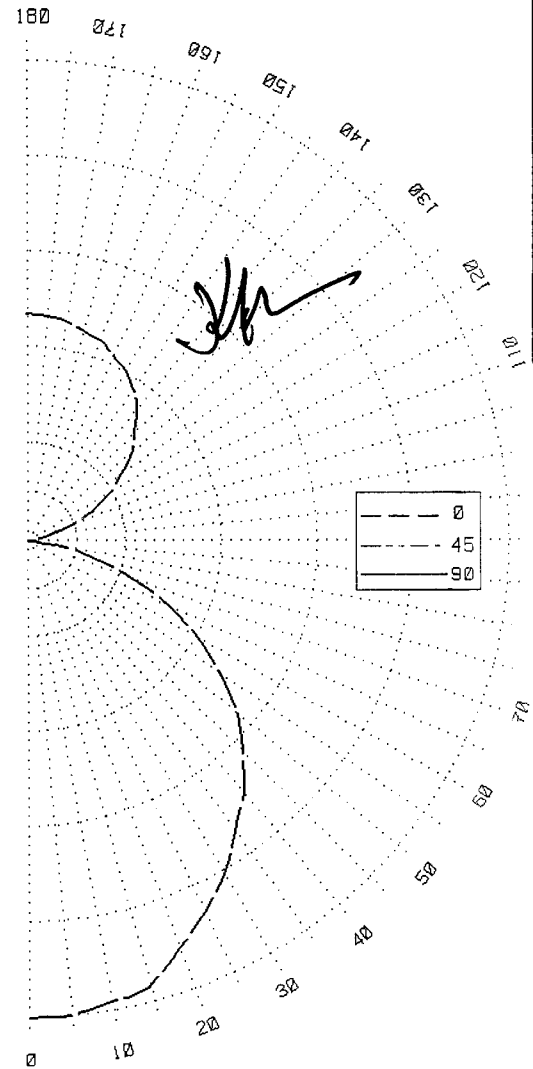


BALLABS CERTIFIED TEST REPORT NO.: 20538.0 DATE 07/27/18
PREPARED FOR: IMPACT ARCHITECTURAL LIGHTING - ST. LOUIS, MO
DESCRIPTION: 18-TOP & 30-BTM 18 LED 4.5"ARRAYS 49"WHITE PENDANT RING
FROSTED .125"LENS BOTTOM & CLEAR .125"LENS TOP
AC ELEC #AC-50CD1.4APC7 3DN@850mA/EA & 1UP@775mA
CATALOG NBR: P7448-40HI-40HI
LAMP TYPE : LM-4.4-40K-80-54V

CANDLEPOWER DISTRIBUTION

VERT ANG	AVERAGE CANDELA	ZONAL LUMENS
0	4752.	452.3
5	4738.	1300.3
10	4663.	1894.9
15	4587.	2221.5
20	4328.	2307.0
25	4094.	2057.7
30	3851.	1523.8
35	3536.	752.8
40	3293.	99.7
45	2979.	10.0
50	2677.	212.7
55	2294.	698.4
60	1928.	1005.3
65	1535.	1146.4
70	1106.	1130.9
75	712.	922.1
80	378.	601.0
85	91.	211.1
90	9.	
95	9.	
100	73.	
105	201.	
110	420.	
115	704.	
120	938.	
125	1121.	
130	1347.	
135	1480.	
140	1672.	
145	1800.	
150	1910.	
155	1992.	
160	2083.	
165	2120.	
170	2186.	
175	2211.	
180	2230.	



NVLAP[®]
TESTING

NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	3647.	NA.	19.7	90-120	921.	NA.	5.0
0- 40	5869.	NA.	31.6	90-130	1926.	NA.	10.4
0- 60	10234.	NA.	55.2	90-150	4204.	NA.	22.7
0- 90	12610.	NA.	68.0	90-180	5938.	NA.	32.0
TOTAL LUMINAIRE =				0-180	18548.	NA.	100.0

IES SPACING CRITERIA: ADJACENT= 1.2 DIAGONAL= .9

THIS BALLABS REPORT WITH THE USE OF THE NVLAP LOGO SHALL NOT BE USED BY THIS CLIENT TO CLAIM PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NVLAP, NIST, OR ANY AGENCY OF THE FEDERAL GOVERNMENT.

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LUMINANCES-CD/SQ-M
 HORIZONTAL ANGLE

VERT	0
ANGLE	
45	3403.
55	3217.
65	2902.
75	2164.
85	769.

