

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: P192202

Luminaire Tested: **GLEON-AF-04-LED-E1-T2R-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P192202
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-04-LED-E1-T2R-7050-800
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5000K, 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: 20211 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 171
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

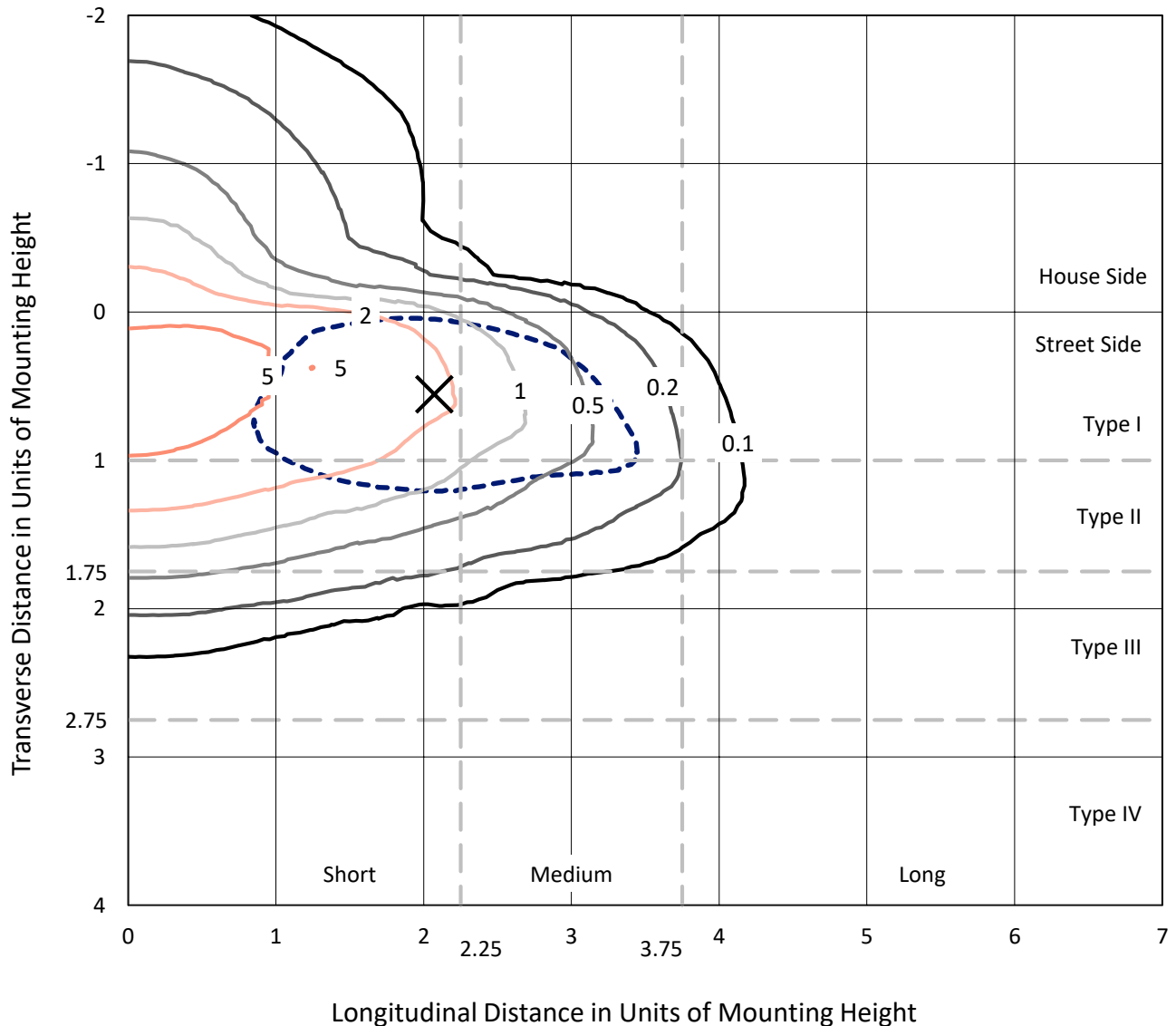


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

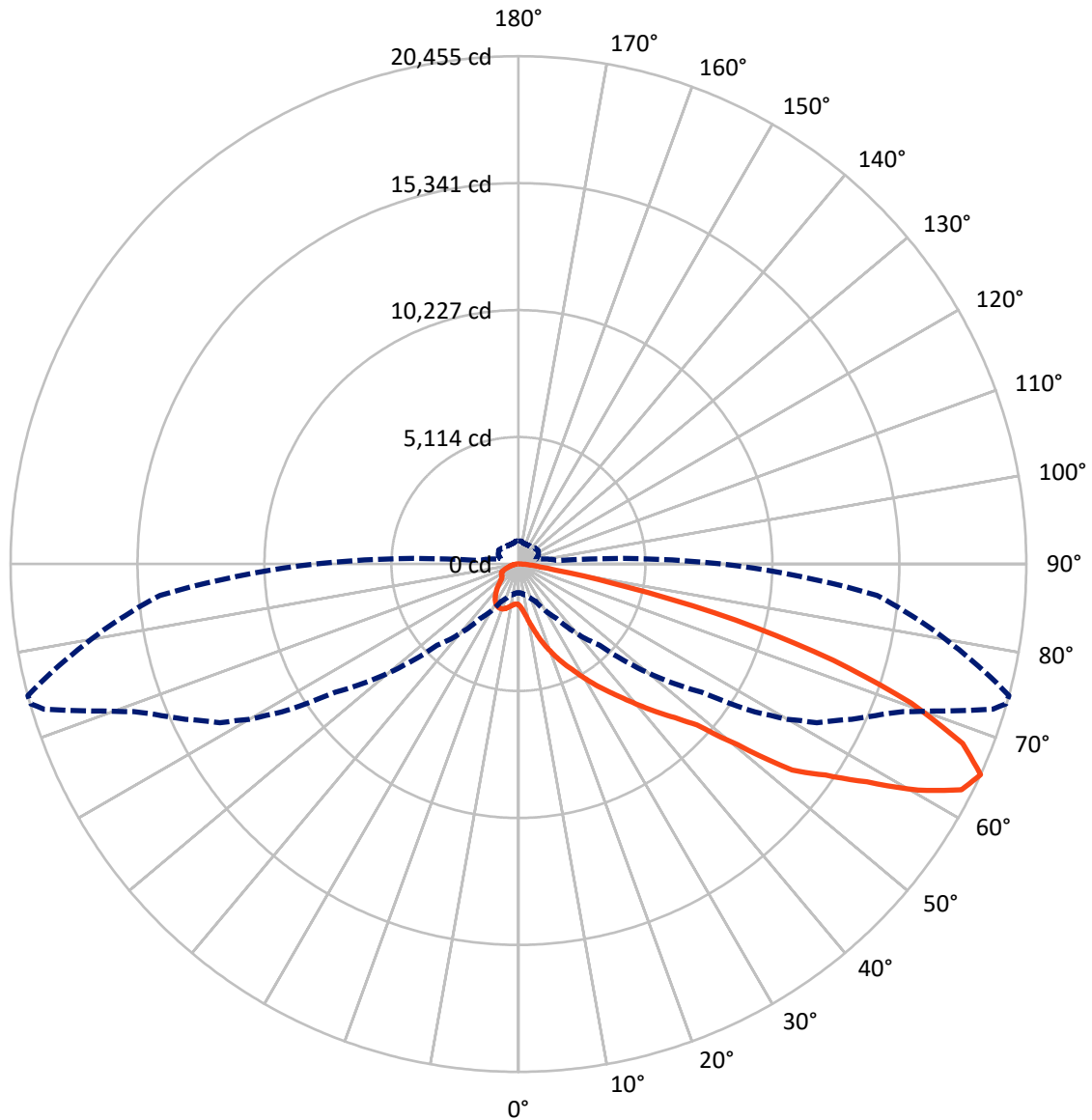


Based on 25 foot mounting height. Maximum calculated value = 8.2 fc
 Type II - Short - Full Cutoff

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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	3116.1	0.0	3116.1
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	17094.9	0.0	17094.9
	% Fixture	84.6	0.0	84.6
Total	Lumens	20211.0	0.0	20211.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.0	1.0
10°-20°	793.3	3.9
20°-30°	1627.5	8.1
30°-40°	2738.2	13.5
40°-50°	3783.4	18.7
50°-60°	4722.8	23.4
60°-70°	4250.0	21.0
70°-80°	1781.6	8.8
80°-90°	311.3	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°	20211.0	100.0
0°-180°	20211.0	100.0



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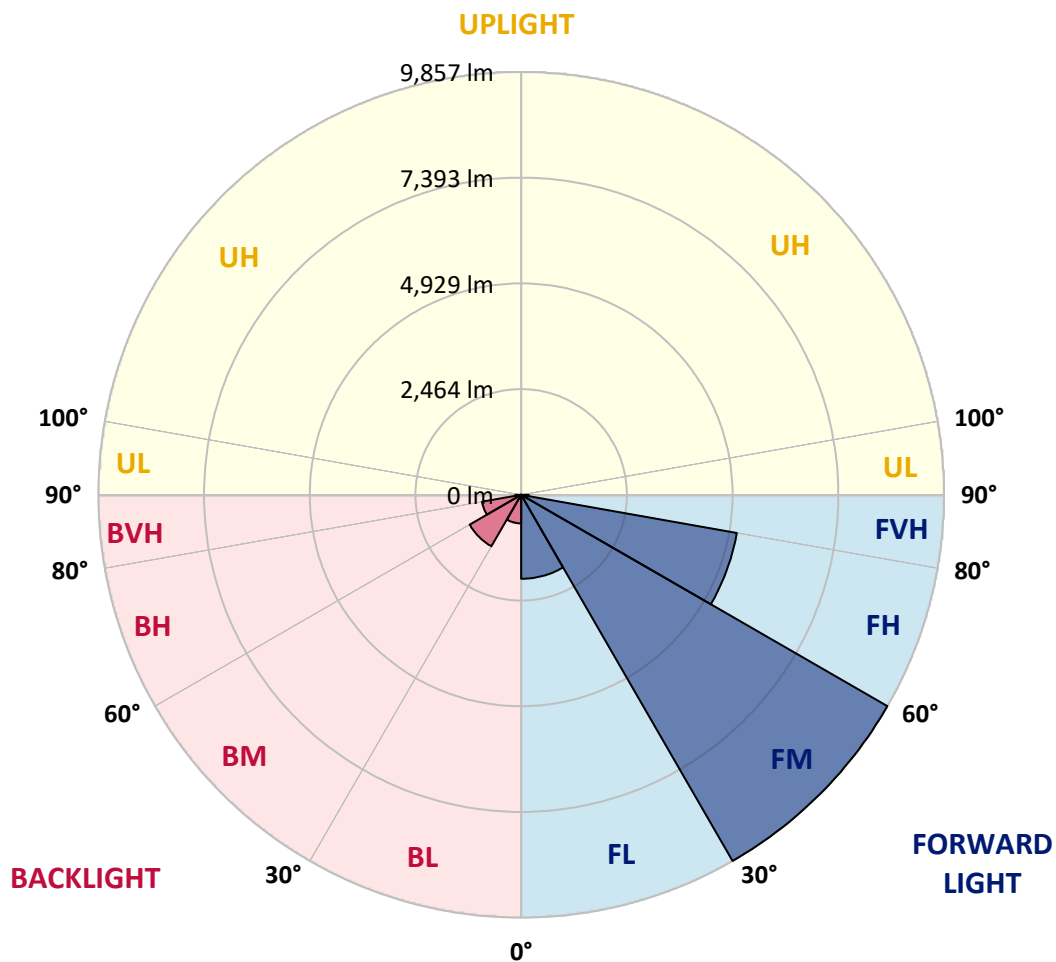
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1957.4	9.7			
FM (30°-60°)	9857.4	48.8			
FH (60°-80°)	5105.2	25.3			G3/7500
FVH (80°-90°)	174.9	0.9			G2/225
BL (0°-30°)	666.4	3.3	B2/1000		
BM (30°-60°)	1387.0	6.9	B2/2500		
BH (60°-80°)	926.4	4.6	B2/1000		G2/1000
BVH (80°-90°)	136.3	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-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5
