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## Photometric Test Report

Relevant Standards  
IES LM-79-2008, ANSI C82.77-10-2014, CIE 13.3-1995  
CIE 15-2004, ANSI C78.377-2017, IES TM-30-2018

**Prepared For**  
**Cast Lighting**  
David Beausoleil  
1120A Goffle Rd  
Hawthorne, NJ 07506  
United States

**Catalog Number**  
**CPL325**  
Order Number  
13587672  
Test Number  
13587672.04

Test Date

2020-12-09

Prepared By

Matt Finn, Technician

Approved By

Kevin Rodriguez, Project Handler

The results contained in this report pertain only to the tested sample.  
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## Table of Contents

<b>Summary of Results</b>	Page 3
<b>Integrating Sphere Results</b>	Page 4
<b>Distribution Results</b>	
Test Conditions / Summary of Results / ISOPlot	Page 5
Maximum Plane and Cone Plot / Zonal Lumen Summary	Page 6
IES BUG Rating	Page 7
<b>Full TM-30 Report</b>	Page 8

Laboratory results may not be representative of field performance  
Ballast factors have not been applied

Testing was performed in a 3-meter integrating sphere using the  $4\pi$  geometry method.

Absorption correction was employed for Sphere measurement

Tested in 30 planes left side, 30 planes right side, left and right averaged  
Vertical test increments are 2.5 degrees  
Test distance exceeds five times the greatest luminous opening of luminaire  
Test Number 13587672.04 - Page 2 of 8



**Luminaire Description:** Cast aluminum housing, white reflective inner coating, no enclosure  
**Lamp:** Eight white LEDs with optics below each  
**Mounting:** Pathway  
**Ballast/Driver:** Two Cast Perimeter XCPD3 drivers

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 5.00 in.  
Luminous Width: 8.500 in.

**Summary of Results**

**Integrating Sphere**

Luminous Flux: 3064 Lumens  
Efficacy: 92.71 lm/w  
CCT: 4448 K  
CRI (Ra): 79.9

**Distribution**

Roadway Classification: Type VS, Very Short  
Cutoff Classification: Semicutoff  
BUG Rating: B2 U1 G1

**Electrical Data at 17 VDC**

Test Temperature: 24.8 °C  
Voltage: 17.02 VDC  
Current: 1.941 A  
Power: 33.05 W



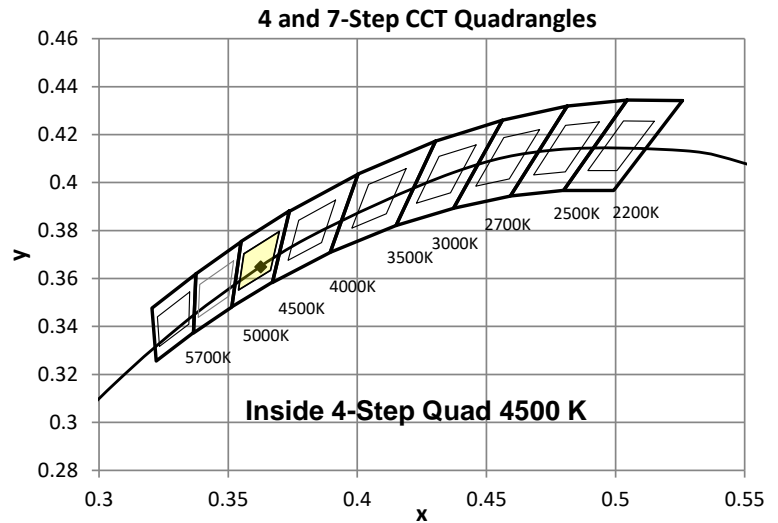
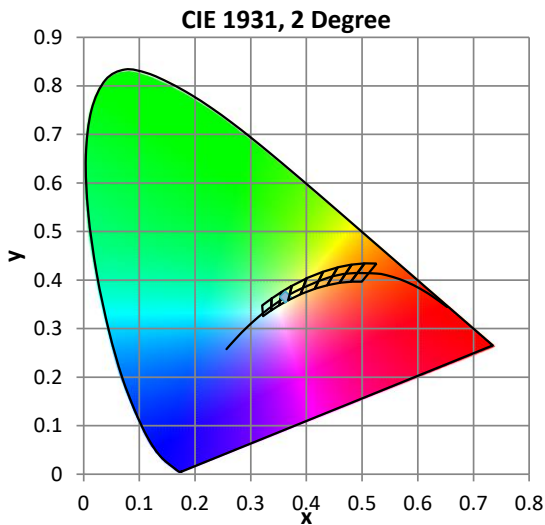
## Color Quality - Integrating Sphere

### Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	17.02 VDC	1.941 A	33.05 W	N/A	N/A	N/A

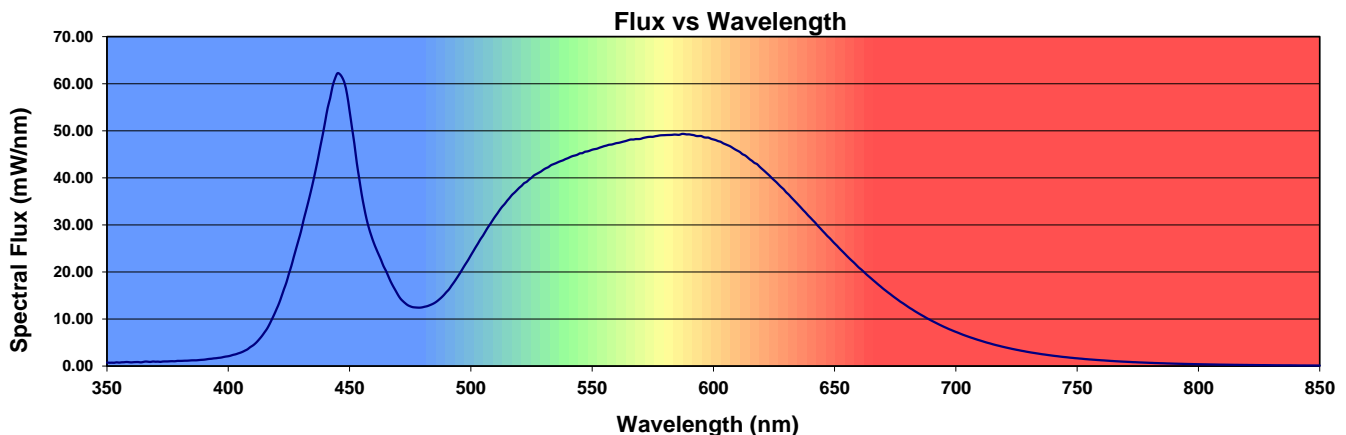
### Summary of Results

<b>Total Output:</b>	3064 Lumens	<b>Chromaticity (x):</b>	0.3626
<b>Efficacy:</b>	92.7 lm/w	<b>Chromaticity (y):</b>	0.3649
<b>CCT:</b>	4448 K	<b>Chromaticity (u'):</b>	0.2179
<b>CRI (Ra):</b>	79.9	<b>Chromaticity (v'):</b>	0.4936
<b>CRI (R9):</b>	9.3	<b>TM-30 Rf:</b>	80
<b>Peak Wavelength:</b>	446 nm	<b>TM-30 Rg:</b>	99
<b>Dominant Wavelength:</b>	577 nm	<b>TM-30 Rcs,h1:</b>	-12%
<b>S/P Ratio:</b>	1.72	<b>Duv:</b>	0.0001



### Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
79.9	79.1	83.2	85.9	81.2	79.2	77.2	85.1	68.0	9.3	59.8	80.3	59.7	79.3	91.8	74.0





