

Project Number  
15.00136



**HUBBELL**  
Lighting

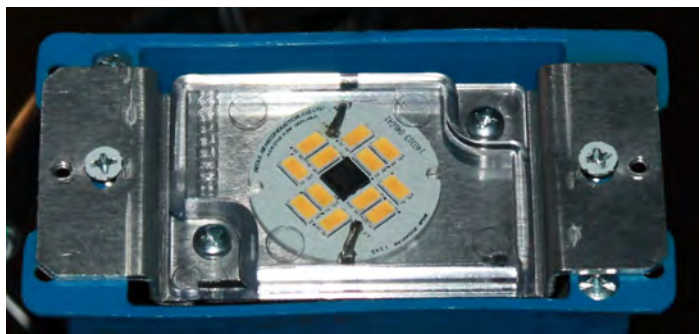
Date  
2/2/2015

LAB 6

### Test Sample Description

Catalog Number: P6829  
Description: Step Light- 2.5" X 5/8" slot plate positioned vertical.

Test Method: IES LM-79-08 § 10  
Preburn Time: 00:00  
Time To Stabilize: 0:45  
Total Operating Time: 1:40  
  
Input Voltage (Volts): 120.1  
Input Current (Amps): 0.038  
Input Wattage (Watts): 4.4  
Ambient Temp (°C): 24.6



### Hubbell Lighting, Inc.

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Checked: D. BLACK  
Approved: M. WASHBURN





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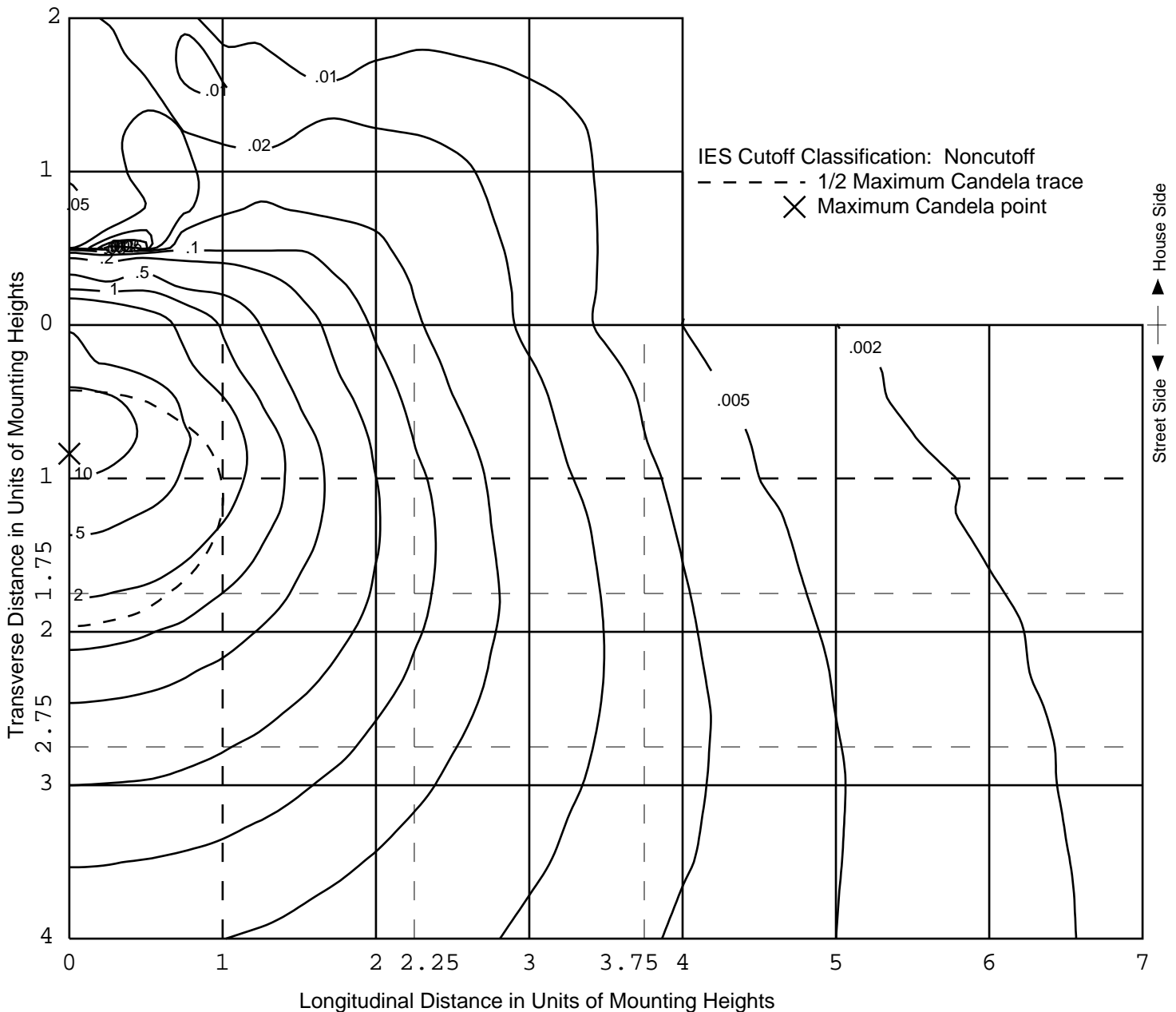
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**ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION**  
Values based on 1.5 foot mounting height.