2.5°	2085.4	2062.5	2068.2	2030.0	1983.1	1921.9	1853.9	1853.0	1853.9	1847.2	1822.4
5°	2891.9	2864.1	2853.6	2767.5	2641.3	2461.4	2266.3	2245.2	2236.6	2214.6	2163.9
7.5°	3480.2	3464.9	3448.6	3383.6	3268.8	3067.9	2805.8	2760.8	2717.8	2707.3	2649.9
10°	3860.0	3856.2	3821.7	3804.5	3732.8	3558.7	3303.2	3260.2	3213.3	3197.1	3136.8
12.5°	4160.4	4159.4	4143.2	4147.9	4085.8	3959.5	3739.5	3700.2	3665.8	3616.1	3573.0
15°	4368.0	4368.9	4392.8	4419.6	4410.1	4324.9	4118.3	4101.1	4071.4	4037.0	3986.3
17.5°	4538.2	4543.0	4567.9	4616.7	4669.3	4662.6	4499.0	4484.7	4458.8	4412.0	4385.2
20°	4922.8	4941.0	4893.2	4893.2	4898.9	4924.7	4846.3	4834.8	4798.4	4773.6	4752.5
22.5°	5572.4	5593.4	5485.3	5375.3	5267.2	5188.8	5110.3	5124.7	5099.8	5082.6	5070.1
25°	6416.1	6432.4	6257.3	6071.7	5851.7	5564.7	5370.5	5361.9	5348.5	5338.0	5332.2
27.5°	7210.1	7216.8	7051.3	6779.6	6524.2	6111.9	5634.5	5624.0	5607.8	5587.7	5570.4
30°	7889.3	7887.4	7717.1	7457.9	7184.3	6728.0	6035.4	6002.8	5955.0	5900.5	5858.4
32.5°	8477.6	8474.8	8288.2	8019.4	7732.4	7338.3	6584.5	6517.5	6442.9	6336.7	6272.6
35°	8940.6	8938.7	8762.7	8482.4	8153.3	7913.2	7213.9	7131.7	7037.0	6894.4	6795.9
37.5°	9115.7	9115.7	9017.2	8825.9	8535.0	8370.5	7913.2	7813.7	7712.3	7550.7	7439.7
40°	9013.3	9015.3	9036.3	9000.9	8859.3	8733.1	8565.6	8506.3	8419.3	8273.9	8158.1
42.5°	8669.9	8680.4	8820.1	8991.3	9062.1	9042.0	9144.4	9117.6	9056.4	8944.5	8852.6
45°	8234.7	8267.2	8420.2	8743.6	9118.6	9308.9	9629.4	9632.3	9620.8	9560.5	9489.8
47.5°	7636.8	7682.7	7884.5	8321.7	8986.6	9568.2	10122.1	10147.9	10171.8	10132.6	10100.1
50°	6842.8	6897.3	7199.6	7779.3	8717.8	9837.0	11052.9	11169.6	11278.6	11265.3	11287.3
52.5°	5992.3	6056.4	6426.6	7072.4	8255.7	9899.2	11647.9	11838.3	12028.6	12184.6	12350.1
