



LUMINAIRE TESTING LABORATORY, INC.

SUSTAINING
MEMBER
of the
IESNA

905 Harrison Street · Allentown, PA 18103 · 610-770-1044 · Fax 610-770-8912 · www.LuminaireTesting.com

LTL NUMBER: 21394

DATE: 11-02-2010

PREPARED FOR: GREENHOUSE STRATEGIES, LLC.

CATALOG NUMBER: N/A

LUMINAIRE: FORMED ALUMINUM HOUSING, EXTRUDED ALUMINUM HEATSINK, CLEAR PLASTIC ENCLOSURE. LUMINAIRE WAS TILTED 30 DEGREES ABOVE ZERO PER CUSTOMER REQUEST.

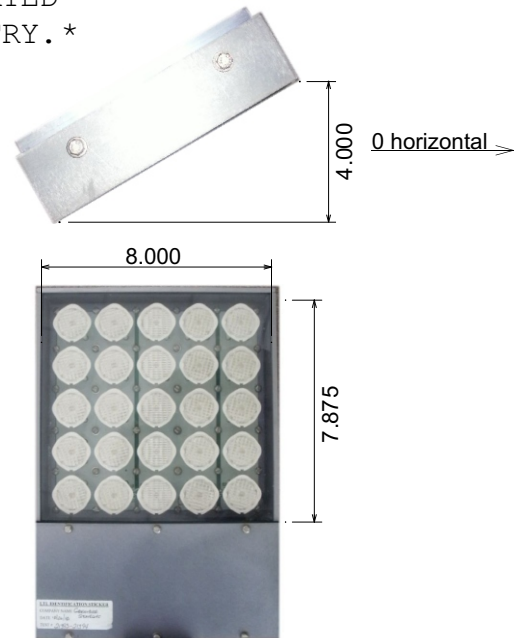
LAMP: 25 WHITE LEDS WITH CLEAR PRISMATIC PLASTIC OPTICS

LED POWER SUPPLY: ONE UNMARKED POWER SUPPLY

ELECTRICAL VALUES: 120.0VAC, 0.5570A, 65.14W, PF=0.975

LUMINAIRE EFFICACY: 52.9 LUMENS/WATT

NOTE: THIS TEST WAS PERFORMED USING THE CALIBRATED PHOTODETECTOR METHOD OF ABSOLUTE PHOTOMETRY.*



IES CLASSIFICATION: **TYPE II**
LONGITUDINAL CLASSIFICATION: **SHORT**
CUTOFF CLASSIFICATION: **SEMI-CUTOFF****

**CUTOFF DESIGNATION IS NOT DEFINED FOR ABSOLUTE PHOTOMETRIC TESTS. THIS CUTOFF RATING IS BASED ON THE MAXIMUM CANDELA READING PER LUMINAIRE RATED AT 1000 LUMENS.

FLUX DISTRIBUTION

LUMENS	DOWNWARD	UPWARD	TOTALS
HOUSE SIDE	232.82	0.00	232.82
STREET SIDE	3170.81	39.04	3209.85
TOTALS	3403.63	39.04	3442.67