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CATALOG NUMBER: P6829  
LUMINAIRE: Step Light- 2.5" X 5/8" slot  
plate positioned vertical.  
LAMP CAT. NO.: SMJE2V04W1P3-4bG  
LAMP: 12-Seoul LEDs 3000K  
MOUNTING: Recessed  
NOTE: DATA SHOWN IS ABSOLUTE FOR THE

SAMPLE PROVIDED.





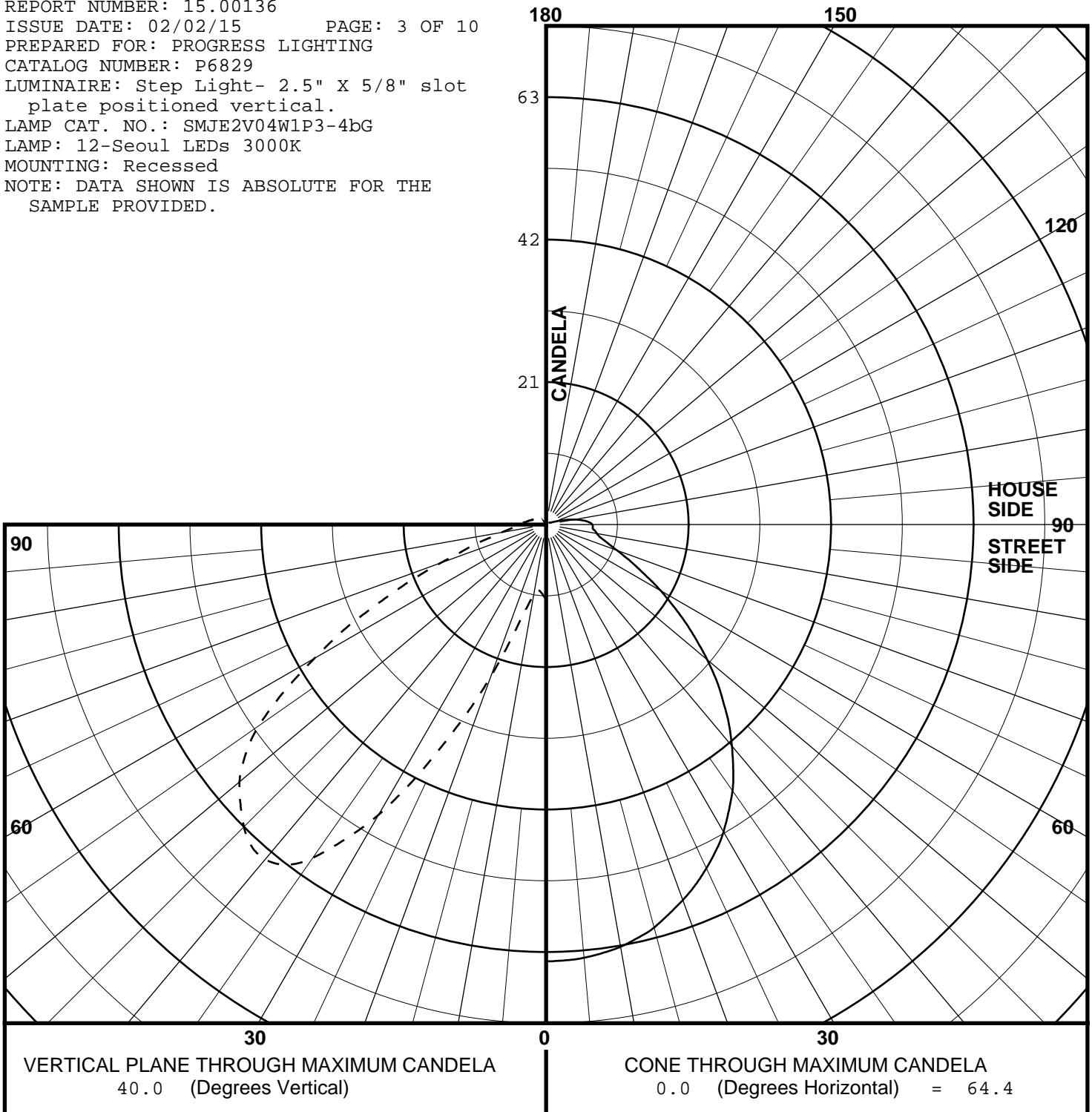
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MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

