

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: P191410

Luminaire Tested: **GLEON-AF-02-LED-E1-T2R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191410
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-02-LED-E1-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 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: 12979.2 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 113
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

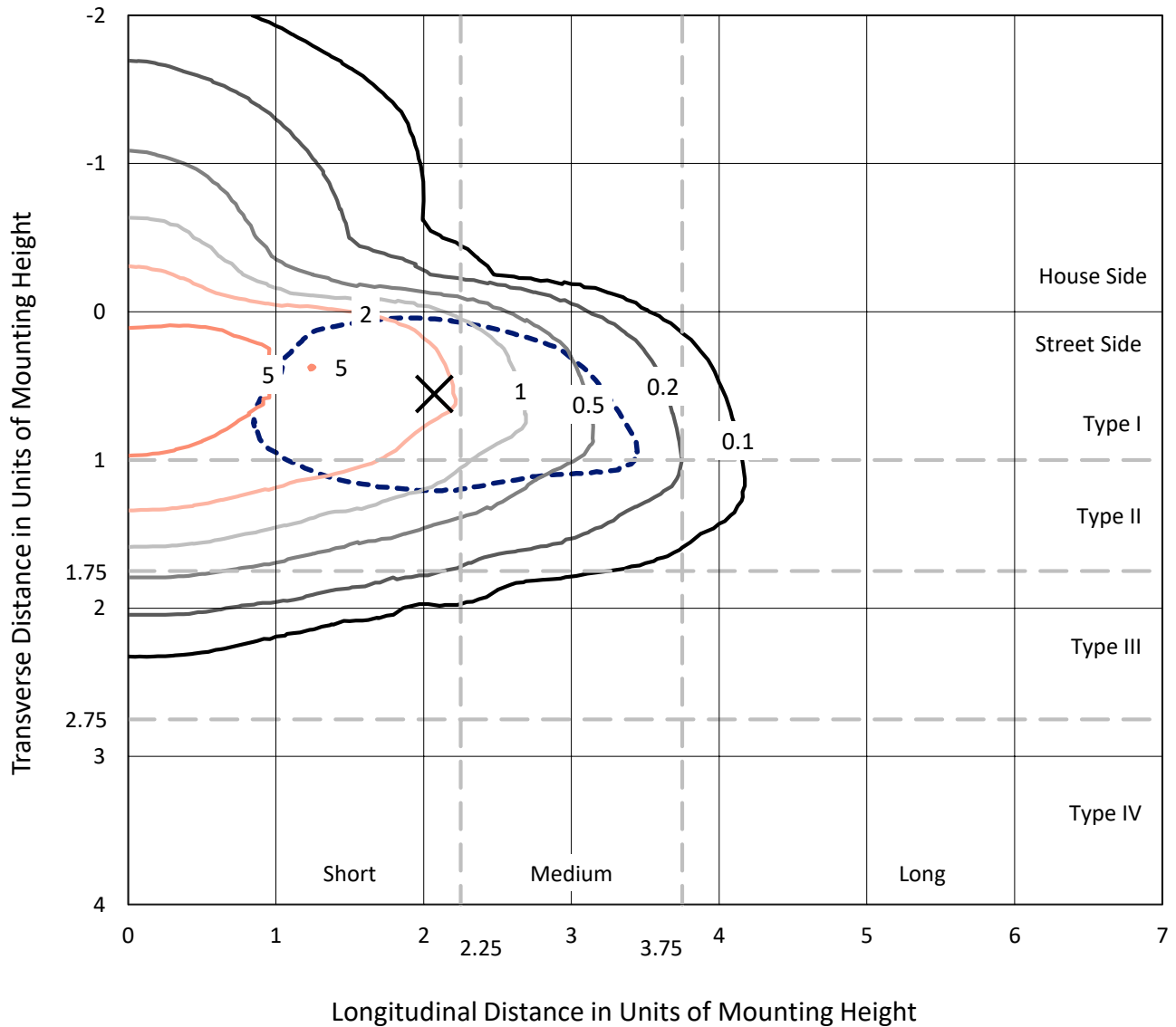


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Iso-Footcandle Lines of Horizontal Illumination

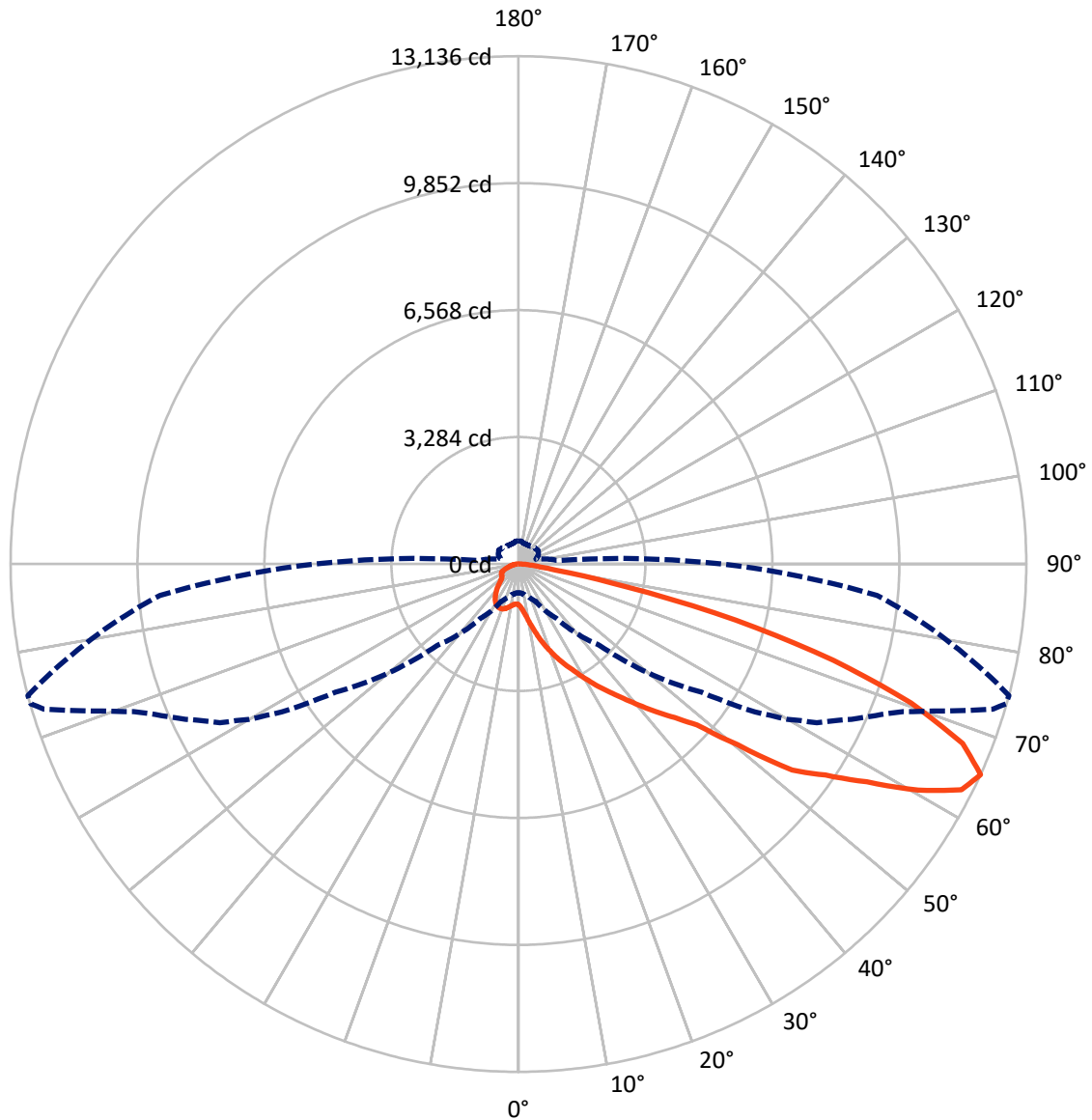
✕ Max cd
 - - - 1/2 Max cd



Based on 20 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	2001.1	0.0	2001.1
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	10978.1	0.0	10978.1
	% Fixture	84.6	0.0	84.6
Total	Lumens	12979.2	0.0	12979.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.4	1.0
10°-20°	509.4	3.9
20°-30°	1045.2	8.1
30°-40°	1758.4	13.5
40°-50°	2429.6	18.7
50°-60°	3032.9	23.4
60°-70°	2729.3	21.0
70°-80°	1144.1	8.8
80°-90°	199.9	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°	12979.2	100.0
0°-180°	12979.2	100.0

Coefficient of Utilization



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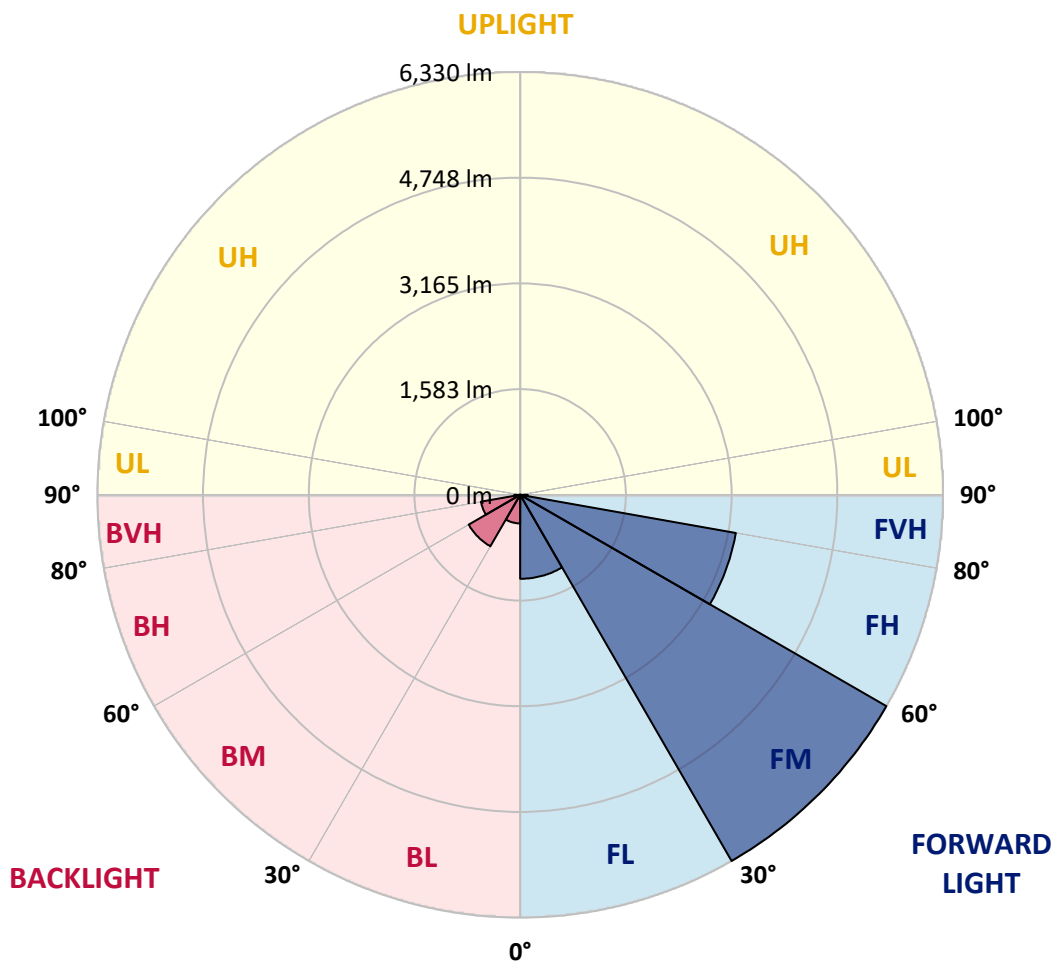
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1257.0	9.7			
FM (30°-60°)	6330.3	48.8			
FH (60°-80°)	3278.5	25.3			G2/5000
FVH (80°-90°)	112.3	0.9			G2/225
BL (0°-30°)	427.9	3.3	B1/500		
BM (30°-60°)	890.7	6.9	B1/1000		
BH (60°-80°)	594.9	4.6	B2/1000		G2/1000
BVH (80°-90°)	87.5	0.7			G1/100
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°	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8