MAXIMUM BRIGHTNESSES NOT MEASURED

ZONAL CAVITY COEFFICIENTS OF UTILIZATION

EFFECTIVE FLOOR CAVITY REFLECTANCE=.20

CEILING	.80				.70				.50				.30				.10				.00
WALL	.70	.50	.30	.10	.70	.50	.30	.10	.50	.30	.10	.50	.30	.10	.50	.30	.10	.50	.30	.10	.00
RCR																					
0	1.11	1.11	1.11	1.11	1.05	1.05	1.05	1.05	.93	.93	.93	.83	.83	.83	.73	.73	.73	.73	.73	.73	.68
1	1.03	.98	.95	.91	.97	.93	.90	.87	.83	.81	.78	.74	.72	.70	.65	.64	.63	.63	.63	.63	.59
2	.94	.87	.81	.75	.88	.82	.77	.72	.73	.69	.66	.66	.62	.60	.58	.56	.54	.54	.54	.54	.50
3	.86	.77	.69	.64	.81	.73	.66	.61	.65	.60	.56	.59	.55	.51	.52	.49	.46	.46	.46	.43	.43
4	.79	.68	.60	.54	.74	.65	.58	.52	.58	.53	.48	.52	.48	.44	.47	.43	.40	.40	.40	.37	.37
5	.72	.60	.52	.46	.68	.57	.50	.44	.52	.46	.41	.46	.42	.38	.42	.38	.34	.34	.34	.32	.32
6	.66	.54	.46	.40	.62	.51	.44	.38	.46	.40	.36	.42	.37	.33	.37	.33	.30	.30	.30	.27	.27
7	.61	.49	.40	.35	.58	.46	.39	.33	.42	.36	.31	.38	.33	.29	.34	.30	.26	.26	.26	.24	.24
8	.56	.44	.36	.30	.53	.42	.34	.29	.38	.31	.27	.34	.29	.25	.30	.26	.23	.23	.23	.21	.21
9	.52	.39	.32	.26	.49	.37	.30	.25	.34	.28	.24	.31	.25	.22	.27	.23	.20	.20	.20	.18	.18
10	.48	.36	.28	.23	.46	.34	.27	.23	.31	.25	.21	.28	.23	.19	.25	.21	.18	.18	.18	.16	.16

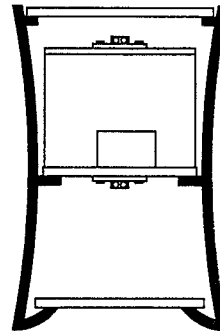
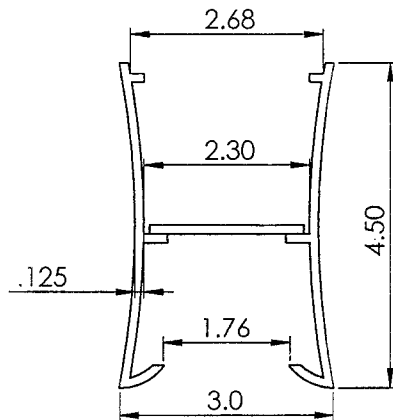
TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

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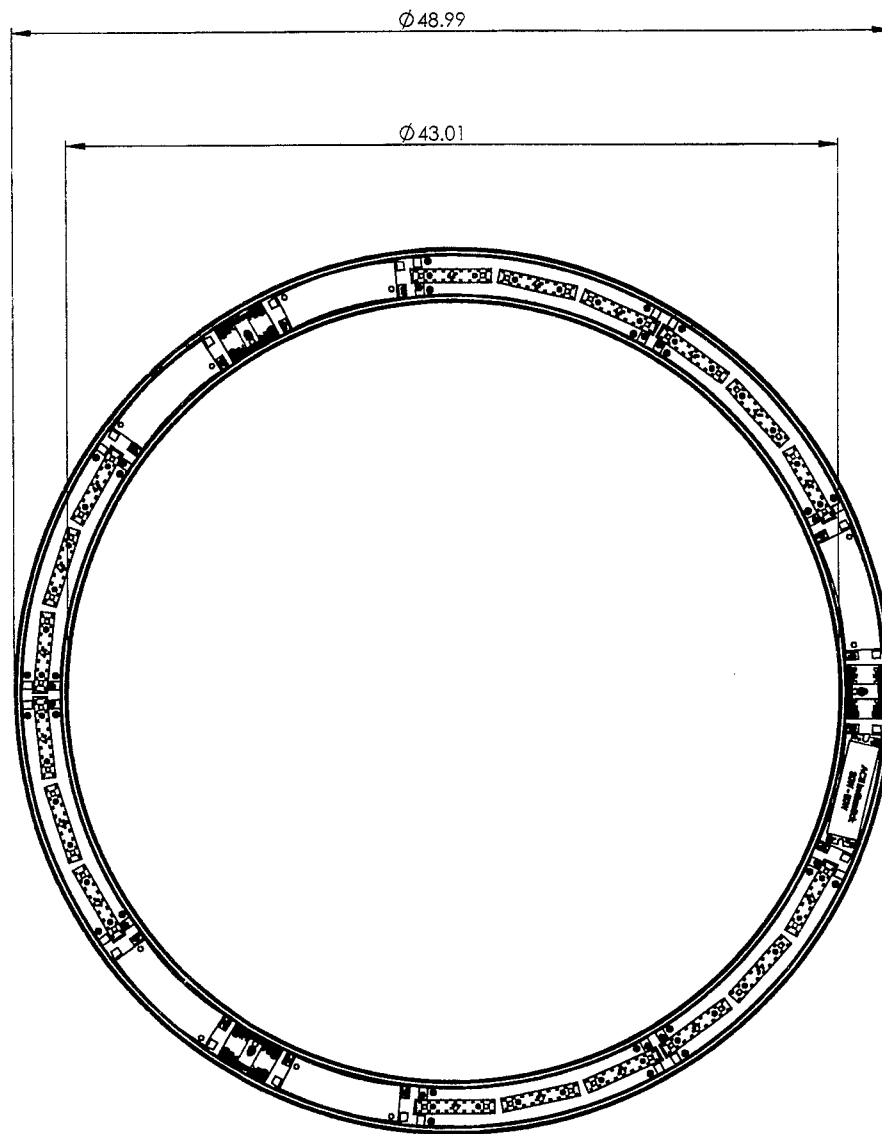
ELECTRICAL CHARACTERISTICS 119.99V 1.5946A 191.1600W

