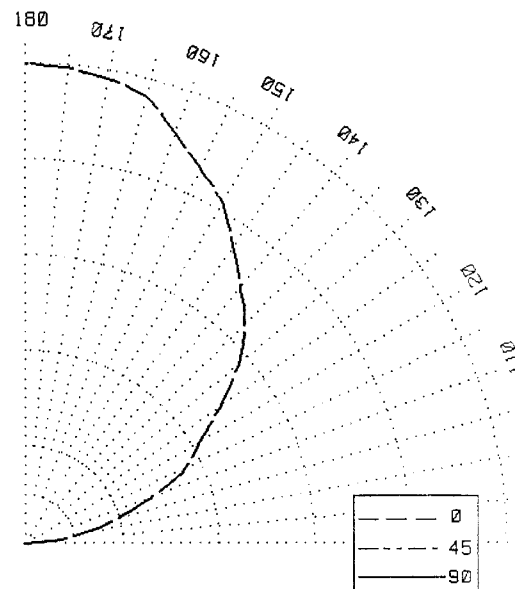


BALLABS CERTIFIED TEST REPORT NO.: 20541.0 DATE 07/11/18
PREPARED FOR: IMPACT ARCHITECTURAL LIGHTING - ST. LOUIS, MO
DESCRIPTION: 18-18 LED 4.5"ARRAYS TOP 49"DIA WHITE PENDANT RING
.125"FROSTED LENS ON TOP OF CLEAR 3 PIECE .125"LENS
1 AC ELECTRONICS #AC-50CD1.4APC7 @ 775mA
CATALOG NBR: P7448-NDL-40HI-FTL
LAMP TYPE : LM-4.4-40K-80-54V

CANDLEPOWER DISTRIBUTION

VERT ANG	AVERAGE CANDELA	ZONAL LUMENS
0	0.	
5	0.	
10	0.	
15	0.	
20	0.	
25	0.	
30	0.	
35	0.	
40	0.	
45	0.	
50	0.	
55	0.	
60	0.	
65	0.	
70	0.	
75	0.	
80	0.	
85	0.	
90	0.	
95	97.	105.5
100	198.	
105	323.	342.1
110	462.	
115	613.	608.4
120	698.	
125	830.	744.8
130	966.	
135	1077.	834.3
140	1161.	
145	1256.	788.9
150	1367.	
155	1434.	663.7
160	1516.	
165	1609.	456.2
170	1641.	
175	1662.	158.6
180	1671.	



NVLAP[®]
TESTING

NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	0.	NA.	.0	90-120	1056.	NA.	22.5
0- 40	0.	NA.	.0	90-130	1801.	NA.	38.3
0- 60	0.	NA.	.0	90-150	3424.	NA.	72.8
0- 90	0.	NA.	.0	90-180	4702.	NA.	100.0
TOTAL LUMINAIRE =				0-180	4702.	NA.	100.0

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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	.95	.95	.95	.95	.81	.81	.81	.81	.56	.56	.56	.32	.32	.32	.10	.10	.10	.10	.10	.10	.00
1	.87	.82	.79	.75	.74	.71	.68	.65	.48	.46	.45	.28	.27	.26	.09	.09	.08	.08	.08	.08	.00
2	.79	.72	.66	.61	.67	.61	.57	.53	.42	.39	.37	.24	.23	.22	.08	.07	.07	.07	.07	.07	.00
3	.72	.63	.56	.51	.61	.54	.48	.44	.37	.34	.31	.21	.20	.18	.07	.06	.06	.06	.06	.06	.00
4	.65	.55	.48	.43	.56	.48	.42	.37	.33	.29	.26	.19	.17	.15	.06	.06	.05	.05	.05	.05	.00
5	.60	.49	.42	.36	.51	.42	.36	.32	.29	.25	.22	.17	.15	.13	.05	.05	.04	.04	.04	.04	.00
6	.55	.44	.37	.31	.47	.38	.32	.27	.26	.22	.19	.15	.13	.12	.05	.04	.04	.04	.04	.04	.00
7	.51	.40	.32	.27	.43	.34	.28	.24	.24	.20	.17	.14	.12	.10	.04	.04	.03	.03	.03	.03	.00
8	.47	.36	.29	.24	.40	.31	.25	.21	.21	.18	.15	.12	.10	.09	.04	.03	.03	.03	.03	.03	.00
9	.44	.33	.26	.22	.37	.28	.23	.19	.20	.16	.13	.11	.09	.08	.04	.03	.03	.03	.03	.03	.00
10	.41	.30	.24	.19	.35	.26	.20	.17	.18	.14	.12	.10	.09	.07	.03	.03	.02	.02	.02	.02	.00