55°	5225.1	5190.7	5560.9	6241.0	7496.1	9618.9	12182.7	12412.2	12624.6	12815.9	13013.0
57.5°	4185.2	4241.7	4612.9	5285.4	6490.7	8827.8	12551.0	12886.7	13191.9	13508.5	13787.9
60°	3059.3	3115.7	3518.5	4201.5	5399.2	7628.2	12269.7	12778.6	13267.5	13752.5	14131.3
62.5°	1847.2	1889.3	2244.2	2894.8	4163.2	6205.6	11016.5	11684.3	12403.6	12983.4	13564.0
65°	1149.9	1173.8	1304.8	1662.6	2673.8	4632.9	9000.9	9728.9	10503.8	11239.4	11843.1
67.5°	941.3	949.9	973.8	1050.4	1468.4	3021.0	6699.3	7344.0	8043.3	8755.1	9426.6
70°	846.6	840.9	840.9	845.7	941.3	1624.4	4386.1	4806.1	5388.7	6007.6	6621.8
72.5°	764.3	758.6	748.1	733.7	768.2	991.1	2267.2	2583.9	3003.8	3553.9	4142.2
75°	686.9	679.2	666.8	648.6	672.5	748.1	1088.6	1221.6	1426.3	1719.1	2047.2
77.5°	606.5	596.9	585.5	572.1	602.7	581.6	638.1	685.9	764.3	858.1	981.5
80°	515.6	507.0	503.2	496.5	532.8	442.9	450.6	480.2	526.1	576.8	634.2
82.5°	403.7	403.7	419.0	421.9	462.1	318.6	336.7	362.6	386.5	413.3	440.0
85°	265.9	267.9	319.5	339.6	364.5	214.3	252.5	261.2	280.3	295.6	307.1
87.5°	83.2	89.9	195.2	216.2	209.5	121.5	155.0	158.8	172.2	182.7	192.3
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°	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5
2.5°	1822.4	1810.9	1800.4	1799.4	1791.8	1781.2	1785.1	1768.8	1769.8	1761.2	1751.6
5°	2142.8	2135.2	2096.9	2086.4	2057.7	2039.5	2036.7	1998.4	1993.6	1971.6	1947.7
7.5°	2603.9	2579.1	2525.5	2499.7	2450.9	2414.5	2397.3	2346.6	2321.7	2264.3	2238.5
10°	3087.0	3055.5	2989.5	2953.1	2906.2	2847.9	2816.3	2742.7	2714.0	2661.3	2598.2
12.5°	3534.7	3503.2	3435.3	3407.5	3345.3	3283.1	3248.7	3165.5	3128.2	3044.0	2994.2
15°	3949.0	3917.4	3858.1	3829.4	3767.2	3716.5	3670.6	3588.3	3544.3	3465.9	3400.8
