ORTA DOĞU TEKNİK ÜNİVERSİTESİ
ELEKTRİK VE ELEKTRONİK MÜHENDİSLİĞİ BÖLÜMÜ
MIDDLE EAST TECHNICAL UNIVERSITY
1956 ELECTRICAL AND ELECTRONICS ENGINEERING DEPT.

No: 06-02-085A
DAMEKS İç Dış Ticaret ve San. A.Ş.
ESELC (Early Streamer Emission Lightning Conductor) Evaluation of the Streamer Initiation Advance

TEST REPORT

07.11.2006

1. General

Firm / Institution Applied : DAMEKS İç Dış Ticaret ve San. A.Ş.
1400 Sokak No: 2/1 Alsancak İZMİR

Tests Required : ESELC (Early Streamer Emission Lightning Conductor) Evaluation of the Streamer Initiation Advance

Date of the Test : 07.11.2006

Tests Conducted In : Middle East Technical University , High Voltage Laboratory,Ankara

Ambient Conditions : 19 °C , 689 mmHg , % 61 Relative Humidity (No significant variation has been observed in these values during the tests .)

Altitude : 900 m

Impulse Generator : HAEFELY 2.4 MV, 120 KJ.

Equipment Tested :

Model :. **DLP Systems** ESE Lightning Conductor , series No. 60002

2. TEST STANDARD

NFC17-102 (Appendix C)

3. DESCRIPTION OF THE TESTS

As proposed in **NFC17-102 (Appendix C)** , the time lags measured using SRLC and ESELC are applied as shown in Figure 3 . on the Referance electric field ve test electric field curves , and the from the electric field values corresponding to these time lags , a time lag gain of approximately $\Delta T = 60\ \mu S$ was determined .

4. RESULT

The mesurements and the analysis of the results indicated that ESELC sample provided asignificant advance in the triggering time with respect to SRLC .

Prof. Dr. Mirzahan HIZAL
Dept. of Electrical and Electronics Eng.
Middle East tech. University
ANKARA