

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: P191411

Luminaire Tested: **GLEON-AF-03-LED-E1-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191411
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-03-LED-E1-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19366.5 lumens
Efficiency: N/A
Efficacy: 116.7 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

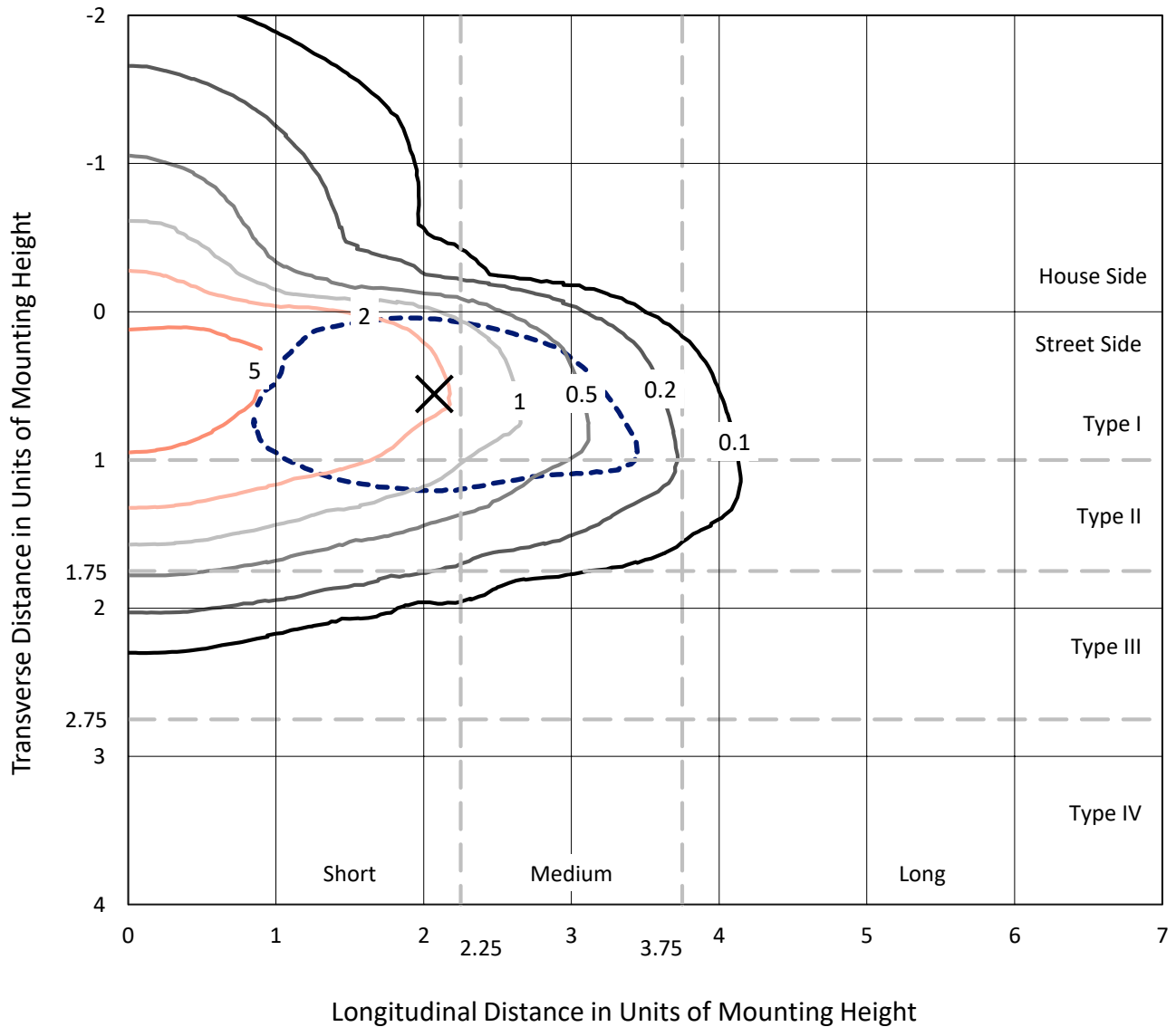


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

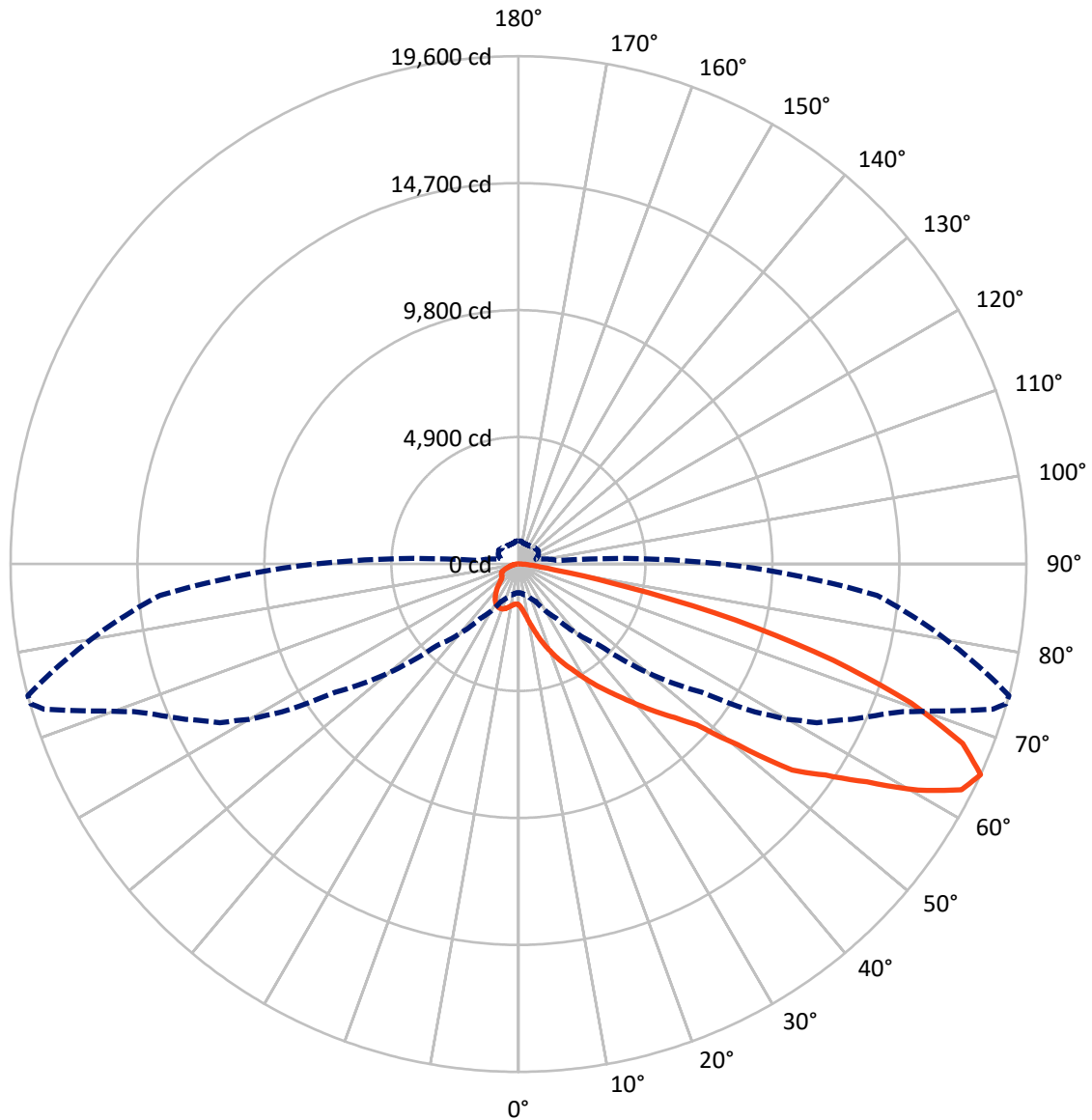


Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
 Type II - Short - Full Cutoff

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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	2985.9	0.0	2985.9
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	16380.6	0.0	16380.6
	% Fixture	84.6	0.0	84.6
Total	Lumens	19366.5	0.0	19366.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.5	1.0
10°-20°	760.1	3.9
20°-30°	1559.5	8.1
30°-40°	2623.8	13.5
40°-50°	3625.3	18.7
50°-60°	4525.5	23.4
60°-70°	4072.4	21.0
70°-80°	1707.1	8.8
80°-90°	298.2	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°	19366.5	100.0
0°-180°	19366.5	100.0



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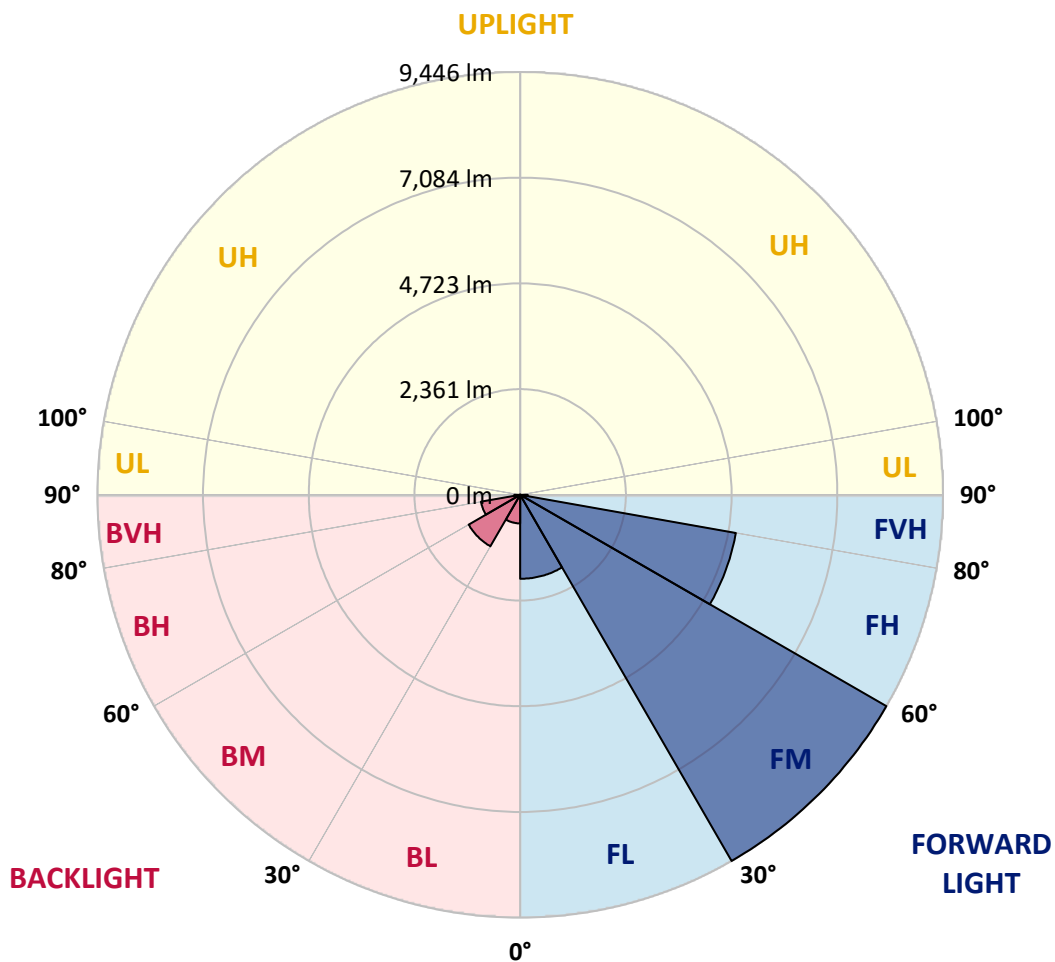
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1875.6	9.7			
FM (30°-60°)	9445.5	48.8			
FH (60°-80°)	4891.9	25.3			G2/5000
FVH (80°-90°)	167.6	0.9			G2/225
BL (0°-30°)	638.5	3.3	B2/1000		
BM (30°-60°)	1329.0	6.9	B2/2500		
BH (60°-80°)	887.7	4.6	B2/1000		G2/1000
BVH (80°-90°)	130.6	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°	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9
2.5°	1998.3	1976.3	1981.8	1945.1	1900.2	1841.5	1776.5	1775.5	1776.5	1770.1	1746.3
