

Project Number
17.02771



Date
10/10/2017

Lab 4
Sphere

Test Sample Description

Catalog Number: P5741-3130K
Description: 6" Diameter Surface-Mount Cylinder w/ Opal Lens

*DUT did not meet photometric stabilization criteria. Data trended straight and steady, but peak to peak values within trend varied about 0.7%. Test started after trending for 30 minutes.

Photometry

Test Method: IES LM-79-08 § 10
Preburn Time: 0:50
Time To Stabilize: 0:30*
Total Operating Time: 2:25

Input Voltage (Volts): 119.9
Input Current (Amps): 0.259
Input Wattage (Watts): 28.9
Ambient Temp (°C): 24.9

Sphere

Test Method: IES LM-79-08 § 9.1 & 12.1
Preburn Time: 1:00
Time To Stabilize: 1:13
Total Operating Time: 2:13

Input Voltage (Volts): 120.0
Input Current (Amps): 0.256
Input Wattage (Watts): 28.6
Ambient Temp (°C): 24.0
PF @ 120V: 0.935
THD @ 120V (%): 39.0



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Checked (sphere): B. LEE
Checked (photometry): R. HALL
Approved: P. McCARTHY



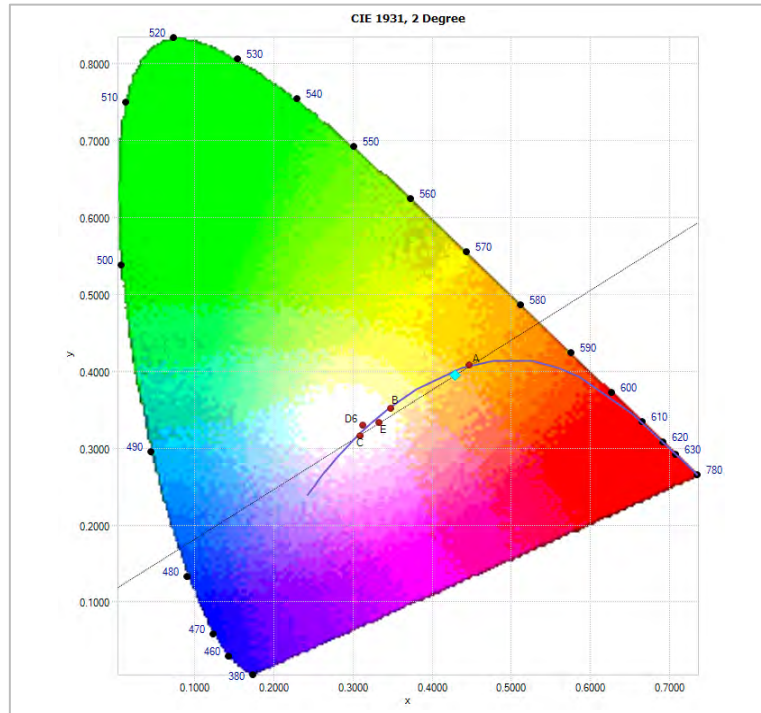
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Lamp Cat#: NA
 Lamp Desc: 40 - NA 3000K LEDs
 Driver Desc: NA

