Congratulation for this article as well as for all the modifications you did to address the reviewing. I wish to mention few last remarks:

1) I would not use the term "the experiment unit ID" as it makes the sentence truly confusing; if you refer to dogs, then say dogs: the reader will understand much better.
2) You provided a lot of statistical information to me that were really an excellent resource (see both bellow), and I do highly encourage you to include them into your paper (even if you modify slightly the style to fit the one for a published article), as they are of great value! I hope you will do so.
   - "This mixed model analysis can be called a split-plot ANOVA, it is an ANOVA analysis not the most commonly so-called ANOVA where only fixed effects are involved"
   - "Mixed model analysis was mentioned in the statistical analysis section and details regarding how the data were analyzed were summarized in this section. This analysis is not a common ANOVA, which only involves fixed effects. Therefore mixed model analysis instead of ANOVA is usually used to emphasize the experimental design. The data was analyzed by following the routine steps as follows: The raw data (not transformed) were analyzed using mixed model analysis as described in the statistical analysis section. The residuals generated were then used for conducting the diagnostic analysis for normality and equal variance assumptions. Because the model assumptions were violated (significant Shapiro-Wilk test and Levene's test), rank data transformation was conducted on the raw data. The mixed model analysis was then conducted again on rank-transformed data. Analysis of rank transformed data is a type of non-parametric analysis which assumes no normality and equal variance model assumptions and this is a common strategy to handle data with model assumption violation issues. Data was not rank transformed in the first place because the biggest drawback for all non-parametric analysis is lesser power of the analysis. Rank transformation is only applied when violation of model assumptions is verified. Mixed model analysis only reports the significance of overall effect of each factor but not the difference among each levels of each factor. Therefore, in the statistical analysis section, post-hoc multiple comparisons analysis with Tukey's adjustment was described. The multiple comparisons are post-hoc testing after the mixed model analysis, and they were also conducted on ranked data and, therefore, no model assumptions needed to be verified."
3) I know where the confusion about the measurements of the Immulite comes from: you said "The Immulite analyzer routinely performs 120 replicate measurements"; the confusion comes from the term "replicate," which is typically used in quality to signify a new entire test (i.e., 20 replicates for short term precision). Here, this is **not a replicate**, this is a **series of 12 measurements (of the same replicate**, if I can say so). I highly encourage to remove the term replicate to eliminate confusion from that paragraph.

Thanks, and again congratulation!