5°	2771.1	2744.5	2734.3	2651.9	2530.9	2358.5	2171.5	2151.4	2143.2	2122.0	2073.5
7.5°	3334.8	3320.1	3304.5	3242.2	3132.2	2939.8	2688.5	2645.5	2604.2	2594.1	2539.2
10°	3698.7	3695.0	3662.1	3645.6	3576.7	3410.0	3165.2	3124.0	3079.1	3063.4	3005.7
12.5°	3986.5	3985.6	3970.1	3974.6	3915.0	3794.0	3583.2	3545.6	3512.6	3464.9	3423.7
15°	4185.4	4186.3	4209.2	4234.9	4225.8	4144.2	3946.2	3929.7	3901.3	3868.3	3819.7
17.5°	4348.7	4353.2	4377.0	4423.8	4474.2	4467.7	4311.0	4297.3	4272.6	4227.7	4202.0
20°	4717.1	4734.5	4688.7	4688.7	4694.2	4719.0	4643.8	4632.7	4598.0	4574.1	4554.0
22.5°	5339.5	5359.6	5256.1	5150.7	5047.1	4972.0	4896.8	4910.6	4886.7	4870.2	4858.3
25°	6148.0	6163.6	5995.8	5818.0	5607.2	5332.2	5146.2	5137.9	5125.0	5115.0	5109.4
27.5°	6908.8	6915.2	6756.7	6496.4	6251.6	5856.5	5399.1	5389.0	5373.5	5354.2	5337.7
30°	7559.7	7557.9	7394.7	7146.2	6884.0	6446.8	5783.2	5752.1	5706.2	5654.0	5613.6
32.5°	8123.5	8120.7	7941.9	7684.3	7409.3	7031.7	6309.4	6245.2	6173.7	6071.9	6010.6
35°	8567.1	8565.3	8396.6	8128.0	7812.7	7582.6	6912.5	6833.7	6742.9	6606.3	6511.9
37.5°	8734.8	8734.8	8640.4	8457.0	8178.4	8020.8	7582.6	7487.3	7390.1	7235.1	7128.8
40°	8636.8	8638.6	8658.8	8624.8	8489.2	8368.1	8207.7	8150.9	8067.5	7928.2	7817.3
42.5°	8307.7	8317.7	8451.6	8615.7	8683.5	8664.2	8762.3	8736.6	8678.0	8570.7	8482.7
45°	7890.5	7921.7	8068.4	8378.3	8737.5	8920.0	9227.0	9229.8	9218.8	9161.0	9093.2
47.5°	7317.7	7361.7	7555.1	7974.0	8611.1	9168.4	9699.1	9723.9	9746.8	9709.2	9678.0
50°	6556.8	6609.1	6898.8	7454.2	8353.5	9426.0	10591.0	10702.9	10807.4	10794.6	10815.7
52.5°	5741.9	5803.3	6158.1	6776.8	7910.8	9485.5	11161.2	11343.6	11526.0	11675.4	11834.0
55°	5006.7	4973.8	5328.6	5980.3	7183.0	9217.0	11673.6	11893.6	12097.1	12280.4	12469.3