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 CATALOG NUMBER: P6829  
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 plate positioned vertical.  
 LAMP CAT. NO.: SMJE2V04W1P3-4bG  
 LAMP: 12-Seoul LEDs 3000K  
 MOUNTING: Recessed  
 NOTE: DATA SHOWN IS ABSOLUTE FOR THE  
 SAMPLE PROVIDED.





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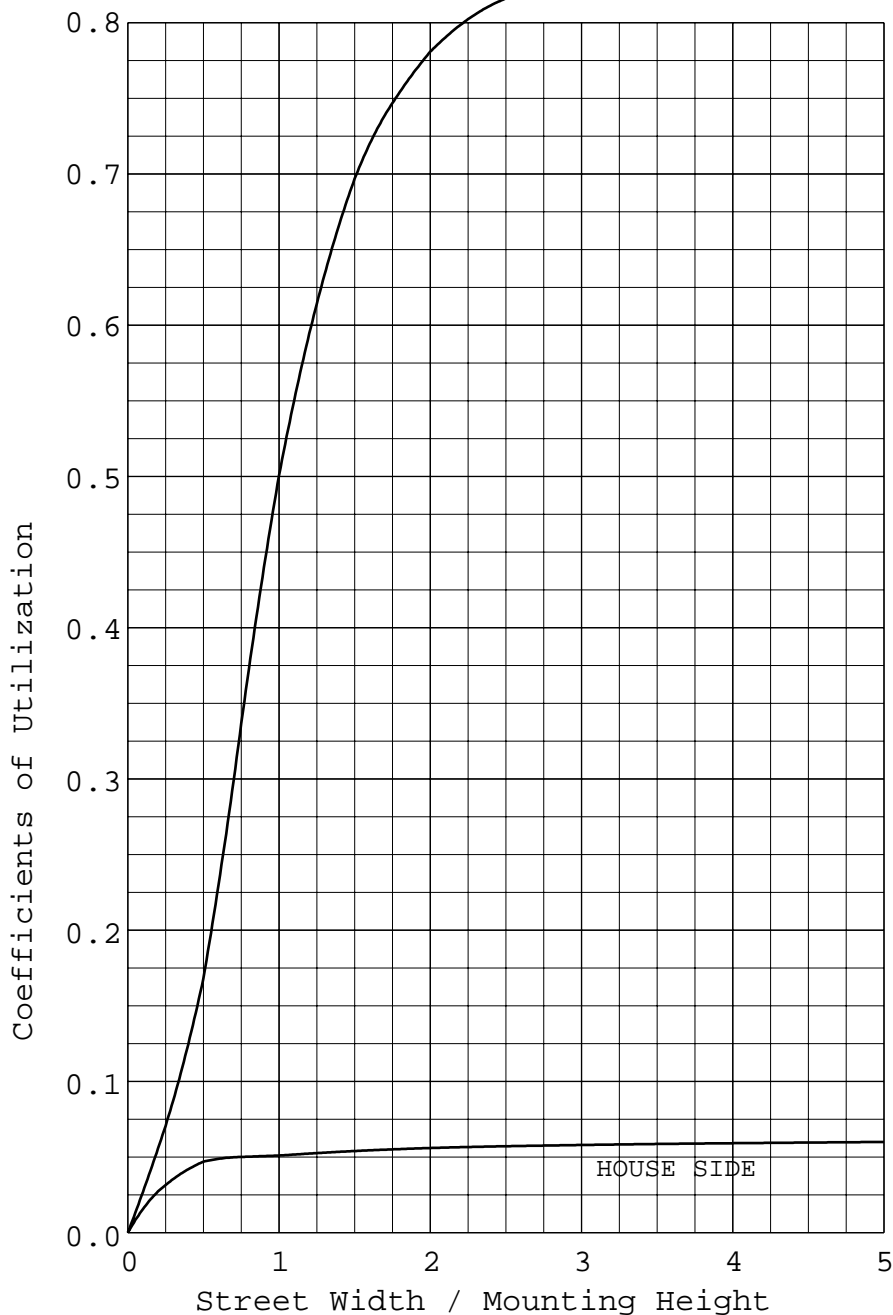
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STREET SIDE  
COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	56.0	88.1
DOWNWARD HOUSE SIDE	4.0	6.3
DOWNWARD TOTAL	60.0	94.4
UPWARD STREET SIDE	2.6	4.2
UPWARD HOUSE SIDE	0.9	1.4
UPWARD TOTAL	3.6	5.6
TOTAL FLUX	63.5	100.0
TOTAL INPUT WATTS = 4.4		
EFFICACY = 14.4 Lm/W		

ALL CANDELA AND LUMENS IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS LUMINAIRE SAMPLE.

THIS REPORT IS BASED ON PUBLISHED INDUSTRY PROCEDURES. FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE.