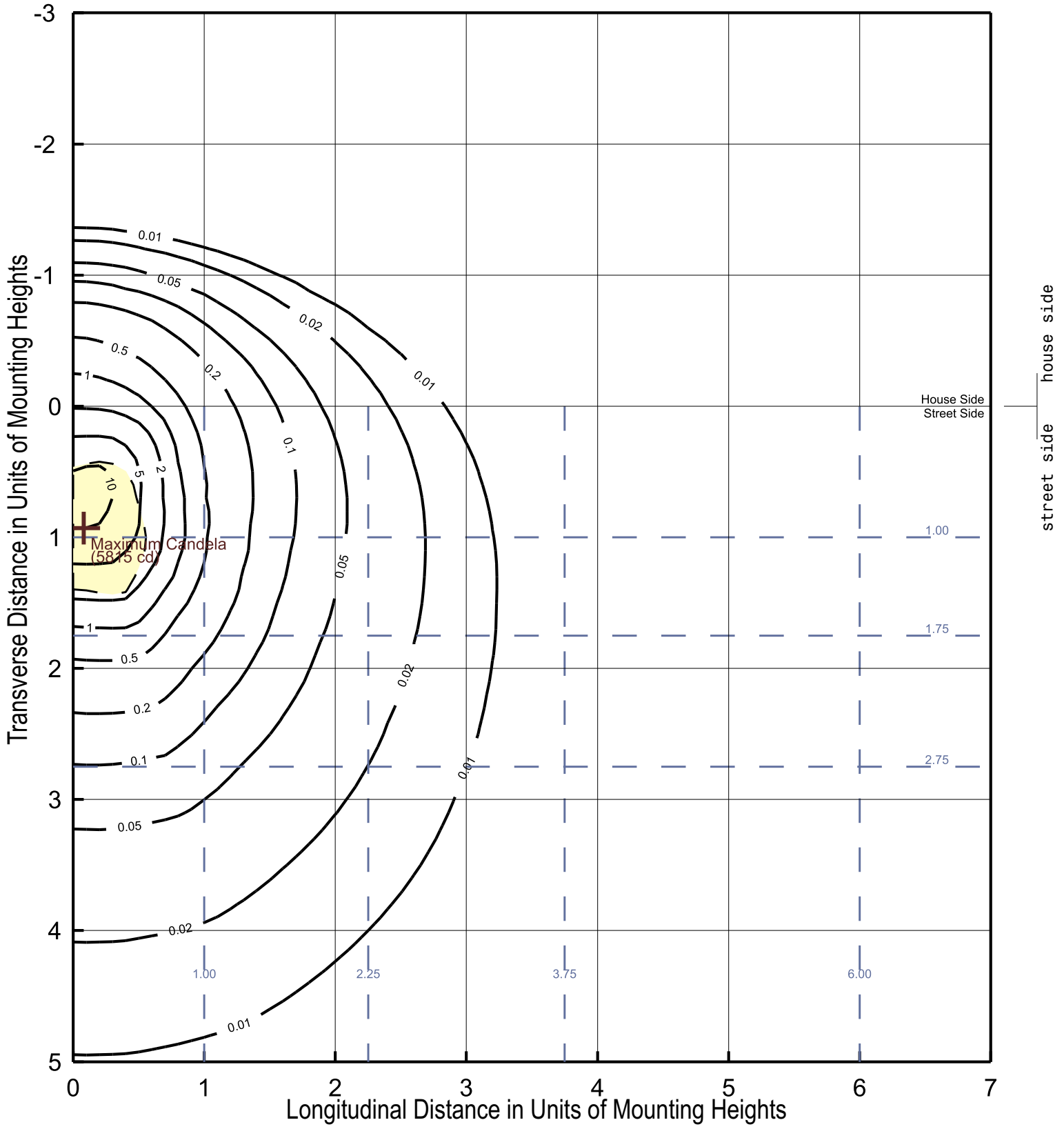
Approved By: MG

*DATA WAS ACQUIRED USING THE CALIBRATED PHOTODETECTOR METHOD OF ABSOLUTE PHOTOMETRY. A UDT MODEL #211 PHOTODETECTOR AND UDT MODEL #S370 OPTOMETER COMBINATION WERE USED AS A STANDARD. A SPECTRAL MISMATCH CORRECTION FACTOR WAS EMPLOYED BASED ON THE SPECTRAL RESPONSIVITY OF THE PHOTODETECTOR AND THE SPECTRAL POWER DISTRIBUTION OF THE TEST SUBJECT.

TESTING WAS PERFORMED IN ACCORDANCE WITH IES LM-79-08.
TEST ANGULAR INCREMENTS AND REPORT FORMATTING WAS BASED ON IES LM-31-95.



ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION VALUES BASED ON 15.00 FOOT MOUNTING HEIGHT



PROJECTION OF HALF-MAX CANDELA CONTOUR



CANDELA DISTRIBUTION

Table with 12 columns (0-90) and 19 rows (0-180) showing Candela Distribution values. The table is symmetric around the 45-degree column, with the highest value of 5815 at 43 degrees and 40 degrees.

