



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



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

RBW Studio LLC

Reland Boyle
67 34th St, Mailbox 5, Unit 6A
Brooklyn, NY 11232
United States

Catalog Number

Print Sconce Small Clear 2700K (180mA)

Order Number

13802732

Test Number

13802732.02

Test Date

2021-07-23 - 2021-07-26

Prepared By

Cordaryl Cousar, Technician

Approved By

Kevin Rodriguez, Project Handler

The results contained in this report pertain only to the tested sample.

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

Testing was performed in a 2-meter integrating sphere using the 4π geometry method.

Absorption correction was employed for Sphere measurement



Luminaire Description: Cast aluminum housing, rubber inner lens, frosted glass outer lens enclosure
Lamp: 36 white LEDs
Mounting: Pendant
Ballast/Driver: One ERP ESS010W-0200-42

Luminaire



Luminaire Characteristics

Luminous Diameter: 8.00 in.
Luminous Height: 3.380 in.

Summary of Results

Integrating Sphere

Luminous Flux: 394.4 Lumens
Efficacy: 49.58 lm/w
CCT: 2449 K
CRI (Ra): 90.9

Distribution

Total Luminaire Output: 402.7 Lumens
Luminaire Efficacy: 50.6 lm/w
Maximum Candela: 85 Candela

Electrical Data at 120 VAC

Test Temperature: 24.8 °C
Voltage: 120.1 VAC
Current: 0.06719 A
Power: 7.956 W
Power Factor: 0.986
Frequency: 60 Hz
Current THD: 12.6 %



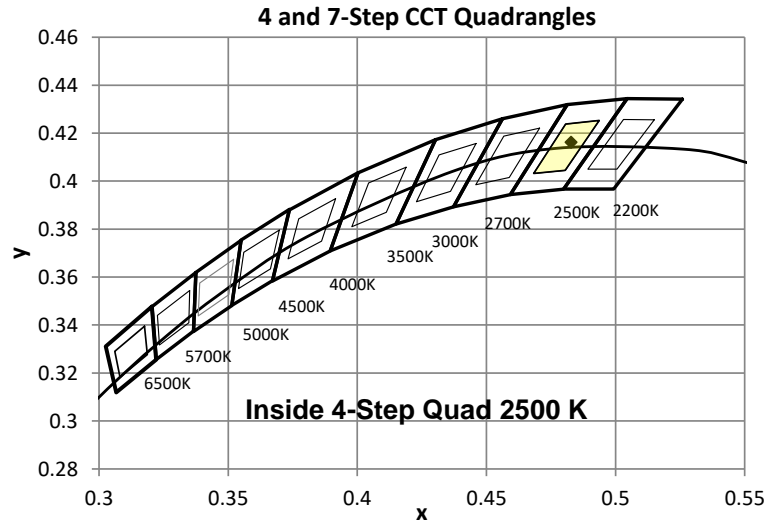
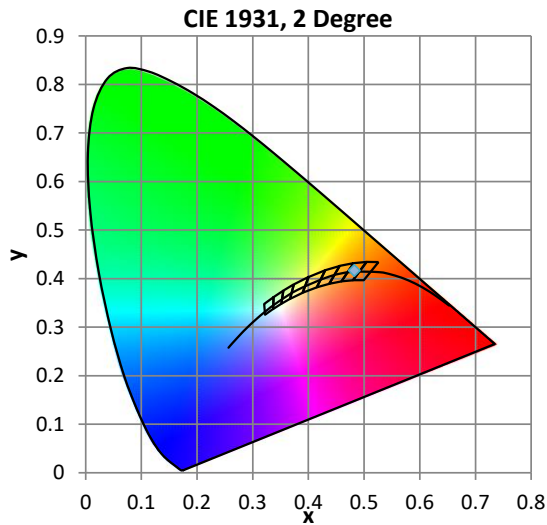
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	120.1 VAC	0.06719 A	7.956 W	0.986	60 Hz	12.6 %

