

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: P191407

Luminaire Tested: **GLEON-AF-09-LED-E1-T2R-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191407
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-09-LED-E1-T2R-800
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 45819 lumens
Efficiency: N/A
Efficacy: 122.5 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 374
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

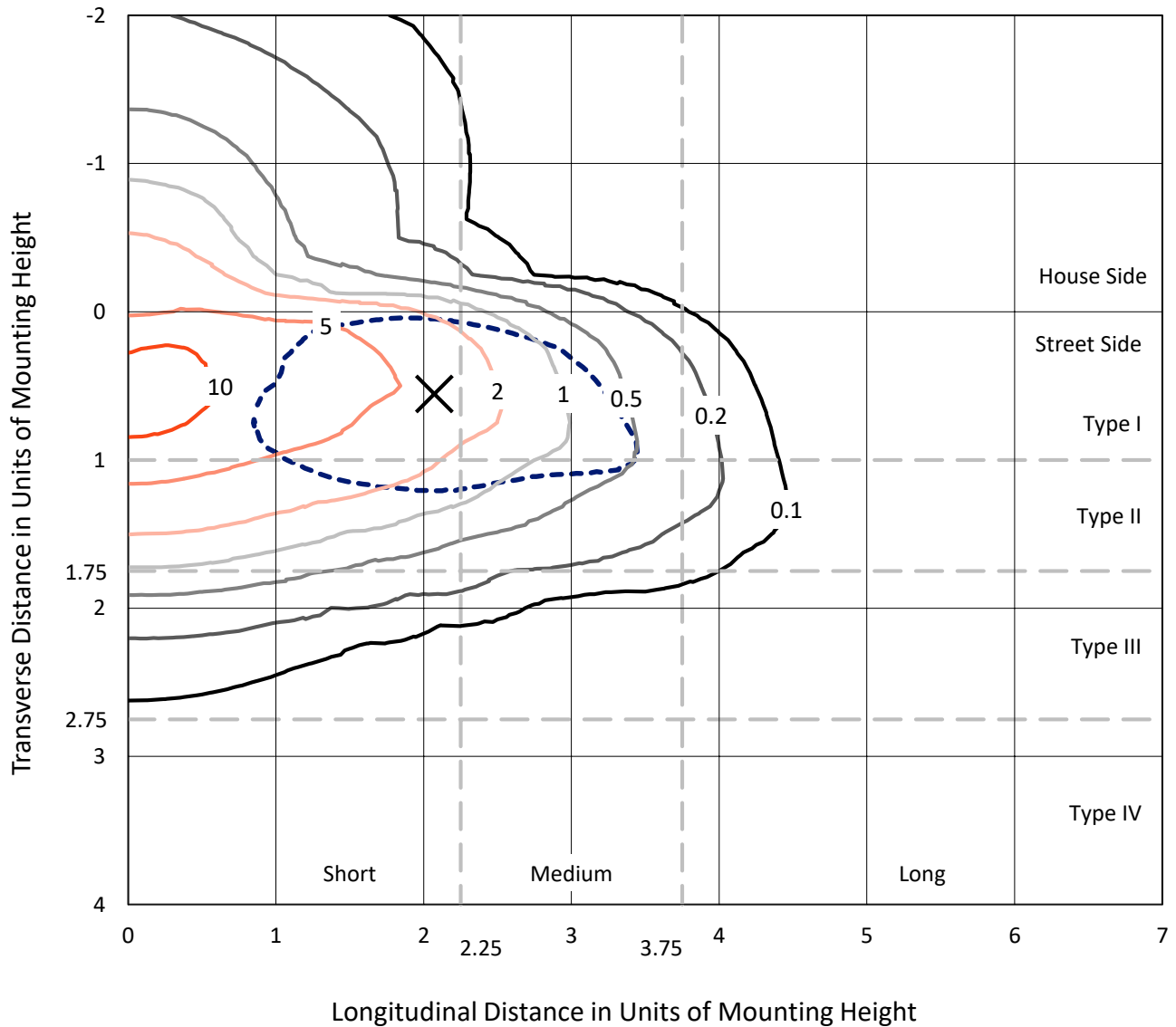


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Iso-Footcandle Lines of Horizontal Illumination

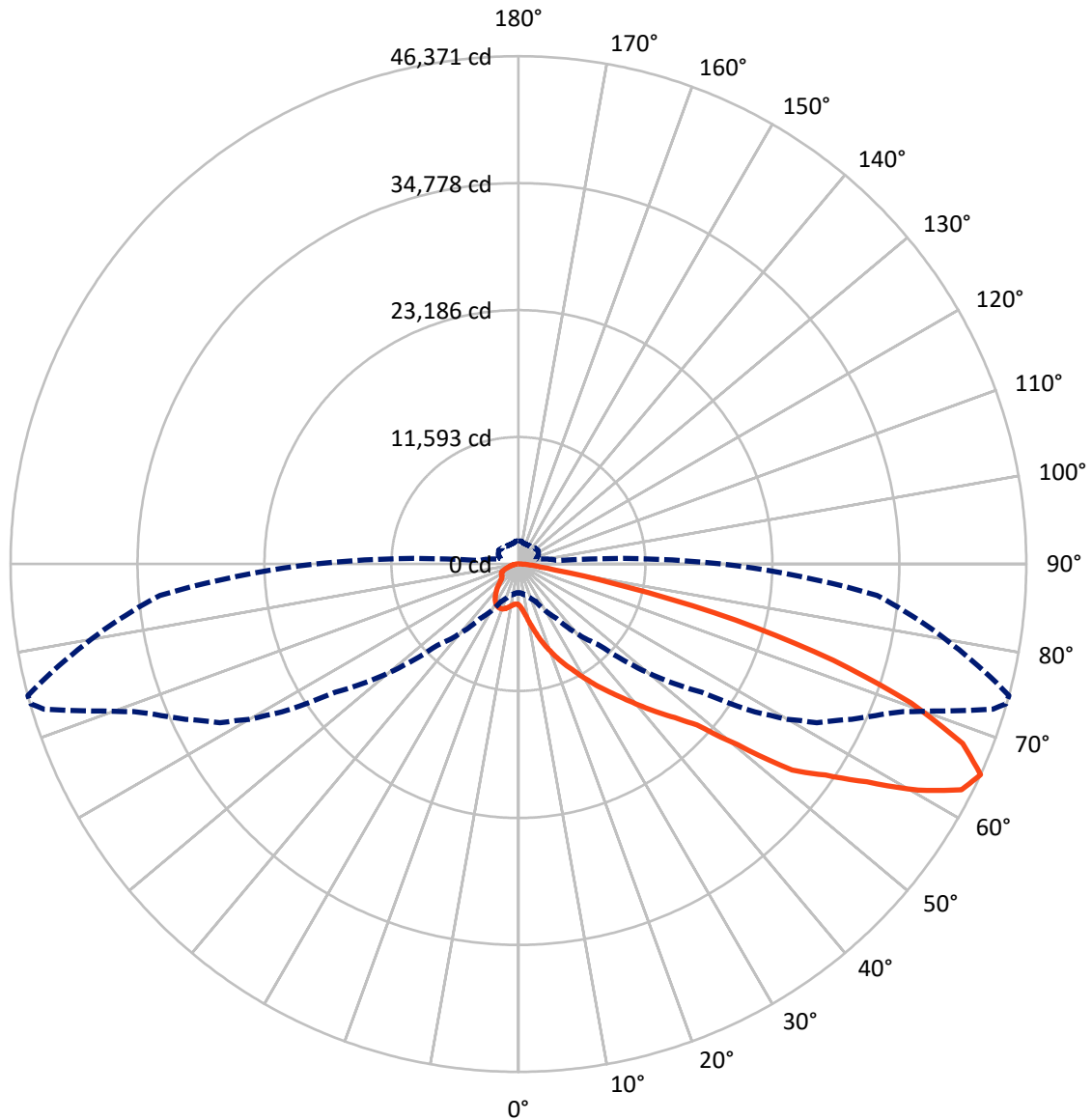
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.8 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	7064.2	0.0	7064.2
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	38754.8	0.0	38754.8
	% Fixture	84.6	0.0	84.6
Total	Lumens	45819.0	0.0	45819.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	460.3	1.0
10°-20°	1798.3	3.9
20°-30°	3689.6	8.1
30°-40°	6207.5	13.5
40°-50°	8577.1	18.7
50°-60°	10706.8	23.4
60°-70°	9634.9	21.0
70°-80°	4038.9	8.8
80°-90°	705.6	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°	45819.0	100.0
0°-180°	45819.0	100.0



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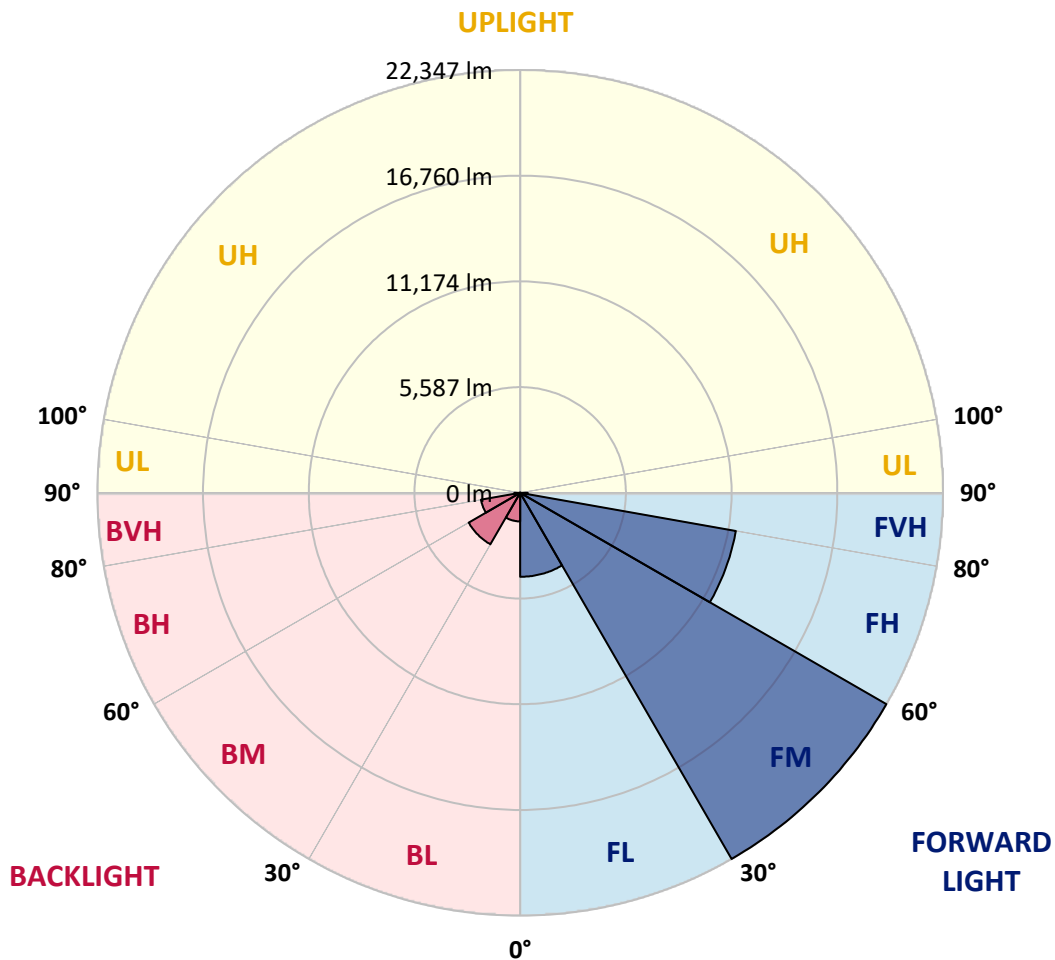
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4437.4	9.7			
FM	(30°-60°)	22347.0	48.8			
FH	(60°-80°)	11573.7	25.3			G4/12000
FVH	(80°-90°)	396.6	0.9			G3/500
BL	(0°-30°)	1510.7	3.3	B3/2500		
BM	(30°-60°)	3144.4	6.9	B3/5000		
BH	(60°-80°)	2100.1	4.6	B3/2500		G3/2500
