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Photometric Test Report

Relevant Standards
IES LM-79-2008
ANSI C78.377-2011, ANSI C82.77-2002
CIE 13.3-1995, CIE 15-2004, IES TM-30-15, UL 1598-2008

Prepared For
AVID Labs
4121 Fouier Drive
Fort Wayne, IN 46818
United States

Catalog Number
Avere 3 COB
Order Number
11643978
Test Number
11643978.01

Test Date

2017-02-20 - 2017-03-02

Prepared By

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Approved By

Tiffany Hamm

Tiffany Hamm, Project Handler

The results contained in this report pertain only to the tested sample.
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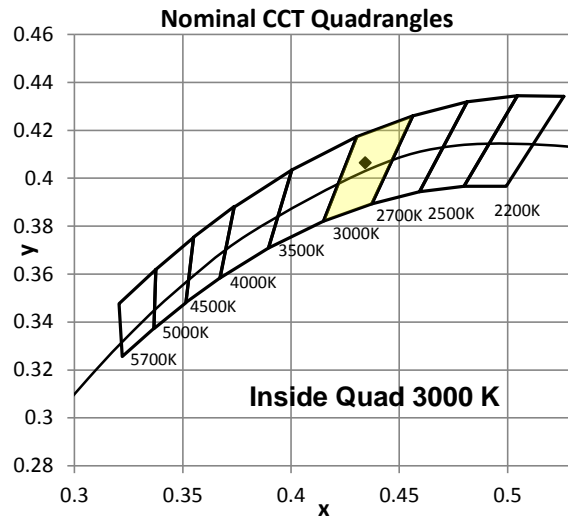
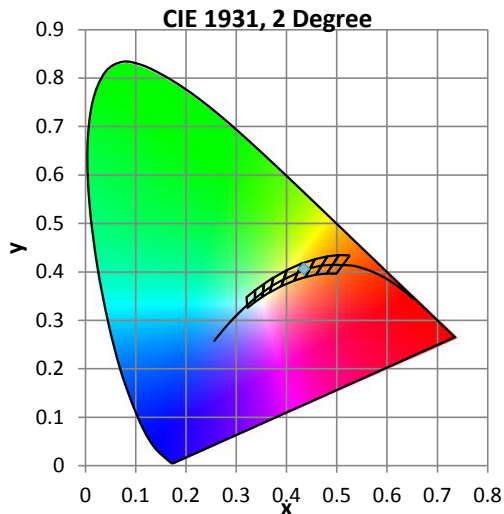
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	120.0 VAC	0.3374 A	20.19 W	0.498	60 Hz	51.3 %

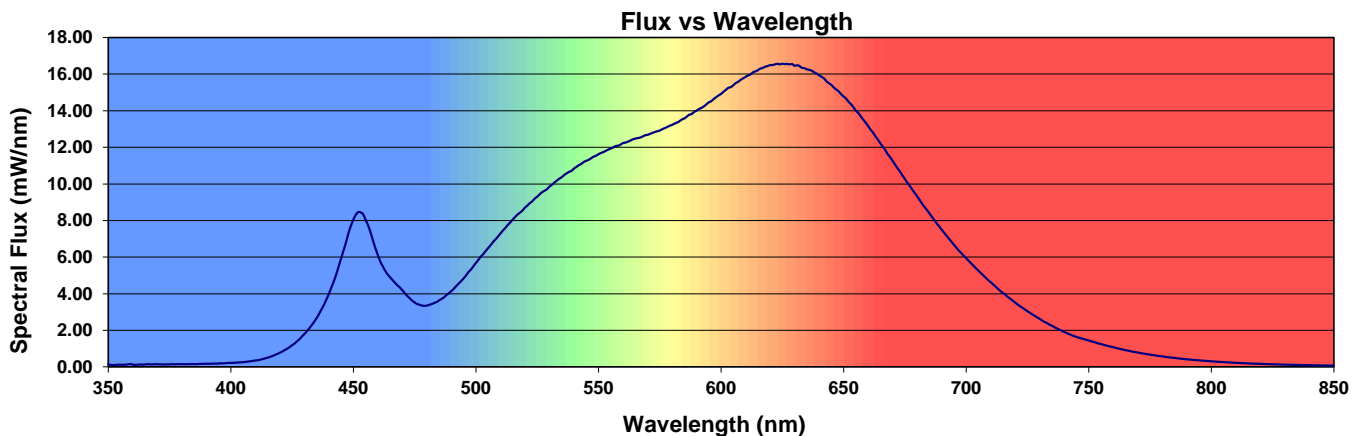
Summary of Results

Total Output:	852 Lumens	Chromaticity (x):	0.4343
Efficacy:	42.2 lm/w	Chromaticity (y):	0.4064
CCT:	3062 K	Chromaticity (u'):	0.2479
CRI (Ra):	91.6	Chromaticity (v'):	0.5219
CRI (R9):	64.9	TM-30 R_f:	90.2
Peak Wavelength:	625 nm	TM-30 R_g:	100.3
Dominant Wavelength:	582.1 nm	Duv:	0.0013
S/P Ratio:	1.395		