17.5°	4350.7	4317.3	4265.6	4239.8	4179.5	4127.9	4078.1	4000.6	3955.7	3877.2	3818.9
20°	4723.8	4699.0	4661.6	4627.2	4566.9	4520.1	4460.8	4393.8	4328.7	4271.3	4215.9
22.5°	5049.1	5039.5	4999.3	4984.0	4932.4	4892.2	4840.5	4774.5	4727.7	4655.0	4603.3
25°	5329.4	5326.5	5307.4	5302.6	5266.2	5228.0	5216.5	5162.0	5118.9	5054.8	5001.3
27.5°	5570.4	5573.3	5568.5	5581.9	5572.4	5555.1	5556.1	5537.9	5513.0	5459.5	5412.6
30°	5838.3	5823.0	5831.6	5850.7	5856.5	5858.4	5890.0	5900.5	5898.6	5863.2	5840.2
32.5°	6217.1	6180.8	6147.3	6144.4	6163.6	6171.2	6224.8	6252.5	6276.4	6285.0	6288.9
35°	6700.2	6627.5	6557.7	6520.4	6487.9	6496.5	6534.7	6579.7	6632.3	6668.7	6711.7
37.5°	7308.6	7219.7	7096.3	7008.3	6986.3	6938.4	6963.3	6998.7	7050.3	7106.8	7181.4
40°	8046.2	7911.3	7772.6	7655.9	7592.8	7504.7	7503.8	7497.1	7528.7	7581.3	7686.5
42.5°	8756.0	8636.4	8489.1	8366.7	8284.4	8166.7	8142.8	8080.6	8095.0	8140.9	8243.3
45°	9420.9	9322.3	9232.4	9090.8	9021.0	8893.8	8853.6	8779.9	8738.8	8759.8	8862.2
47.5°	10064.7	10001.5	9907.8	9816.0	9762.4	9648.6	9596.9	9544.3	9491.7	9489.8	9596.9
50°	11319.8	11286.3	11175.3	11079.7	11105.5	10965.8	10974.4	10832.9	10897.0	10904.6	11129.4
52.5°	12499.3	12616.0	12698.3	12798.7	12863.8	12876.2	12919.3	12983.4	13060.8	13213.9	13422.4
55°	13174.7	13321.0	13406.2	13482.7	13609.0	13635.8	13707.5	13792.7	13860.6	14032.8	14209.8
57.5°	13977.3	14249.0	14381.0	14502.5	14672.8	14737.8	14857.4	14950.2	15038.2	15242.0	15456.2
60°	14471.9	14802.9	15071.7	15264.0	15477.3	15630.3	15811.1	15956.6	16163.2	16407.1	16726.6
62.5°	14078.7	14564.7	14921.5	15251.5	15541.4	15834.1	16093.4	16365.0	16678.8	17048.1	17543.6
65°	12512.7	13007.3	13618.6	13961.0	14344.6	14796.2	15190.3	15630.3	16058.0	16595.6	17328.4
67.5°	10073.3	10648.2	11335.1	11680.4	12121.4	12625.6	13067.5	13605.2	14104.5	14756.0	15661.9
