

TEST REPORT

The following tested product(s) were submitted and identified by the vendor as:

Applicant : OrangeTek Limited
Address of Applicant : Coach House Blakenhall Park Bar Lane, Barton under Needwood, Burton upon Trent, DE13 8AJ, United Kingdom
Testing Laboratory : SGS Taiwan Ltd., Optics Laboratory
Testing Address : No. 33, Wu Chyuan Road, New Taipei Industrial Park, Wu Ku District, New Taipei City 24886, Taiwan (R.O.C.)
Product Name : Terraed mini 30
Model / Serial Number : SL-30N1T5PA02G50
Manufacturer : OrangeTek Limited
Test Standard/Method : According to Client's Test Methods
Rating : AC 120 V to 277 V (50 / 60) Hz
Tested Condition : AC (210 / 220 / 230 / 240 / 250) V 50 Hz
Date of Issue : Jun. 22, 2015

The submitted products have been tested as requested and the following results were obtained, and the report, not applicable for lawsuit, refers only to the unit(s) submitted for test.

Test Results : -PLEASE SEE ATTACHED SHEETS-

Signed for and on behalf of
SGS TAIWAN Ltd.



Calvin Tzou
Technical Manager

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

1 DATE OF RECEIPT OF TEST ITEM

Jun. 15, 2015

2 DATE(S) OF PERFORMANCE OF THE TEST

Jun. 15, 2015 ~ Jun. 22, 2015

3 IDENTITY OF SAMPLES

Quantity	Model	Serial Number
5	SL-30N1T5PA02G50	# 1 ~ # 5

4 TEST ITEMS

4.1 Electrical Quantities

According to client's test methods, apply the specific input voltage at 50 Hz to the input terminals of the LED fixture at three different levels of light output. Test the Electrical Quantities at the steady state.

5 TEST CONDITIONS

Main Test Equipment:

Name	Brand	Model	S/N	Calibration Due Date
Digital Power Analyzer / AC Source	YOKOGAWA / apc	WT-310 / AFC-500W	C2PK22023V / F313030097	2015/12/30

Environmental Conditions:

Ambient temperature: (25 ± 2) °C

Relative humidity: (60 ± 20) %RH

DUT Conditions:

Power input: AC (210 / 220 / 230 / 240 / 250) V 50 Hz

Warm-up time: > 30 minutes

Dimension: L 500 mm x W 150 mm x H 150 mm

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

6 TEST RESULTS

6.1 Electrical Quantities

100 % Light Output Level						
S/N	Input Voltage (Vac)	Frequency (Hz)	Input power (W)	Input current (A)	Power Factor	Note
# 1	210	50	30.217	0.1492	0.9648	
	220	50	30.216	0.1431	0.9598	
	230	50	30.222	0.1377	0.9542	
	240	50	30.236	0.1329	0.9482	
	250	50	30.251	0.1286	0.9412	
# 2	210	50	30.057	0.1485	0.9639	
	220	50	30.065	0.1425	0.9587	
	230	50	30.077	0.1373	0.9528	
	240	50	30.097	0.1325	0.9468	
	250	50	30.120	0.1283	0.9389	
# 3	210	50	30.452	0.1504	0.9644	
	220	50	30.452	0.1443	0.9593	
	230	50	30.461	0.1389	0.9535	
	240	50	30.476	0.1341	0.9473	
	250	50	30.494	0.1298	0.9398	
# 4	210	50	30.168	0.1490	0.9641	
	220	50	30.176	0.1430	0.9590	
	230	50	30.190	0.1377	0.9531	
	240	50	30.210	0.1329	0.9470	
	250	50	30.234	0.1288	0.9394	
# 5	210	50	30.261	0.1493	0.9652	
	220	50	30.262	0.1432	0.9602	
	230	50	30.266	0.1379	0.9545	
	240	50	30.279	0.1330	0.9484	
	250	50	30.296	0.1288	0.9412	

Stabilization
(Test be conducted
after operating for 30
minutes to reach their
steady load state)

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Watt						
Voltage\Sample	# 1	# 2	# 3	# 4	# 5	Note
210	30.217	30.057	30.452	30.168	30.261	Stabilization (Test be conducted after operating for 30 minutes to reach their steady load state)
220	30.216	30.065	30.452	30.176	30.262	
230	30.222	30.077	30.461	30.190	30.266	
240	30.236	30.097	30.476	30.210	30.279	
250	30.251	30.120	30.494	30.234	30.296	
VA						
Voltage\Sample	# 1	# 2	# 3	# 4	# 5	Note
210	31.332	31.185	31.584	31.290	31.353	Stabilization (Test be conducted after operating for 30 minutes to reach their steady load state)
220	31.482	31.350	31.746	31.460	31.504	
230	31.671	31.579	31.947	31.671	31.717	
240	31.896	31.800	32.184	31.896	31.920	
250	32.150	32.075	32.450	32.200	32.200	