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
91.6	92.0	93.5	92.9	92.4	90.5	90.6	94.8	85.9	64.9	82.9	91.5	74.6	92.1	95.1





Distribution - Goniophotometer

Distribution Test Conditions

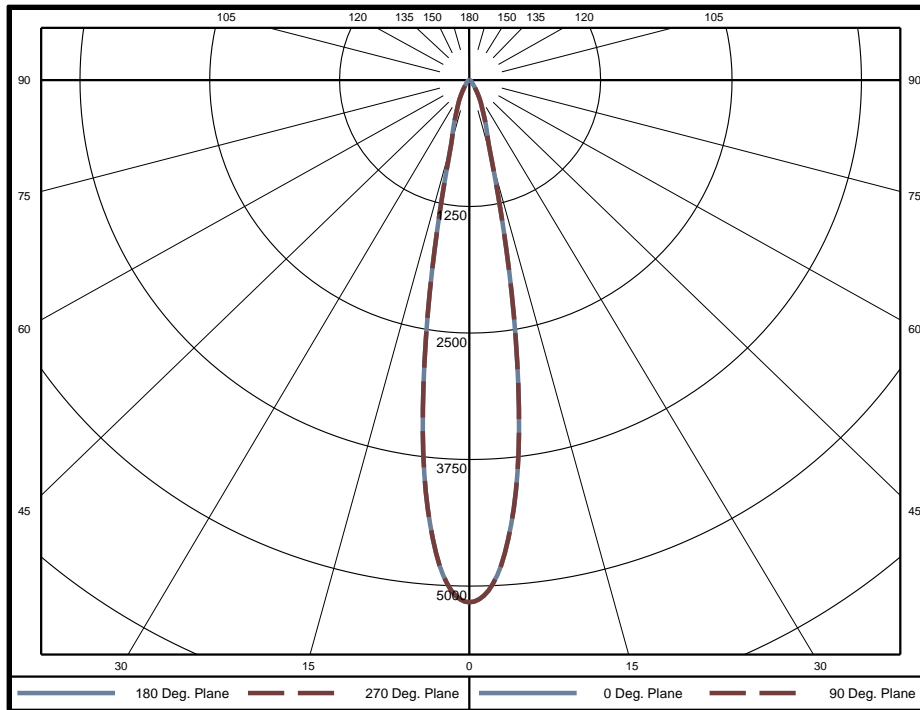
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	120.2 VAC	0.3354 A	20.19 W	0.501	60 Hz	51.8 %

Summary of Results

Spacing Criteria
 0-180: 0.33
 90-270: 0.33

Total Lumen Output: 854.5 Lumens
Luminaire Efficacy: 42.3 lm/w
Maximum Candela: 5161 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	114.7	13.4%	60-65	8.3	1.0%	120-125	0	0.0%
5-10	239.6	28.0%	65-70	6.3	0.7%	125-130	0	0.0%
10-15	162.0	19.0%	70-75	4.2	0.5%	130-135	0	0.0%
15-20	89.5	10.5%	75-80	2.3	0.3%	135-140	0	0.0%
20-25	67.4	7.9%	80-85	1.0	0.1%	140-145	0	0.0%
25-30	50.3	5.9%	85-90	0.3	0.0%	145-150	0	0.0%
30-35	33.3	3.9%	90-95	0	0.0%	150-155	0	0.0%
35-40	21.9	2.6%	95-100	0	0.0%	155-160	0	0.0%
40-45	16.8	2.0%	100-105	0	0.0%	160-165	0	0.0%
45-50	14.1	1.7%	105-110	0	0.0%	165-170	0	0.0%
50-55	12.1	1.4%	110-115	0	0.0%	170-175	0	0.0%
55-60	10.3	1.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	779	91.1%
0-60	832	97.4%
0-90	854	100.0%
90-180	0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	Horizontal 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	5161	5161	5161	5161	5161	5161	5161	5161	5161	5161	5161	5161	5161	5161	5161	5161
5	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411	4411
10	2356	2356	2356	2356	2356	2356	2356	2356	2356	2356	2356	2356	2356	2356	2356	2356
15	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750	750
20	418	418	418	418	418	418	418	418	418	418	418	418	418	418	418	418
25	254	254	254	254	254	254	254	254	254	254	254	254	254	254	254	254
30	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
35	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
40	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
45	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
50	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
55	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
60	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
65	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
70	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
75	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
80	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
85	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	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
160	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
170	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
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