70°	7260.8	8004.1	8581.9	8942.6	9457.2	9976.7	10403.3	11029.0	11442.2	12110.0	13046.5
72.5°	4597.6	5184.0	5891.9	6346.3	6803.5	7329.7	7765.9	8305.4	8691.0	9299.4	10147.9
75°	2471.9	2904.3	3526.1	3957.6	4447.4	4897.0	5407.8	5769.4	6054.5	6535.7	7224.5
77.5°	1158.5	1421.5	1736.3	2068.2	2400.2	2746.5	3083.2	3375.9	3498.4	3773.9	4180.5
80°	703.1	788.3	880.1	982.5	1121.2	1233.1	1381.4	1488.5	1496.2	1583.2	1707.6
82.5°	469.7	501.3	529.0	554.8	590.2	618.0	649.6	686.9	702.2	722.3	762.4
85°	320.5	335.8	341.5	357.8	354.0	363.5	376.0	388.4	395.1	394.1	412.3
87.5°	197.1	204.7	208.5	212.4	209.5	205.7	211.4	218.1	220.0	214.3	216.2
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5
2.5°	1753.5	1744.9	1736.3	1730.5	1728.6	1677.9	1655.9	1641.6	1611.0	1586.1	1566.0
5°	1934.3	1916.1	1901.8	1884.6	1875.0	1746.8	1699.9	1667.4	1613.8	1582.3	1553.6
7.5°	2225.1	2174.4	2144.8	2111.3	2082.6	1851.1	1773.6	1722.9	1648.3	1606.2	1573.7
10°	2555.2	2502.5	2455.7	2404.0	2359.0	1989.8	1876.9	1798.5	1699.9	1645.4	1602.4
12.5°	2923.5	2871.8	2812.5	2746.5	2689.1	2165.8	2008.9	1897.0	1762.1	1689.4	1629.1
15°	3358.7	3267.8	3196.1	3119.6	3052.6	2376.3	2162.9	2008.0	1828.1	1729.6	1649.2
17.5°	3763.4	3667.7	3570.1	3503.2	3425.7	2612.6	2317.9	2120.8	1882.6	1755.4	1653.1
20°	4158.5	4054.2	3970.0	3880.1	3798.8	2857.4	2483.4	2220.3	1918.0	1756.4	1629.1
22.5°	4506.7	4441.6	4347.9	4250.3	4168.0	3102.3	2638.4	2304.5	1931.4	1734.4	1587.0
25°	4902.7	4833.8	4719.0	4636.8	4544.9	3352.0	2790.5	2369.6	1923.8	1693.2	1522.0
27.5°	5325.5	5249.0	5131.4	5045.3	4934.3	3611.3	2930.2	2416.4	1895.1	1626.3	1434.9
30°	5766.6	5696.7	5581.0	5493.9	5382.0	3885.8	3086.1	2448.0	1837.7	1533.5	1333.5