Efficacy: 30.1 LPW S/P Ratio: 1.5 LM/LM

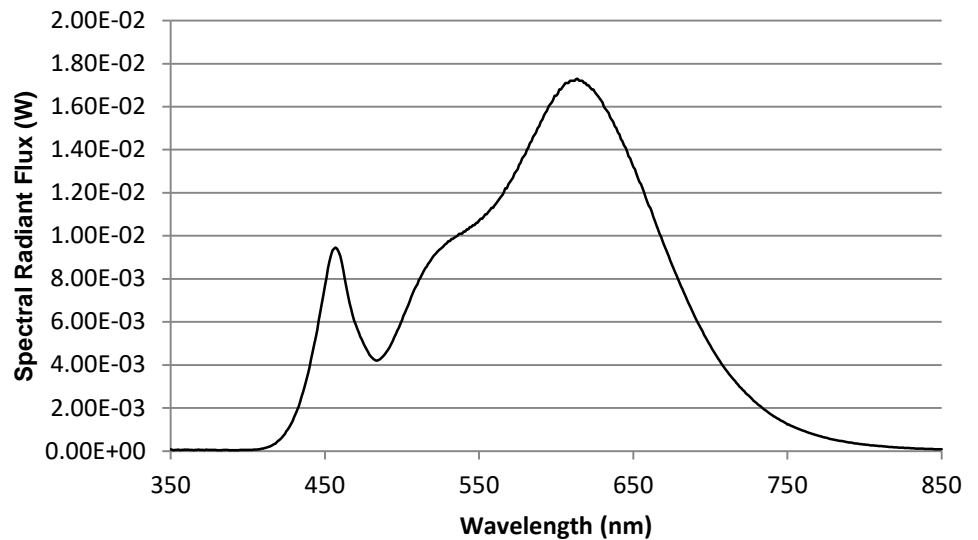
Chromaticity Diagram



Spectral Results

Name	Value	Unit
Φ	2.95	watts
Φ(v)	861	lumens
Φ(v')	1253	lm'
Chrom x	0.4295	
Chrom y	0.3956	
Chrom u	0.2494	
Chrom v	0.3446	
Duv	0.0024	
Chrom u'	0.2494	
Chrom v'	0.5169	
CCT	3056	K
Purity	47.7	%
λ (dom)	583.5	nm
FWHM	158.7	nm
λ (peak)	613.3	nm
λ (center)	595.9	nm
λ (centroid)	589.9	nm
SDCM	Cool White	
RA	92	
Corr. Coef.	0.002384958	
Correlation	0.0054	
R1	92.8	
R2	97.2	
R3	97.7	
R4	91.8	
R5	92.7	
R6	95.8	
R7	89.3	
R8	77.8	
R9	51.4	
R10	92.6	
R11	93.1	
R12	82.0	
R13	94.4	
R14	99.4	

