.3	355.6	344.0	362.1	350.7	135.0	116.9	123.5	135.0	138.3	138.3
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):

	135°	145°	155°	165°	175°	180°
0°	2826.6	2826.6	2826.6	2826.6	2826.6	2826.6
2.5°	2670.2	2657.0	2658.6	2655.4	2648.7	2648.7
5°	2647.1	2634.0	2634.0	2630.6	2622.4	2624.1
7.5°	2670.2	2648.7	2640.5	2629.0	2617.5	2617.5
10°	2696.5	2658.6	2635.6	2615.9	2601.1	2601.1
12.5°	2716.2	2657.0	2619.2	2592.8	2577.9	2577.9
15°	2722.9	2645.5	2592.8	2561.6	2548.4	2546.7
17.5°	2701.4	2601.1	2536.8	2500.6	2484.1	2479.2
20°	2635.6	2520.3	2443.0	2401.9	2378.8	2370.6
22.5°	2536.8	2405.2	2314.6	2271.8	2242.2	2237.2
25°	2398.5	2256.9	2168.0	2126.9	2110.4	2105.5
27.5°	2237.2	2105.5	2029.8	2003.4	1988.6	1987.0
30°	2084.2	1972.1	1916.2	1896.4	1878.3	1875.1
32.5°	1940.9	1870.2	1848.7	1820.8	1777.9	1773.0
35°	1838.9	1832.2	1817.5	1754.9	1702.2	1687.4
37.5°	1776.3	1837.2	1761.4	1637.9	1600.1	1596.8
40°	1740.0	1786.2	1656.1	1613.3	1616.6	1613.3
42.5°	1657.8	1705.5	1659.4	1639.7	1652.8	1656.1
45°	1575.4	1628.1	1684.1	1670.9	1702.2	1702.2
47.5°	1529.3	1608.4	1682.4	1682.4	1728.6	1744.9
50°	1476.6	1591.9	1656.1	1679.2	1715.4	1702.2
52.5°	1473.4	1563.9	1618.2	1659.4	1675.9	1661.1
55°	1478.3	1540.9	1580.4	1626.5	1646.2	1647.9
57.5°	1484.9	1527.7	1554.1	1575.4	1634.7	1634.7
60°	1501.4	1516.2	1530.9	1542.5	1619.8	1621.6
62.5°	1527.7	1504.7	1501.4	1512.8	1611.7	1605.1
65°	1568.9	1488.2	1463.5	1475.0	1603.4	1583.6
67.5°	1624.9	1463.5	1415.8	1423.9	1596.8	1554.1
70°	1675.9	1423.9	1356.5	1348.2	1534.3	1458.5
72.5°	1680.8	1377.9	1274.2	1249.5	1333.4	1261.0
75°	1598.5	1346.6	1183.7	1111.2	1101.3	1091.5
77.5°	1440.4	1328.5	1078.3	964.6	944.9	951.5
80°	1205.0	1261.0	951.5	816.5	923.5	912.0
82.5°	900.5	1112.9	808.3	722.7	721.1	637.1
85°	500.4	867.6	658.5	541.7	377.0	365.5
87.5°	139.9	482.3	460.9	306.2	209.1	217.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)