

UNIT PHOTOGRAPHY

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Unit photography by Frank Morris Steadman

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FRANK MORRIS STEADMAN

**UNIT
PHOTOGRAPHY**

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BY

FRANK MORRIS STEADMAN

AUTHOR OF "HOME PORTRAITURE," ETC.

13 Plates. 10 Illustrations.



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PREFACE

AS a matter of record the author desires to state that the idea of the unit of convergence or cone unit came to him about the year 1895 while working at his business of home portraiture and was suggested by a plan to admit as nearly as possible the same volume of light from ordinary windows which in different homes varied greatly in width. It was conceived that by placing the subject so that the head should be in the room opposite one of the window casings and at a distance *from the outside of the wall* equal to the width of the window, the geometrical form of the beam of light illuminating the head would be the same, regardless of the width of the window and also of the thickness of the wall. On closing the window with a dark cloth from the level of the head down and adjusting the window shade so that the effective opening is square this form is seen to be that defined by one quarter of one side of a cube in its relation to the center of the cube, where the head is supposed to be located. This leaves the sky intensity as the only variable element of the light source.

From this idea came that of the rationality of considering a convergent form as a fundamental element in the calculation of the photographic energy of light and lighted surfaces and from these considerations the present system has resulted.

A desirable name for this cone unit has been difficult to decide upon and the author invites suggestions in naming it.

Should the present method prove valuable and fill the gap which now exists between the schools and the practice of photography the author would recommend a union of effort on the part of photographic societies and all interested with the view of deciding upon an international standard tinting medium for the measurement of actinic units by the $F/1$ method.

The author wishes to offer here a humble tribute to the memory of the late Professor George W. Barker for his earnest words of appreciation, prophecy, and encouragement relative to the present method of calculating problems in light and to the adaptability of the method to popular education. Thanks are especially due to Dr. Arthur W. Goodspeed, Professor of Physics of the University of Pennsylvania, for the advance use of the present method, while yet in manuscript, in class work in the university

and for his earnest co-operation in the arrangement of the subject matter as it appears in this book.

Due acknowledgments are made to the G. Cramer Dry Plate Company and to the company of Lumière et Fils for special assistance of various kinds.

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