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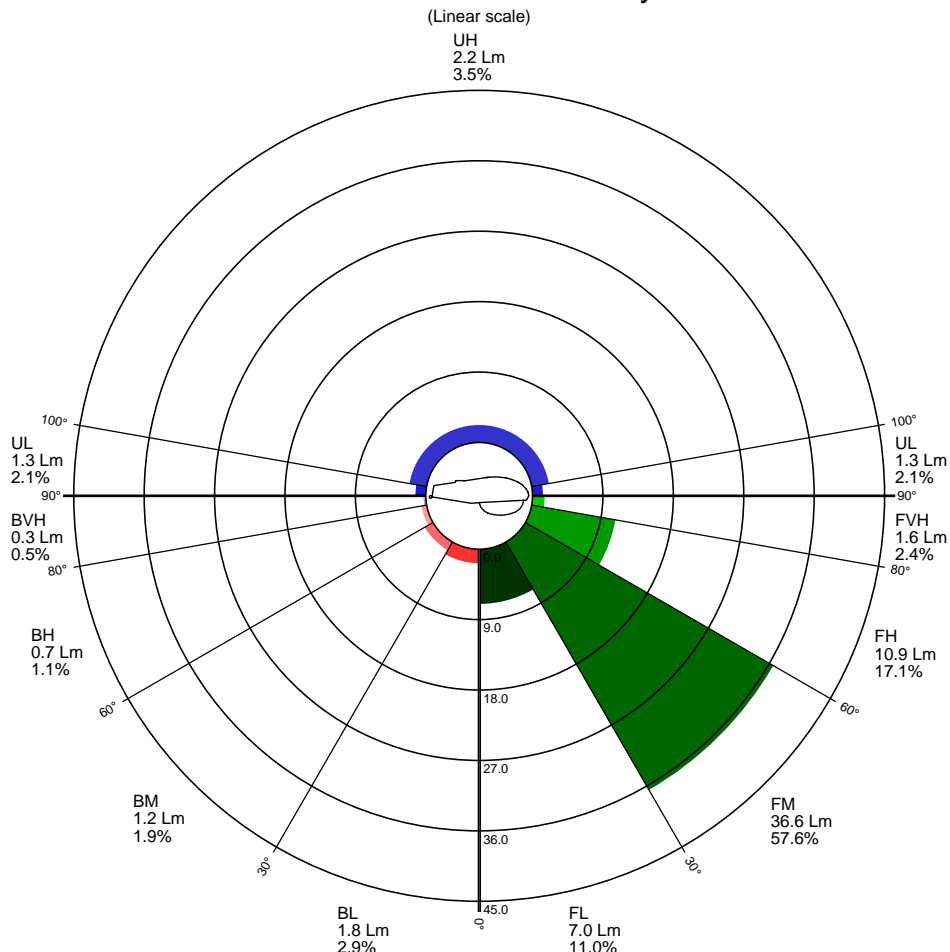


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BUG Rating:			Zone Ratings		
Zonal Summary			B0	U1	G0
			B	U	G
			Zone Ratings		
			B	U	G
Forward		Lumens			
		% of Fixture			
FL	(0° - 30°)	7.0			
FM	(30° - 60°)	36.6			
FH	(60° - 80°)	10.9			G0
FVH	(80° - 90°)	1.6			G0
Backward		4			
		6.3			
BL	(0° - 30°)	1.8	B0		
BM	(30° - 60°)	1.2	B0		
BH	(60° - 80°)	0.7	B0		G0
BVH	(80° - 90°)	0.3			G0
Upward		4			
		5.6			
UL	(90° - 100°)	1.3		U1	
UH	(100° - 180°)	2.2		U1	
Trapped Light		0			
Total Flux		64			
		100.0			

