

Lab 4
Sphere

Test Sample Description

Catalog Number: P5741-8230K

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: 1:20
Time To Stabilize: 0:30*
Total Operating Time: 2:10

Input Voltage (Volts): 119.9
Input Current (Amps): 0.264
Input Wattage (Watts): 29.4
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): 0.261
Input Wattage (Watts): 29.1
Ambient Temp (°C): 24.0
PF @ 120V: 0.934
THD @ 120V (%): 39.2



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

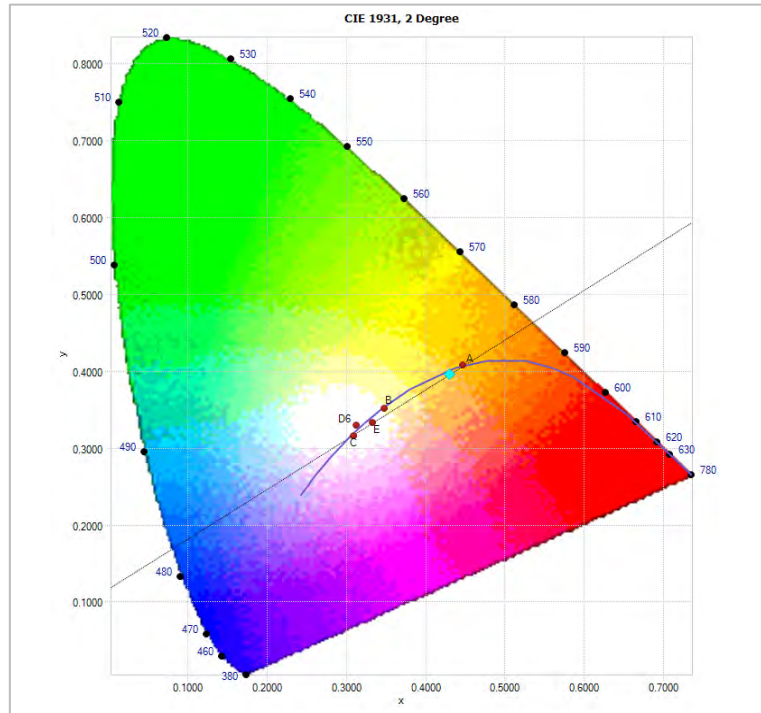




Lamp Cat#: NA
 Lamp Desc: 40 - 3000K LEDs
 Driver Desc: NA

Efficacy: 38.2 LPW S/P Ratio: 1.5 LM/LM

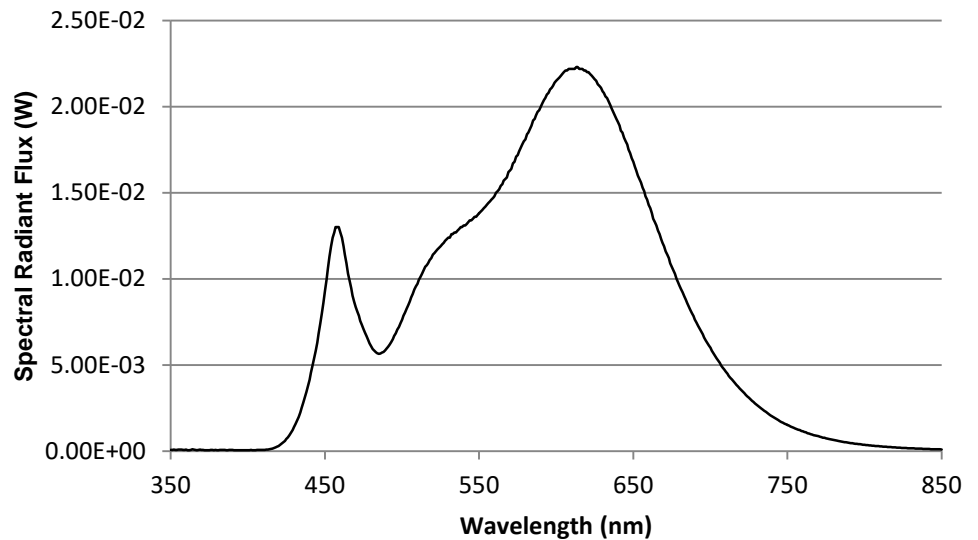
Chromaticity Diagram



Spectral Results

Name	Value	Unit
Φ	3.77	watts
$\Phi(v)$	1113	lumens
$\Phi(v')$	1616	lm'
Chrom x	0.4306	
Chrom y	0.3962	
Chrom u	0.2499	
Chrom v	0.3449	
Duv	0.0023	
Chrom u'	0.2499	
Chrom v'	0.5173	
CCT	3042	K
Purity	48.2	%
λ (dom)	583.5	nm
FWHM	154.4	nm
λ (peak)	613.3	nm
λ (center)	595.8	nm
λ (centroid)	589.3	nm
SDCM	Cool White	
RA	91	
Corr. Coef.	0.002284998	
Correlation	0.0054	
R1	91.8	
R2	97.4	
R3	96.9	
R4	90.0	
R5	91.6	
R6	95.6	
R7	88.1	
R8	75.8	
R9	47.9	
R10	92.8	
R11	91.0	
R12	79.5	
R13	93.8	
R14	99.4	

