

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: P192223

Luminaire Tested: **GLEON-AF-05-LED-E1-T2R-7050-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P192223
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-7050-1200
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K, 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: 34000 lumens
Efficiency: N/A
Efficacy: 106.3 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

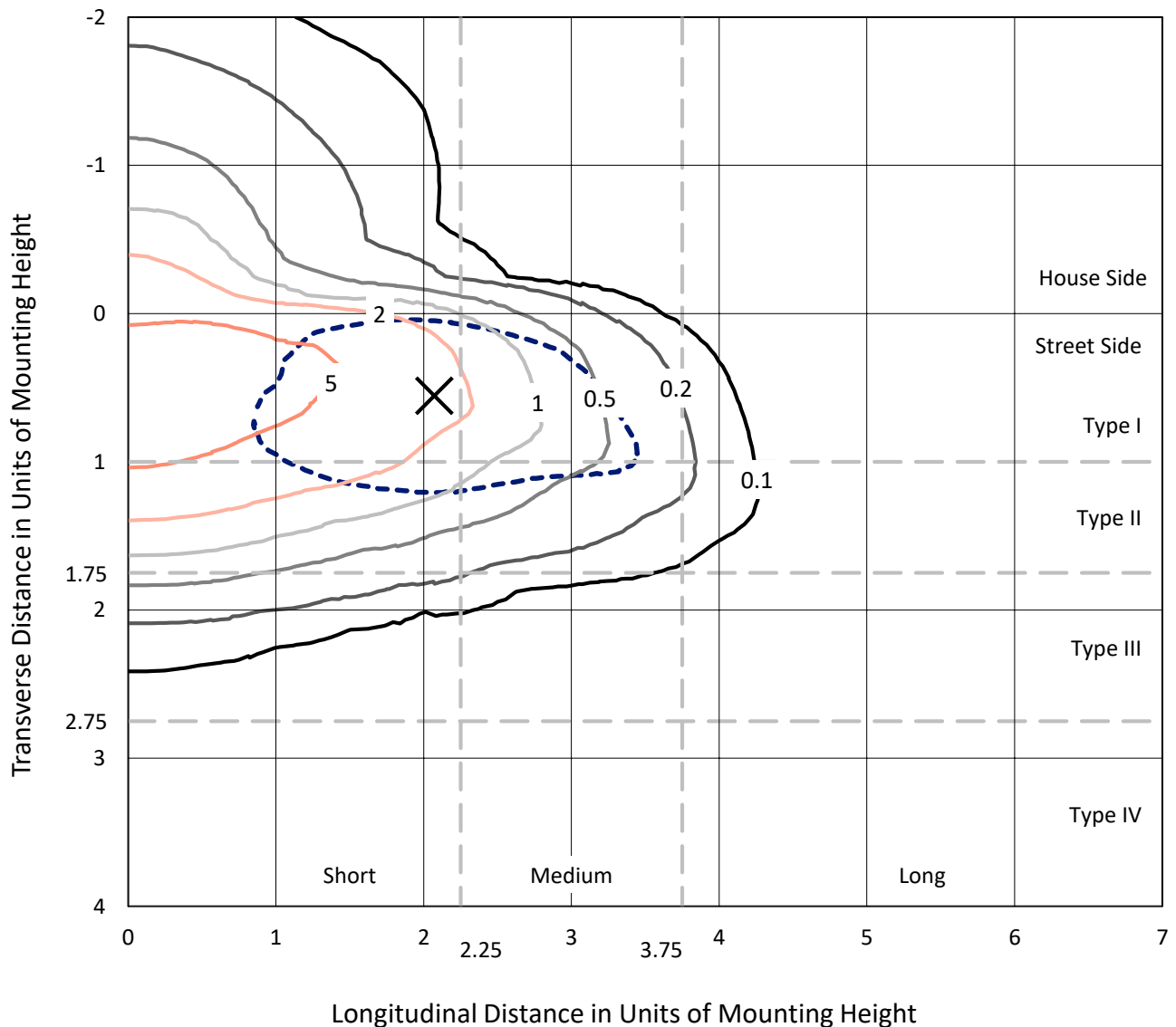


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

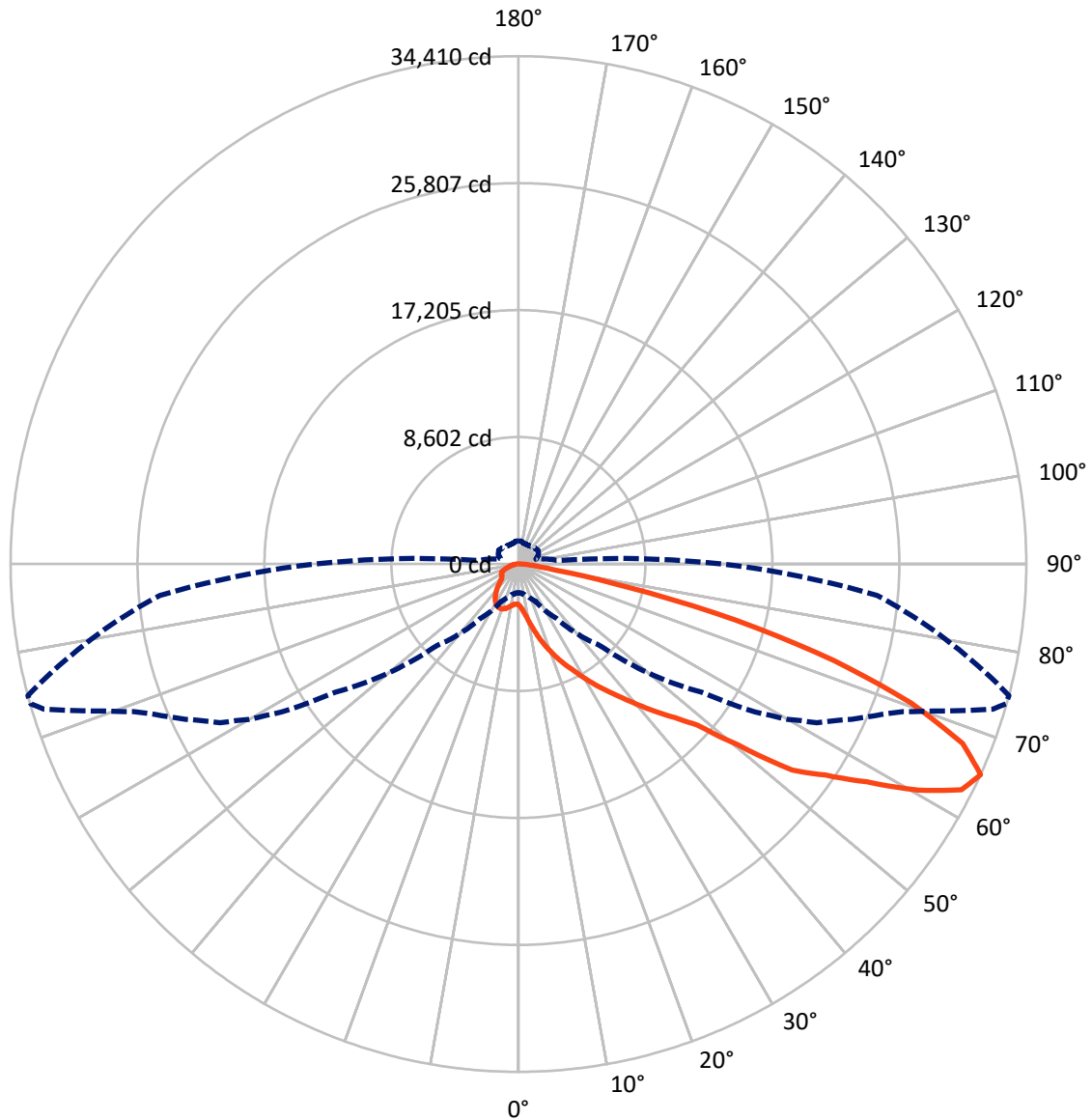


Based on 30 foot mounting height. Maximum calculated value = 9.5 fc
 Type II - Short - Full Cutoff

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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	5242.0	0.0	5242.0
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	28758.0	0.0	28758.0
	% Fixture	84.6	0.0	84.6
Total	Lumens	34000.0	0.0	34000.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.5	1.0
10°-20°	1334.5	3.9
20°-30°	2737.9	8.1
30°-40°	4606.3	13.5
40°-50°	6364.6	18.7
50°-60°	7945.0	23.4
60°-70°	7149.6	21.0
70°-80°	2997.1	8.8
80°-90°	523.6	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°	34000.0	100.0
0°-180°	34000.0	100.0



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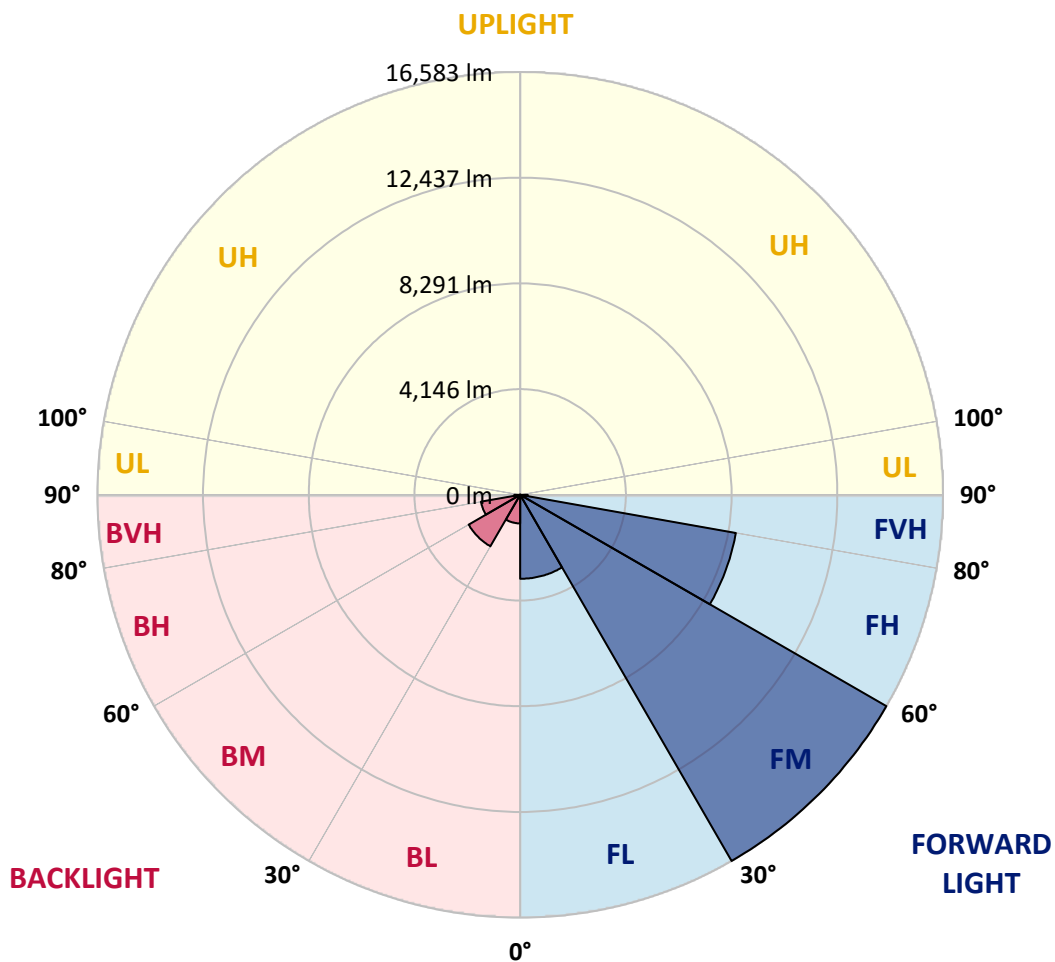
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3292.8	9.7			
FM (30°-60°)	16582.6	48.8			
FH (60°-80°)	8588.3	25.3			G4/12000
FVH (80°-90°)	294.3	0.9			G3/500
BL (0°-30°)	1121.0	3.3	B3/2500		
BM (30°-60°)	2333.3	6.9	B2/2500		