Spectral Distribution of Radiant Flux



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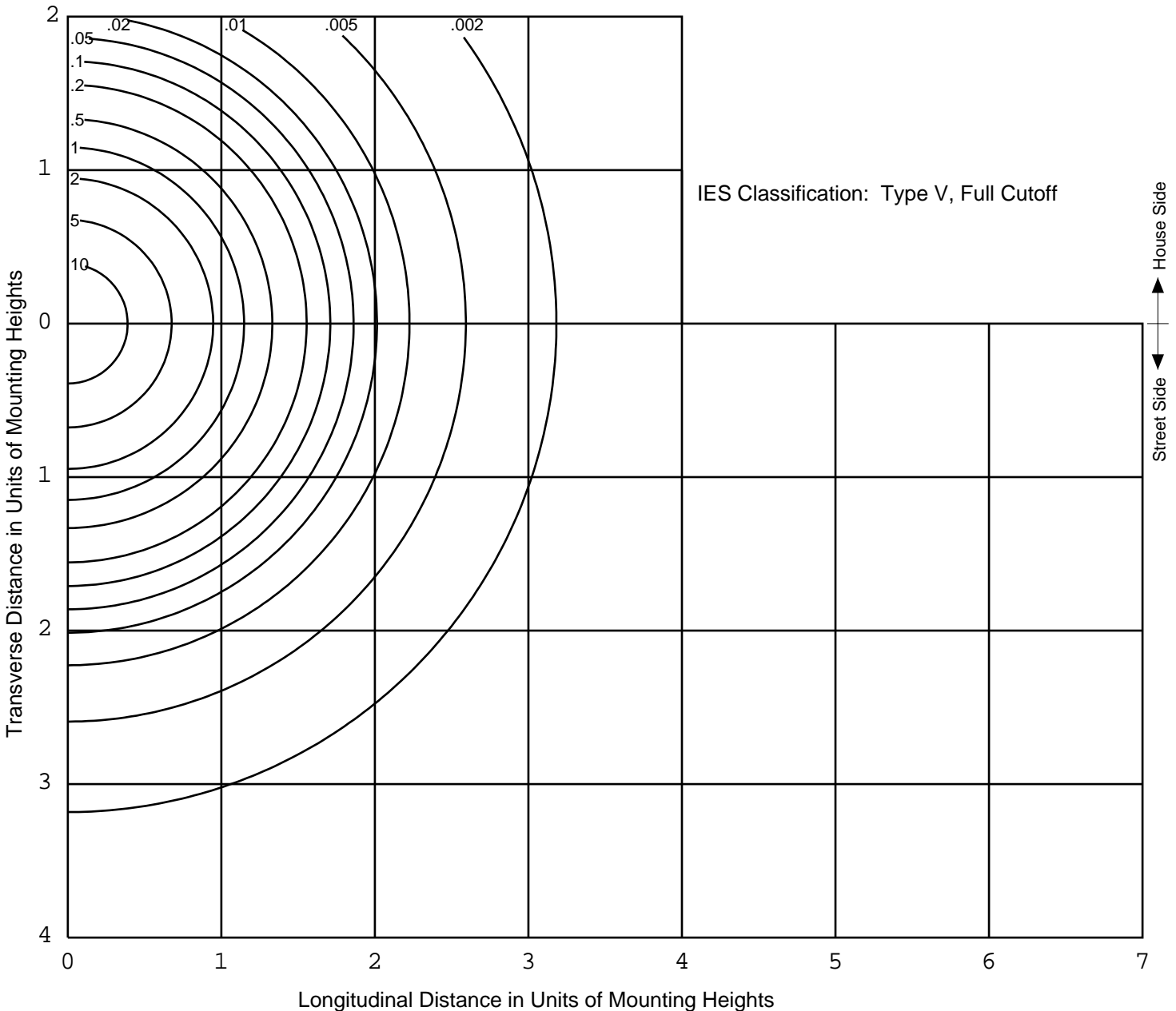


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ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION
Values based on 6.5 foot mounting height.

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Cylinder w/ Opal Lens
LAMP: 40- 3000K LED



