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Sub PlaceLights()
    'Ask the user to select the room size and ceiling height
    Dim roomWidth As Double
    Dim roomLength As Double
    Dim roomHeight As Double
    roomWidth = InputBox("Enter the width of the room in feet:")
    roomLength = InputBox("Enter the length of the room in feet:")
    roomHeight = InputBox("Enter the height of the room in feet:")

    'Calculate the square footage of the room based on user input
    Dim roomArea As Double
    roomArea = roomWidth * roomLength

    'Determine the recommended lighting level for the room based on the ceiling height
    and room type
    Dim lightLevel As Double
    Select Case roomHeight
        Case Is <= 8
            lightLevel = 10
        Case Is <= 9
            lightLevel = 20
        Case Is <= 10
            lightLevel = 30
        Case Is <= 12
            lightLevel = 40
        Case Else
            MsgBox "Invalid ceiling height"
            Exit Sub
    End Select

    'Calculate the number of lights needed based on the room size and the recommended
    spacing
    Dim lightSpacing As Double
    If roomArea <= 100 Then
        lightSpacing = 48
    ElseIf roomArea <= 225 Then
        lightSpacing = 64
    ElseIf roomArea <= 400 Then
        lightSpacing = 80
    Else
        lightSpacing = 96
    End If
    Dim lightCount As Integer
    lightCount = Application.RoundUp((roomWidth + roomLength) / lightSpacing, 0)

    'Determine the optimal spacing for the lights based on the room size and ceiling
    height
    Dim xOffset As Double
    Dim yOffset As Double
    If roomWidth >= roomLength Then
        xOffset = lightSpacing
        yOffset = lightSpacing * roomLength / roomWidth
    Else
        xOffset = lightSpacing * roomWidth / roomLength
        yOffset = lightSpacing
    End If

    'Place the lights in a rectangular or square pattern within the room
    Dim lightType As String

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lightType = InputBox("Enter the light diameter (4 or 6):")
Dim x As Integer
Dim y As Integer
Dim light As Object
For x = 1 To lightCount
    For y = 1 To lightCount
        Set light = ActiveDocument.CreateLight("Recessed Can Light", lightType &
""", "General")
        light.Move (x - 1) * xOffset, (y - 1) * yOffset, roomHeight - 48
    Next y
Next x

'Generate a report or summary of the lighting plan for the room
Dim report As String
report = "Room Size: " & roomWidth & " ft x " & roomLength & " ft" & vbCrLf
report = report & "Ceiling Height: " & roomHeight & " ft" & vbCrLf
report = report & "Recommended Light Level: " & lightLevel & " lux" & vbCrLf
report = report & "Number of Lights: " & lightCount ^ 2 & vbCrLf
report = report & "Light Spacing: " & lightSpacing & " in" & vbCrLf
report = report & "Light Type: " & lightType & "" " Recessed Can Light" & vbCrLf
MsgBox report
End Sub

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To use this code, you can copy and paste it into the VBA editor in Chief Architect X14. Then, you can run the macro by pressing F5 or selecting "Run" from the "Macro" menu. The macro will prompt you to enter the width, length, and height of the room. It will then calculate the square footage of the room, determine the recommended lighting level based on the ceiling height, and calculate the number of lights needed and their spacing.

The macro will then prompt you to enter the diameter of the lights (either 4 or 6 inches). It will then place the lights in a rectangular or square pattern within the room, and generate a report summarizing the lighting plan.

Note that this code is intended as an example and may need to be modified to fit your specific needs. You may need to adjust the recommended light levels or light spacing based on your preferences or local building codes. Additionally, you may need to modify the code to account for irregularly shaped rooms or other factors specific to your project.