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

78 % Light output Level						
S/N	Input Voltage (Vac)	Frequency (Hz)	Input power (W)	Input current (A)	Power Factor	Note
# 1	210	50	23.583	0.1183	0.9497	
	220	50	23.607	0.1138	0.9426	
	230	50	23.633	0.1099	0.9350	
	240	50	23.668	0.1064	0.9267	
	250	50	23.703	0.1034	0.9172	
# 2	210	50	23.570	0.1183	0.9485	
	220	50	23.589	0.1139	0.9412	
	230	50	23.614	0.1101	0.9329	
	240	50	23.644	0.1065	0.9248	
	250	50	23.678	0.1036	0.9140	
# 3	210	50	23.700	0.1189	0.9489	Stabilization (Test be conducted after operating for 30 minutes to reach their steady load state)
	220	50	23.724	0.1145	0.9414	
	230	50	23.752	0.1106	0.9339	
	240	50	23.788	0.1072	0.9245	
	250	50	23.825	0.1042	0.9148	
# 4	210	50	23.544	0.1182	0.9486	
	220	50	23.564	0.1138	0.9412	
	230	50	23.590	0.1099	0.9331	
	240	50	23.621	0.1065	0.9245	
	250	50	23.655	0.1035	0.9142	
# 5	210	50	23.583	0.1182	0.9501	
	220	50	23.604	0.1138	0.9430	
	230	50	23.629	0.1099	0.9352	
	240	50	23.664	0.1064	0.9268	
	250	50	23.700	0.1034	0.9171	

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Watt						
Voltage\Sample	# 1	# 2	# 3	# 4	# 5	Note
210	23.583	23.570	23.700	23.544	23.583	Stabilization (Test be conducted after operating for 30 minutes to reach their steady load state)
220	23.607	23.589	23.724	23.564	23.604	
230	23.633	23.614	23.752	23.590	23.629	
240	23.668	23.644	23.788	23.621	23.664	
250	23.703	23.678	23.825	23.655	23.700	
VA						
Voltage\Sample	# 1	# 2	# 3	# 4	# 5	Note
210	24.843	24.843	24.969	24.822	24.822	Stabilization (Test be conducted after operating for 30 minutes to reach their steady load state)
220	25.036	25.058	25.190	25.036	25.036	
230	25.277	25.323	25.438	25.277	25.277	
240	25.536	25.560	25.728	25.560	25.536	
250	25.850	25.900	26.050	25.875	25.850	

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

45 % Light output Level						
S/N	Input Voltage (Vac)	Frequency (Hz)	Input power (W)	Input current (A)	Power Factor	Note
# 1	210	50	14.296	0.0758	0.8975	
	220	50	14.322	0.0737	0.8839	
	230	50	14.356	0.0718	0.8693	
	240	50	14.397	0.0701	0.8555	
	250	50	14.440	0.0688	0.8392	
# 2	210	50	14.240	0.0759	0.8938	
	220	50	14.281	0.0738	0.8799	
	230	50	14.327	0.0720	0.8646	
	240	50	14.379	0.0704	0.8510	
	250	50	14.437	0.0692	0.8343	
# 3	210	50	14.358	0.0764	0.8949	Stabilization (Test be conducted after operating for 30 minutes to reach their steady load state)
	220	50	14.385	0.0742	0.8808	
	230	50	14.421	0.0724	0.8663	
	240	50	14.462	0.0707	0.8520	
	250	50	14.509	0.0695	0.8347	
# 4	210	50	14.270	0.0760	0.8944	
	220	50	14.313	0.0739	0.8806	
	230	50	14.360	0.0721	0.8657	
	240	50	14.412	0.0705	0.8515	
	250	50	14.469	0.0693	0.8352	
# 5	210	50	14.400	0.0763	0.8989	
	220	50	14.430	0.0741	0.8853	
	230	50	14.475	0.0722	0.8714	
	240	50	14.503	0.0705	0.8568	
	250	50	14.556	0.0693	0.8406	