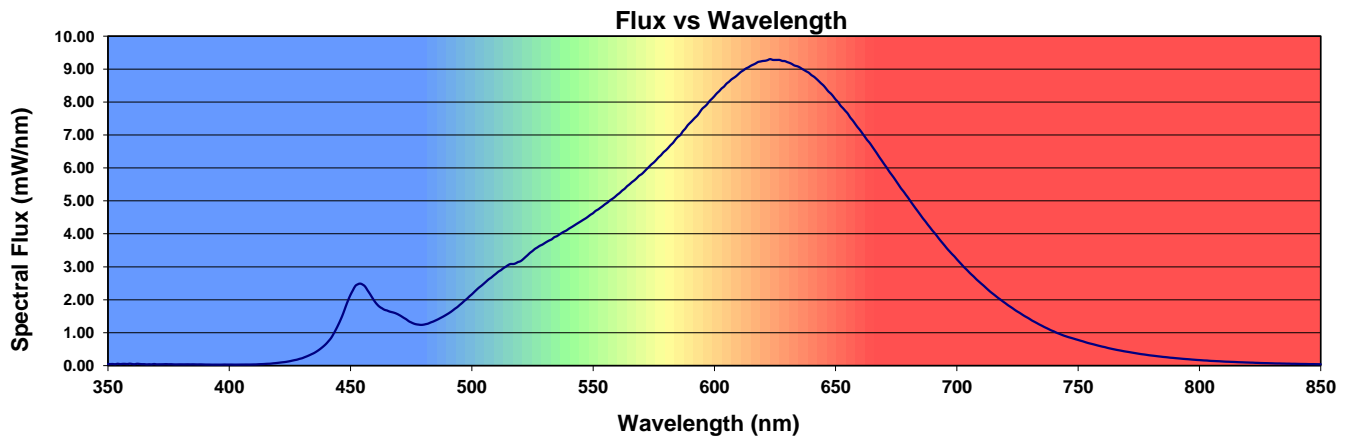
Summary of Results

Total Output:	394 Lumens	Chromaticity (x):	0.4828
Efficacy:	49.6 lm/w	Chromaticity (y):	0.4163
CCT:	2449 K	Chromaticity (u'):	0.2747
CRI (Ra):	90.9	Chromaticity (v'):	0.5330
CRI (R9):	50.5	TM-30 Rf:	91
Peak Wavelength:	623 nm	TM-30 Rg:	98
Dominant Wavelength:	585 nm	TM-30 Rcs,h1:	-6%
S/P Ratio:	1.14	Duv:	0.0007
M/P Ratio:	0.41	WELL Building Standard v2	



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
90.9	90.5	95.7	99.0	90.0	90.2	95.9	89.5	76.3	50.5	89.4	90.8	83.3	91.8	99.0	85.4





Distribution - Goniophotometer

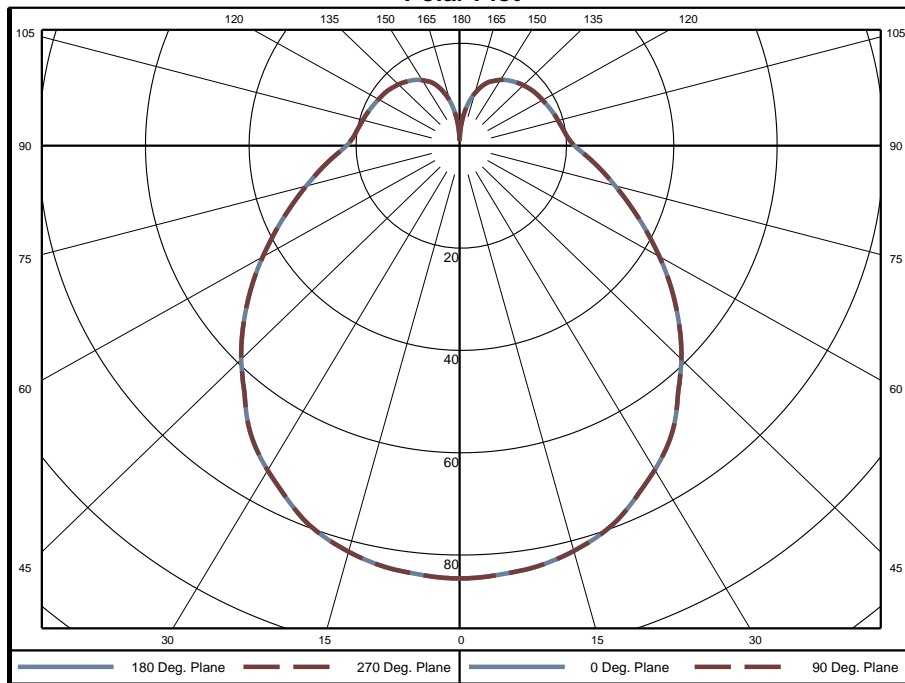
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.7 °C	120.0 VAC	0.06726 A	7.957 W	0.986	60 Hz	12.6 %

