



5/8/2023

## St. Anne's-Belfield Field Lighting Clarification

To Whom it May Concern,

Typical pole height for sports lighting is between 40' and 100'. Larger playing areas typically require taller poles. The determination of pole height is closely linked to lighting criteria, type, size of field, pole setback, off-site spill/glare and sky glow requirements. Typically, taller poles aim the luminaire more directly onto the playing area and reduce the off-site spill/glare. For the multipurpose field at St. Anne's-Belfield, with a field size of 330' by 180', you need 70' poles to control the light on the field and to keep the off-site spill/glare at a minimum while eliminating any sky glow.

Per IES RP-6 guidelines a 50FC class 2 field must meet a uniformity of 2:1. Uniformity Ratio is a measure for the quality of the illumination. It is defined by a ratio of the highest and lowest calculated illuminance. To meet this uniformity at St. Anne's-Belfield School, you need 70' poles to project light to the center of the field to raise the minimum light level. If you reference the proposed lighting design completed by Musco you can see we project that the minimum light level is 43FC and the highest is 61FC giving us a projected uniformity of 1.41:1.

Another consideration to pole height is playability and safety. The lower you mount fixtures the shallower you must aim them to get light to the center of the field. When doing this you create more glare for the players on the field, which could become a safety issue if they lose the ball in the lights or if there isn't enough light in the center of the field and they can't see the ball. For this multipurpose field, 70' poles give you proper aiming angles that keeps glare down and provides enough light to the center of the field.

Thanks,

A handwritten signature in black ink that reads "Brayton Carter".

Brayton Carter  
Project Engineer  
Musco Sports Lighting