57.5°	4010.4	4064.5	4420.1	5064.5	6219.5	8458.9	12026.5	12348.2	12640.7	12944.1	13211.8
60°	2931.5	2985.6	3371.4	4025.9	5173.6	7309.4	11757.1	12244.7	12713.1	13177.9	13540.8
62.5°	1770.1	1810.4	2150.4	2773.8	3989.3	5946.3	10556.2	11196.0	11885.4	12440.8	12997.3
65°	1101.8	1124.7	1250.4	1593.1	2562.1	4439.4	8624.8	9322.4	10064.9	10769.8	11348.2
67.5°	902.0	910.2	933.1	1006.5	1407.1	2894.8	6419.3	7037.2	7707.2	8389.2	9032.8
70°	811.2	805.8	805.8	810.3	902.0	1556.5	4202.9	4605.3	5163.5	5756.6	6345.1
72.5°	732.4	726.9	716.8	703.1	736.1	949.6	2172.4	2475.8	2878.3	3405.4	3969.2
75°	658.2	650.8	638.9	621.4	644.5	716.8	1043.2	1170.6	1366.8	1647.3	1961.6
77.5°	581.1	572.0	561.0	548.2	577.5	557.3	611.4	657.2	732.4	822.2	940.5
80°	494.1	485.8	482.1	475.8	510.6	424.4	431.8	460.1	504.1	552.7	607.7
82.5°	386.9	386.9	401.5	404.3	442.7	305.2	322.6	347.4	370.3	396.0	421.7
85°	254.8	256.7	306.2	325.4	349.2	205.3	242.0	250.2	268.6	283.3	294.2
87.5°	79.8	86.1	187.0	207.1	200.7	116.4	148.5	152.2	165.0	175.1	184.2
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9
2.5°	1746.3	1735.2	1725.1	1724.2	1716.9	1706.8	1710.5	1694.9	1695.8	1687.6	1678.4
5°	2053.3	2046.0	2009.3	1999.3	1971.7	1954.3	1951.6	1914.9	1910.4	1889.2	1866.3
7.5°	2495.2	2471.3	2420.0	2395.2	2348.5	2313.6	2297.1	2248.5	2224.7	2169.7	2145.0
10°	2958.1	2927.8	2864.6	2829.7	2784.8	2728.9	2698.6	2628.1	2600.5	2550.1	2489.7
12.5°	3387.1	3356.8	3291.8	3265.2	3205.5	3146.0	3112.9	3033.3	2997.5	2916.8	2869.2
15°	3784.0	3753.7	3696.8	3669.3	3609.8	3561.2	3517.2	3438.3	3396.2	3321.0	3258.7
17.5°	4168.9	4136.9	4087.4	4062.6	4004.9	3955.3	3907.7	3833.4	3790.3	3715.3	3659.3
20°	4526.5	4502.6	4466.8	4433.9	4376.1	4331.2	4274.4	4210.2	4147.9	4092.8	4039.7