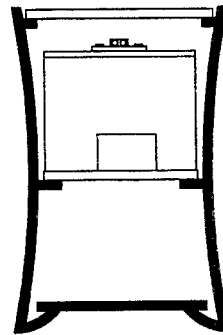
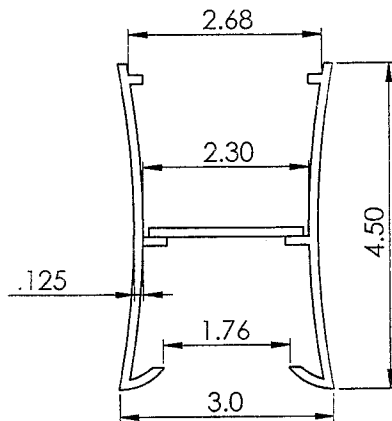
TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

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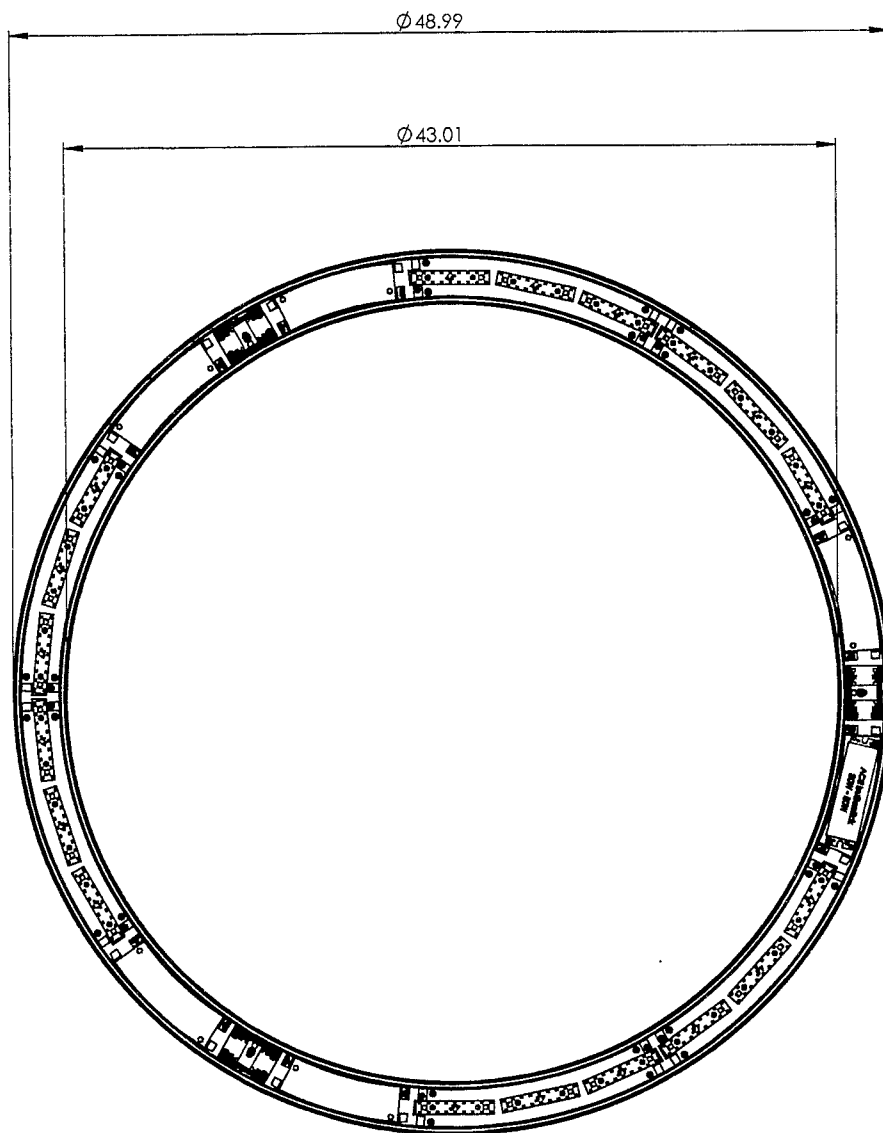
ELECTRICAL CHARACTERISTICS 120.00V .3635A 43.3280W

LUMINOUS EFFICACY (LUMENS / WATTS) = 108.5

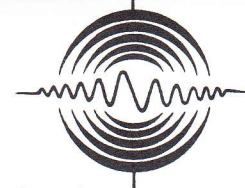
TESTED IN ACCORDANCE WITH CURRENT IES STANDARDS
UTILIZING ABSOLUTE PHOTOMETRY PER LM-79-08



