

1/27/17

RE: CPD – Marlborough, NY

The lighting plan (RL-3037-S1-R3) was designed with under canopy illumination levels that are less than our normal recommendation for convenience stores. After 40+ years in the petroleum convenience store exterior lighting business, 10+ years using an LED light source for under canopy illumination and 1000's of photometric plans utilizing LED light sources, Red Leonard Associates has determined that approximately 45 fc average illumination at grade is the most appropriate level of illumination, with average levels in the 20 fc to 30 fc range being marginally low and average levels under 20 fc being unsafe.

Because it is the concern of the municipality that the standard most often used in the industry exceeds that recommended by the IES (Illuminating Engineering Society), the under canopy lighting at this site has been designed in keeping with IES recommendations. The 30 fc average and 2.00:1 avg/min metrics for the gasoline canopy as well as the 29.55 fc average and 1.85:1 avg/min metrics for the diesel canopy meet recommendations as outlined in the 10th edition IES Lighting Handbook. This handbook calls for 30 fc avg with avg/min of 4:1 for LZ3 zones where high activity exists and half the observers are over the age of 65.

It was also a concern of the municipality as to the need for perimeter lighting. In order to maintain safe levels of light within the paved areas of the convenience store, where vehicular and pedestrian traffic exist, there must be sufficient light directed from the perimeter in a manner that does not cause glare. This is being accomplished using shielded luminaires.

Sincerely,



Steve Grieser, LC
Applications Mgr.
Red Leonard Associates