22.5°	4838.1	4828.9	4790.5	4775.7	4726.2	4687.8	4638.3	4575.0	4530.1	4460.5	4411.0
25°	5106.7	5103.9	5085.6	5081.0	5046.2	5009.5	4998.5	4946.3	4905.0	4843.6	4792.3
27.5°	5337.7	5340.4	5335.8	5348.7	5339.5	5323.0	5323.9	5306.6	5282.7	5231.4	5186.5
30°	5594.3	5579.7	5588.0	5606.3	5611.8	5613.6	5643.8	5654.0	5652.1	5618.1	5596.2
32.5°	5957.4	5922.5	5890.5	5887.7	5906.0	5913.4	5964.7	5991.2	6014.1	6022.4	6026.1
35°	6420.2	6350.6	6283.7	6248.0	6216.8	6225.0	6261.7	6304.8	6355.2	6390.0	6431.3
37.5°	7003.2	6918.0	6799.8	6715.5	6694.3	6648.5	6672.3	6706.3	6755.8	6809.9	6881.4
40°	7710.0	7580.8	7447.8	7336.0	7275.5	7191.1	7190.2	7183.9	7214.1	7264.5	7365.3
42.5°	8390.1	8275.6	8134.4	8017.1	7938.2	7825.5	7802.6	7743.0	7756.7	7800.7	7898.8
45°	9027.2	8932.8	8846.7	8710.9	8644.0	8522.2	8483.6	8413.1	8373.7	8393.8	8491.9
47.5°	9644.2	9583.6	9493.8	9405.8	9354.5	9245.4	9195.9	9145.5	9095.1	9093.2	9195.9
50°	10846.8	10814.7	10708.4	10616.7	10641.5	10507.6	10515.8	10380.2	10441.7	10448.9	10664.4
52.5°	11977.0	12088.8	12167.7	12264.0	12326.3	12338.2	12379.4	12440.8	12515.1	12661.8	12861.6
55°	12624.2	12764.5	12846.0	12919.4	13040.4	13066.0	13134.8	13216.3	13281.5	13446.4	13616.0
57.5°	13393.3	13653.6	13780.1	13896.5	14059.6	14122.0	14236.6	14325.5	14409.8	14605.1	14810.4
60°	13867.2	14184.3	14441.9	14626.2	14830.5	14977.2	15150.5	15289.8	15487.8	15721.5	16027.7
62.5°	13490.5	13956.1	14298.0	14614.3	14892.0	15172.5	15420.9	15681.2	15981.9	16335.7	16810.6
65°	11989.9	12463.7	13049.5	13377.6	13745.3	14177.9	14555.6	14977.2	15387.0	15902.2	16604.3
67.5°	9652.4	10203.3	10861.5	11192.4	11615.0	12098.0	12521.5	13036.7	13515.2	14139.4	15007.5
70°	6957.4	7669.7	8223.3	8569.0	9062.0	9559.8	9968.7	10568.1	10964.1	11603.9	12501.4