BH (60°-80°)	1558.4	4.6	B3/2500		G3/2500
BVH (80°-90°)	229.3	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°	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2
2.5°	3508.3	3469.6	3479.3	3414.9	3336.1	3233.1	3118.8	3117.2	3118.8	3107.5	3065.7
5°	4864.9	4818.2	4800.5	4655.7	4443.2	4140.7	3812.4	3777.0	3762.5	3725.5	3640.2
7.5°	5854.6	5828.8	5801.5	5692.1	5498.9	5161.0	4720.0	4644.4	4572.0	4554.3	4457.7
10°	6493.5	6487.0	6429.1	6400.1	6279.4	5986.6	5556.9	5484.5	5405.6	5378.2	5276.9
12.5°	6998.8	6997.2	6969.8	6977.9	6873.3	6660.8	6290.7	6224.7	6166.8	6083.1	6010.7
15°	7348.0	7349.6	7389.9	7434.9	7418.8	7275.6	6928.0	6899.0	6849.1	6791.2	6705.9
17.5°	7634.5	7642.5	7684.4	7766.4	7854.9	7843.7	7568.5	7544.3	7500.9	7422.0	7377.0
20°	8281.4	8312.0	8231.5	8231.5	8241.2	8284.6	8152.7	8133.4	8072.2	8030.4	7995.0
22.5°	9374.1	9409.5	9227.7	9042.6	8860.7	8728.8	8596.8	8621.0	8579.1	8550.2	8529.2
25°	10793.5	10820.9	10526.4	10214.2	9844.0	9361.2	9034.6	9020.1	8997.5	8979.8	8970.2
27.5°	12129.2	12140.5	11862.1	11405.0	10975.4	10281.8	9478.7	9461.0	9433.7	9399.9	9370.9
30°	13271.8	13268.6	12982.1	12546.0	12085.8	11318.1	10153.0	10098.3	10017.8	9926.1	9855.3
32.5°	14261.5	14256.7	13942.9	13490.7	13007.9	12344.9	11076.7	10964.1	10838.6	10659.9	10552.1
35°	15040.4	15037.2	14741.1	14269.6	13716.0	13312.0	12135.7	11997.3	11837.9	11598.2	11432.4
37.5°	15334.9	15334.9	15169.2	14847.3	14358.1	14081.3	13312.0	13144.7	12974.1	12702.1	12515.4
40°	15162.7	15165.9	15201.4	15141.8	14903.6	14691.2	14409.6	14309.8	14163.4	13918.7	13724.0
