

Marietta's Wall

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Marietta's Wall is used to obtain photometric data from luminaires. A luminaire is placed in the center of the wall, and a light meter is placed on the end of the arm. This arm is then swung around and the light meter measures candelas. Once recorded on a graph (see back side) a photometric curve is created. This represents the intensity of light given off by the luminaire as placed on the wall.

Students are able to use Marietta's Wall during the Baker Lab's office hours. Come prepared with a functioning luminaire and a partner. It takes at least two people to coordinate using the wall. If your luminaire is to hang, it is possible to mount it on the wall.

Instructions for use:

1. Create luminaire

It doesn't have to be perfect, but it should at least be a rough representation of what you are looking to construct and have a functioning lamp.

2. Come during Baker Lab office hours

3. Gather necessary equipment

- LiCor photometer sensor and quantum meter
- Photometric graph (on the back of this sheet)
- Possibly a ladder

4. Attach LiCor photometer to end of swinging arm

5. Turn on overhead lights (switch is by door) if they are not already on

6. Shut black-out blinds

7. Place luminaire

- The luminaire must be placed at the pivot point of the arm, ideally centered on it, either hang it from the overhead support or hold it with your hands
- The orientation of the luminaire is important. Whatever direction you want to measure,

orientate so that it is perpendicular to the wall

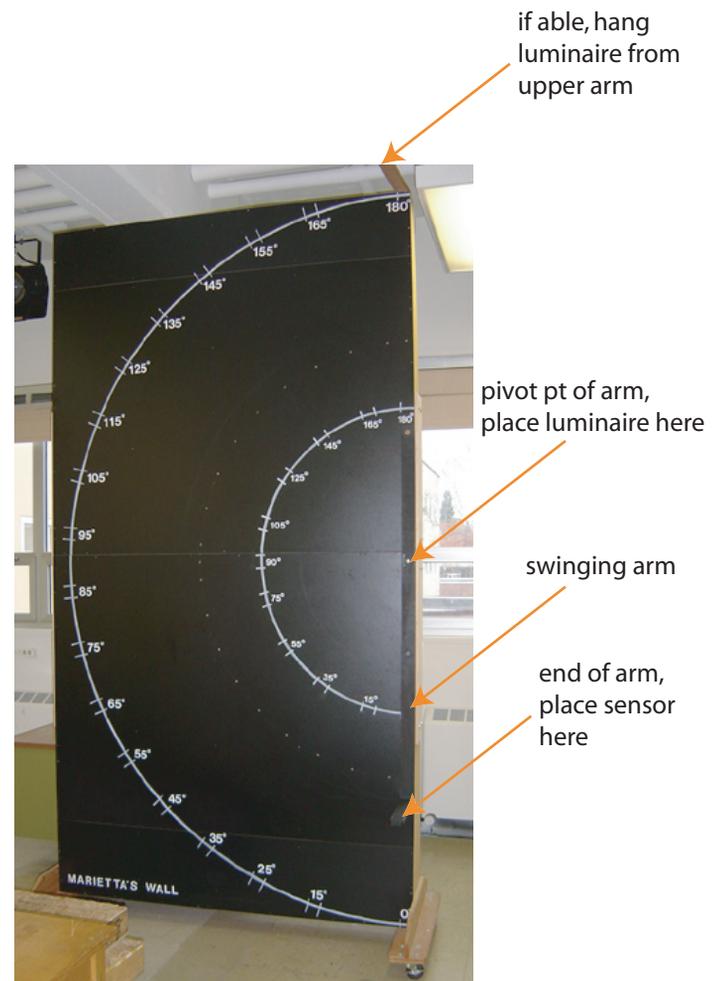
8. Turn-on luminaire

9. Turn-off overhead lights

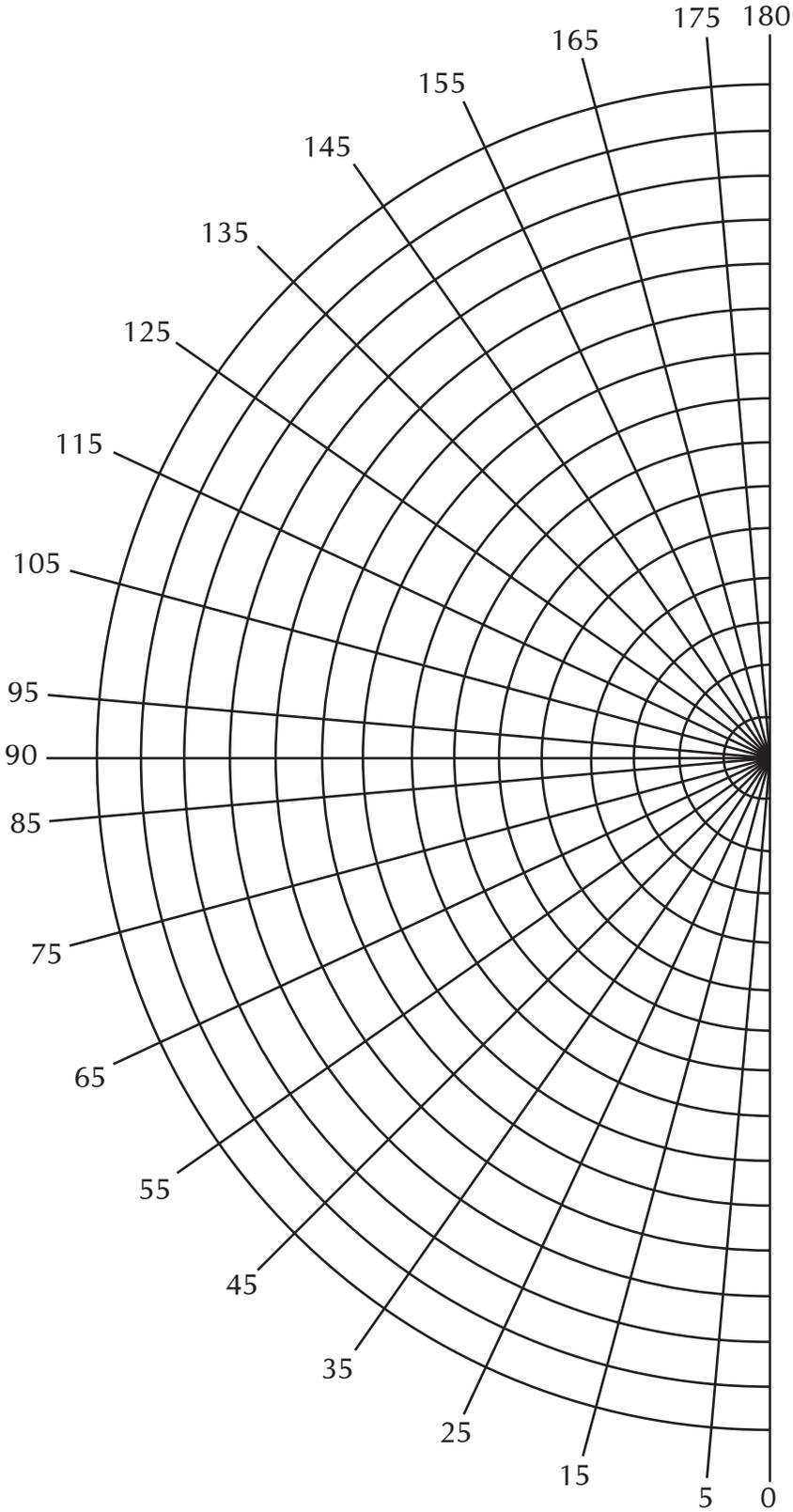
10. Swing arm to designated angles, recording light levels at each point from LiCor meter onto photometric graph (be careful not to shade the sensor with your body)

11. Turn lights back on and put equipment away

12. Connect the dots on the graph to create the photometric curve for your luminaire



Photometric Graph



Angle	Reading (cd)
0	
5	
15	
25	
35	
45	
55	
65	
75	
85	
90	
95	
105	
115	
125	
135	
145	
155	
165	
175	
180	

Designate your own scale as appropriate to your light level readings