



# LUMINAIRE TESTING LABORATORY, INC.

SUSTAINING  
MEMBER  
of the  
IESNA

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LTL NUMBER: 18534

DATE: 03-16-2010

PREPARED FOR: SUNOVIA ENERGY TECHNOLOGIES, INC.

CATALOG NUMBER: SCHX5/80-43/PAL/T3/277/LG (SI-A005)

LUMINAIRE: CAST ALUMINUM HOUSING, MACHINED ALUMINUM REFLECTOR, CLEAR ACRYLIC ENCLOSURE.

LAMP: 56 WHITE LEDS- 24 WITH CLEAR PLASTIC OPTICS, 24 WITH CLEAR PRISMATIC PLASTIC OPTICS AND 8 WITH FROSTED PLASTIC OPTICS.

LED POWER SUPPLIES: TWO HIGH PERFECTION TECH LP1090-36-GG-170

ELECTRICAL VALUES: 120.0VAC, 0.7315A, 85.89W, PF=0.979

LUMINAIRE EFFICACY: 81.3 LUMENS/WATT

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



IES CLASSIFICATION: **TYPE III**  
LONGITUDINAL CLASSIFICATION: **SHORT**

\*\*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	1308.25	0.00	1308.25
STREET SIDE	5673.08	0.00	5673.08
TOTALS	6981.33	0.00	6981.33