42.5°	14585.0	14602.7	14837.7	15125.7	15244.8	15211.0	15383.2	15338.1	15235.1	15046.9	14892.4
45°	13852.8	13907.5	14165.0	14708.9	15339.7	15660.0	16199.1	16203.9	16184.6	16083.2	15964.2
47.5°	12847.0	12924.2	13263.8	13999.2	15117.7	16096.1	17027.9	17071.3	17111.6	17045.6	16990.9
50°	11511.2	11603.0	12111.5	13086.7	14665.5	16548.3	18593.7	18790.1	18973.5	18951.0	18988.0
52.5°	10080.6	10188.4	10811.2	11897.5	13888.2	16652.9	19594.7	19915.0	20235.2	20497.5	20775.9
55°	8789.9	8732.0	9354.8	10499.0	12610.4	16181.4	20494.3	20880.5	21237.8	21559.7	21891.2
57.5°	7040.6	7135.6	7760.0	8891.3	10919.0	14850.5	21113.9	21678.7	22192.1	22724.8	23194.7
60°	5146.5	5241.5	5919.0	7068.0	9082.8	12832.5	20640.7	21496.9	22319.2	23135.1	23772.4
62.5°	3107.5	3178.3	3775.4	4869.7	7003.6	10439.5	18532.6	19655.9	20866.0	21841.3	22818.1
65°	1934.4	1974.6	2195.1	2796.9	4498.0	7793.8	15141.8	16366.5	17670.0	18907.5	19923.0
67.5°	1583.5	1598.0	1638.3	1767.0	2470.3	5082.1	11269.9	12354.5	13530.9	14728.2	15857.9
70°	1424.2	1414.6	1414.6	1422.6	1583.5	2732.6	7378.6	8085.1	9065.1	10106.3	11139.5
72.5°	1285.8	1276.2	1258.5	1234.3	1292.3	1667.2	3814.0	4346.7	5053.2	5978.5	6968.2
75°	1155.5	1142.6	1121.7	1091.1	1131.3	1258.5	1831.4	2055.1	2399.5	2891.9	3443.9
77.5°	1020.3	1004.2	984.9	962.4	1013.9	978.4	1073.4	1153.9	1285.8	1443.5	1651.1
80°	867.4	852.9	846.5	835.2	896.4	745.1	758.0	807.9	885.1	970.4	1067.0
82.5°	679.1	679.1	704.9	709.7	777.3	535.9	566.5	609.9	650.2	695.2	740.3
85°	447.4	450.6	537.5	571.3	613.1	360.5	424.9	439.3	471.5	497.3	516.6
87.5°	140.0	151.3	328.3	363.7	352.4	204.4	260.7	267.1	289.7	307.4	323.5