BVH	(80°-90°)	309.0	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°	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6
2.5°	4727.8	4675.7	4688.7	4601.9	4495.8	4357.0	4203.0	4200.7	4203.0	4187.8	4131.4
5°	6556.0	6493.1	6469.2	6274.1	5987.8	5580.1	5137.7	5090.0	5070.5	5020.5	4905.7
7.5°	7889.7	7855.0	7818.2	7670.7	7410.5	6955.0	6360.8	6258.9	6161.3	6137.4	6007.3
10°	8750.7	8742.0	8664.0	8624.9	8462.3	8067.6	7488.5	7390.9	7284.6	7247.8	7111.1
12.5°	9431.7	9429.6	9392.6	9403.5	9262.5	8976.3	8477.5	8388.6	8310.5	8197.7	8100.1
15°	9902.3	9904.5	9958.7	10019.4	9997.7	9804.7	9336.3	9297.3	9230.0	9151.9	9037.0
17.5°	10288.3	10299.2	10355.5	10466.2	10585.5	10570.3	10199.4	10166.9	10108.4	10002.1	9941.3
20°	11160.2	11201.4	11093.0	11093.0	11106.0	11164.5	10986.7	10960.6	10878.3	10821.8	10774.1
22.5°	12632.7	12680.4	12435.4	12186.0	11940.9	11763.1	11585.2	11617.8	11561.4	11522.3	11494.2
25°	14545.5	14582.4	14185.5	13764.8	13265.9	12615.3	12175.2	12155.6	12125.2	12101.4	12088.4
27.5°	16345.5	16360.8	15985.6	15369.6	14790.5	13855.9	12773.7	12749.9	12712.9	12667.4	12628.4
30°	17885.4	17881.0	17494.9	16907.2	16287.0	15252.5	13682.4	13608.6	13500.2	13376.6	13281.2
32.5°	19219.1	19212.6	18789.7	18180.3	17529.7	16636.1	14927.2	14775.4	14606.2	14365.5	14220.2
35°	20268.7	20264.3	19865.4	19229.9	18483.9	17939.6	16354.2	16167.7	15953.0	15629.9	15406.5
37.5°	20665.7	20665.7	20442.2	20008.5	19349.2	18976.1	17939.6	17714.0	17484.1	17117.6	16866.0
40°	20433.5	20437.8	20485.6	20405.3	20084.4	19798.1	19418.6	19284.2	19086.8	18757.1	18494.7
42.5°	19655.0	19678.8	19995.5	20383.6	20544.1	20498.6	20730.7	20669.9	20531.1	20277.4	20069.2