**Zonal Lumen Summary**





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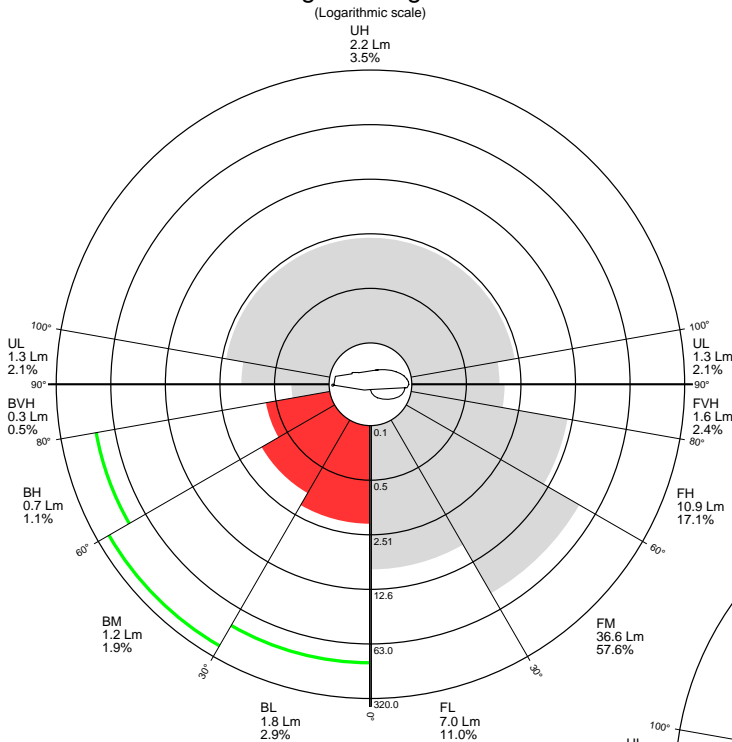
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