Summary of Results

Spacing Criteria	Total Lumen Output:	402.7 Lumens
0-180: 1.28	Luminaire Efficacy:	50.6 lm/w
90-270: 1.28	Maximum Candela:	85 Candela
Corrected UGR (Room Dimension: X=4H, Y=8H, Reflectances: 70/50/20%, S/H: 1)		
Crosswise: 16.8	Endwise: 16.8	

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	2.02	0.5%	60-65	19.69	4.9%	120-125	8.20	2.0%
5-10	6.00	1.5%	65-70	18.19	4.5%	125-130	7.58	1.9%
10-15	9.82	2.4%	70-75	16.66	4.1%	130-135	6.87	1.7%
15-20	13.35	3.3%	75-80	15.17	3.8%	135-140	6.12	1.5%
20-25	16.44	4.1%	80-85	13.75	3.4%	140-145	5.32	1.3%
25-30	18.92	4.7%	85-90	12.37	3.1%	145-150	4.50	1.1%
30-35	20.92	5.2%	90-95	11.36	2.8%	150-155	3.64	0.9%
35-40	22.10	5.5%	95-100	10.78	2.7%	155-160	2.79	0.7%
40-45	22.56	5.6%	100-105	10.31	2.6%	160-165	1.90	0.5%
45-50	22.61	5.6%	105-110	9.85	2.4%	165-170	1.10	0.3%
50-55	22.06	5.5%	110-115	9.34	2.3%	170-175	0.46	0.1%
55-60	21.05	5.2%	115-120	8.78	2.2%	175-180	0.08	0.0%

Zone	Lumens	% of Luminaire
0-40	110	27.2%
0-60	198	49.1%
0-90	294	72.9%
90-180	109	27.1%