45°	18668.2	18742.0	19089.0	19822.0	20672.1	21103.7	21830.2	21836.7	21810.6	21674.1	21513.6
47.5°	17312.8	17416.9	17874.5	18865.6	20372.8	21691.4	22947.0	23005.7	23059.9	22971.0	22897.2
50°	15512.7	15636.4	16321.7	17635.9	19763.4	22300.8	25057.3	25321.8	25569.1	25538.7	25588.6
52.5°	13584.8	13730.0	14569.4	16033.2	18715.9	22441.8	26406.1	26837.7	27269.3	27622.8	27998.0
55°	11845.5	11767.4	12606.6	14148.6	16994.0	21806.3	27618.4	28138.9	28620.4	29054.2	29500.9
57.5°	9488.1	9616.0	10457.5	11982.1	14714.6	20012.8	28453.5	29214.7	29906.5	30624.3	31257.6
60°	6935.5	7063.5	7976.5	9525.0	12240.2	17293.3	27815.9	28969.6	30077.8	31177.3	32036.2
62.5°	4187.8	4283.2	5087.7	6562.5	9438.3	14068.4	24974.8	26488.6	28119.5	29433.7	30750.1
65°	2606.8	2661.0	2958.1	3769.2	6061.5	10503.0	20405.3	22055.7	23812.4	25480.2	26848.6
67.5°	2134.0	2153.5	2207.7	2381.2	3329.0	6848.8	15187.4	16649.1	18234.5	19848.0	21370.5
70°	1919.3	1906.3	1906.3	1917.1	2134.0	3682.4	9943.5	10895.6	12216.3	13619.5	15011.8
72.5°	1732.8	1719.8	1696.0	1663.4	1741.5	2246.8	5139.8	5857.7	6809.8	8056.8	9390.5
75°	1557.1	1539.7	1511.6	1470.4	1524.6	1696.0	2468.0	2769.4	3233.5	3897.1	4641.0
77.5°	1374.9	1353.3	1327.3	1296.9	1366.3	1318.6	1446.6	1555.0	1732.8	1945.3	2225.1
80°	1168.9	1149.4	1140.7	1125.6	1208.0	1004.1	1021.4	1088.7	1192.8	1307.7	1437.9
82.5°	915.2	915.2	949.9	956.4	1047.5	722.2	763.4	821.9	876.2	936.9	997.6
85°	602.9	607.2	724.4	769.9	826.2	485.8	572.5	592.1	635.5	670.1	696.1
87.5°	188.6	203.9	442.4	490.1	475.0	275.4	351.3	360.0	390.4	414.2	435.9