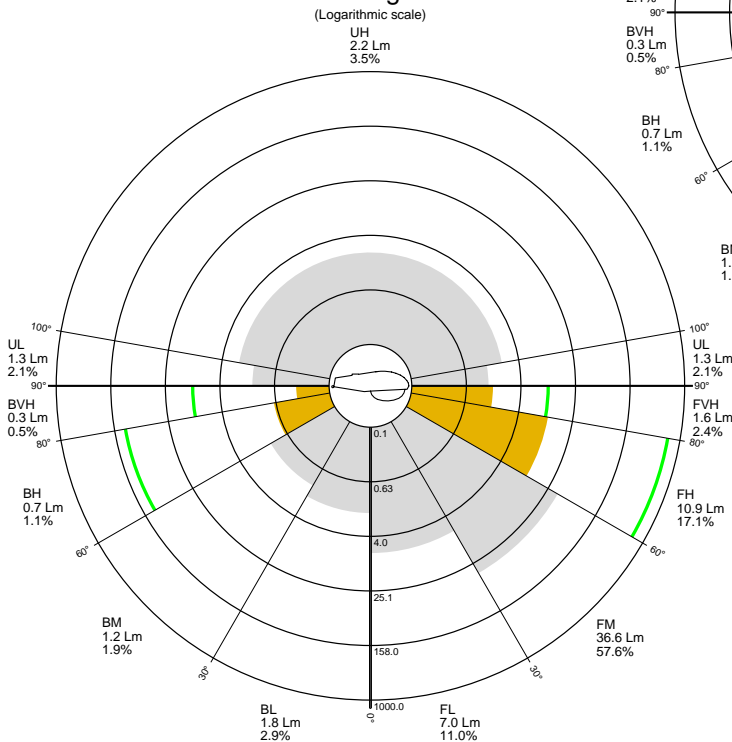
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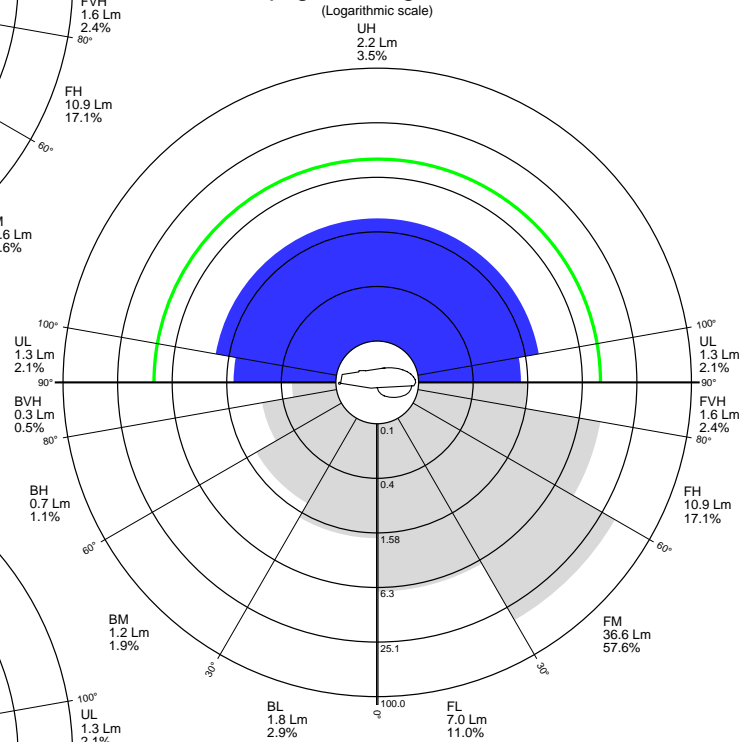
### Backlight Rating Details