2.5°	1339.2	1324.5	1328.2	1303.6	1273.5	1234.2	1190.6	1190.0	1190.6	1186.3	1170.3
5°	1857.2	1839.3	1832.5	1777.3	1696.2	1580.7	1455.4	1441.8	1436.3	1422.2	1389.6
7.5°	2234.9	2225.1	2214.7	2172.8	2099.2	1970.2	1801.8	1773.0	1745.4	1738.6	1701.7
10°	2478.8	2476.4	2454.3	2443.2	2397.1	2285.3	2121.3	2093.7	2063.5	2053.1	2014.4
12.5°	2671.7	2671.1	2660.7	2663.8	2623.8	2542.7	2401.4	2376.2	2354.1	2322.2	2294.6
15°	2805.0	2805.6	2821.0	2838.2	2832.0	2777.4	2644.7	2633.7	2614.6	2592.5	2559.9
17.5°	2914.4	2917.5	2933.4	2964.7	2998.6	2994.3	2889.2	2880.0	2863.4	2833.3	2816.1
20°	3161.3	3173.0	3142.3	3142.3	3146.0	3162.6	3112.2	3104.9	3081.5	3065.5	3052.0
22.5°	3578.5	3592.0	3522.5	3451.9	3382.5	3332.2	3281.7	3290.9	3275.0	3263.9	3256.0
25°	4120.3	4130.8	4018.4	3899.2	3757.9	3573.6	3448.9	3443.4	3434.8	3428.0	3424.3
27.5°	4630.2	4634.5	4528.2	4353.8	4189.7	3925.0	3618.4	3611.6	3601.2	3588.3	3577.3
30°	5066.4	5065.1	4955.8	4789.4	4613.6	4320.6	3875.9	3854.9	3824.2	3789.2	3762.2
32.5°	5444.2	5442.4	5322.6	5149.9	4965.6	4712.5	4228.5	4185.4	4137.5	4069.3	4028.2
35°	5741.5	5740.3	5627.3	5447.3	5236.0	5081.7	4632.6	4579.9	4519.0	4427.5	4364.2
37.5°	5853.9	5853.9	5790.7	5667.9	5481.1	5375.4	5081.7	5017.9	4952.7	4848.9	4777.7
40°	5788.3	5789.5	5803.0	5780.3	5689.3	5608.2	5500.7	5462.7	5406.7	5313.3	5239.0
42.5°	5567.7	5574.5	5664.2	5774.1	5819.6	5806.7	5872.4	5855.2	5815.9	5744.0	5685.0
45°	5288.1	5309.0	5407.3	5615.0	5855.8	5978.0	6183.8	6185.7	6178.3	6139.6	6094.1
47.5°	4904.2	4933.7	5063.3	5344.1	5771.1	6144.6	6500.2	6516.8	6532.2	6507.0	6486.1
50°	4394.3	4429.4	4623.4	4995.8	5598.4	6317.1	7097.9	7172.9	7243.0	7234.4	7248.5
52.5°	3848.1	3889.4	4127.1	4541.8	5301.6	6357.1	7480.1	7602.4	7724.6	7824.8	7931.0