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°	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6
2.5°	4131.4	4105.4	4081.5	4079.3	4062.0	4038.1	4046.8	4010.0	4012.1	3992.6	3970.9
5°	4857.9	4840.6	4753.8	4729.9	4664.9	4623.6	4617.2	4530.4	4519.6	4469.7	4415.5
7.5°	5903.2	5846.9	5725.4	5666.8	5556.3	5473.8	5434.7	5319.9	5263.5	5133.4	5074.8
10°	6998.4	6926.8	6777.3	6694.8	6588.5	6456.3	6384.6	6217.7	6152.6	6033.4	5890.3
12.5°	8013.4	7941.8	7787.8	7724.9	7584.0	7443.0	7364.9	7176.2	7091.7	6900.8	6788.1
15°	8952.5	8880.8	8746.4	8681.4	8540.4	8425.4	8321.3	8134.8	8035.1	7857.2	7709.8
17.5°	9863.3	9787.4	9670.3	9611.7	9475.1	9358.0	9245.2	9069.5	8967.6	8789.8	8657.4
20°	10709.1	10652.7	10568.1	10490.1	10353.4	10247.1	10112.7	9960.9	9813.4	9683.3	9557.5
22.5°	11446.4	11424.7	11333.7	11299.0	11181.9	11090.7	10973.7	10824.0	10717.8	10553.0	10435.8
25°	12081.9	12075.3	12031.9	12021.1	11938.8	11852.0	11825.9	11702.4	11604.8	11459.4	11338.0
27.5°	12628.4	12634.9	12624.0	12654.4	12632.7	12593.6	12595.8	12554.7	12498.2	12376.8	12270.5
30°	13235.7	13200.9	13220.4	13263.8	13276.8	13281.2	13352.7	13376.6	13372.2	13292.0	13240.0
32.5°	14094.4	14012.0	13936.1	13929.6	13973.0	13990.3	14111.8	14174.6	14228.8	14248.4	14257.1
35°	15189.6	15024.8	14866.4	14781.9	14708.2	14727.7	14814.5	14916.4	15035.6	15118.1	15215.7
37.5°	16568.9	16367.2	16087.4	15888.0	15838.0	15729.6	15786.0	15866.3	15983.4	16111.4	16280.5
40°	18241.0	17935.2	17620.7	17356.2	17213.0	17013.5	17011.4	16996.1	17067.7	17187.0	17425.6
42.5°	19850.2	19579.1	19245.1	18967.6	18781.0	18514.3	18460.1	18319.1	18351.6	18455.7	18687.8