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2
2.5°	3065.7	3046.4	3028.7	3027.1	3014.2	2996.5	3002.9	2975.6	2977.2	2962.7	2946.6
5°	3604.8	3591.9	3527.6	3509.9	3461.6	3431.0	3426.2	3361.8	3353.8	3316.7	3276.5
7.5°	4380.5	4338.6	4248.5	4205.1	4123.0	4061.8	4032.9	3947.6	3905.7	3809.2	3765.7
10°	5193.2	5140.1	5029.0	4967.9	4889.0	4790.9	4737.7	4613.8	4565.6	4477.0	4370.8
12.5°	5946.3	5893.2	5779.0	5732.3	5627.7	5523.1	5465.1	5325.1	5262.4	5120.8	5037.1
15°	6643.1	6590.0	6490.3	6442.0	6337.4	6252.1	6174.8	6036.4	5962.4	5830.5	5721.0
17.5°	7319.0	7262.7	7175.8	7132.4	7031.0	6944.1	6860.4	6730.0	6654.4	6522.5	6424.3
20°	7946.7	7904.8	7842.1	7784.1	7682.7	7603.9	7504.1	7391.5	7282.0	7185.5	7092.1
22.5°	8493.8	8477.7	8410.1	8384.4	8297.5	8229.9	8143.0	8032.0	7953.1	7830.8	7743.9
25°	8965.4	8960.5	8928.3	8920.3	8859.1	8794.8	8775.5	8683.7	8611.3	8503.5	8413.4
27.5°	9370.9	9375.7	9367.7	9390.2	9374.1	9345.1	9346.8	9316.2	9274.3	9184.2	9105.4
30°	9821.5	9795.7	9810.2	9842.4	9852.1	9855.3	9908.4	9926.1	9922.9	9863.3	9824.7
32.5°	10458.8	10397.6	10341.3	10336.5	10368.7	10381.5	10471.6	10518.3	10558.5	10573.0	10579.5
35°	11271.5	11149.2	11031.7	10968.9	10914.2	10928.7	10993.1	11068.7	11157.2	11218.4	11290.8
37.5°	12295.0	12145.3	11937.7	11789.7	11752.6	11672.2	11714.0	11773.6	11860.5	11955.4	12080.9
40°	13535.7	13308.8	13075.5	12879.1	12772.9	12624.9	12623.3	12612.0	12665.1	12753.6	12930.6
42.5°	14729.8	14528.7	14280.8	14074.8	13936.4	13738.5	13698.3	13593.7	13617.8	13695.1	13867.2
45°	15848.3	15682.5	15531.3	15293.1	15175.6	14961.6	14894.0	14770.1	14700.9	14736.3	14908.5