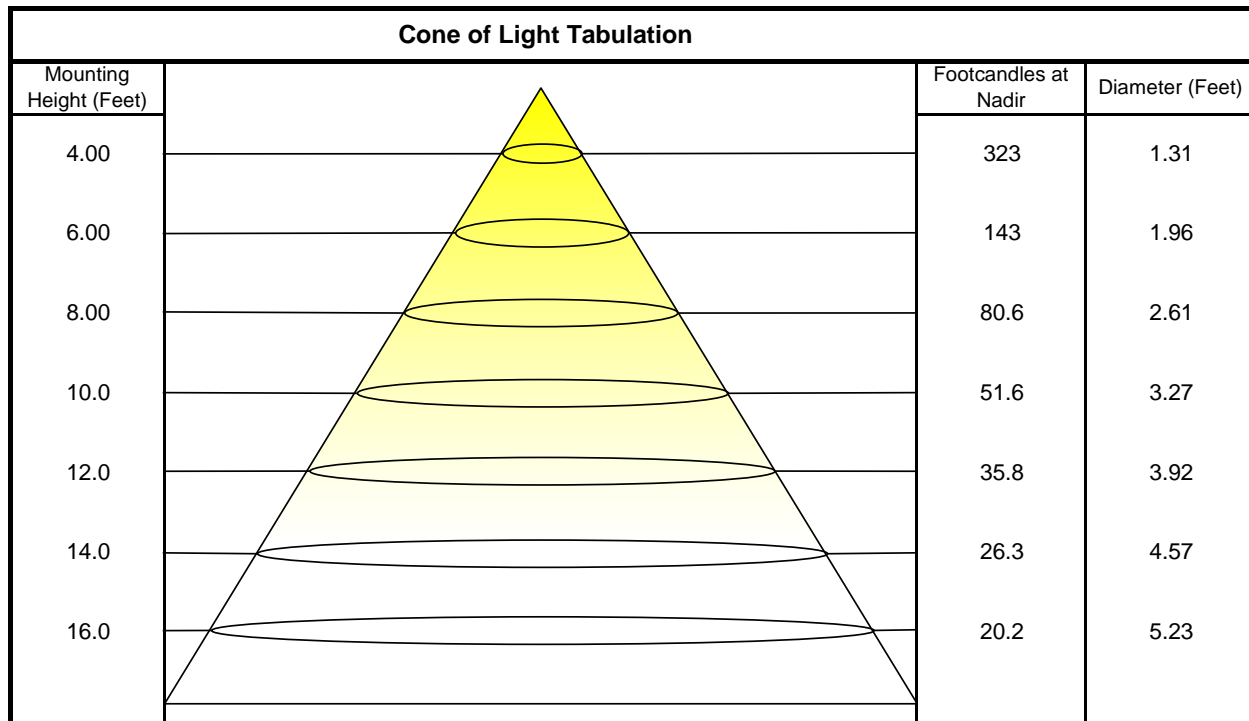
Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	2546000	2546000	2546000
45	27620	27620	27620
55	21530	21530	21530
65	17170	17170	17170
75	11460	11460	11460
85	6164	6164	6164



Utilization of Lumens - 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 Lumens delivered to the task surface **																	
0	1017	1017	1017	1017	994	994	994	994	949	949	949	909	909	909	872	872	872	855
1	978	958	939	923	957	939	923	908	905	892	881	874	864	854	845	837	830	815
2	940	906	877	853	922	891	865	843	864	843	825	839	822	808	816	803	791	778
3	906	861	827	799	890	850	818	793	828	802	780	808	787	768	790	772	757	745
4	874	823	785	757	860	814	779	752	796	767	744	780	756	735	765	745	727	716
5	845	790	751	722	833	782	746	719	768	737	713	755	728	707	743	720	701	691
6	819	761	721	693	808	754	718	691	743	711	687	732	704	682	722	697	678	668
7	795	735	696	669	785	730	693	667	720	687	664	711	682	660	702	677	657	648
8	772	712	673	647	764	707	671	646	699	667	643	691	662	641	684	658	639	630
9	752	691	653	628	744	687	651	627	680	648	625	674	644	623	667	641	622	613
10	733	672	635	611	726	669	634	610	663	631	609	657	628	608	652	625	606	598