Spectral Distribution of Radiant Flux



This report shall not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

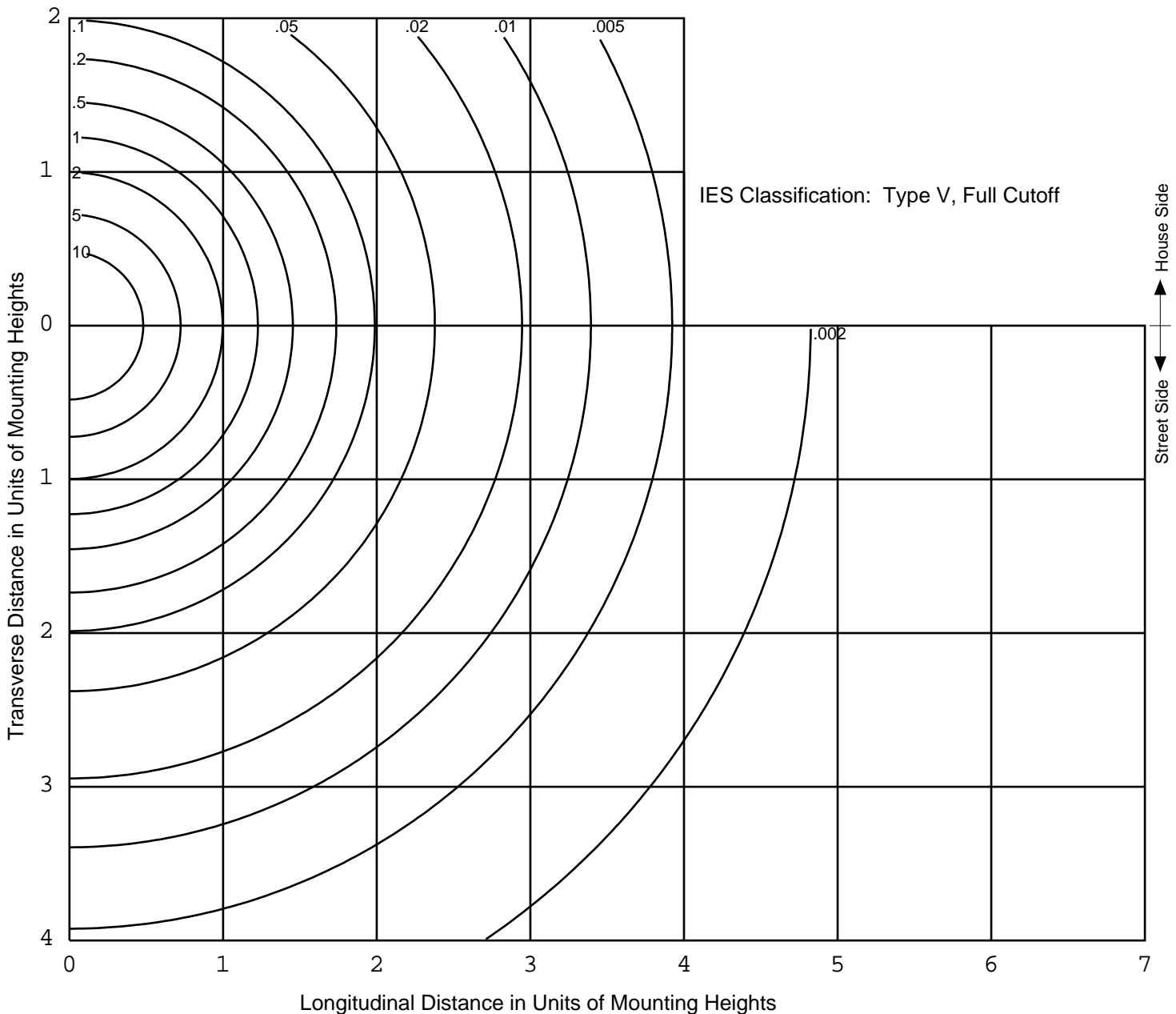


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ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION
Values based on 6.5 foot mounting height.

REPORT NUMBER: 17.02772
ISSUE DATE: 10/10/17 PAGE: 3 OF 10
PREPARED FOR: PROGRESS
CATALOG NUMBER: P5741-8230K
LUMINAIRE: 6" Diameter Surface-Mount
Cylinder w/ Opal Lens
LAMP: 40- 3000K LEDs