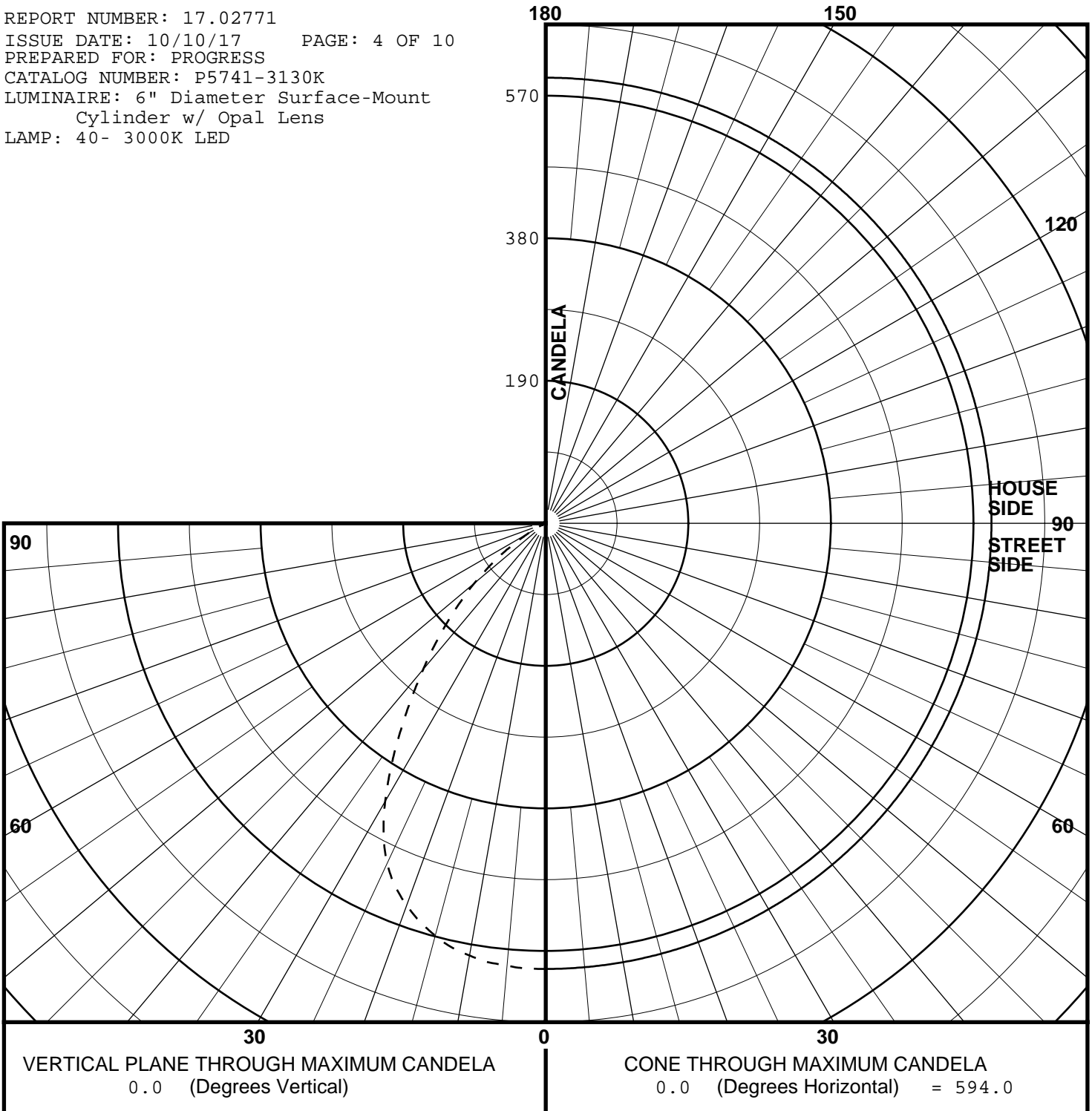


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MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

