```
For a tolerance of 0.100000 the approx area = 0.530062.
The exact area = 0.549360.
The approximate error = 7.697990e-03.
The exact error(comp) = 1.929841e-02.
The difference in integrals is 1.929841e-02.
The number of function evaluations is 4.
The number of points is 3.
For a tolerance of 0.001000 the approx area = 0.549886.
The exact area = 0.549360.
The approximate error = 3.549460e-04.
The exact error(comp) = 6.367657e-04.
The difference in integrals is 5.255065e-04.
The number of function evaluations is 16.
The number of points is 9.
For a tolerance of 0.000100 the approx area = 0.549504.
The exact area = 0.549360.
The approximate error = 3.481520e-05.
The exact error(comp) = 2.554092e-04.
The difference in integrals is 1.441500e-04.
The number of function evaluations is 20.
The number of points is 11.
For a tolerance of 0.000010 the approx area = 0.549374.
The exact area = 0.549360.
The approximate error = 1.753973e-05.
The exact error(comp) = 2.776967e-05.
The difference in integrals is 1.362031e-05.
The number of function evaluations is 36.
The number of points is 19.
For a tolerance of 0.000001 the approx area = 0.549362.
The exact area = 0.549360.
The approximate error = 1.901950e-06.
The exact error(comp) = 4.140455e-06.
The difference in integrals is 1.872539e-06.
The number of function evaluations is 60.
The number of points is 31.
For a tolerance of 0.000001 the approx area = 0.549362.
The exact area = 0.549360.
The approximate error = 1.901950e-06.
The exact error(comp) = 4.140455e-06.
The difference in integrals is 1.872539e-06.
The number of function evaluations is 60.
The number of points is 31.
```