55°	3355.5	3333.4	3571.1	4007.9	4813.9	6177.1	7823.5	7970.9	8107.3	8230.3	8356.8
57.5°	2687.7	2723.9	2962.3	3394.2	4168.2	5669.1	8060.0	8275.7	8471.7	8675.0	8854.4
60°	1964.7	2000.9	2259.5	2698.1	3467.3	4898.7	7879.4	8206.2	8520.2	8831.6	9074.9
62.5°	1186.3	1213.3	1441.2	1859.0	2673.6	3985.2	7074.6	7503.4	7965.4	8337.8	8710.6
65°	738.5	753.8	837.9	1067.8	1717.0	2975.3	5780.3	6247.8	6745.3	7217.8	7605.4
67.5°	604.5	610.0	625.4	674.5	943.0	1940.0	4302.1	4716.2	5165.3	5622.3	6053.6
70°	543.7	540.0	540.0	543.1	604.5	1043.1	2816.7	3086.4	3460.5	3858.0	4252.4
72.5°	490.8	487.1	480.4	471.2	493.3	636.5	1456.0	1659.3	1929.0	2282.2	2660.1
75°	441.1	436.2	428.2	416.5	431.9	480.4	699.1	784.5	916.0	1104.0	1314.7
77.5°	389.4	383.3	375.9	367.3	387.0	373.5	409.8	440.5	490.8	551.1	630.3
80°	331.1	325.6	323.2	318.9	342.2	284.5	289.4	308.4	337.9	370.4	407.3
82.5°	259.2	259.2	269.0	270.9	296.8	204.6	216.3	232.8	248.2	265.4	282.6
85°	170.8	172.1	205.2	218.1	234.1	137.6	162.1	167.7	180.0	189.9	197.2
87.5°	53.4	57.8	125.3	138.8	134.5	78.1	99.5	102.0	110.6	117.3	123.5
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°	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8
2.5°	1170.3	1162.9	1156.1	1155.5	1150.6	1143.9	1146.3	1135.9	1136.5	1131.0	1124.8
5°	1376.1	1371.2	1346.6	1339.9	1321.4	1309.8	1307.9	1283.3	1280.2	1266.1	1250.8
7.5°	1672.2	1656.3	1621.8	1605.2	1573.9	1550.6	1539.5	1506.9	1491.0	1454.1	1437.6
10°	1982.5	1962.2	1919.8	1896.4	1866.4	1828.8	1808.6	1761.3	1742.9	1709.0	1668.5
12.5°	2269.9	2249.7	2206.1	2188.3	2148.3	2108.4	2086.3	2032.8	2008.9	1954.8	1922.8
15°	2536.0	2515.6	2477.6	2459.2	2419.3	2386.6	2357.2	2304.4	2276.1	2225.7	2184.0