72.5°	4405.4	4967.3	5645.7	6081.1	6519.3	7023.4	7441.5	7958.5	8327.8	8910.8	9723.9
75°	2368.6	2782.9	3378.8	3792.2	4261.5	4692.4	5181.9	5528.3	5801.6	6262.6	6922.6
77.5°	1110.1	1362.2	1663.7	1981.8	2299.9	2631.7	2954.4	3234.9	3352.2	3616.2	4005.8
80°	673.7	755.3	843.3	941.4	1074.3	1181.6	1323.7	1426.3	1433.7	1517.0	1636.2
82.5°	450.1	480.4	506.9	531.6	565.6	592.2	622.4	658.2	672.8	692.0	730.6
85°	307.1	321.7	327.2	342.8	339.2	348.3	360.3	372.1	378.6	377.7	395.1
87.5°	188.8	196.2	199.8	203.5	200.7	197.1	202.5	209.0	210.8	205.3	207.1
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°	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9
2.5°	1680.2	1672.0	1663.7	1658.2	1656.4	1607.8	1586.7	1573.0	1543.6	1519.8	1500.6
5°	1853.5	1836.1	1822.3	1805.8	1796.6	1673.9	1628.9	1597.7	1546.4	1516.1	1488.7
7.5°	2132.1	2083.5	2055.1	2023.1	1995.6	1773.7	1699.5	1650.9	1579.4	1539.0	1507.9
10°	2448.4	2398.0	2353.1	2303.6	2260.5	1906.7	1798.4	1723.3	1628.9	1576.7	1535.4
12.5°	2801.4	2751.8	2695.0	2631.7	2576.7	2075.3	1925.0	1817.7	1688.5	1618.8	1561.0
15°	3218.4	3131.3	3062.5	2989.3	2925.0	2277.0	2072.6	1924.1	1751.7	1657.3	1580.4
17.5°	3606.1	3514.4	3421.0	3356.8	3282.5	2503.4	2221.0	2032.2	1804.0	1682.0	1583.9
20°	3984.7	3884.8	3804.1	3717.9	3640.1	2738.0	2379.7	2127.5	1837.9	1683.0	1561.0
22.5°	4318.4	4256.0	4166.2	4072.7	3993.9	2972.7	2528.1	2208.2	1850.7	1661.9	1520.7
25°	4697.9	4631.8	4521.9	4443.0	4355.0	3212.0	2673.9	2270.5	1843.4	1622.5	1458.4
27.5°	5103.0	5029.6	4916.9	4834.5	4728.1	3460.3	2807.7	2315.4	1815.9	1558.4	1374.9
30°	5525.6	5458.7	5347.8	5264.3	5157.1	3723.4	2957.1	2345.7	1760.9	1469.4	1277.8
32.5°	5979.4	5923.4	5813.4	5726.4	5611.8	4008.5	3096.5	2354.9	1677.4	1364.0	1175.2