32.5°	6240.1	6181.7	6066.9	5976.1	5856.5	4183.3	3231.5	2457.6	1750.6	1423.5	1226.4
35°	6689.7	6649.5	6552.9	6467.8	6343.4	4464.6	3385.5	2452.8	1647.3	1302.9	1128.8
37.5°	7195.8	7171.8	7124.0	7015.9	6863.8	4846.3	3570.1	2432.7	1521.0	1183.3	1054.2
40°	7735.3	7737.2	7685.5	7611.9	7470.3	5309.3	3790.2	2393.5	1383.3	1078.1	986.3
42.5°	8306.4	8336.1	8311.2	8258.6	8122.7	5776.1	4053.2	2345.7	1249.4	975.8	919.3
45°	8960.7	8997.1	9035.4	8957.9	8825.9	6392.2	4399.5	2283.5	1104.9	890.6	873.4
47.5°	9715.5	9772.9	9807.4	9808.3	9676.3	7155.6	4962.0	2246.2	976.7	833.2	851.4
50°	11308.3	11326.5	11407.8	11549.4	11448.0	8922.5	5944.5	2223.2	889.7	797.8	835.1
52.5°	13603.3	13803.2	13943.8	13934.2	13796.5	10044.6	6485.9	2104.6	838.0	784.4	827.5
55°	14537.9	14787.6	15047.8	15116.6	15009.5	11002.2	6997.7	1986.0	813.1	794.0	830.4
57.5°	15783.4	16204.3	16561.1	16711.3	16556.4	12227.6	7671.2	1923.8	805.5	819.8	848.5
60°	17238.4	17758.8	18227.6	18497.4	18497.4	13635.8	8369.5	1898.0	795.0	858.1	879.1
62.5°	18173.1	18937.4	19645.3	20040.4	20028.9	14616.3	8679.5	1809.9	771.0	884.9	921.2
65°	18176.9	19085.7	19987.8	20431.7	20454.6	14495.8	8167.7	1598.5	727.0	888.7	963.3
67.5°	16661.6	17630.7	18682.0	19178.5	19293.3	13344.0	7070.4	1314.4	655.3	850.4	978.6
70°	14072.0	15018.1	16091.4	16579.3	16783.1	11375.3	5694.8	1013.1	563.5	766.3	947.1
72.5°	11086.4	12014.3	12761.4	13118.2	13277.0	8694.8	4147.0	765.3	462.1	645.7	861.9
75°	7849.1	8545.6	8942.6	9022.0	9046.8	5241.4	2519.8	569.2	380.7	502.2	728.0
77.5°	4430.1	4728.6	4696.1	4731.5	4436.8	2023.3	1097.3	407.5	313.8	381.7	564.4
80°	1729.6	1783.2	1675.1	1641.6	1505.7	752.9	484.1	284.1	250.6	288.9	395.1
82.5°	762.4	787.3	764.3	770.1	736.6	388.4	289.9	205.7	191.3	211.4	262.1
85°	420.0	427.6	425.7	438.1	420.0	155.0	137.8	126.3	133.9	143.5	168.4