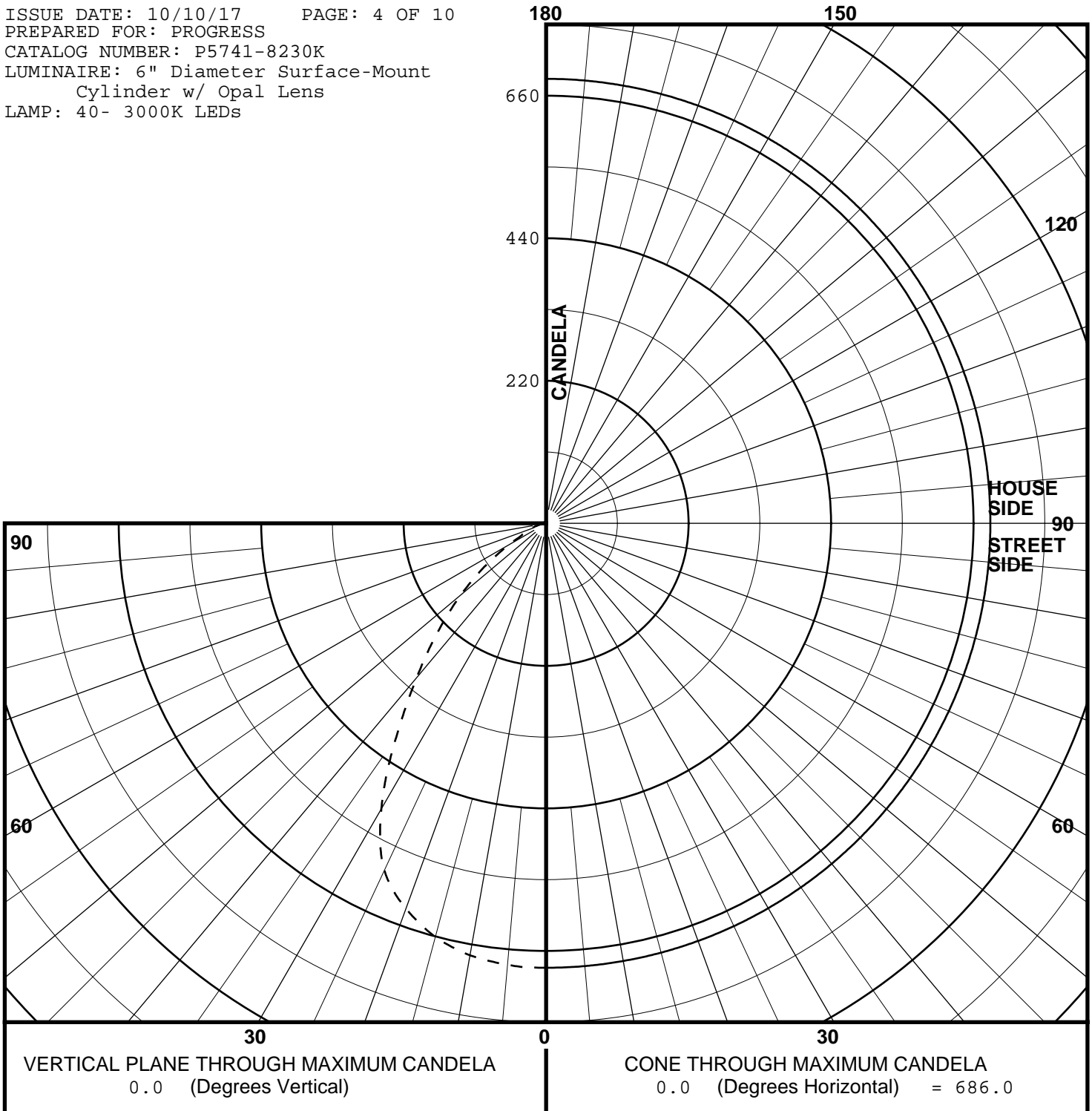


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MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA

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LAMP: 40- 3000K LEDs