### Glare Rating Details



### Uplight Rating Details





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CANDELA TABULATION

	STREET SIDE	LATERAL ANGLE									
		0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	75.0	85.0
	180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	175.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	165.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	155.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	145.0	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1
	135.0	0.5	0.5	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0
	125.0	1.2	1.0	1.0	0.9	0.7	0.5	0.3	0.2	0.1	0.0
	115.0	1.7	1.7	1.6	1.4	1.2	1.0	0.7	0.4	0.2	0.1
	105.0	2.4	2.4	2.2	2.0	1.8	1.5	1.0	0.7	0.3	0.1
	95.0	3.4	3.3	3.1	2.9	2.5	2.0	1.6	1.1	0.6	0.2
	90.0	4.0	3.9	3.7	3.3	2.8	2.3	1.8	1.2	0.6	0.2
	87.5	4.3	4.3	4.0	3.7	3.1	2.5	1.9	1.3	0.7	0.3
	85.0	4.8	4.8	4.7	4.2	3.7	2.9	2.1	1.5	0.9	0.4
V	82.5	5.6	5.6	5.3	4.8	4.1	3.3	2.3	1.6	1.0	0.6
E	80.0	6.7	6.6	6.3	5.8	4.9	3.9	2.9	1.9	1.2	0.7
R	77.5	7.9	8.0	7.7	7.0	6.0	4.7	3.4	2.2	1.4	0.8
T	75.0	10.3	10.2	9.8	8.9	7.7	6.1	4.4	2.8	1.7	1.2
I	72.5	12.8	12.7	12.4	11.4	9.8	7.8	5.5	3.4	2.1	1.4
C	70.0	16.6	16.4	16.0	14.6	12.6	9.9	6.9	4.3	2.6	1.7
A	67.5	21.6	21.2	20.5	18.5	16.3	12.8	8.8	5.3	3.0	1.9
L	65.0	27.0	26.6	26.0	23.7	20.5	16.0	10.9	6.5	3.6	2.3
	62.5	33.6	33.2	32.1	29.2	25.7	20.1	13.7	7.9	4.4	2.9
A	60.0	39.4	39.1	38.1	35.0	30.1	24.2	16.4	9.3	5.1	3.3
N	57.5	45.8	45.5	44.1	40.3	35.0	27.7	19.1	11.0	5.9	3.9
G	55.0	51.7	51.3	49.2	45.2	39.6	31.4	21.7	12.4	6.6	4.3
L	52.5	55.9	55.4	53.2	49.3	43.0	34.2	23.5	13.3	7.0	4.8
E	50.0	59.0	58.8	56.5	52.4	45.4	36.3	25.1	14.2	7.6	5.3
	47.5	61.1	60.9	59.0	54.4	47.3	37.6	26.0	14.8	8.0	5.8
	45.0	63.0	62.7	60.6	55.8	48.5	38.3	26.2	15.1	8.4	6.2
	42.5	64.3	64.0	61.6	56.4	48.9	38.1	25.9	15.0	8.7	6.6
	40.0 <<	64.4	64.1	61.5	55.9	47.9	36.9	25.0	14.7	8.8	6.9
	37.5	63.2	62.5	59.8	54.2	45.9	35.0	23.7	14.2	8.9	7.4
	35.0	60.0	59.0	56.6	51.0	42.5	32.1	21.6	13.2	8.8	7.5
	30.0	49.4	48.8	45.9	40.7	33.6	25.0	17.3	11.5	8.8	8.1
	25.0	35.6	35.5	33.6	29.3	24.2	18.5	13.6	10.2	8.8	8.7
	20.0	23.8	23.2	22.0	19.4	16.4	13.4	11.1	9.5	9.0	9.3
	15.0	14.5	14.5	13.9	13.0	11.8	10.5	9.8	9.3	9.3	9.7
	10.0	10.5	10.5	10.4	10.1	10.0	9.8	9.6	9.7	9.8	10.2
	5.0	9.9	10.0	9.9	10.0	10.0	10.1	10.1	10.2	10.4	10.7
	0.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0