45°	21357.5	21134.1	20930.2	20609.2	20450.9	20162.5	20071.4	19904.4	19811.2	19858.9	20090.9
47.5°	22816.9	22673.8	22461.3	22253.1	22131.6	21873.6	21756.4	21637.1	21517.9	21513.6	21756.4
50°	25662.3	25586.4	25334.8	25117.9	25176.6	24859.9	24879.4	24558.4	24703.8	24721.0	25230.8
52.5°	28336.4	28600.9	28787.4	29015.1	29162.6	29190.8	29288.4	29433.7	29609.3	29956.3	30429.1
55°	29867.4	30199.2	30392.3	30565.8	30852.0	30912.8	31075.4	31268.4	31422.4	31812.7	32213.9
57.5°	31686.9	32302.8	32602.2	32877.6	33263.6	33411.1	33682.2	33892.5	34092.1	34554.1	35039.7
60°	32808.2	33558.6	34168.0	34603.9	35087.5	35434.5	35844.4	36174.0	36642.5	37195.5	37919.9
62.5°	31916.9	33018.6	33827.4	34575.7	35232.8	35896.5	36484.2	37100.1	37811.4	38648.5	39771.9
65°	28366.7	29487.9	30873.7	31650.1	32519.7	33543.4	34436.9	35434.5	36404.0	37622.7	39284.0
67.5°	22836.5	24139.9	25697.0	26479.9	27479.7	28622.6	29624.6	30843.3	31975.4	33452.3	35506.1
70°	16460.5	18145.6	19455.5	20273.0	21439.8	22617.4	23584.6	25003.1	25939.9	27453.6	29576.8
72.5°	10422.8	11752.2	13357.1	14387.2	15423.8	16616.6	17605.6	18828.7	19702.7	21082.0	23005.7
75°	5603.9	6584.2	7993.8	8971.9	10082.3	11101.6	12259.7	13079.4	13725.7	14816.6	16378.1
77.5°	2626.3	3222.7	3936.2	4688.7	5441.3	6226.4	6989.7	7653.4	7930.9	8555.6	9477.2
80°	1594.0	1787.0	1995.2	2227.3	2541.7	2795.4	3131.7	3374.5	3391.9	3589.2	3871.2
82.5°	1064.8	1136.4	1199.3	1257.8	1338.1	1401.0	1472.5	1557.1	1591.8	1637.3	1728.5
85°	726.5	761.2	774.3	811.1	802.4	824.1	852.3	880.5	895.7	893.5	934.7
87.5°	446.7	464.1	472.8	481.5	475.0	466.3	479.3	494.5	498.8	485.8	490.1