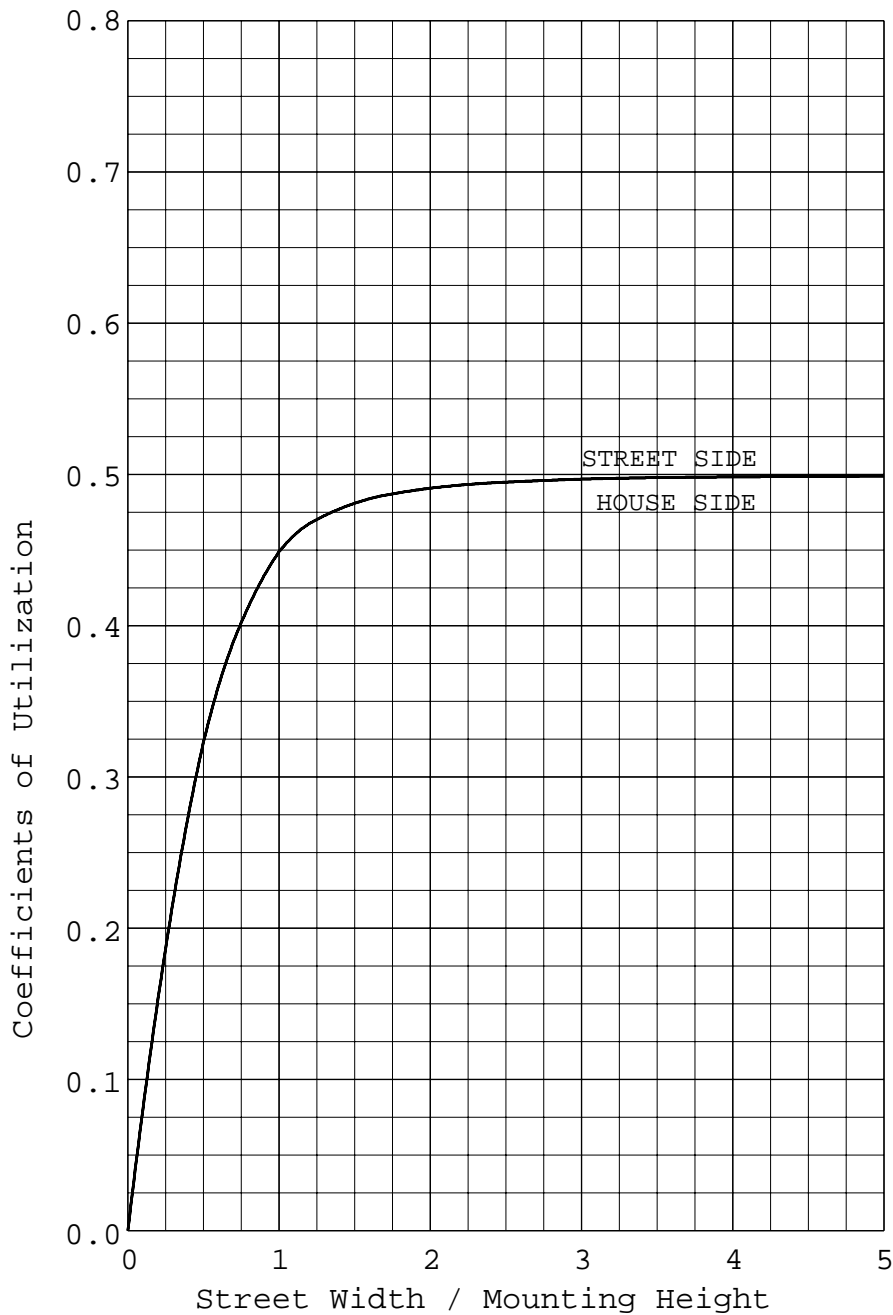
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REPORT NUMBER: 17.02772
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PAGE: 5 OF 10

COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



	LUMENS	PERCENT OF FIXTURE
DOWNWARD STREET SIDE	561.	50.0
DOWNWARD HOUSE SIDE	561.	50.0
DOWNWARD TOTAL	1122.	100.0
UPWARD STREET SIDE	0.	0.0
UPWARD HOUSE SIDE	0.	0.0
UPWARD TOTAL	0.	0.0
TOTAL FLUX	1122.	100.0
TOTAL INPUT WATTS = 29.423		
EFFICACY = 38.1 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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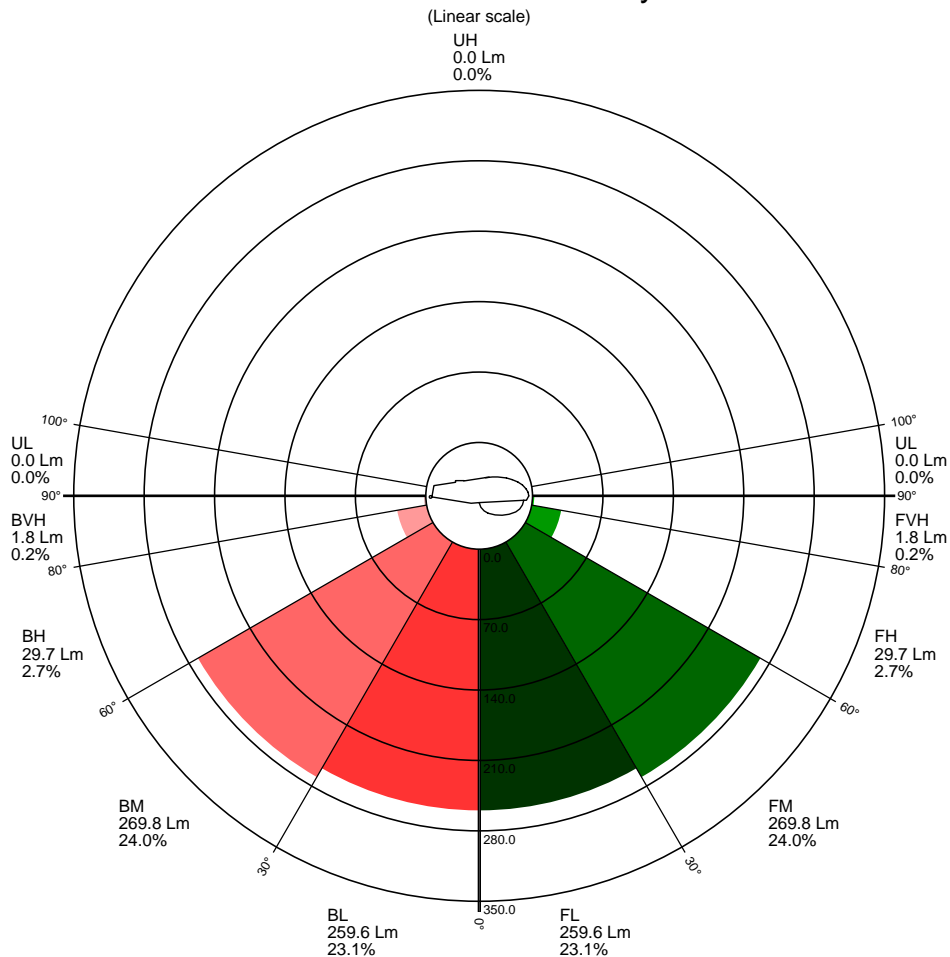
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REPORT NUMBER: 17.02772
ISSUE DATE: 10/10/17
PREPARED FOR: PROGRESS