47.5°	16931.3	16825.1	16667.4	16512.9	16422.8	16231.3	16144.4	16055.9	15967.4	15964.2	16144.4
50°	19042.7	18986.4	18799.7	18638.8	18682.2	18447.3	18461.8	18223.6	18331.4	18344.3	18722.5
52.5°	21027.0	21223.3	21361.7	21530.7	21640.1	21661.0	21733.5	21841.3	21971.6	22229.1	22579.9
55°	22163.1	22409.4	22552.6	22681.3	22893.8	22938.8	23059.5	23202.7	23317.0	23606.7	23904.4
57.5°	23513.3	23970.4	24192.5	24396.8	24683.3	24792.7	24993.9	25150.0	25298.0	25640.8	26001.3
60°	24345.3	24902.1	25354.4	25677.8	26036.7	26294.2	26598.3	26843.0	27190.6	27600.9	28138.4
62.5°	23683.9	24501.4	25101.7	25656.9	26144.5	26637.0	27073.1	27530.1	28058.0	28679.2	29512.8
65°	21049.5	21881.5	22909.8	23486.0	24131.3	24890.9	25553.9	26294.2	27013.5	27918.0	29150.7
67.5°	16945.8	17913.0	19068.5	19649.4	20391.3	21239.4	21982.9	22887.3	23727.4	24823.3	26347.3
70°	12214.5	13464.9	14436.9	15043.6	15909.4	16783.3	17501.0	18553.5	19248.7	20372.0	21947.5
72.5°	7734.2	8720.7	9911.6	10676.0	11445.3	12330.4	13064.2	13971.9	14620.4	15643.9	17071.3
75°	4158.4	4885.8	5931.8	6657.6	7481.6	8238.0	9097.3	9705.6	10185.2	10994.7	12153.4
77.5°	1948.8	2391.4	2920.9	3479.3	4037.7	4620.3	5186.7	5679.2	5885.2	6348.6	7032.6
80°	1182.8	1326.1	1480.5	1652.7	1886.1	2074.4	2323.8	2504.1	2516.9	2663.4	2872.6
82.5°	790.2	843.3	889.9	933.4	992.9	1039.6	1092.7	1155.5	1181.2	1215.0	1282.6
85°	539.1	564.9	574.5	601.9	595.4	611.5	632.5	653.4	664.6	663.0	693.6
87.5°	331.5	344.4	350.8	357.3	352.4	346.0	355.7	366.9	370.1	360.5	363.7
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2