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6
2.5°	3975.3	3955.8	3936.2	3923.2	3918.8	3803.9	3754.0	3721.5	3652.1	3595.7	3550.2
5°	4385.1	4344.0	4311.4	4272.4	4250.7	3960.0	3853.8	3780.0	3658.6	3587.1	3522.0
7.5°	5044.4	4929.5	4862.3	4786.3	4721.2	4196.5	4020.8	3905.8	3736.6	3641.3	3567.5
10°	5792.7	5673.4	5567.1	5450.0	5348.0	4510.9	4255.0	4077.2	3853.8	3730.2	3632.6
12.5°	6627.6	6510.5	6376.0	6226.4	6096.3	4910.0	4554.3	4300.6	3994.7	3829.9	3693.3
15°	7614.3	7408.3	7245.7	7072.2	6920.4	5387.1	4903.4	4552.1	4144.4	3921.1	3738.9
17.5°	8531.7	8314.9	8093.6	7941.8	7766.1	5922.8	5254.8	4808.1	4268.1	3979.6	3747.5
20°	9427.4	9191.0	9000.1	8796.3	8611.9	6477.9	5629.9	5033.5	4348.3	3981.7	3693.3
22.5°	10216.8	10069.3	9856.7	9635.6	9449.1	7033.1	5981.3	5224.4	4378.6	3931.9	3597.9
25°	11114.7	10958.5	10698.2	10511.7	10303.6	7599.2	6326.1	5371.9	4361.2	3838.6	3450.4
27.5°	12073.2	11899.7	11632.9	11437.7	11186.2	8186.9	6642.7	5478.1	4296.2	3686.8	3253.1
30°	13073.0	12914.7	12652.3	12454.8	12201.1	8809.2	6996.3	5549.7	4166.1	3476.4	3023.1
32.5°	14146.5	14014.2	13754.0	13548.0	13276.8	9483.8	7325.9	5571.4	3968.7	3227.0	2780.3
35°	15165.8	15074.7	14855.6	14662.7	14380.7	10121.4	7675.1	5560.6	3734.5	2953.8	2559.1
37.5°	16313.0	16258.8	16150.3	15905.2	15560.5	10986.7	8093.6	5515.0	3448.3	2682.7	2389.9
40°	17536.1	17540.5	17423.4	17256.4	16935.5	12036.3	8592.4	5426.1	3136.0	2444.1	2236.0
42.5°	18830.9	18898.1	18841.7	18722.5	18414.4	13094.7	9188.9	5317.7	2832.3	2212.1	2084.2
45°	20314.3	20396.7	20483.5	20307.7	20008.5	14491.3	9973.9	5176.7	2504.9	2019.1	1980.0
