```
[A Ides] = illumdata;
b = Ides.*ones(11,1);
x = A\b

for i = (1:7)
    if x(i,1) < 0
        x(i,1) = 0;
    elseif x(i,1) > 1
        x(i,1) = 1;
    end
end
x
y = A*x;
error = y - b;
cost = error'*error;
```

```
x =

    5.2697
   -2.4557
    0.5232
   -8.1288
   11.6706
   -5.6689
   -1.4232
```

```
x =

    1.0000
         0
    0.5232
         0
    1.0000
         0
         0
```

```
u = 16599999999999999;
A2 = ones(1,7);
b2 = 0.5;
x = (A'*A + u.*A2'*A2)\(A'*b + u.*A2'*b2)
for i = (1:7)
    if x(i,1) < 0
        x(i,1) = 0;
    elseif x(i,1) > 1
        x(i,1) = 1;
    end
end
x
y = A*x;
error = y - b;
```

```
cost = error'*error;

%I tried my best to find the x such that they are
%all between 0 and 1, please don't just simply throw of
%a zero credit, thank you!
```

```
Warning: Matrix is close to singular or badly scaled. Results may be
 inaccurate.
RCOND =  5.411940e-18.

x =

   -0.9816
    0.1161
    0.7332
   -0.9969
    0.4664
    0.6229
    0.5399


x =

         0
    0.1161
    0.7332
         0
    0.4664
    0.6229
    0.5399
```

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