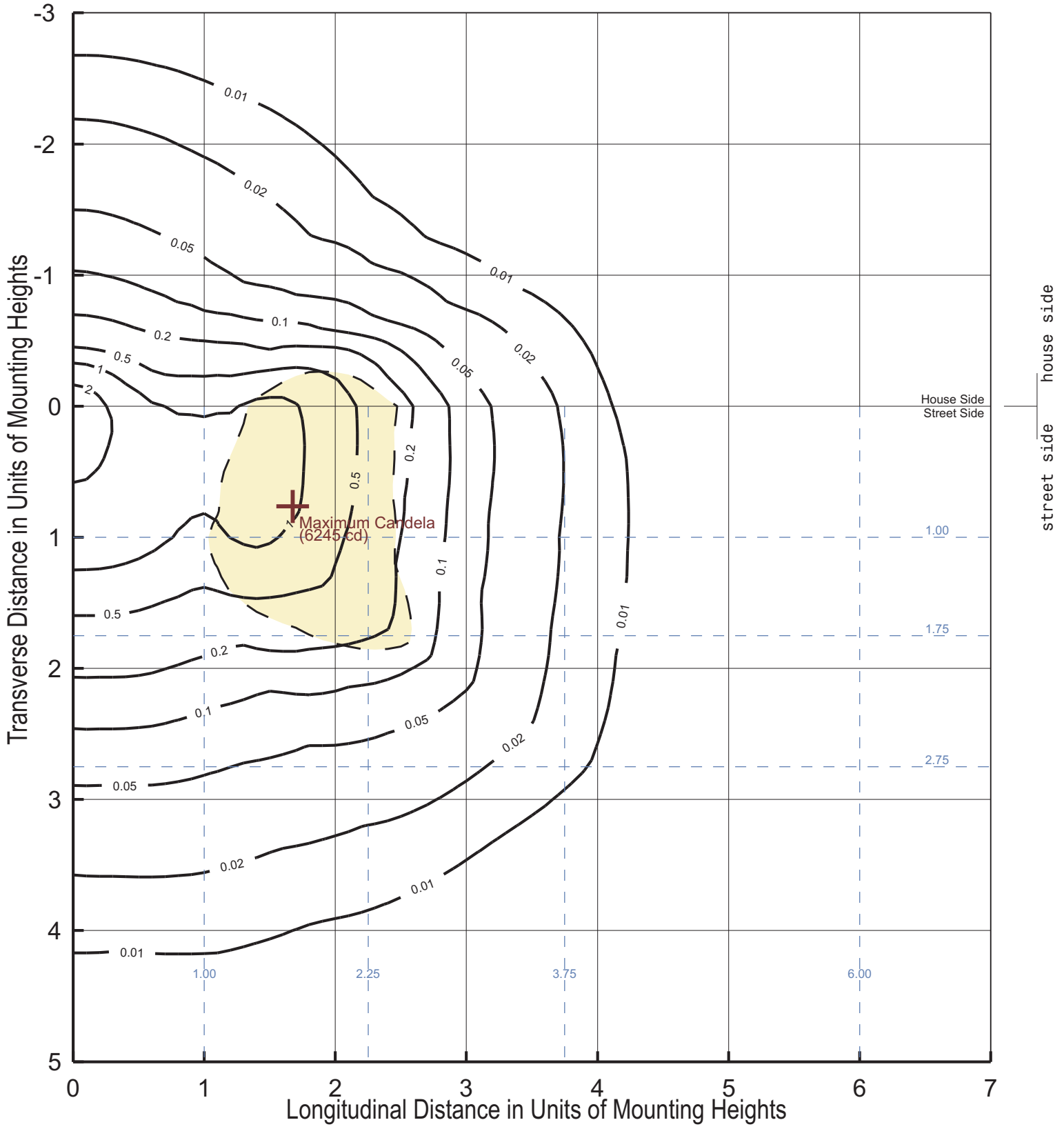
Approved By: MG

\*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 25.00 FOOT MOUNTING HEIGHT



PROJECTION OF HALF-MAX CANDELA CONTOUR



CANDELA DISTRIBUTION

Table with 12 columns (0, 5, 15, 25, 35, 45, 55, 65, 65.5, 75, 85) and 21 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, 61.5, 60, 57.5, 55, 52.5, 50, 47.5, 45, 40, 35, 30, 25, 20, 15, 10, 5, 0). Values represent candela distribution for various beam angles.