LUMINOUS EFFICACY (LUMENS / WATTS) = 97.0

TESTED IN ACCORDANCE WITH CURRENT IES STANDARDS
UTILIZING ABSOLUTE PHOTOMETRY PER LM-79-08

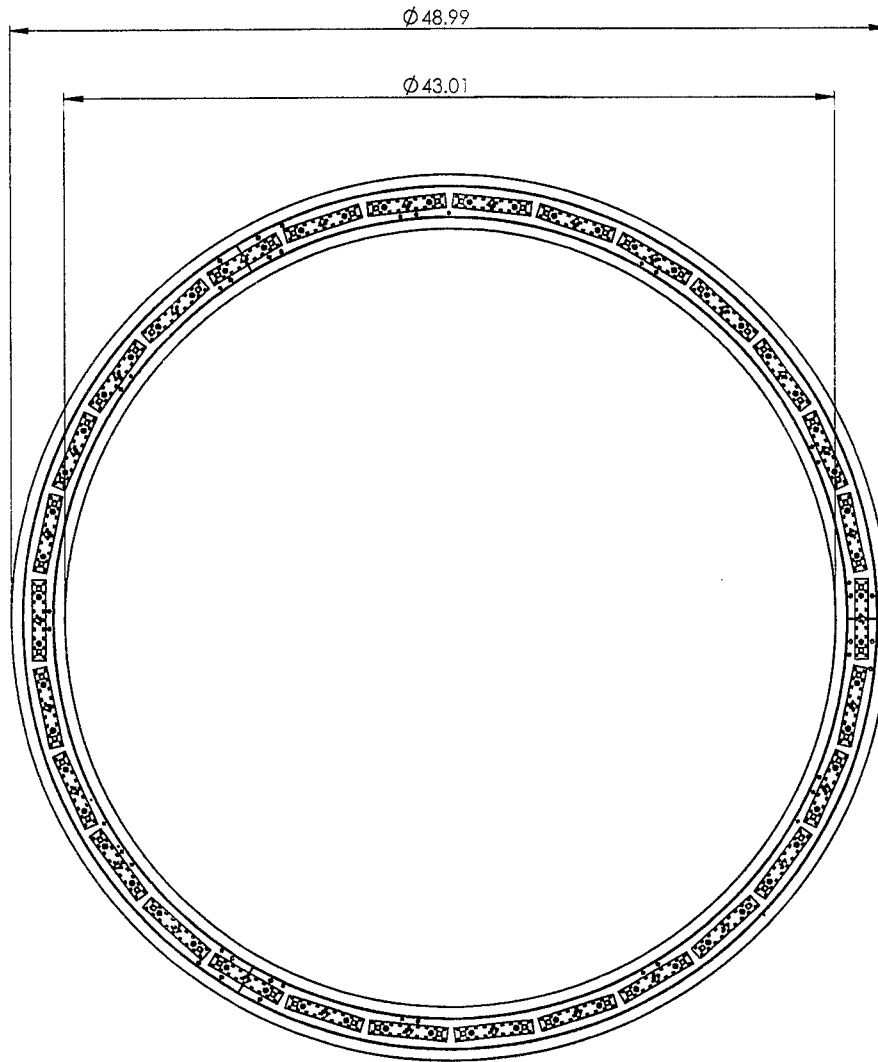


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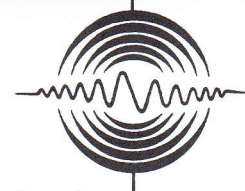