### Distribution - Goniophotometer

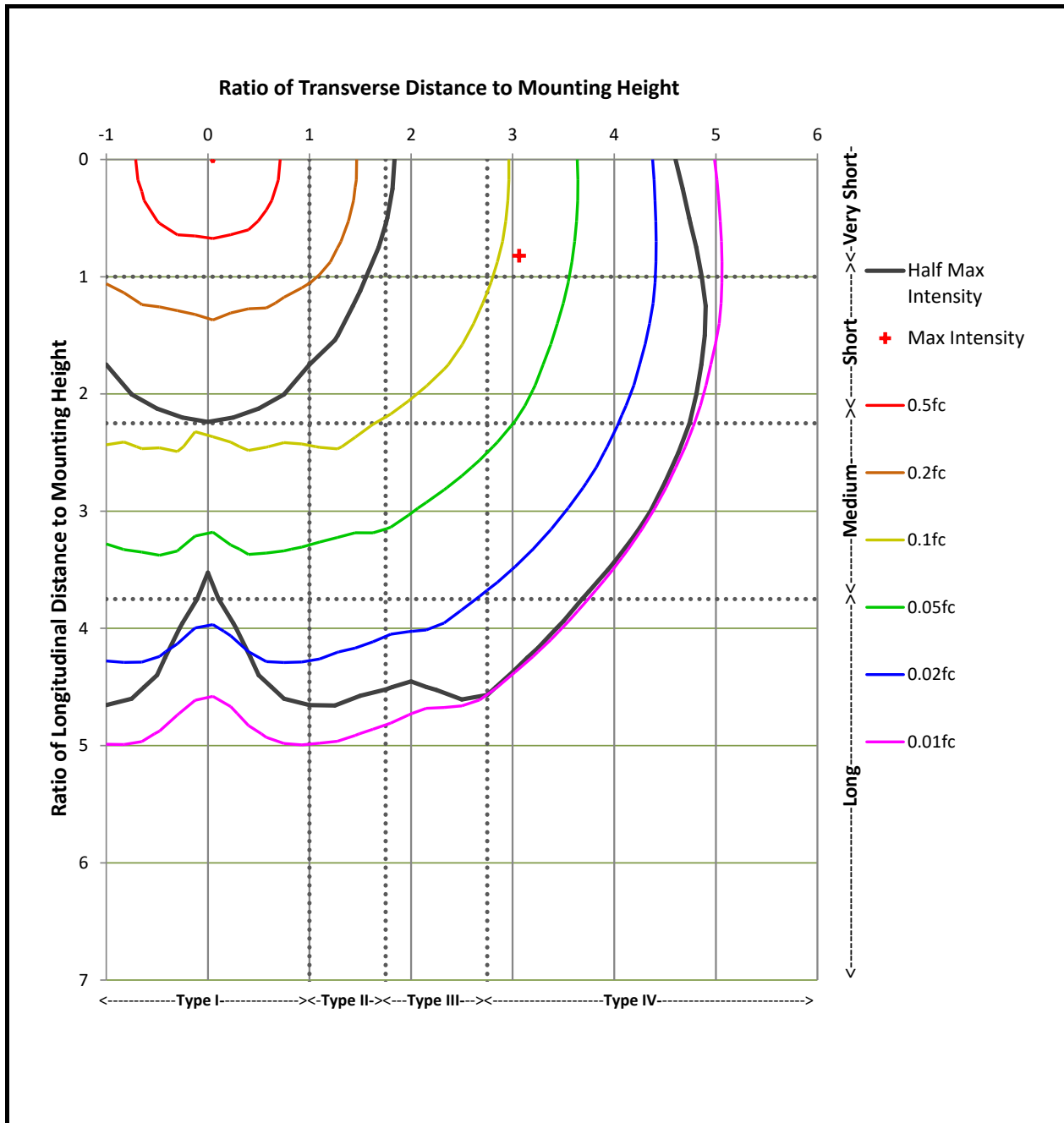
#### Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.7 °C	17.00 VDC	2.014 A	34.23 W	N/A	N/A	N/A