17.5°	2794.0	2772.5	2739.3	2722.7	2684.0	2650.9	2618.9	2569.1	2540.3	2489.9	2452.4
20°	3033.6	3017.6	2993.7	2971.6	2932.8	2902.7	2864.7	2821.6	2779.9	2743.0	2707.3
22.5°	3242.4	3236.3	3210.5	3200.7	3167.5	3141.7	3108.5	3066.1	3036.0	2989.4	2956.1
25°	3422.5	3420.6	3408.3	3405.2	3381.9	3357.3	3350.0	3315.0	3287.3	3246.1	3211.8
27.5°	3577.3	3579.1	3576.0	3584.6	3578.5	3567.4	3568.1	3556.4	3540.4	3506.0	3475.9
30°	3749.3	3739.4	3744.9	3757.3	3761.0	3762.2	3782.5	3789.2	3788.0	3765.3	3750.5
32.5°	3992.6	3969.2	3947.7	3945.8	3958.1	3963.0	3997.5	4015.3	4030.6	4036.2	4038.6
35°	4302.7	4256.1	4211.3	4187.2	4166.4	4171.9	4196.6	4225.4	4259.2	4282.5	4310.2
37.5°	4693.5	4636.3	4557.1	4500.6	4486.5	4455.8	4471.7	4494.4	4527.6	4563.9	4611.8
40°	5167.1	5080.5	4991.5	4916.5	4876.0	4819.4	4818.8	4814.5	4834.8	4868.6	4936.1
42.5°	5623.0	5546.2	5451.6	5372.9	5320.2	5244.6	5229.2	5189.2	5198.4	5228.0	5293.7
45°	6049.9	5986.7	5928.9	5838.0	5793.2	5711.4	5685.7	5638.3	5611.9	5625.4	5691.2
47.5°	6463.4	6422.8	6362.7	6303.6	6269.3	6196.1	6163.0	6129.2	6095.4	6094.1	6163.0
50°	7269.4	7247.9	7176.6	7115.2	7131.8	7042.1	7047.6	6956.7	6997.9	7002.8	7147.2
52.5°	8026.9	8101.8	8154.7	8219.1	8260.9	8268.9	8296.5	8337.8	8387.5	8485.8	8619.7
55°	8460.6	8554.5	8609.3	8658.4	8739.5	8756.7	8802.8	8857.4	8901.1	9011.7	9125.3
57.5°	8976.0	9150.5	9235.3	9313.3	9422.6	9464.4	9541.2	9600.8	9657.3	9788.1	9925.8
60°	9293.6	9506.2	9678.9	9802.3	9939.3	10037.6	10153.7	10247.1	10379.8	10536.4	10741.6
62.5°	9041.1	9353.2	9582.4	9794.3	9980.4	10168.4	10334.9	10509.4	10710.9	10948.0	11266.3
65°	8035.5	8353.1	8745.6	8965.6	9211.9	9501.9	9755.0	10037.6	10312.2	10657.4	11128.0
67.5°	6468.9	6838.1	7279.2	7501.0	7784.2	8107.9	8391.8	8737.0	9057.7	9476.1	10057.9
