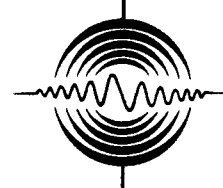


BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC.

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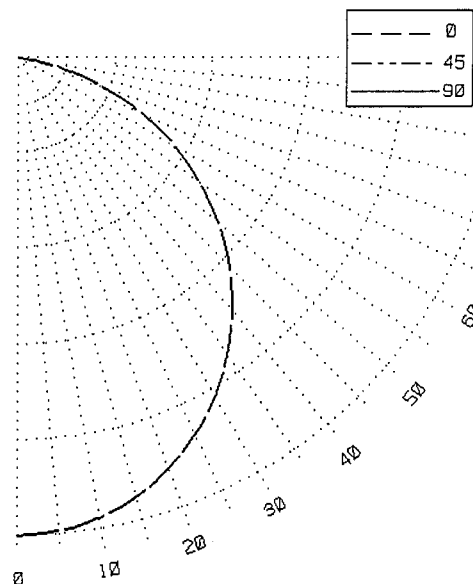
BALLABS CERTIFIED TEST REPORT NO.: 20774.0 DATE 03/28/19
PREPARED FOR: IMPACT ARCHITECTURAL LIGHTING - SAINT LOUIS, MO
DESCRIPTION: 14-18 LED 4.4"ARRAYS (BTM) w/FROSTED 3 PIECE .125" LENS
25"DIA WHITE ALUM PENDANT RING LUMINAIRE-BTM DISTRIBUTION
2-AC ELECTRONICS #AC50CD1.4APC7 @ 650mA
CATALOG NBR: P7424-40HI-NUL
LAMP TYPE : LM-4.4-40K-80-54V

CANDLEPOWER DISTRIBUTION

VERT ANG	AVERAGE CANDELA
0	2102.
5	2088.
10	2054.
15	1997.
20	1924.
25	1830.
30	1722.
35	1593.
40	1457.
45	1305.
50	1146.
55	966.
60	792.
65	601.
70	412.
75	230.
80	78.
85	7.
90	0.

ZONAL LUMENS

199.3
566.0
846.8
1000.6
1010.9
866.8
596.3
243.3
7.7



NVLAP[®]
TESTING

NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	1612.	NA.	30.2	90-120	0.	NA.	.0
0- 40	2613.	NA.	48.9	90-130	0.	NA.	.0
0- 60	4490.	NA.	84.1	90-150	0.	NA.	.0
0- 90	5338.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE =				0-180	5338.	NA.	100.0

IES SPACING CRITERIA: ADJACENT= 1.2 DIAGONAL= .9

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LUMINANCES-CD/SQ-M
 HORIZONTAL ANGLE

VERT
 ANGLE
 45 5813.
 55 5304.
 65 4476.
 75 2798.
 85 256.

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	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00			
1	1.11	1.07	1.03	1.00	1.08	1.04	1.01	.98	1.00	.98	.95	.96	.94	.92	.93	.91	.90	.88			
2	1.02	.95	.89	.84	.99	.93	.88	.83	.90	.85	.81	.86	.83	.79	.83	.80	.78	.76			
3	.94	.85	.77	.72	.92	.83	.76	.71	.80	.74	.70	.78	.73	.69	.75	.71	.67	.65			
4	.86	.75	.67	.61	.84	.74	.67	.61	.72	.65	.60	.70	.64	.59	.67	.63	.59	.57			
5	.79	.67	.59	.52	.77	.66	.58	.52	.64	.57	.51	.62	.56	.51	.60	.55	.50	.48			
6	.73	.60	.52	.46	.71	.59	.51	.45	.57	.50	.45	.56	.49	.45	.54	.49	.44	.42			
7	.67	.54	.46	.40	.65	.53	.45	.40	.52	.44	.39	.50	.44	.39	.49	.43	.39	.37			
8	.62	.48	.40	.34	.60	.48	.40	.34	.46	.39	.34	.45	.39	.34	.44	.38	.34	.32			
9	.57	.43	.35	.30	.55	.43	.35	.30	.42	.35	.30	.41	.34	.29	.40	.34	.29	.27			
10	.53	.40	.32	.26	.51	.39	.31	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24			