#### Summary of Results

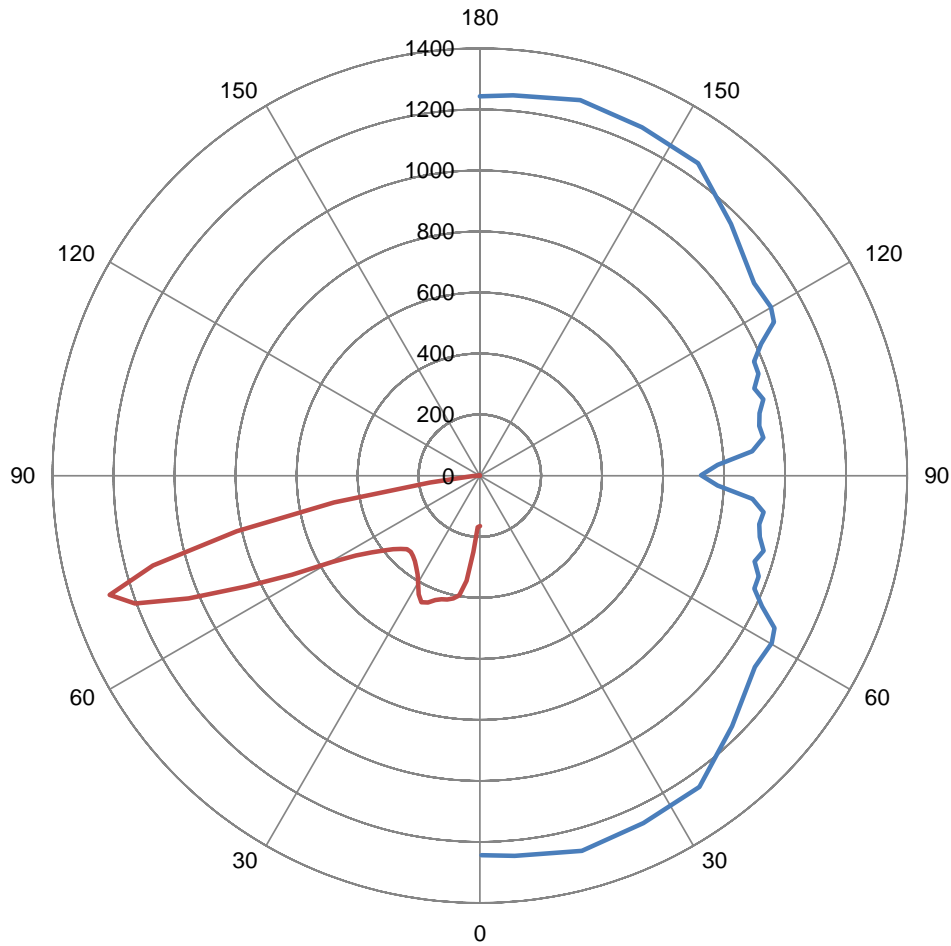
<b>IES Roadway Classification:</b> Type VS, Very Short	<b>Total Lumen Output:</b> 3115 Lumens
<b>Cutoff Classification:</b> Semicutoff	<b>Luminaire Efficacy:</b> 91.0 lm/w
<b>BUG Rating:</b> B2 U1 G1	<b>Maximum Candela:</b> 1274 Candela