PAGE: 6 OF 10

Zonal Summary	Lumens	% of Fixture	Zone Ratings		
			B	U	G
Forward	561	50.0			
FL (0° - 30°)	259.6	23.1			
FM (30° - 60°)	269.8	24.0			
FH (60° - 80°)	29.7	2.7			G0
FVH (80° - 90°)	1.8	0.2			G0
Backward	561	50.0			
BL (0° - 30°)	259.6	23.1	B1		
BM (30° - 60°)	269.8	24.0	B1		
BH (60° - 80°)	29.7	2.7	B0		G0
BVH (80° - 90°)	1.8	0.2			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	1122	100.0			

Zonal Lumen Summary





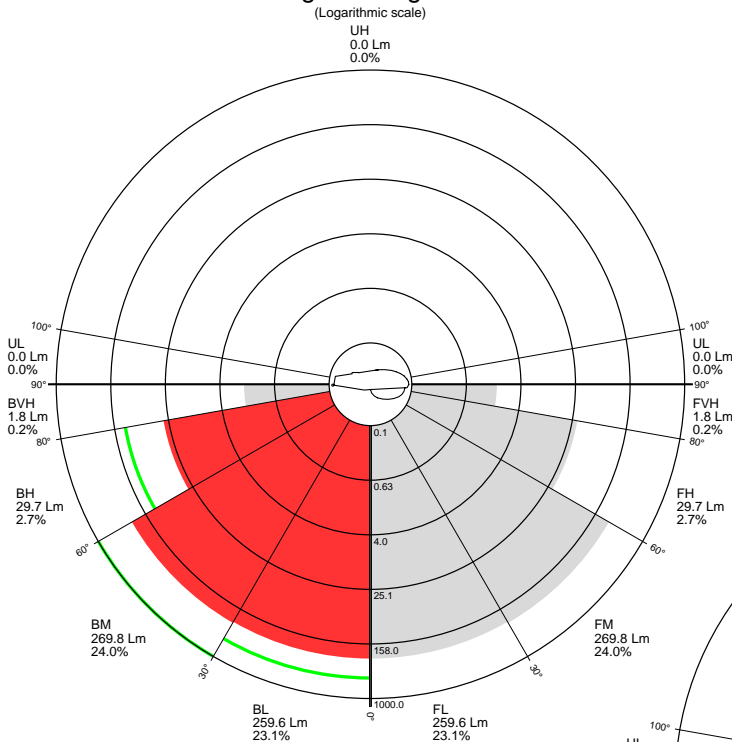
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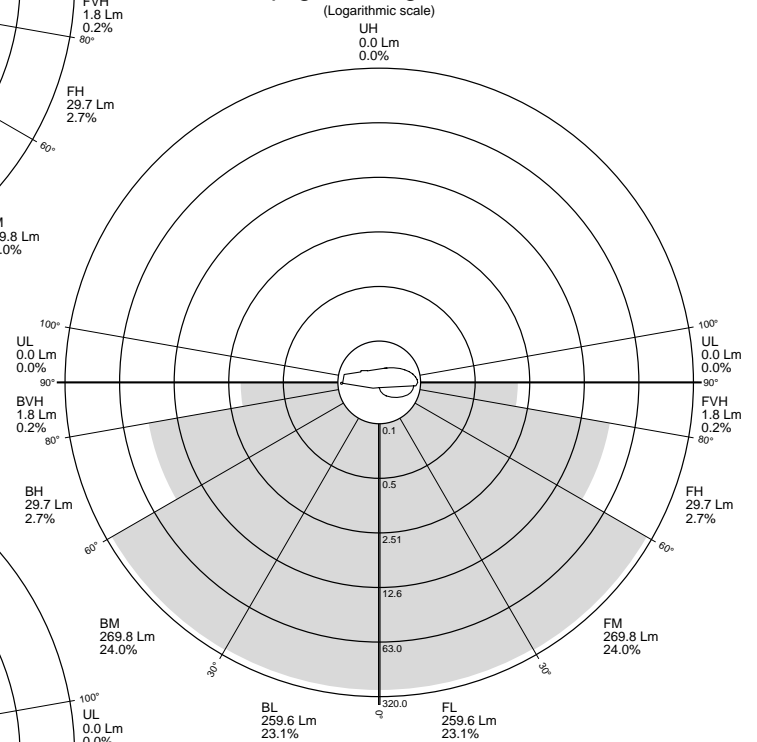
REPORT NUMBER: 17.02772
ISSUE DATE: 10/10/17
PREPARED FOR: PROGRESS