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

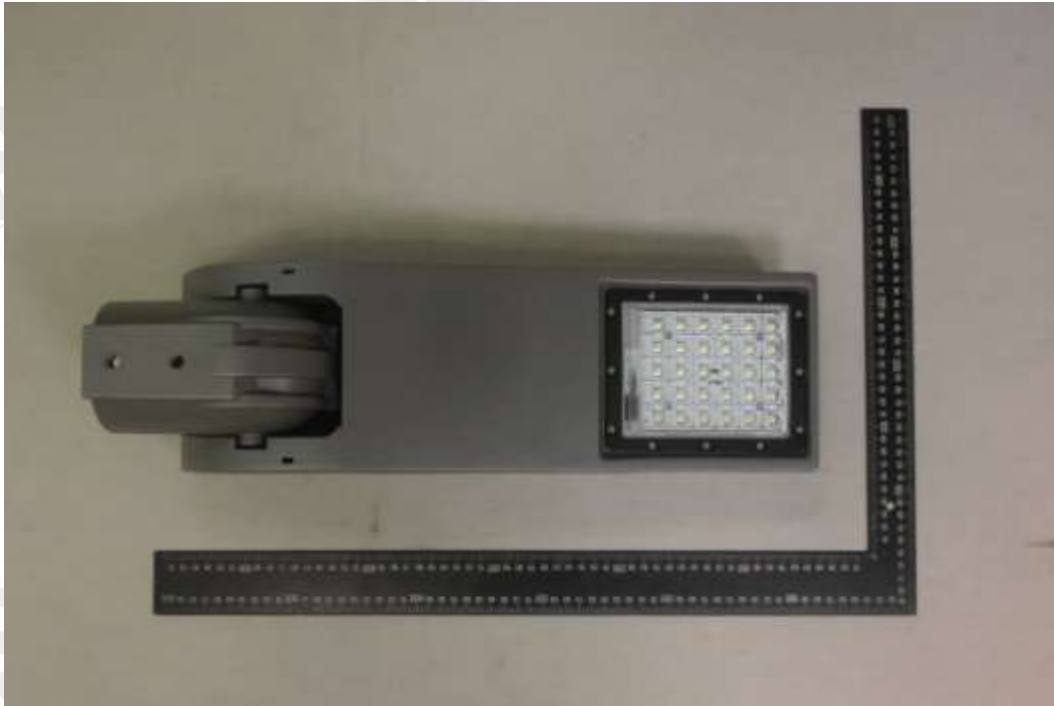
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Watt						
Voltage\Sample	# 1	# 2	# 3	# 4	# 5	Note
210	14.296	14.240	14.358	14.270	14.400	Stabilization (Test be conducted after operating for 30 minutes to reach their steady load state)
220	14.322	14.281	14.385	14.313	14.430	
230	14.356	14.327	14.421	14.360	14.475	
240	14.397	14.379	14.462	14.412	14.503	
250	14.440	14.437	14.509	14.469	14.556	
VA						
Voltage\Sample	# 1	# 2	# 3	# 4	# 5	Note
210	15.918	15.939	16.044	15.960	16.023	Stabilization (Test be conducted after operating for 30 minutes to reach their steady load state)
220	16.214	16.236	16.324	16.258	16.302	
230	16.514	16.560	16.652	16.583	16.606	
240	16.824	16.896	16.968	16.920	16.920	
250	17.200	17.300	17.375	17.325	17.325	

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

7 PHOTO



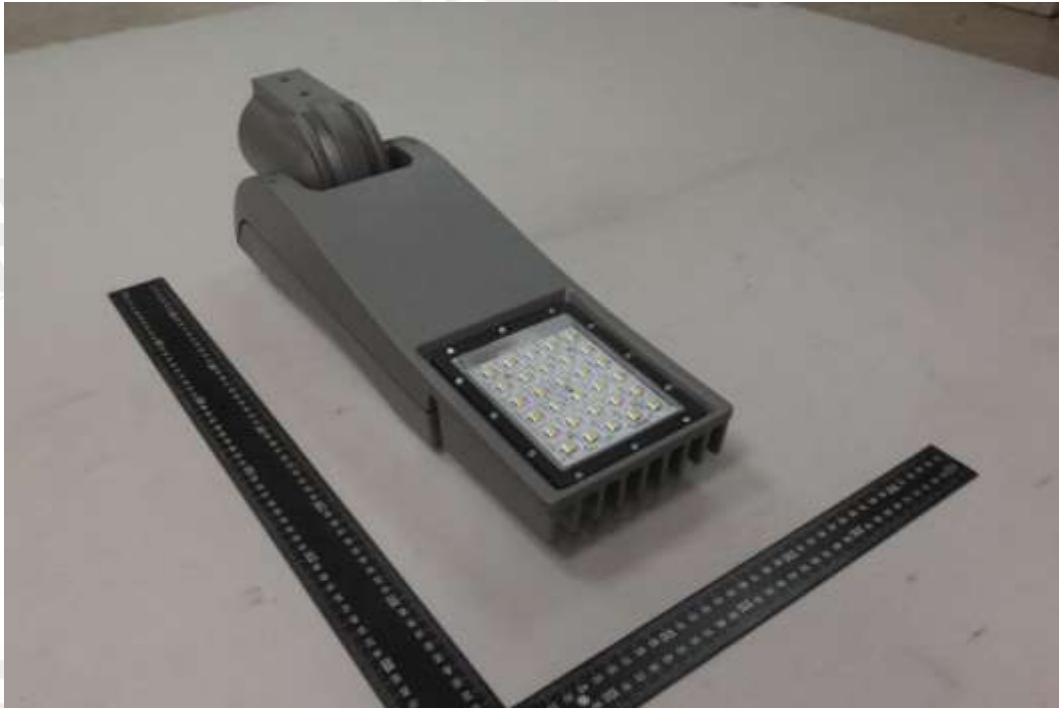
Front View



Back View

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



DUT

- End of Report -

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部份複製。

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.