70°	4662.8	5140.1	5511.1	5742.7	6073.3	6406.8	6680.9	7082.6	7348.1	7776.9	8378.3
72.5°	2952.4	3329.1	3783.7	4075.4	4369.1	4707.0	4987.2	5333.7	5581.2	5971.9	6516.8
75°	1587.4	1865.1	2264.4	2541.5	2856.1	3144.8	3472.8	3705.0	3888.1	4197.2	4639.4
77.5°	744.0	912.9	1115.0	1328.2	1541.4	1763.8	1980.0	2167.9	2246.6	2423.6	2684.6
80°	451.5	506.3	565.2	631.0	720.0	791.9	887.1	955.9	960.9	1016.7	1096.6
82.5°	301.7	321.9	339.7	356.3	379.0	396.9	417.2	441.1	450.9	463.8	489.6
85°	205.8	215.6	219.3	229.8	227.3	233.4	241.4	249.4	253.7	253.1	264.7
87.5°	126.5	131.4	133.9	136.4	134.5	132.1	135.7	140.0	141.3	137.6	138.8
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°	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8
2.5°	1126.1	1120.5	1115.0	1111.3	1110.1	1077.6	1063.5	1054.2	1034.5	1018.6	1005.7
5°	1242.2	1230.5	1221.3	1210.3	1204.1	1121.8	1091.7	1070.8	1036.4	1016.1	997.7
7.5°	1429.0	1396.3	1377.3	1355.8	1337.4	1188.8	1139.0	1106.4	1058.4	1031.4	1010.6
10°	1640.9	1607.1	1577.0	1543.8	1515.0	1277.8	1205.3	1154.9	1091.7	1056.6	1029.0
12.5°	1877.4	1844.2	1806.1	1763.8	1726.8	1390.8	1290.1	1218.2	1131.6	1084.9	1046.2
15°	2156.9	2098.6	2052.4	2003.3	1960.4	1526.0	1389.0	1289.5	1173.9	1110.7	1059.1
17.5°	2416.8	2355.3	2292.6	2249.7	2200.0	1677.7	1488.5	1362.0	1209.0	1127.3	1061.5
20°	2670.5	2603.5	2549.5	2491.7	2439.5	1835.0	1594.8	1425.9	1231.7	1127.9	1046.2
22.5°	2894.1	2852.3	2792.1	2729.4	2676.7	1992.3	1694.3	1479.9	1240.3	1113.8	1019.2
25°	3148.4	3104.2	3030.5	2977.7	2918.7	2152.6	1792.0	1521.7	1235.4	1087.4	977.4
27.5°	3420.0	3370.8	3295.2	3240.0	3168.7	2319.1	1881.7	1551.8	1217.0	1044.3	921.5
30°	3703.2	3658.4	3584.0	3528.2	3456.2	2495.4	1981.9	1572.1	1180.2	984.8	856.4