Candela Tabulation

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	84.54	84.54	84.54	84.54	84.54	84.54	84.54	84.54	84.54	84.54	84.54	84.54	84.54	84.54	84.54
	5	84.15	84.15	84.15	84.15	84.15	84.15	84.15	84.15	84.15	84.15	84.15	84.15	84.15	84.15	84.15
	10	83.47	83.47	83.47	83.47	83.47	83.47	83.47	83.47	83.47	83.47	83.47	83.47	83.47	83.47	83.47
	15	82.03	82.03	82.03	82.03	82.03	82.03	82.03	82.03	82.03	82.03	82.03	82.03	82.03	82.03	82.03
	20	79.95	79.95	79.95	79.95	79.95	79.95	79.95	79.95	79.95	79.95	79.95	79.95	79.95	79.95	79.95
	25	76.64	76.64	76.64	76.64	76.64	76.64	76.64	76.64	76.64	76.64	76.64	76.64	76.64	76.64	76.64
	30	73.01	73.01	73.01	73.01	73.01	73.01	73.01	73.01	73.01	73.01	73.01	73.01	73.01	73.01	73.01
	35	68.94	68.94	68.94	68.94	68.94	68.94	68.94	68.94	68.94	68.94	68.94	68.94	68.94	68.94	68.94
	40	63.40	63.40	63.40	63.40	63.40	63.40	63.40	63.40	63.40	63.40	63.40	63.40	63.40	63.40	63.40
	45	58.56	58.56	58.56	58.56	58.56	58.56	58.56	58.56	58.56	58.56	58.56	58.56	58.56	58.56	58.56
	50	53.37	53.37	53.37	53.37	53.37	53.37	53.37	53.37	53.37	53.37	53.37	53.37	53.37	53.37	53.37
	55	48.16	48.16	48.16	48.16	48.16	48.16	48.16	48.16	48.16	48.16	48.16	48.16	48.16	48.16	48.16
	60	42.97	42.97	42.97	42.97	42.97	42.97	42.97	42.97	42.97	42.97	42.97	42.97	42.97	42.97	42.97
	65	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15
	70	33.80	33.80	33.80	33.80	33.80	33.80	33.80	33.80	33.80	33.80	33.80	33.80	33.80	33.80	33.80
	75	30.03	30.03	30.03	30.03	30.03	30.03	30.03	30.03	30.03	30.03	30.03	30.03	30.03	30.03	30.03
	80	26.78	26.78	26.78	26.78	26.78	26.78	26.78	26.78	26.78	26.78	26.78	26.78	26.78	26.78	26.78
	85	23.88	23.88	23.88	23.88	23.88	23.88	23.88	23.88	23.88	23.88	23.88	23.88	23.88	23.88	23.88
	90	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46	21.46
	95	20.19	20.19	20.19	20.19	20.19	20.19	20.19	20.19	20.19	20.19	20.19	20.19	20.19	20.19	20.19
	100	19.55	19.55	19.55	19.55	19.55	19.55	19.55	19.55	19.55	19.55	19.55	19.55	19.55	19.55	19.55
	105	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04	19.04
	110	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64
	115	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24	18.24
	120	17.89	17.89	17.89	17.89	17.89	17.89	17.89	17.89	17.89	17.89	17.89	17.89	17.89	17.89	17.89
	125	17.59	17.59	17.59	17.59	17.59	17.59	17.59	17.59	17.59	17.59	17.59	17.59	17.59	17.59	17.59
	130	17.22	17.22	17.22	17.22	17.22	17.22	17.22	17.22	17.22	17.22	17.22	17.22	17.22	17.22	17.22
	135	16.77	16.77	16.77	16.77	16.77	16.77	16.77	16.77	16.77	16.77	16.77	16.77	16.77	16.77	16.77
	140	16.23	16.23	16.23	16.23	16.23	16.23	16.23	16.23	16.23	16.23	16.23	16.23	16.23	16.23	16.23
	145	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63	15.63
	150	14.86	14.86	14.86	14.86	14.86	14.86	14.86	14.86	14.86	14.86	14.86	14.86	14.86	14.86	14.86
	155	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87	13.87
	160	12.51	12.51	12.51	12.51	12.51	12.51	12.51	12.51	12.51	12.51	12.51	12.51	12.51	12.51	12.51
	165	10.45	10.45	10.45	10.45	10.45	10.45	10.45	10.45	10.45	10.45	10.45	10.45	10.45	10.45	10.45
	170	7.86	7.86	7.86	7.86	7.86	7.86	7.86	7.86	7.86	7.86	7.86	7.86	7.86	7.86	7.86
	175	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64	4.64
	180	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