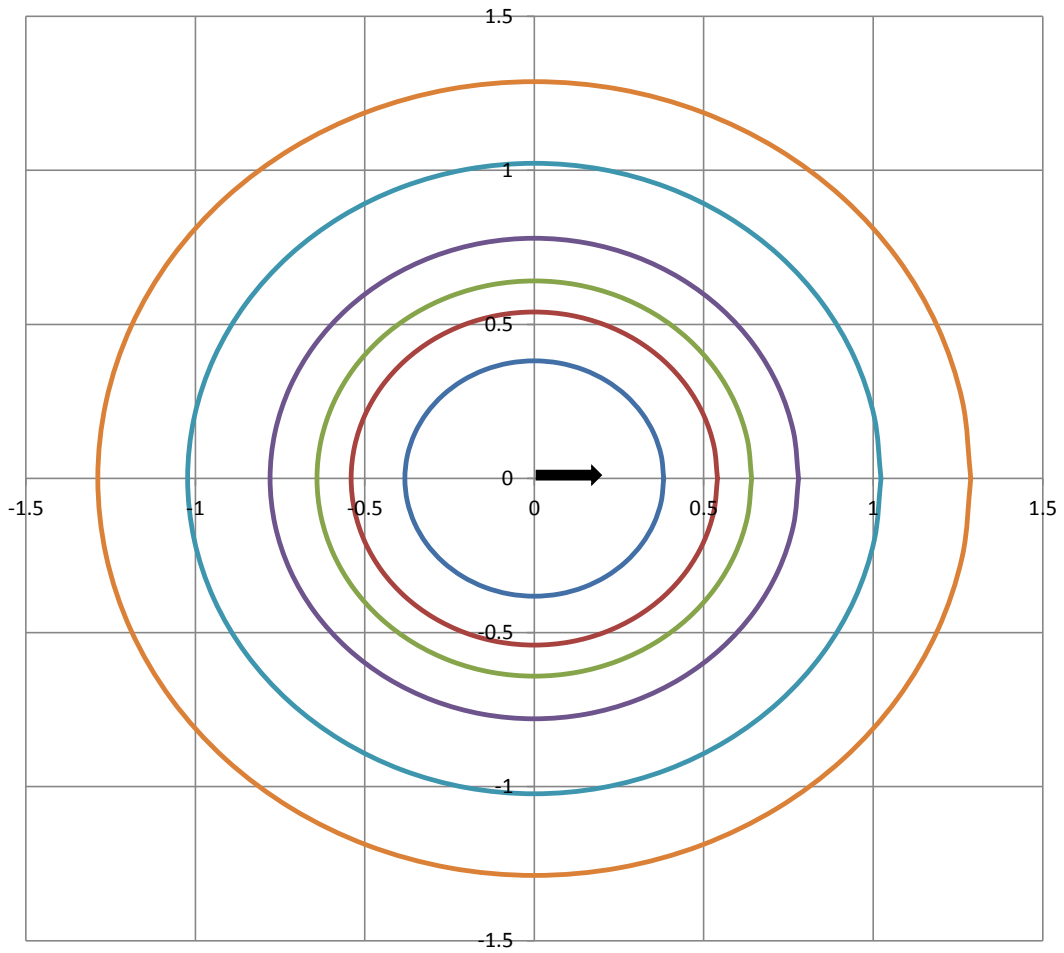
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	5161 Candela
Central Cone Intensity:	4903 Candela
Beam Flux:	333.1 Lumens
Beam Angle (0-180):	19.0 Degrees
Beam Angle (90-270):	19.0 Degrees
Field Angle (0-180):	36.0 Degrees
Field Angle (90-270):	36.0 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height





In-Situ Test

In-Situ Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	120.0 VAC	N/A	N/A	N/A	60 Hz	N/A

Summary of Results

LED Temperature: 74.0 °C
Driver Temperature: 35.2 °C
Measured LED Current: 0.3475 A

Temperatures are offset to an ambient temperature of 25°C as described in UL1598-2008

LED Temperature Location



Driver Temperature Location