32.5°	4007.3	3969.8	3896.1	3837.7	3761.0	2686.5	2075.3	1578.2	1124.2	914.1	787.6
35°	4296.0	4270.2	4208.2	4153.5	4073.6	2867.1	2174.1	1575.1	1057.8	836.7	724.9
37.5°	4621.0	4605.6	4574.9	4505.5	4407.8	3112.2	2292.6	1562.3	976.8	760.0	677.0
40°	4967.4	4968.7	4935.5	4888.3	4797.3	3409.5	2434.0	1537.1	888.3	692.3	633.4
42.5°	5334.3	5353.3	5337.3	5303.5	5216.3	3709.3	2602.9	1506.3	802.3	626.7	590.3
45°	5754.4	5777.8	5802.4	5752.6	5667.9	4105.0	2825.3	1466.4	709.5	571.9	560.9
47.5°	6239.2	6276.0	6298.1	6298.7	6214.0	4595.2	3186.5	1442.5	627.3	535.1	546.8
50°	7262.0	7273.7	7325.9	7416.8	7351.7	5729.9	3817.4	1427.7	571.3	512.4	536.3
52.5°	8735.8	8864.2	8954.5	8948.4	8859.9	6450.5	4165.1	1351.5	538.2	503.8	531.4
55°	9336.0	9496.4	9663.4	9707.7	9638.9	7065.4	4493.8	1275.3	522.2	509.9	533.3
57.5°	10135.9	10406.2	10635.3	10731.8	10632.2	7852.4	4926.3	1235.4	517.3	526.5	544.9
60°	11070.3	11404.5	11705.5	11878.7	11878.7	8756.7	5374.8	1218.8	510.6	551.1	564.6
62.5°	11670.4	12161.4	12616.0	12869.6	12862.3	9386.4	5573.9	1162.3	495.1	568.2	591.6
65°	11672.9	12256.6	12835.9	13120.9	13135.6	9309.0	5245.2	1026.5	466.9	570.7	618.7
67.5°	10699.9	11322.1	11997.3	12316.1	12389.9	8569.4	4540.6	844.1	420.8	546.2	628.5
70°	9036.8	9644.4	10333.6	10647.0	10777.8	7305.0	3657.2	650.6	361.8	492.0	608.1
72.5°	7119.5	7715.4	8195.2	8424.3	8526.3	5583.7	2663.2	491.4	296.8	414.7	553.5
75°	5040.6	5487.8	5742.7	5793.8	5809.7	3365.9	1618.1	365.5	244.5	322.5	467.5
77.5°	2844.9	3036.6	3015.8	3038.5	2849.2	1299.4	704.6	261.7	201.5	245.1	362.4
80°	1110.7	1145.1	1075.7	1054.2	967.0	483.4	310.9	182.5	160.9	185.6	253.7
82.5°	489.6	505.6	490.8	494.5	473.0	249.4	186.2	132.1	122.9	135.7	168.4