PAGE: 7 OF 10

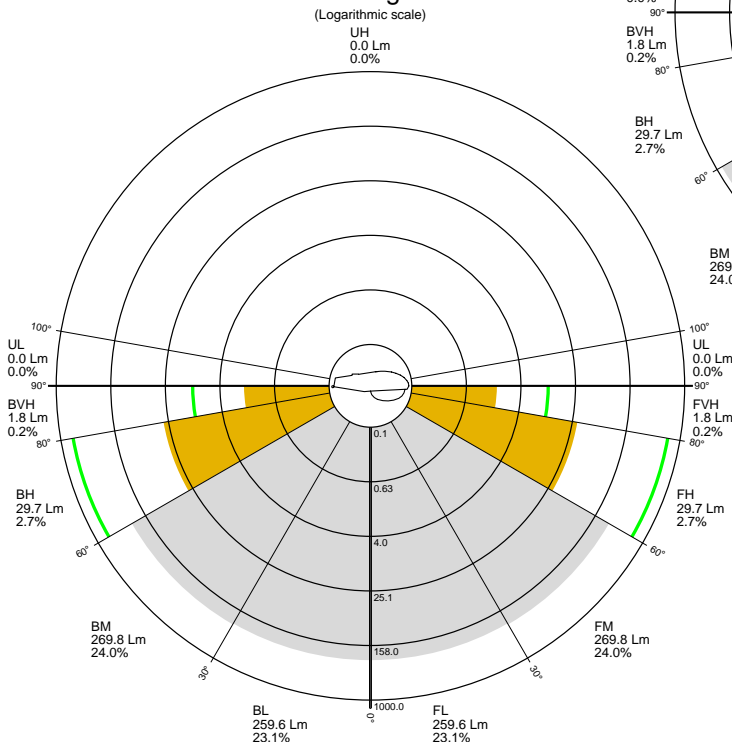
Backlight Rating Details



Uplight Rating Details



Glare Rating Details





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TABULATION -- TYPE V

PAGE: 8 OF 10

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	1.
85.0	3.
82.5	5.
80.0	8.
77.5	11.
75.0	15.
72.5	21.
70.0	29.
67.5	35.
65.0	40.
62.5	48.
60.0	67.
57.5	89.
55.0	115.
52.5	142.
50.0	172.
47.5	203.
45.0	236.
42.5	272.
40.0	311.
37.5	355.
35.0	404.
30.0	509.
25.0	591.
20.0	633.
15.0	661.
10.0	677.
5.0	684.
0.0	686.<<

<< INDICATES MAXIMUM CANDELA



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ISSUE DATE: 10/10/17
PREPARED FOR: PROGRESS

PAGE: 9 OF 10

5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	16
5- 10	49
10- 15	79
15- 20	107
20- 25	129
25- 30	140
30- 35	134
35- 40	119
40- 45	101
45- 50	82
50- 55	62
55- 60	42
60- 65	25
65- 70	18
70- 75	11
75- 80	6
80- 85	3
85- 90	1
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	65
0- 20	251
0- 30	519
0- 40	772
0- 50	955
0- 60	1059
0- 70	1101
0- 80	1118
0- 90	1122
0-100	1122
0-110	1122
0-120	1122
0-130	1122
0-140	1122
0-150	1122
0-160	1122
0-170	1122
0-180	1122

Project Number
17.02772



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Date
10/10/2017

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

Test Equipment Used

<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

Test Equipment Used - Color & SPD; THD & Power Factor

<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>	Voltage-Regulated Hse Pwr	N/A	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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