87.5°	204.7	206.6	199.9	210.5	203.8	78.4	67.9	71.7	78.4	80.4	80.4
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°	1642.5	1642.5	1642.5	1642.5	1642.5	1642.5
2.5°	1551.7	1544.0	1545.0	1543.0	1539.2	1539.2
5°	1538.3	1530.6	1530.6	1528.7	1523.9	1524.9
7.5°	1551.7	1539.2	1534.4	1527.7	1521.0	1521.0
10°	1567.0	1545.0	1531.6	1520.1	1511.5	1511.5
12.5°	1578.4	1544.0	1522.0	1506.7	1498.1	1498.1
15°	1582.3	1537.3	1506.7	1488.5	1480.9	1479.9
17.5°	1569.8	1511.5	1474.2	1453.1	1443.6	1440.7
20°	1531.6	1464.6	1419.6	1395.7	1382.3	1377.5
22.5°	1474.2	1397.6	1345.0	1320.1	1302.9	1300.1
25°	1393.8	1311.5	1259.9	1236.0	1226.4	1223.5
27.5°	1300.1	1223.5	1179.5	1164.2	1155.6	1154.7
30°	1211.1	1146.0	1113.5	1102.0	1091.5	1089.6
32.5°	1127.9	1086.7	1074.3	1058.0	1033.2	1030.3
35°	1068.6	1064.7	1056.1	1019.8	989.2	980.5
37.5°	1032.2	1067.6	1023.6	951.8	929.8	927.9
40°	1011.2	1037.9	962.4	937.5	939.4	937.5
42.5°	963.3	991.1	964.3	952.8	960.5	962.4
45°	915.5	946.1	978.6	971.0	989.2	989.2
47.5°	888.7	934.6	977.7	977.7	1004.5	1014.0
50°	858.1	925.1	962.4	975.8	996.8	989.2
52.5°	856.2	908.8	940.4	964.3	973.8	965.2
55°	859.1	895.4	918.4	945.1	956.6	957.6
57.5°	862.9	887.8	903.1	915.5	949.9	949.9
60°	872.4	881.1	889.7	896.4	941.3	942.3
62.5°	887.8	874.4	872.4	879.1	936.5	932.7
65°	911.7	864.8	850.4	857.1	931.8	920.3
67.5°	944.2	850.4	822.7	827.5	927.9	903.1
70°	973.8	827.5	788.3	783.5	891.6	847.6
72.5°	976.7	800.7	740.4	726.1	774.9	732.8
75°	928.9	782.5	687.8	645.7	640.0	634.2
77.5°	837.0	772.0	626.6	560.6	549.1	552.9
80°	700.3	732.8	552.9	474.5	536.7	530.0
82.5°	523.3	646.7	469.7	420.0	419.0	370.2
85°	290.8	504.1	382.7	314.7	219.1	212.4
87.5°	81.3	280.3	267.9	177.9	121.5	126.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)