47.5°	22025.4	22155.5	22233.6	22235.8	21936.5	16222.0	11249.1	5092.1	2214.3	1889.0	1930.1
50°	25636.3	25677.5	25861.8	26182.8	25952.9	20227.5	13476.4	5040.1	2016.8	1808.7	1893.3
52.5°	30839.0	31292.3	31611.0	31589.3	31277.1	22771.4	14703.8	4771.1	1899.8	1778.3	1875.9
55°	32957.8	33523.8	34113.8	34269.9	34027.0	24942.3	15864.1	4502.2	1843.4	1800.0	1882.4
57.5°	35781.5	36735.7	37544.6	37885.2	37533.8	27720.4	17390.9	4361.2	1826.1	1858.6	1923.7
60°	39080.1	40259.9	41322.5	41934.1	41934.1	30912.8	18974.0	4302.7	1802.2	1945.3	1993.0
62.5°	41198.9	42931.7	44536.5	45432.2	45406.2	33135.6	19676.7	4103.2	1748.0	2006.0	2088.5
65°	41207.6	43267.9	45312.9	46319.2	46371.3	32862.4	18516.4	3623.9	1648.2	2014.7	2183.9
67.5°	37772.4	39969.2	42352.7	43478.3	43738.5	30251.3	16028.9	2979.8	1485.5	1928.0	2218.6
70°	31901.6	34046.6	36479.9	37585.9	38047.8	25788.1	12910.4	2296.6	1277.4	1737.2	2147.0
72.5°	25133.2	27236.8	28930.6	29739.4	30099.5	19711.3	9401.3	1734.9	1047.5	1463.8	1954.0
75°	17794.2	19373.1	20273.0	20453.1	20509.4	11882.4	5712.4	1290.4	863.2	1138.5	1650.4
77.5°	10043.3	10719.9	10646.2	10726.5	10058.5	4586.8	2487.5	923.8	711.4	865.3	1279.5
80°	3921.1	4042.5	3797.4	3721.5	3413.6	1706.8	1097.3	644.2	568.2	655.0	895.7
82.5°	1728.5	1784.8	1732.8	1745.8	1669.9	880.5	657.1	466.3	433.7	479.3	594.2
85°	952.1	969.5	965.1	993.3	952.1	351.3	312.3	286.2	303.6	325.3	381.7
87.5°	464.1	468.4	453.3	477.1	462.0	177.8	154.0	162.6	177.8	182.2	182.2
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°	3723.6	3723.6	3723.6	3723.6	3723.6	3723.6
2.5°	3517.6	3500.3	3502.5	3498.1	3489.5	3489.5
5°	3487.2	3470.0	3470.0	3465.6	3454.7	3457.0