35°	6410.2	6371.7	6279.1	6197.5	6078.4	4278.1	3244.1	2350.3	1578.5	1248.5	1081.7
37.5°	6895.1	6872.2	6826.4	6722.7	6577.0	4643.8	3421.0	2331.1	1457.5	1133.9	1010.2
40°	7412.1	7413.9	7364.4	7293.8	7158.2	5087.4	3631.8	2293.5	1325.4	1033.1	945.1
42.5°	7959.4	7987.7	7963.9	7913.4	7783.3	5534.8	3883.8	2247.6	1197.2	935.0	880.9
45°	8586.3	8621.1	8657.8	8583.6	8457.0	6125.1	4215.7	2188.1	1058.8	853.4	836.9
47.5°	9309.6	9364.6	9397.5	9398.5	9272.0	6856.6	4754.7	2152.3	935.9	798.4	815.8
50°	10835.8	10853.2	10931.2	11066.8	10969.6	8549.6	5696.1	2130.3	852.5	764.5	800.3
52.5°	13034.8	13226.4	13361.2	13352.1	13220.0	9624.8	6214.9	2016.6	803.0	751.7	792.9
55°	13930.4	14169.7	14419.0	14485.0	14382.4	10542.4	6705.3	1903.0	779.2	760.9	795.7
57.5°	15123.9	15527.3	15869.1	16013.1	15864.5	11716.7	7350.6	1843.4	771.8	785.5	813.0
60°	16518.1	17016.8	17466.0	17724.5	17724.5	13066.0	8019.8	1818.6	761.8	822.2	842.4
62.5°	17413.7	18146.1	18824.4	19203.0	19192.0	14005.6	8316.8	1734.3	738.8	847.9	882.7
65°	17417.4	18288.2	19152.6	19577.9	19599.9	13890.1	7826.4	1531.8	696.6	851.6	923.1
67.5°	15965.4	16893.9	17901.3	18377.1	18487.2	12786.5	6775.0	1259.5	627.9	814.9	937.7
70°	13484.0	14390.6	15419.0	15886.5	16081.8	10900.0	5456.8	970.8	539.9	734.3	907.5
72.5°	10623.1	11512.3	12228.1	12570.1	12722.2	8331.5	3973.8	733.4	442.7	618.8	825.9
75°	7521.1	8188.5	8569.0	8645.0	8668.8	5022.4	2414.5	545.4	364.8	481.2	697.6
77.5°	4245.0	4531.1	4499.9	4533.8	4251.5	1938.7	1051.4	390.5	300.6	365.7	540.8
80°	1657.3	1708.6	1605.1	1573.0	1442.8	721.4	463.8	272.2	240.2	276.8	378.6
82.5°	730.6	754.4	732.4	738.0	705.8	372.1	277.7	197.1	183.3	202.5	251.1
85°	402.4	409.8	408.0	419.8	402.4	148.5	132.0	121.0	128.4	137.5	161.3
87.5°	196.2	198.0	191.6	201.6	195.3	75.2	65.1	68.7	75.2	77.0	77.0