Top View

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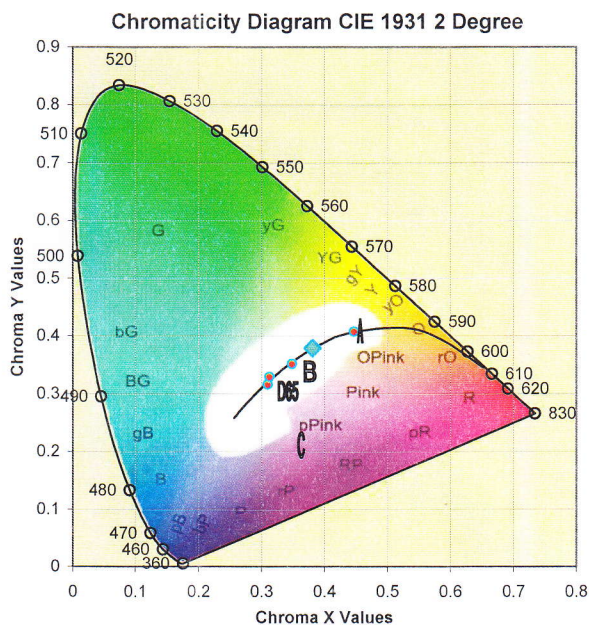
Bottom View



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INPUT VOLTAGE (V)	119.99
INPUT CURRENT (A)	1.5946
INPUT WATTS (W)	191.1600
POWER FACTOR	0.9991
THDv (%)	0.210
THDi (%)	2.525
LUMINOUS EFFICACY-LPW	97.0
LUMINOUS FLUX- LUMENS	18548
CHROMA x	0.3816
CHROMA y	0.3792
CHROMA u	0.2249
CHROMA v	0.5028
DELTA uv (Duv)	0.0008
CORR COLOR TEMP (K)	3986
COLOR REND INDEX (RA)	83.50
COLOR REND INDEX (R9)	10.6


Wavelength (nm)	Spectral Flux mW/nm	Wavelength (nm)	Spectral Flux mW/nm
350	2.0984	610	303.6452
360	2.4282	620	278.3934
370	2.3627	630	244.6879
380	2.4095	640	206.2466
390	2.4302	650	168.5046
400	3.1898	660	133.7887
410	6.4243	670	103.4470
420	19.7499	680	79.4131
430	58.5155	690	59.7010
440	152.5581	700	44.6674
450	324.9555	710	33.2862
460	209.5541	720	24.5189
470	135.6247	730	18.1571
480	105.7787	740	13.3616
490	125.3998	750	9.8902
500	161.9208	760	7.3885
510	187.9060	770	5.5268
520	207.2293	780	4.0537
530	223.6150	790	3.1073
540	240.4586	800	2.2917
550	258.4928	810	1.7967
560	277.2797	820	1.3134
570	294.7509	830	1.0980
580	310.3187	840	0.8478
590	319.3984	850	0.7239
600	318.1938		

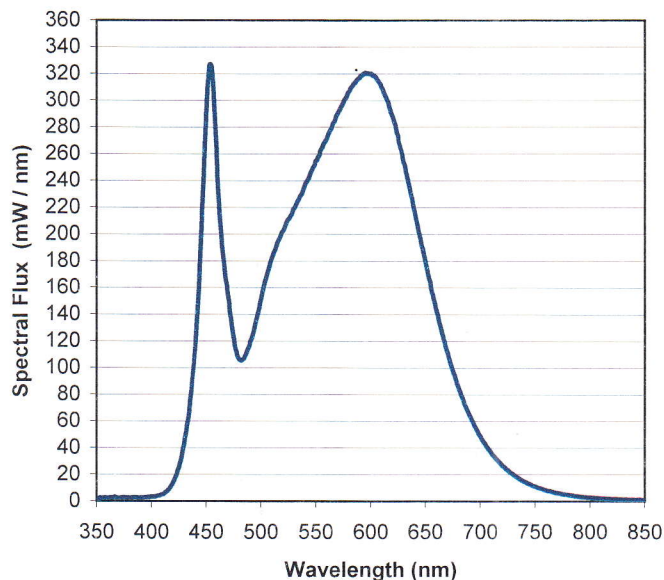


Data collected utilizing a Labsphere integrating sphere and 2100 spectroradiometer. Calibration of the spectroradiometer-sphere is traceable to the National Institute of Standards and Technology.



NVLAP LAB CODE 200921-0


 Kent Lerbs
 President



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