2.5°	2949.8	2935.3	2920.9	2911.2	2908.0	2822.7	2785.7	2761.5	2710.0	2668.2	2634.4
5°	3254.0	3223.4	3199.3	3170.3	3154.2	2938.6	2859.7	2805.0	2714.9	2661.8	2613.5
7.5°	3743.2	3657.9	3608.0	3551.7	3503.4	3114.0	2983.6	2898.3	2772.8	2702.0	2647.3
10°	4298.4	4209.9	4131.0	4044.1	3968.5	3347.3	3157.4	3025.5	2859.7	2768.0	2695.6
12.5°	4918.0	4831.1	4731.3	4620.3	4523.7	3643.4	3379.5	3191.2	2964.3	2842.0	2740.6
15°	5650.2	5497.3	5376.6	5247.9	5135.2	3997.5	3638.6	3377.9	3075.4	2909.6	2774.4
17.5°	6330.9	6170.0	6005.9	5893.2	5762.9	4395.0	3899.3	3567.8	3167.1	2953.0	2780.9
20°	6995.6	6820.2	6678.6	6527.3	6390.5	4806.9	4177.7	3735.2	3226.6	2954.7	2740.6
22.5°	7581.4	7471.9	7314.2	7150.1	7011.7	5218.9	4438.4	3876.8	3249.2	2917.6	2669.8
25°	8247.6	8131.7	7938.6	7800.2	7645.7	5639.0	4694.3	3986.2	3236.3	2848.4	2560.4
27.5°	8958.9	8830.2	8632.2	8487.4	8300.7	6075.1	4929.3	4065.1	3188.0	2735.8	2413.9
30°	9700.8	9583.3	9388.6	9242.2	9053.9	6536.9	5191.6	4118.2	3091.4	2579.7	2243.3
32.5°	10497.4	10399.2	10206.1	10053.2	9852.1	7037.4	5436.2	4134.3	2945.0	2394.6	2063.1
35°	11253.8	11186.2	11023.6	10880.4	10671.2	7510.6	5695.3	4126.2	2771.2	2191.9	1899.0
37.5°	12105.1	12064.8	11984.4	11802.5	11546.7	8152.7	6005.9	4092.4	2558.8	1990.7	1773.4
40°	13012.7	13015.9	12929.0	12805.1	12566.9	8931.6	6376.0	4026.4	2327.0	1813.7	1659.2
42.5°	13973.5	14023.4	13981.5	13893.0	13664.5	9716.9	6818.6	3946.0	2101.7	1641.5	1546.5
45°	15074.2	15135.4	15199.7	15069.4	14847.3	10753.3	7401.1	3841.4	1858.7	1498.2	1469.3
47.5°	16343.9	16440.5	16498.4	16500.0	16278.0	12037.5	8347.4	3778.6	1643.1	1401.7	1432.3