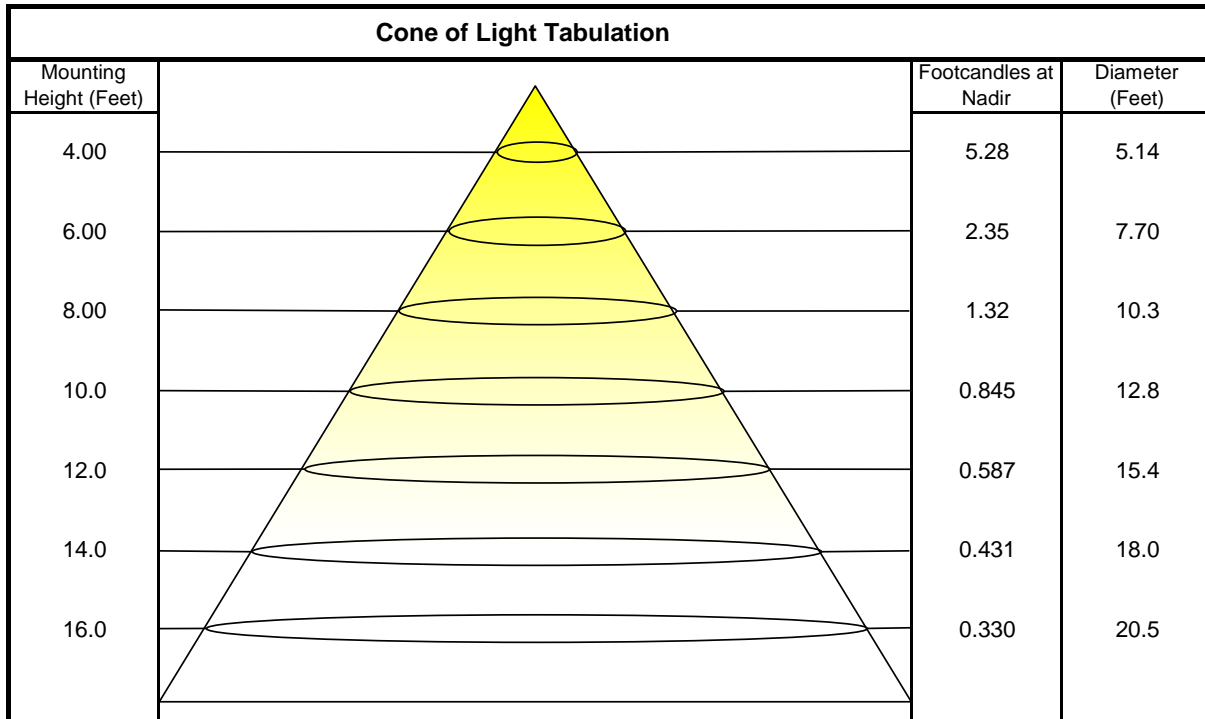
Vertical Angle (Degrees)	0	45	90
	0	2607	2607
	45	1660	1660
	55	1464	1464
	65	1292	1292
	75	1190	1190
	85	1182	1182



Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as percent of total lumen output delivered to the task surface **																	
0	113	113	113	113	107	107	107	107	96	96	96	86	86	86	77	77	77	73
1	100	95	89	85	95	90	85	81	80	77	73	72	69	66	64	62	60	56
2	90	81	74	68	85	77	70	65	69	64	59	62	57	54	55	52	49	45
3	82	71	62	55	77	67	59	53	60	54	49	54	49	45	48	44	40	37
4	75	62	53	46	70	59	51	45	53	46	41	48	42	38	43	38	34	31
5	69	55	46	39	64	53	44	38	48	41	35	43	37	32	38	33	30	27
6	63	50	41	34	59	47	39	33	43	36	31	39	33	28	35	30	26	23
7	58	45	36	30	55	43	35	29	39	32	27	35	29	25	31	27	23	20
8	54	41	32	26	51	39	31	26	35	29	24	32	26	22	29	24	20	18
9	51	37	29	24	48	36	28	23	32	26	21	29	24	20	27	22	18	16
10	47	34	26	21	45	33	25	21	30	24	19	27	22	18	25	20	17	15