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):

	135°	145°	155°	165°	175°	180°
0°	1573.9	1573.9	1573.9	1573.9	1573.9	1573.9
2.5°	1486.9	1479.5	1480.4	1478.6	1474.9	1474.9
5°	1474.0	1466.6	1466.6	1464.9	1460.3	1461.2
7.5°	1486.9	1474.9	1470.3	1463.9	1457.5	1457.5
10°	1501.5	1480.4	1467.5	1456.6	1448.3	1448.3
12.5°	1512.4	1479.5	1458.4	1443.7	1435.5	1435.5
15°	1516.1	1473.0	1443.7	1426.3	1418.9	1418.1
17.5°	1504.2	1448.3	1412.6	1392.4	1383.2	1380.5
20°	1467.5	1403.4	1360.3	1337.4	1324.6	1320.0
22.5°	1412.6	1339.2	1288.8	1265.0	1248.5	1245.7
25°	1335.6	1256.7	1207.3	1184.3	1175.2	1172.4
27.5°	1245.7	1172.4	1130.3	1115.5	1107.3	1106.4
30°	1160.5	1098.1	1066.9	1056.0	1045.9	1044.0
32.5°	1080.7	1041.4	1029.4	1013.8	990.0	987.2
35°	1023.9	1020.2	1012.0	977.1	947.9	939.6
37.5°	989.1	1023.0	980.8	912.1	891.0	889.1
40°	968.9	994.6	922.2	898.4	900.2	898.4
42.5°	923.1	949.6	924.0	913.0	920.3	922.2
45°	877.3	906.5	937.7	930.4	947.9	947.9
47.5°	851.6	895.6	936.8	936.8	962.5	971.7
50°	822.2	886.4	922.2	935.0	955.1	947.9
52.5°	820.4	870.8	901.1	924.0	933.1	925.0
55°	823.2	857.9	879.9	905.6	916.7	917.6
57.5°	826.9	850.7	865.3	877.3	910.2	910.2
60°	836.0	844.2	852.5	858.9	902.0	902.9
62.5°	850.7	837.8	836.0	842.4	897.4	893.8
65°	873.6	828.7	814.9	821.3	892.8	881.8
67.5°	904.7	814.9	788.3	792.9	889.1	865.3
70°	933.1	792.9	755.3	750.7	854.4	812.1
72.5°	935.9	767.2	709.5	695.7	742.5	702.2
75°	890.1	749.8	659.1	618.8	613.3	607.7
77.5°	802.1	739.7	600.4	537.2	526.2	529.8
80°	671.0	702.2	529.8	454.7	514.2	507.8
82.5°	501.5	619.7	450.1	402.4	401.5	354.8
85°	278.7	483.0	366.6	301.6	209.9	203.5
87.5°	77.9	268.6	256.7	170.5	116.4	121.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)