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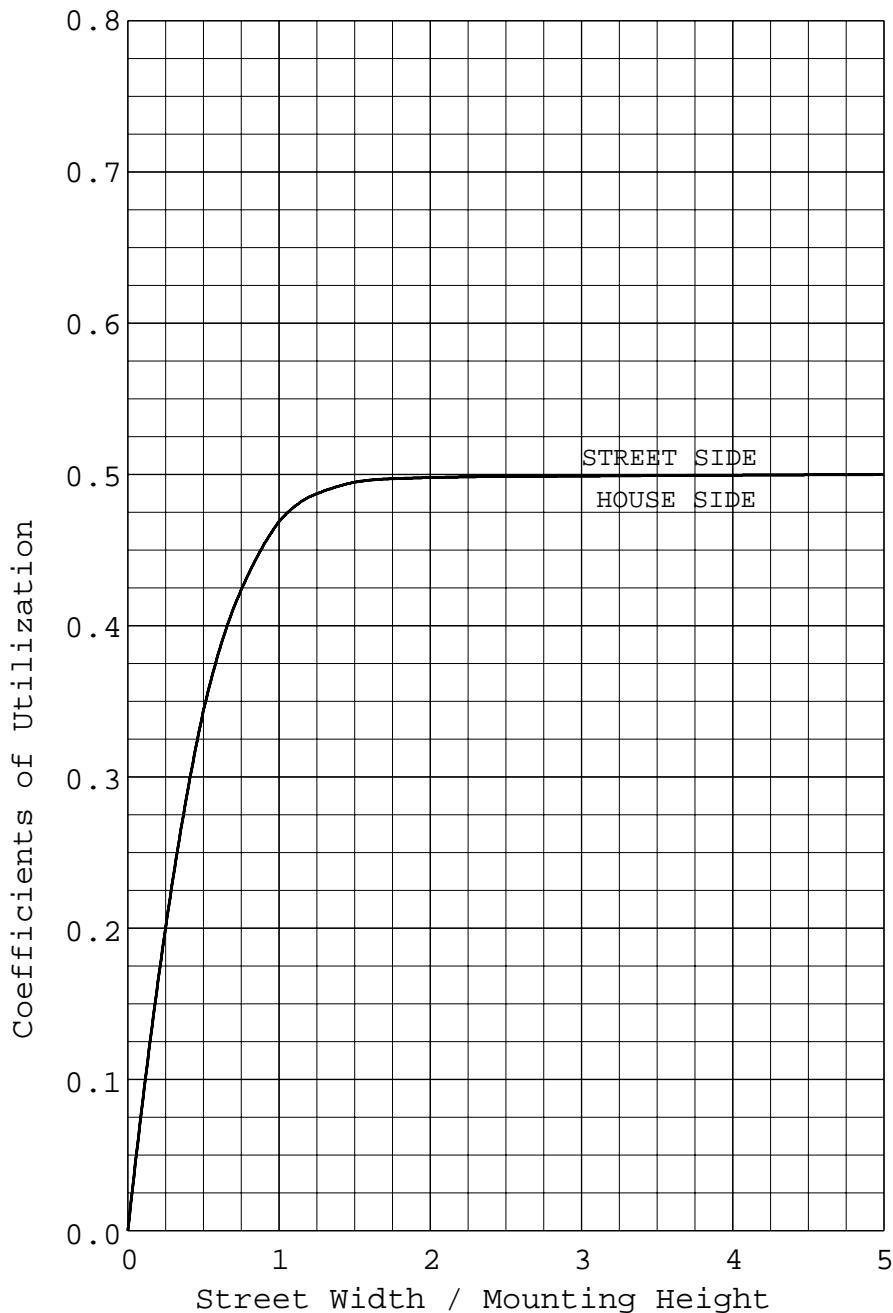
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COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	437.	50.0
DOWNWARD HOUSE SIDE	437.	50.0
DOWNWARD TOTAL	874.	100.0
UPWARD STREET SIDE	0.	0.0
UPWARD HOUSE SIDE	0.	0.0
UPWARD TOTAL	0.	0.0
TOTAL FLUX	874.	100.0
TOTAL INPUT WATTS = 28.887		
EFFICACY = 30.3 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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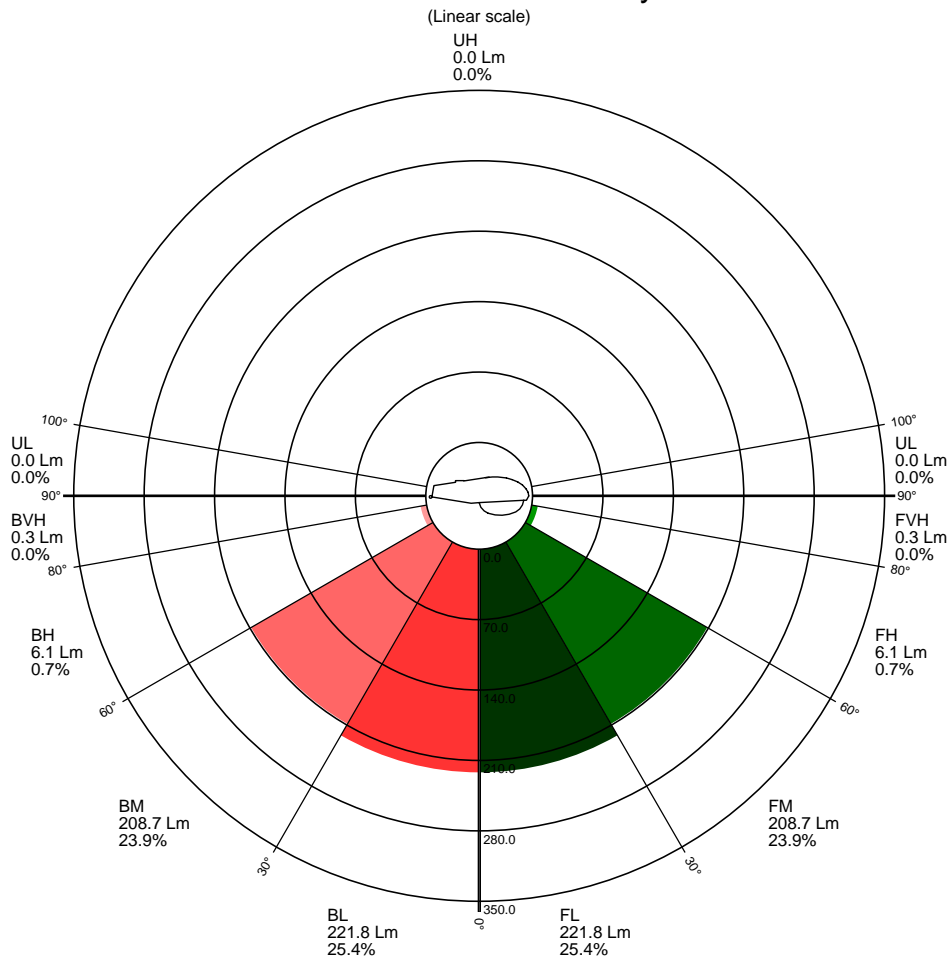
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BUG Rating:			Zone Ratings					
Zonal Summary			Lumens	% of Fixture	B1	U0	G0	
			Zone Ratings			B	U	G
Forward			437	50.0				
FL	(0° - 30°)		221.8	25.4				
FM	(30° - 60°)		208.7	23.9				
FH	(60° - 80°)		6.1	0.7			G0	
FVH	(80° - 90°)		0.3	0.0			G0	
Backward			437	50.0				
BL	(0° - 30°)		221.8	25.4	B1			
BM	(30° - 60°)		208.7	23.9	B0			
BH	(60° - 80°)		6.1	0.7	B0		G0	
BVH	(80° - 90°)		0.3	0.0			G0	
Upward			0	0.0				
UL	(90° - 100°)		0.0	0.0		U0		
UH	(100° - 180°)		0.0	0.0		U0		
Trapped Light			0	0.0				
Total Flux			874	100.0				