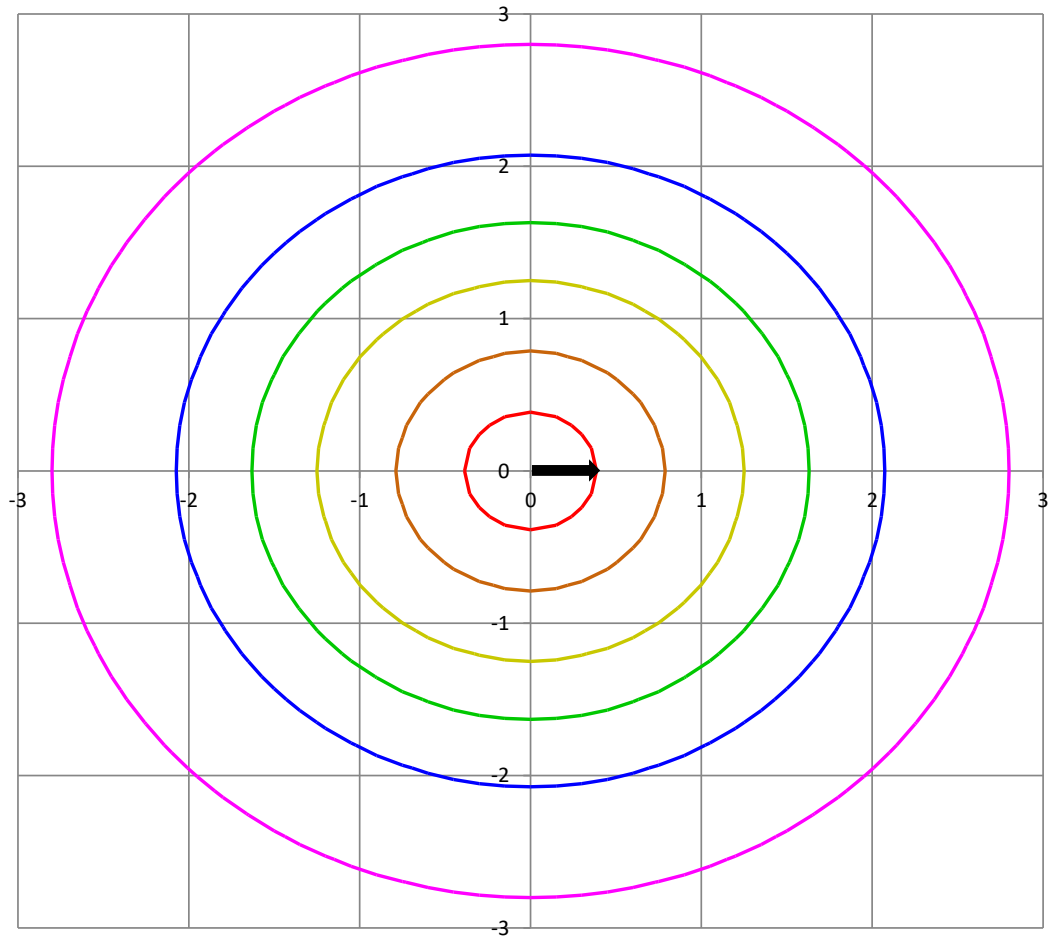
Beam and Field Information	
CIE Type:	Semi-Direct
Center Beam Intensity:	84.54 Candela
Central Cone Intensity:	84 Candela
Beam Flux:	200.5 Lumens
Beam Angle (0-180):	121.4 Degrees
Beam Angle (90-270):	121.4 Degrees
Field Angle (0-180):	337.9 Degrees
Field Angle (90-270):	337.9 Degrees