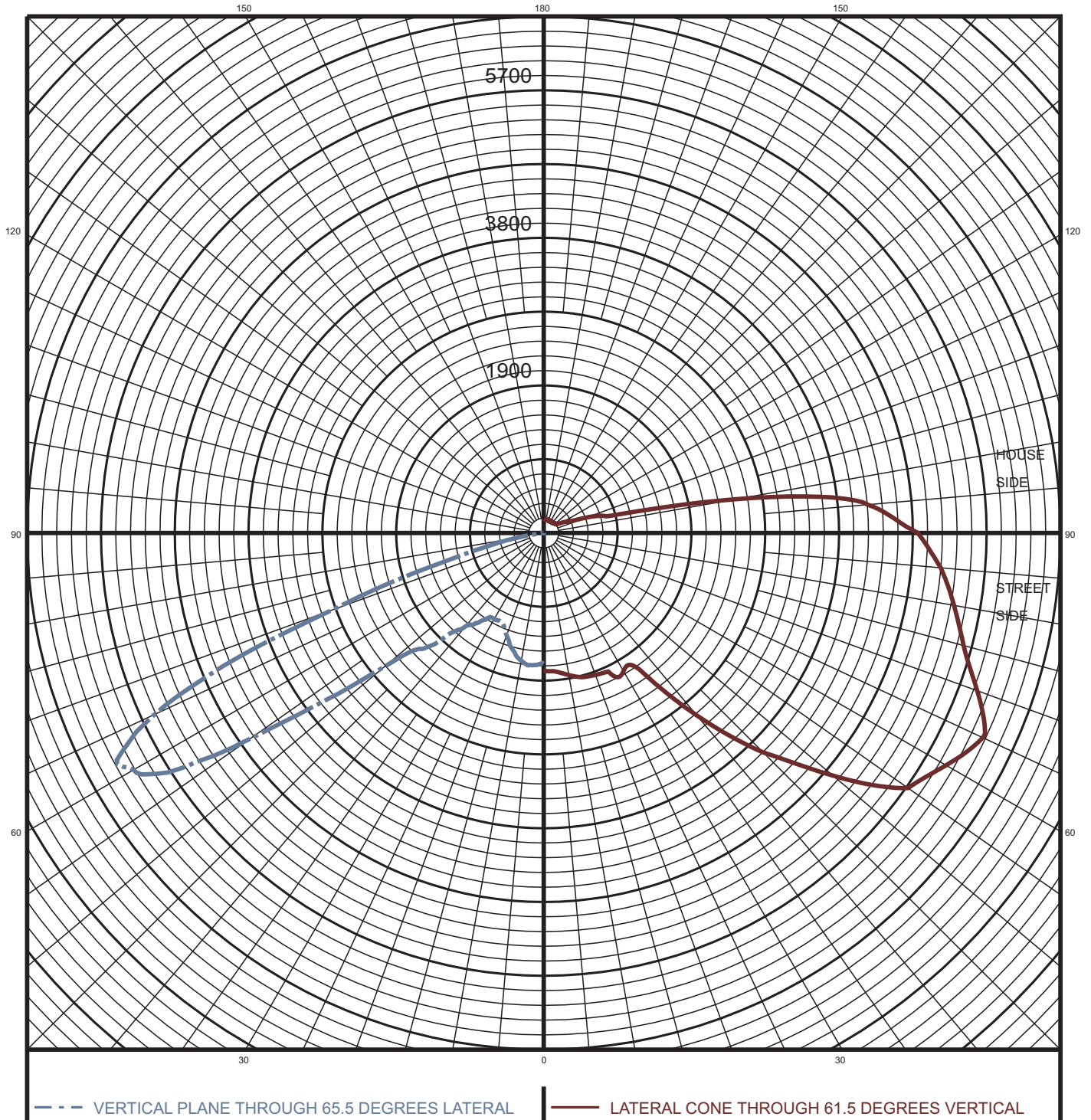


CANDELA DISTRIBUTION

Table with 12 columns (90-180) and 20 rows (180-0) showing Candela Distribution values.



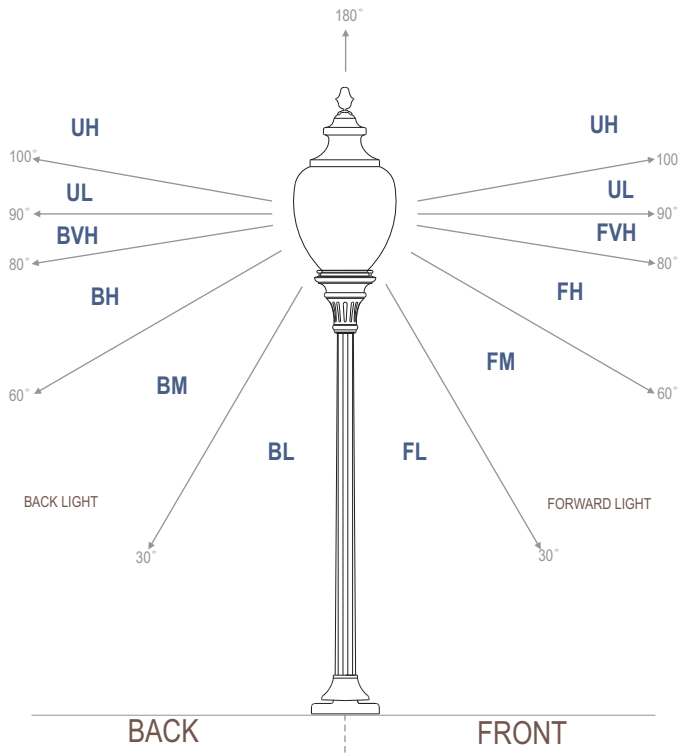
MAXIMUM PLANE AND CONE PLOTS OF CANDELA





FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM

FLUX



ZONE	LUMINAIRE LUMENS	% OF LUMINAIRE LUMENS
<b>FORWARD LIGHT</b>	5673	81.3
FL ( 0° -30° )	674	9.7
FM (30° -60° )	2806	40.2
FH (60° -80° )	2149	30.8
FVH (80° -90° )	43	0.6

<b>BACK LIGHT</b>	1308	18.7
BL ( 0° -30° )	361	5.2
BM (30° -60° )	556	8.0
BH (60° -80° )	380	5.4
BVH (80° -90° )	11	0.2

<b>UPLIGHT</b>	0	0.0
UL (90° -100° )	0	0.0
UH (100° -180° )	0	0.0

<b>TRAPPED LIGHT</b>	NA	NA
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<b>BUG (Backlight, Uplight, Glare) Rating</b>	
Asymmetrical Luminaire Types (Type I, II, III, IV)	B1 U1 G2
Quadrilateral Symmetrical Luminaire Types (Type V, Area Light)	B1 U1 G2