Zonal Lumen Summary





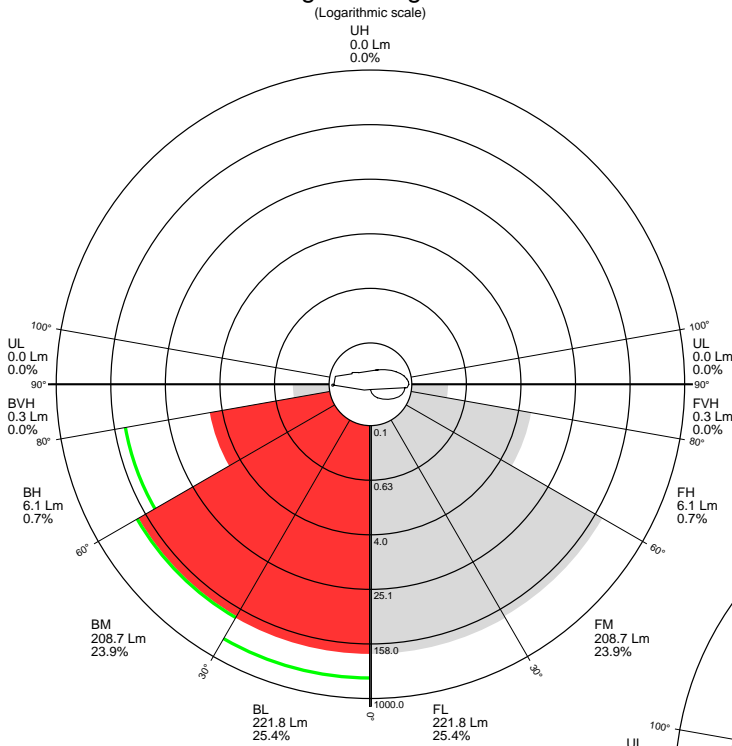
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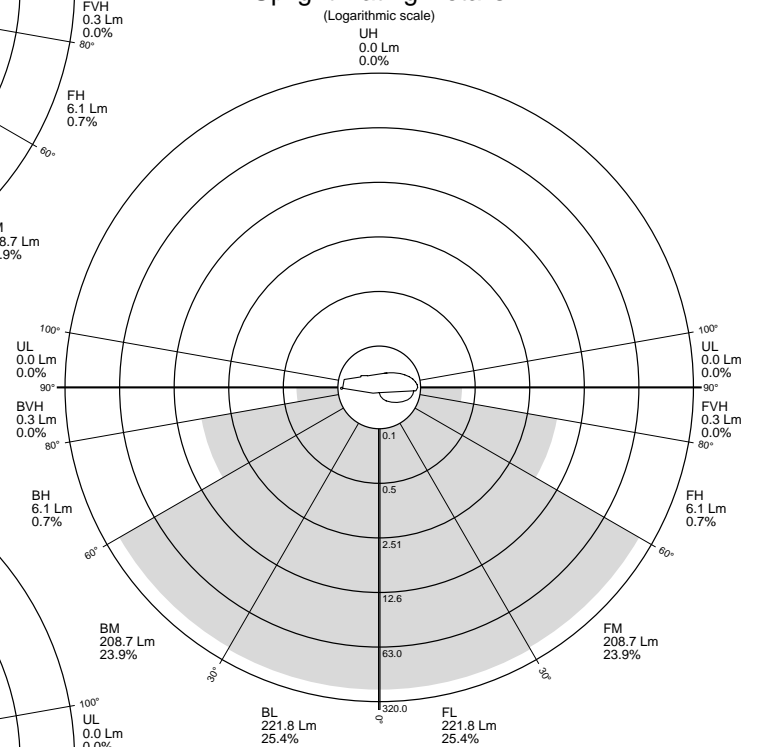
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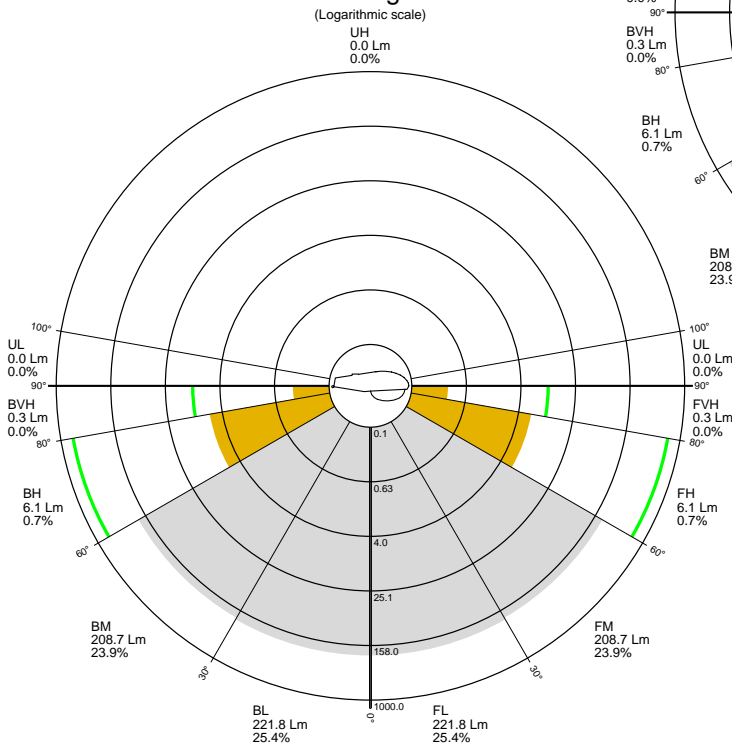
Backlight Rating Details