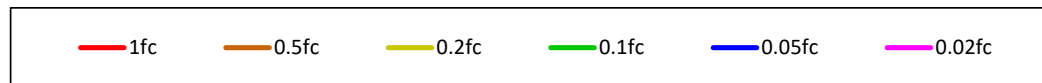


ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height



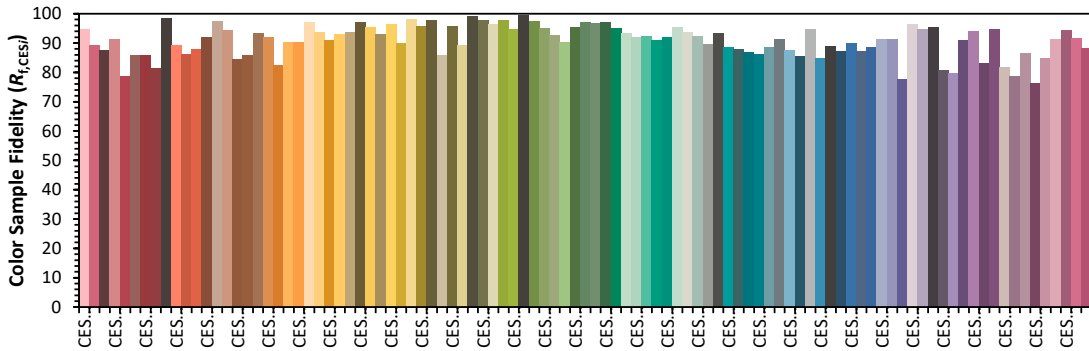
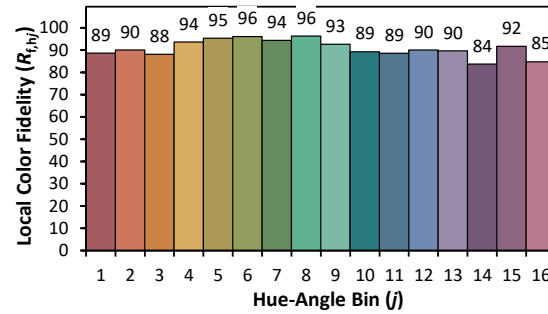
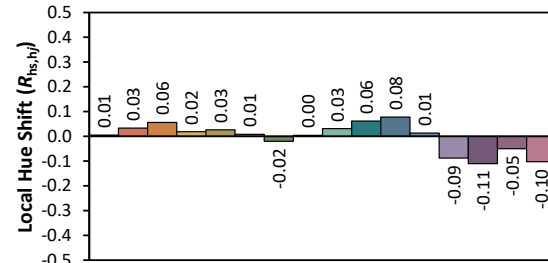
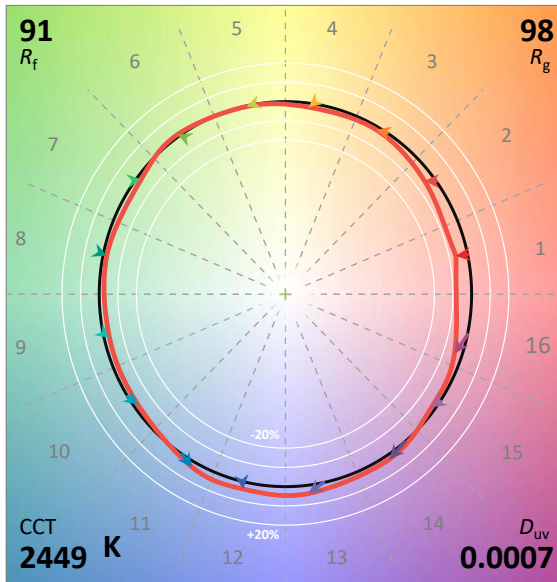
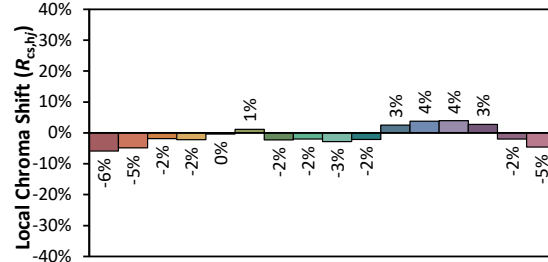
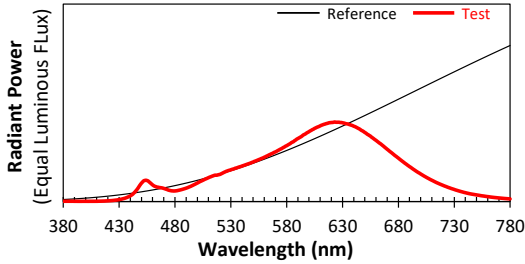
ANSI/IES TM-30-18 Color Rendition Report

Date: 2021-07-26

Manufacturer: RBW Studio LLC

Model:

Print Sconce Small Clear 2700K (180mA)



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

x 0.4828

y 0.4163

u' 0.2747

v' 0.5330

CIE 13.3-1995
(CRI)

R_a 91

R_g 51

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