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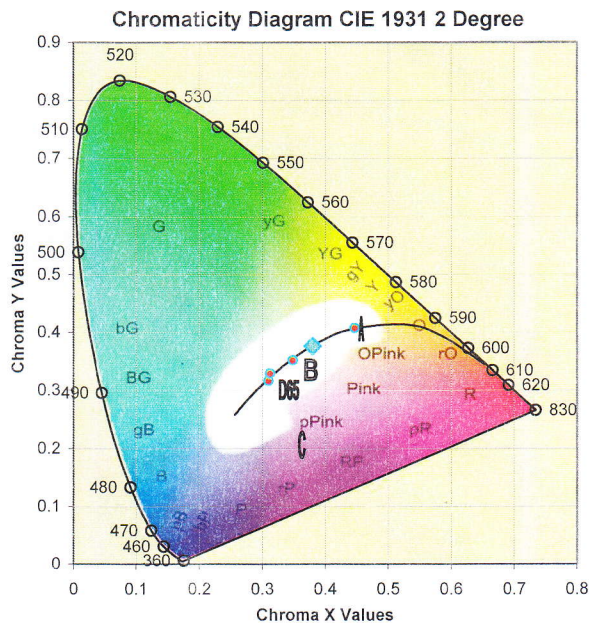
Top View



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INPUT VOLTAGE (V)	120.00
INPUT CURRENT (A)	0.3635
INPUT WATTS (W)	43.3280
POWER FACTOR	0.9933
THDv (%)	0.210
THDi (%)	3.544
LUMINOUS EFFICACY-LPW	108.5
LUMINOUS FLUX- LUMENS	4702
CHROMA x	0.3804
CHROMA y	0.3762
CHROMA u	0.2253
CHROMA v	0.5013
DELTA uv (Duv)	-0.0003
CORR COLOR TEMP (K)	3996
COLOR REND INDEX (RA)	84.41
COLOR REND INDEX (R9)	15.1

Wavelength (nm)	Spectral Flux mW/nm	Wavelength (nm)	Spectral Flux mW/nm
350	0.5978	610	77.6130
360	0.5955	620	71.2569
370	0.5594	630	62.8196
380	0.5522	640	53.3479
390	0.6101	650	43.5505
400	0.7305	660	34.6125
410	1.4009	670	27.0291
420	4.1819	680	20.6472
430	12.7341	690	15.6049
440	35.4053	700	11.7356
450	86.6127	710	8.6797
460	57.3975	720	6.4714
470	37.7941	730	4.7479
480	28.2352	740	3.4673
490	32.6002	750	2.5906
500	41.1481	760	1.9287
510	47.6263	770	1.4661
520	52.1243	780	1.0722
530	56.3091	790	0.8168
540	60.4310	800	0.6084
550	65.2507	810	0.4638
560	69.9610	820	0.3480
570	74.3551	830	0.2751
580	78.2277	840	0.2244
590	80.9960	850	0.1847
600	80.9355		

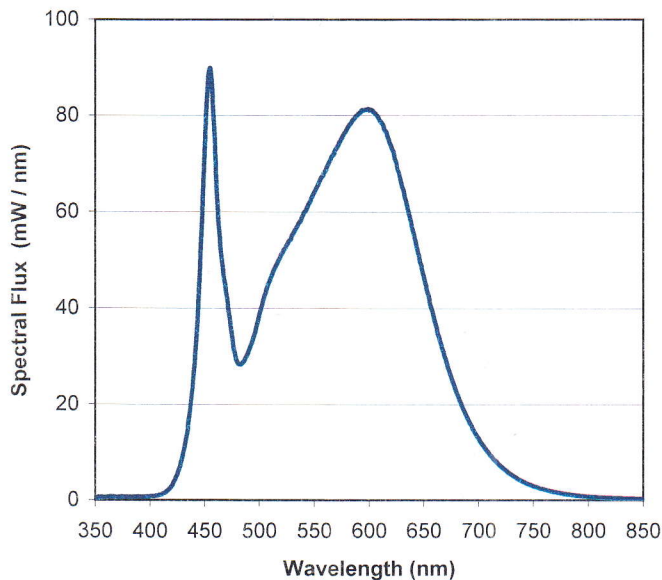


Data collected utilizing a Labsphere integrating sphere and 2100 spectroradiometer. Calibration of the spectroradiometer-sphere is traceable to the National Institute of Standards and Technology.



NVLAP LAB CODE 200921-0

Kent Lerbs
Kent Lerbs
President



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