PLANE OF MAXIMUM CANDELA

CONE OF MAXIMUM CANDELA



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CANDELA TABULATION

	HOUSE SIDE	LATERAL ANGLE		
	90.0	135.0	180.0	
	180.0	0.0	0.0	0.0
	175.0	0.0	0.0	0.0
	165.0	0.0	0.0	0.0
	155.0	0.0	0.0	0.0
	145.0	0.1	0.1	0.3
	135.0	0.0	0.1	0.1
	125.0	0.0	0.2	0.4
	115.0	0.1	0.3	0.1
	105.0	0.2	0.4	0.1
	95.0	0.2	0.4	0.1
	90.0	0.1	0.5	0.0
	87.5	0.2	0.4	0.0
	85.0	0.3	0.6	0.0
V	82.5	0.4	0.4	0.0
E	80.0	0.6	0.4	0.0
R	77.5	0.6	0.3	0.0
T	75.0	0.9	0.4	0.2
I	72.5	1.1	0.4	0.2
C	70.0	1.4	0.4	0.4
A	67.5	1.6	0.2	0.4
L	65.0	2.0	0.4	0.6
	62.5	2.4	0.3	0.6
A	60.0	2.8	0.2	0.7
N	57.5	3.3	0.3	0.7
G	55.0	3.8	0.3	0.6
L	52.5	4.3	0.2	0.4
E	50.0	4.8	0.2	0.3
	47.5	5.4	0.1	0.3
	45.0	5.9	0.1	0.3
	42.5	6.3	0.1	0.3
	40.0<<	6.8	0.1	0.2
	37.5	7.4	0.1	0.3
	35.0	7.5	0.0	0.1
	30.0	8.3	0.0	0.1
	25.0	8.9	0.0	0.0
	20.0	9.5	1.1	0.0
	15.0	10.0	5.2	0.7
	10.0	10.5	9.0	6.4
	5.0	10.8	11.0	10.7
	0.0	11.0	11.0	11.0

CONE OF MAXIMUM CANDELA





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5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	0.3
5- 10	0.7
10- 15	1.0
15- 20	1.4
20- 25	2.1
25- 30	3.2
30- 35	4.6
35- 40	5.9
40- 45	6.9
45- 50	7.2
50- 55	7.0
55- 60	6.1
60- 65	4.7
65- 70	3.3
70- 75	2.1
75- 80	1.4
80- 85	1.0
85- 90	0.8
90- 95	0.7
95-100	0.6
100-105	0.5
105-110	0.4
110-115	0.4
115-120	0.3
120-125	0.2
125-130	0.2
130-135	0.1
135-140	0.1
140-145	0.0
145-150	0.0
150-155	0.0
155-160	0.0
160-165	0.0
165-170	0.0
170-175	0.0
175-180	0.0

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	1.0
0- 20	3.4
0- 30	8.8
0- 40	19.4
0- 50	33.4
0- 60	46.6
0- 70	54.6
0- 80	58.1
0- 90	60.0
0-100	61.3
0-110	62.3
0-120	62.9
0-130	63.3
0-140	63.5
0-150	63.5
0-160	63.5
0-170	63.5
0-180	63.5

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**HUBBELL**  
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Date  
2/2/2015

### *Goniophotometer Calibration*

*Calibration Lamp:* GE 1000W, 120V, T6, CL (FEL)

*Lamp Number:* ITL78966-1000-38

*Calibration Current:* 8.300 Amps DC

*Total Luminous Flux:* 25753.0 Lumens

*Calibration Date:* 11/24/2014

### *Test Equipment Used*

<i>Instrument</i>	<i>Manufacturer / Model</i>	<i>S/N</i>	<i>Calibration Due:</i>
Goniophotometer	ITL / HLI LAB 6 - Test Distance: 31.3'	N/A	N/A
Power Analyzer	Yokogawa / WT 332	C2QA27076V	11/12/2015
Power Source	Voltage-Regulated House Power	N/A	N/A
Thermometer	National Instruments / USB-TC01	1912745	11/11/2015

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