#### ISO FootCandle Plot at 20 Feet





**Maximum Plane and Cone Plots of Candela**



Vertical Plane Through

15 ° Lateral

Lateral Cone Through

72.5 ° Vertical

**Maximum Intensity (Candlepower):**

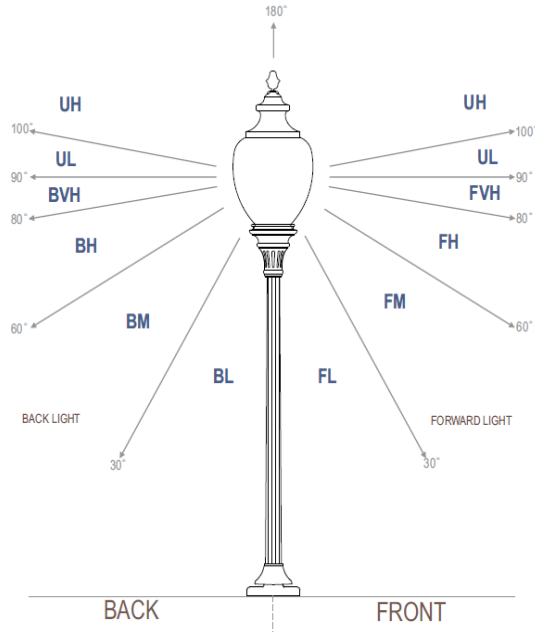
1274 Candela

**Zonal Lumen Summary**

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	5.3	0.2%	60-65	301.2	9.7%	120-125	0.3	0.0%
5-10	22.0	0.7%	65-70	461.2	14.8%	125-130	0.2	0.0%
10-15	45.5	1.5%	70-75	567.2	18.2%	130-135	0.2	0.0%
15-20	67.9	2.2%	75-80	410.4	13.2%	135-140	0.2	0.0%
20-25	90.7	2.9%	80-85	131.5	4.2%	140-145	0.2	0.0%
25-30	106.9	3.4%	85-90	18.9	0.6%	145-150	0.2	0.0%
30-35	111.7	3.6%	90-95	3.2	0.1%	150-155	0.2	0.0%
35-40	116.9	3.8%	95-100	1.6	0.0%	155-160	0.1	0.0%
40-45	124.5	4.0%	100-105	1.0	0.0%	160-165	0.1	0.0%
45-50	141.1	4.5%	105-110	0.7	0.0%	165-170	0.1	0.0%
50-55	170.2	5.5%	110-115	0.5	0.0%	170-175	0.0	0.0%
55-60	212.4	6.8%	115-120	0.4	0.0%	175-180	0.0	0.0%



**IES "BUG" Rating**  
 (Back Light, Uplight, Glare)  
 Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	169.2	5.4%
FM	(30-60)	438.4	14.1%
FH	(60-80)	870.0	27.9%
FVH	(80-90)	75.2	2.4%
BL	(0-30)	169.2	5.4%
BM	(30-60)	438.4	14.1%
BH	(60-80)	870.0	27.9%
BVH	(80-90)	75.2	2.4%
UL	(90-100)	4.7	0.2%
UH	(100-180)	4.5	0.1%
<b>Total</b>		<b>3114.8</b>	<b>100.0%</b>
<b>BUG Rating</b>	<b>B2 U1 G1</b>		