50°	19023.4	19054.0	19190.8	19429.0	19258.4	15009.8	10000.1	3740.0	1496.6	1342.1	1404.9
52.5°	22884.1	23220.4	23457.0	23440.9	23209.2	16897.5	10911.0	3540.4	1409.7	1319.6	1392.0
55°	24456.4	24876.4	25314.1	25430.0	25249.8	18508.4	11772.0	3340.9	1367.9	1335.7	1396.9
57.5°	26551.7	27259.8	27860.0	28112.7	27852.0	20569.9	12904.9	3236.3	1355.0	1379.2	1427.4
60°	28999.4	29874.9	30663.4	31117.2	31117.2	22938.8	14079.7	3192.8	1337.3	1443.5	1478.9
62.5°	30571.7	31857.5	33048.4	33713.0	33693.7	24588.3	14601.1	3044.8	1297.1	1488.6	1549.7
65°	30578.1	32106.9	33624.5	34371.2	34409.8	24385.6	13740.1	2689.1	1223.1	1495.0	1620.6
67.5°	28029.0	29659.2	31427.8	32263.0	32456.2	22448.0	11894.3	2211.2	1102.4	1430.7	1646.3
70°	23672.7	25264.2	27069.9	27890.6	28233.4	19136.1	9580.1	1704.2	947.9	1289.0	1593.2
72.5°	18650.1	20211.1	21467.9	22068.2	22335.3	14626.8	6976.3	1287.4	777.3	1086.3	1450.0
75°	13204.2	14375.8	15043.6	15177.2	15219.1	8817.3	4238.9	957.5	640.5	844.9	1224.7
77.5°	7452.6	7954.7	7900.0	7959.5	7463.9	3403.6	1845.9	685.6	527.8	642.1	949.5
80°	2909.6	2999.7	2817.9	2761.5	2533.0	1266.5	814.3	478.0	421.6	486.0	664.6
82.5°	1282.6	1324.4	1285.8	1295.5	1239.2	653.4	487.6	346.0	321.9	355.7	440.9
85°	706.5	719.4	716.1	737.1	706.5	260.7	231.7	212.4	225.3	241.4	283.2
87.5°	344.4	347.6	336.3	354.0	342.8	132.0	114.3	120.7	132.0	135.2	135.2
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):

	135°	145°	155°	165°	175°	180°
0°	2763.2	2763.2	2763.2	2763.2	2763.2	2763.2
2.5°	2610.3	2597.4	2599.0	2595.8	2589.3	2589.3
5°	2587.7	2574.9	2574.9	2571.6	2563.6	2565.2