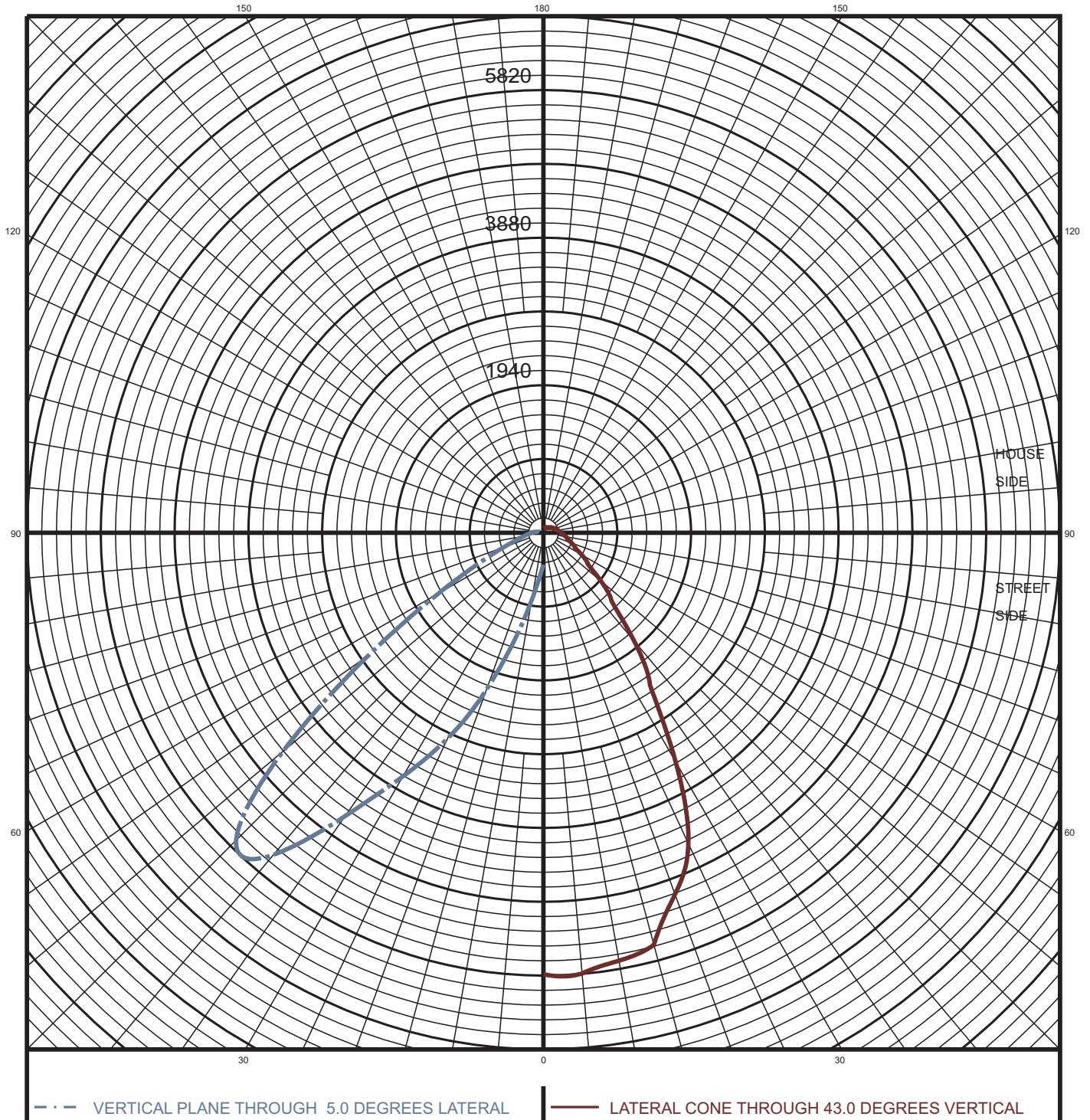


CANDELA DISTRIBUTION

Table with 11 columns (95, 105, 115, 125, 135, 145, 155, 165, 175, 180) and 19 rows (180, 175, 165, 155, 145, 135, 125, 115, 105, 95, 90, 87.5, 85, 82.5, 80, 77.5, 75, 72.5, 70, 67.5, 65, 62.5, 60, 57.5, 55, 52.5, 50, 47.5, 45, 43, 40, 35, 30, 25, 20, 15, 10, 5, 0). Values represent candela distribution for various beam angles.



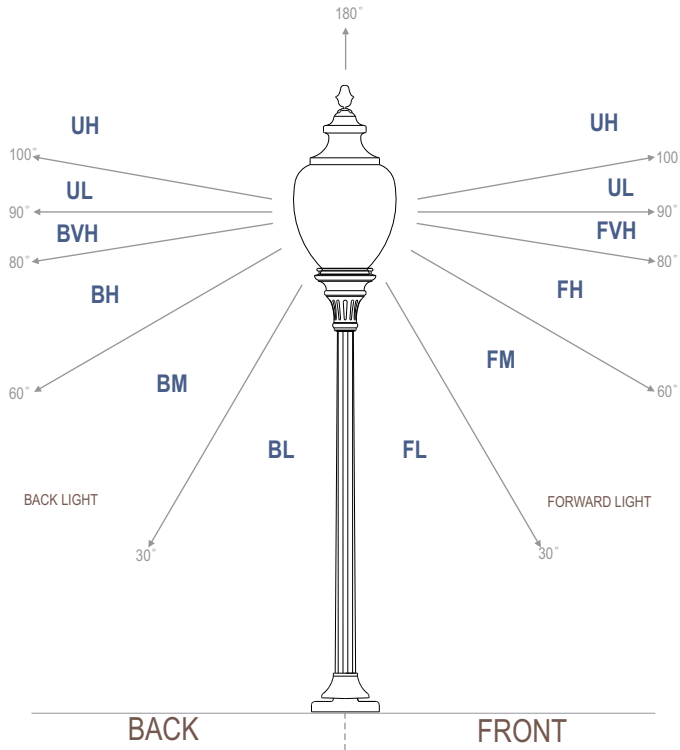
MAXIMUM PLANE AND CONE PLOTS OF CANDELA





FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM

FLUX



ZONE	LUMINAIRE LUMENS	% OF LUMINAIRE LUMENS
FORWARD LIGHT	3171	92.1
FL (0°-30°)	615	17.9
FM (30°-60°)	2155	62.6
FH (60°-80°)	341	9.9
FVH (80°-90°)	60	1.8

BACK LIGHT	233	6.8
BL (0°-30°)	110	3.2
BM (30°-60°)	113	3.3
BH (60°-80°)	10	0.3
BVH (80°-90°)	0	0.0

UPLIGHT	39	1.1
UL (90°-100°)	29	0.8
UH (100°-180°)	10	0.3

TRAPPED LIGHT	NA	NA
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BUG (Backlight, Uplight, Glare) Rating	
Asymmetrical Luminaire Types (Type I, II, III, IV)	B0 U2 G1
Quadrilateral Symmetrical Luminaire Types (Type V, Area Light)	B0 U2 G1