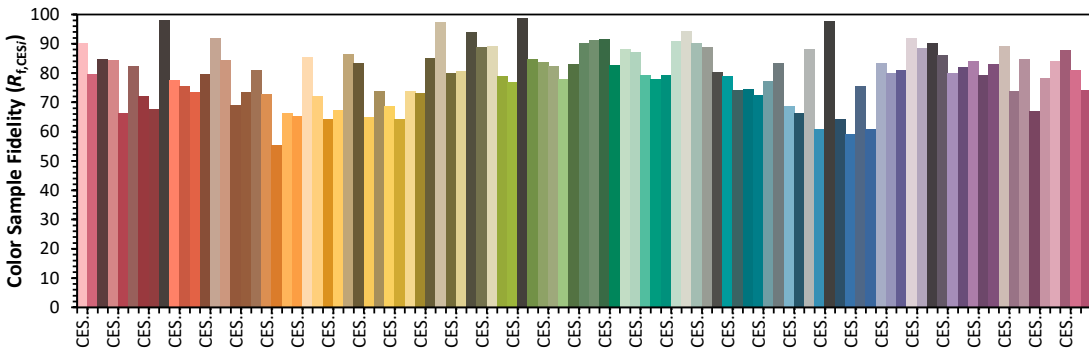
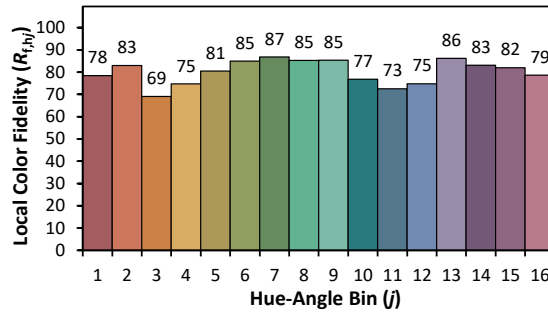
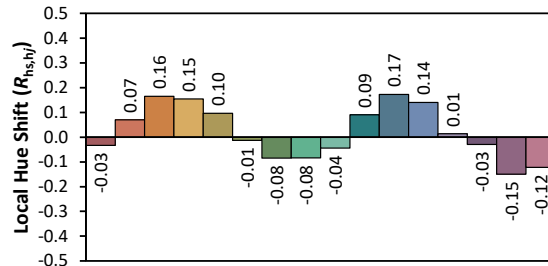
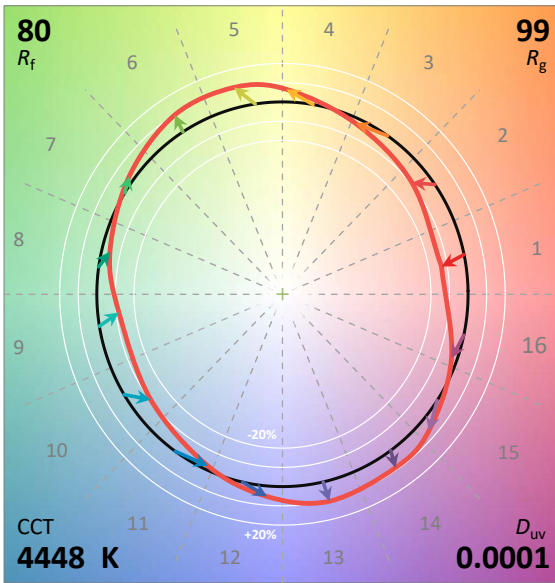
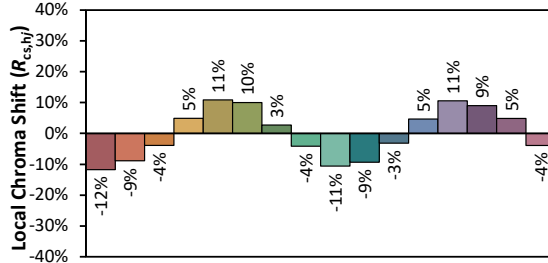
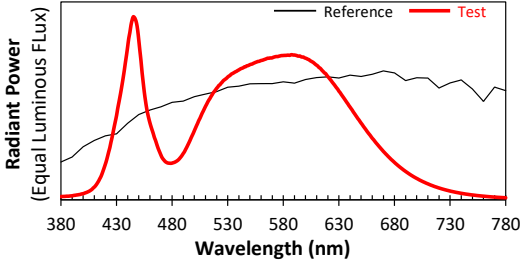
# ANSI/IES TM-30-18 Color Rendition Report

Source: Test Number: 13587672.04

Manufacturer: Cast Lighting

Date: 2020-12-09

Model: CPL325



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

$x$  0.3626  
 $y$  0.3649  
 $u'$  0.2179  
 $v'$  0.4936

CIE 13.3-1995 (CRI)	
$R_a$	80
$R_g$	9

Colors are for visual orientation purposes only. Created with the IES TM-30-18 Calculator Version 2.00.