Uplight Rating Details



Glare Rating Details





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CANDELA TABULATION -- TYPE V

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180.0	0.
175.0	0.
165.0	0.
155.0	0.
145.0	0.
135.0	0.
125.0	0.
115.0	0.
105.0	0.
95.0	0.
90.0	0.
87.5	0.
85.0	1.
82.5	1.
80.0	1.
77.5	2.
75.0	3.
72.5	3.
70.0	4.
67.5	5.
65.0	6.
62.5	12.
60.0	27.
57.5	47.
55.0	71.
52.5	96.
50.0	124.
47.5	153.
45.0	184.
42.5	218.
40.0	254.
37.5	294.
35.0	337.
30.0	428.
25.0	500.
20.0	542.
15.0	569.
10.0	585.
5.0	592.
0.0	594.<<

<< INDICATES MAXIMUM CANDELA



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	14
5- 10	42
10- 15	69
15- 20	92
20- 25	109
25- 30	118
30- 35	112
35- 40	98
40- 45	81
45- 50	62
50- 55	42
55- 60	22
60- 65	7
65- 70	3
70- 75	2
75- 80	1
80- 85	1
85- 90	0
90- 95	0
95-100	0
100-105	0
105-110	0
110-115	0
115-120	0
120-125	0
125-130	0
130-135	0
135-140	0
140-145	0
145-150	0
150-155	0
155-160	0
160-165	0
165-170	0
170-175	0
175-180	0

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	56
0- 20	216
0- 30	444
0- 40	654
0- 50	797
0- 60	861
0- 70	871
0- 80	873
0- 90	874
0-100	874
0-110	874
0-120	874
0-130	874
0-140	874
0-150	874
0-160	874
0-170	874
0-180	874

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Goniophotometer Calibration

Calibration Lamp : Osram ST8-HA4-250-840 22 W/4000 K
Lamp Number: RM B6-28
Ballast: Vossloh Schwabe LN 36.149
Ballast Number: RM B6-28
Calibration Voltage/Frequency: 220Vac / 50hz
Total Luminous Flux: 2463 Lumens
Calibration Date: 01/19/2017

<i>Test Equipment Used</i>			
<i>Instrument</i>	<i>Manufacturer / Model</i>	<i>S/N</i>	<i>Calibration Due:</i>
<i>Goniophotometer</i>	LMT/GO-DS 1600 Lab 4- Test Dist.: 31.0'	10B6231	2/17/2019
<i>Power Analyzer</i>	Yokogawa / WT 332	C2QA27074V	11/2/2017
<i>Power Source</i>	Chroma / 61604	616040003897	10/27/2017
<i>Thermometer</i>	LMT / ATS-4Ch	10B623-3	12/14/2017

Sphere Calibration

Calibration Lamp: EIKO 28V75W/E10
Lamp Number: SCL-1400-J136
Calibration Current: 2.679 Amps
Total Luminous Flux: 1427 Lumens

<i>Test Equipment Used - Color & SPD; THD & Power Factor</i>			
<i>Instrument</i>	<i>Manufacturer / Model</i>	<i>S/N</i>	<i>Calibration Due:</i>
<i>3-Meter Sphere</i>	Labsphere / LMS-3M	N/A	Calibrated Weekly
<i>Thermometer</i>	National Instruments / USB TC01	1912751	11/2/2017
<i>LAMP Power Meter</i>	Yokogawa / WT332	C2QA27075V	11/1/2017
<i>Power Supply</i>	Chroma / 61602	616020002113	N/A
<i>Power Supply PF/THD</i>	Voltage-Regulated House Power	N/A	N/A
<i>Aux Lamp Supply</i>	Labsphere / LPS-100-0833	0331159372	10/31/2017
<i>Cal Lamp Supply</i>	Labsphere / LPS-150-0268	1218148505	12/1/2017
<i>Spectrometer</i>	Labsphere / CDS 1100	0624117792	N/A

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