7.5°	2610.3	2589.3	2581.3	2570.0	2558.8	2558.8
10°	2636.0	2599.0	2576.5	2557.2	2542.7	2542.7
12.5°	2655.3	2597.4	2560.4	2534.6	2520.1	2520.1
15°	2661.8	2586.1	2534.6	2504.1	2491.2	2489.6
17.5°	2640.8	2542.7	2479.9	2444.5	2428.4	2423.6
20°	2576.5	2463.8	2388.2	2348.0	2325.4	2317.4
22.5°	2479.9	2351.2	2262.7	2220.8	2191.9	2187.0
25°	2344.7	2206.3	2119.4	2079.2	2063.1	2058.3
27.5°	2187.0	2058.3	1984.3	1958.5	1944.0	1942.4
30°	2037.4	1927.9	1873.2	1853.9	1836.2	1833.0
32.5°	1897.4	1828.2	1807.2	1779.9	1738.0	1733.2
35°	1797.6	1791.1	1776.7	1715.5	1664.0	1649.5
37.5°	1736.4	1796.0	1721.9	1601.2	1564.2	1561.0
40°	1701.0	1746.1	1618.9	1577.1	1580.3	1577.1
42.5°	1620.6	1667.2	1622.2	1602.9	1615.7	1618.9
45°	1540.1	1591.6	1646.3	1633.4	1664.0	1664.0
47.5°	1495.0	1572.3	1644.7	1644.7	1689.8	1705.8
50°	1443.5	1556.2	1618.9	1641.5	1676.9	1664.0
52.5°	1440.3	1528.8	1581.9	1622.2	1638.3	1623.8
55°	1445.1	1506.3	1544.9	1590.0	1609.3	1610.9
57.5°	1451.6	1493.4	1519.2	1540.1	1598.0	1598.0
60°	1467.7	1482.2	1496.6	1507.9	1583.5	1585.2
62.5°	1493.4	1470.9	1467.7	1478.9	1575.5	1569.1
65°	1533.7	1454.8	1430.7	1441.9	1567.4	1548.1
67.5°	1588.4	1430.7	1384.0	1392.0	1561.0	1519.2
70°	1638.3	1392.0	1326.1	1318.0	1499.9	1425.8
72.5°	1643.1	1347.0	1245.6	1221.5	1303.5	1232.7
75°	1562.6	1316.4	1157.1	1086.3	1076.6	1067.0
77.5°	1408.1	1298.7	1054.1	943.0	923.7	930.2
80°	1178.0	1232.7	930.2	798.2	902.8	891.5
82.5°	880.3	1087.9	790.2	706.5	704.9	622.8
85°	489.2	848.1	643.7	529.5	368.5	357.3
87.5°	136.8	471.5	450.6	299.3	204.4	212.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)