85°	269.6	274.6	273.3	281.4	269.6	99.5	88.5	81.1	86.0	92.2	108.1
87.5°	131.4	132.7	128.4	135.1	130.8	50.3	43.6	46.0	50.3	51.6	51.6
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°	1054.8	1054.8	1054.8	1054.8	1054.8	1054.8
2.5°	996.5	991.5	992.2	990.9	988.5	988.5
5°	987.9	983.0	983.0	981.7	978.7	979.3
7.5°	996.5	988.5	985.4	981.1	976.8	976.8
10°	1006.3	992.2	983.6	976.2	970.7	970.7
12.5°	1013.6	991.5	977.4	967.6	962.1	962.1
15°	1016.1	987.2	967.6	955.9	950.9	950.3
17.5°	1008.1	970.7	946.6	933.1	927.0	925.2
20°	983.6	940.5	911.7	896.3	887.7	884.6
22.5°	946.6	897.5	863.8	847.8	836.7	834.8
25°	895.1	842.3	809.1	793.7	787.6	785.7
27.5°	834.8	785.7	757.5	747.7	742.2	741.5
30°	777.7	736.0	715.0	707.7	700.9	699.7
32.5°	724.2	697.9	689.9	679.4	663.5	661.6
35°	686.2	683.7	678.2	654.9	635.3	629.7
37.5°	662.9	685.6	657.3	611.2	597.1	595.9
40°	649.4	666.6	618.1	602.0	603.2	602.0
42.5°	618.7	636.5	619.3	611.8	616.8	618.1
45°	587.9	607.5	628.5	623.6	635.3	635.3
47.5°	570.7	600.2	627.9	627.9	645.1	651.2
50°	551.1	594.0	618.1	626.7	640.2	635.3
52.5°	549.8	583.6	603.8	619.3	625.4	619.9
55°	551.7	575.0	589.7	606.9	614.3	614.9
57.5°	554.1	570.1	579.9	587.9	610.0	610.0
60°	560.3	565.8	571.3	575.6	604.5	605.1
62.5°	570.1	561.5	560.3	564.6	601.4	598.9
65°	585.4	555.4	546.2	550.4	598.3	591.0
67.5°	606.3	546.2	528.4	531.4	595.9	579.9
70°	625.4	531.4	506.3	503.1	572.5	544.3
72.5°	627.3	514.2	475.5	466.3	497.6	470.6
75°	596.5	502.5	441.7	414.7	411.0	407.3
77.5°	537.6	495.7	402.4	360.0	352.6	355.1
80°	449.7	470.6	355.1	304.7	344.6	340.3
82.5°	336.0	415.3	301.7	269.6	269.0	237.7
85°	186.8	323.8	245.7	202.1	140.7	136.4
87.5°	52.2	180.0	172.1	114.3	78.1	81.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)