7.5°	3517.6	3489.5	3478.6	3463.4	3448.3	3448.3
10°	3552.3	3502.5	3472.1	3446.1	3426.6	3426.6
12.5°	3578.4	3500.3	3450.4	3415.7	3396.2	3396.2
15°	3587.1	3485.1	3415.7	3374.5	3357.1	3355.0
17.5°	3558.8	3426.6	3342.0	3294.3	3272.6	3266.1
20°	3472.1	3320.3	3218.4	3164.2	3133.8	3123.0
22.5°	3342.0	3168.5	3049.2	2992.8	2953.8	2947.2
25°	3159.8	2973.3	2856.2	2802.0	2780.3	2773.7
27.5°	2947.2	2773.7	2674.0	2639.3	2619.8	2617.6
30°	2745.6	2598.1	2524.3	2498.4	2474.5	2470.1
32.5°	2556.9	2463.7	2435.4	2398.6	2342.3	2335.7
35°	2422.4	2413.8	2394.2	2311.9	2242.4	2223.0
37.5°	2340.0	2420.3	2320.6	2157.8	2108.0	2103.6
40°	2292.3	2353.1	2181.7	2125.3	2129.7	2125.3
42.5°	2183.9	2246.8	2186.0	2160.1	2177.4	2181.7
45°	2075.5	2144.8	2218.6	2201.3	2242.4	2242.4
47.5°	2014.7	2118.8	2216.4	2216.4	2277.2	2298.9
50°	1945.3	2097.2	2181.7	2212.1	2259.8	2242.4
52.5°	1940.9	2060.2	2131.8	2186.0	2207.7	2188.2
55°	1947.5	2029.9	2081.9	2142.7	2168.7	2170.9
57.5°	1956.2	2012.6	2047.2	2075.5	2153.5	2153.5
60°	1977.9	1997.4	2016.8	2032.1	2134.0	2136.1
62.5°	2012.6	1982.2	1977.9	1993.0	2123.1	2114.4
65°	2066.8	1960.5	1928.0	1943.2	2112.3	2086.3
67.5°	2140.5	1928.0	1865.0	1875.9	2103.6	2047.2
70°	2207.7	1875.9	1787.0	1776.1	2021.2	1921.5
72.5°	2214.3	1815.2	1678.6	1646.0	1756.6	1661.3
75°	2105.8	1774.0	1559.3	1463.8	1450.9	1437.9
77.5°	1897.6	1750.2	1420.5	1270.8	1244.8	1253.5
80°	1587.5	1661.3	1253.5	1075.6	1216.6	1201.5
82.5°	1186.3	1466.1	1064.8	952.1	949.9	839.3
85°	659.3	1142.9	867.5	713.5	496.6	481.5
87.5°	184.3	635.5	607.2	403.3	275.4	286.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)