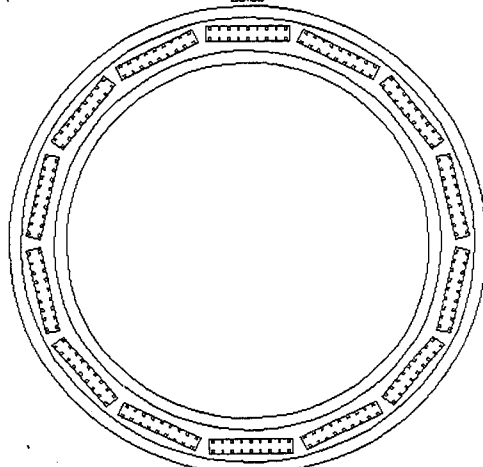
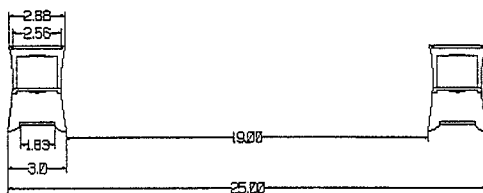
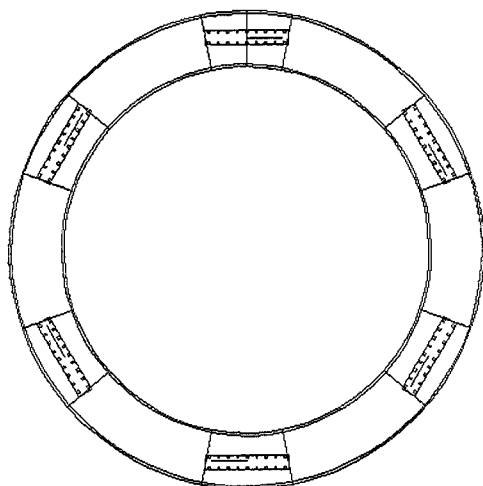
TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

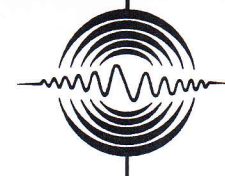
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ELECTRICAL CHARACTERISTICS 120.04V .6552A 78.5600W

LUMINOUS EFFICACY (LUMENS / WATTS) = 67.9

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

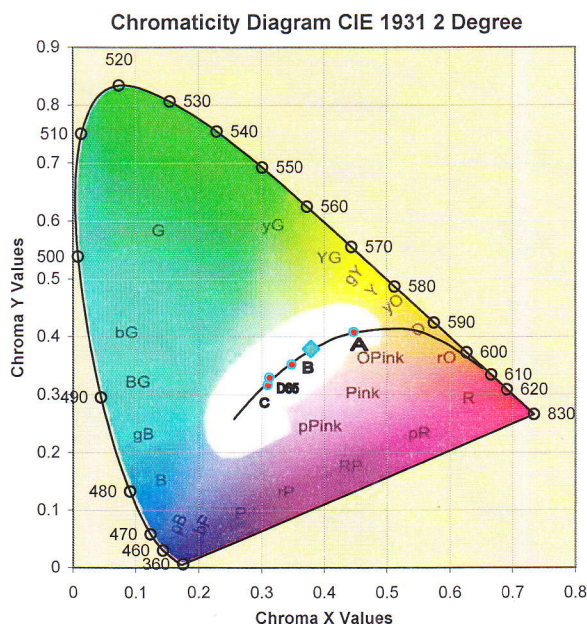




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LAMP TYPE : LM-4.4-40K-80-54V

INPUT VOLTAGE (V)	120.04
INPUT CURRENT (A)	0.6552
INPUT WATTS (W)	78.5600
POWER FACTOR	0.9988
THDv (%)	0.204
THDi (%)	2.369
LUMINOUS EFFICACY-LPW	67.9
LUMINOUS FLUX- LUMENS	5338
CHROMA x	0.3794
CHROMA y	0.3783
CHROMA u	0.2238
CHROMA v	0.5021
DELTA uv (Duv)	0.0010
CORR COLOR TEMP (K)	4039
COLOR REND INDEX (RA)	83.49
COLOR REND INDEX (R9)	8.7

Wavelength (nm)	Spectral Flux mW/nm	Wavelength (nm)	Spectral Flux mW/nm
350	0.4271	610	87.4063
360	0.5116	620	79.2937
370	0.5673	630	69.1239
380	0.5195	640	57.9583
390	0.6409	650	46.6854
400	0.8323	660	36.6494
410	1.8034	670	27.9310
420	5.9208	680	21.0793
430	17.4482	690	15.6229
440	45.8977	700	11.5418
450	94.4603	710	8.4910
460	60.3495	720	6.2093
470	38.7767	730	4.5404
480	30.7655	740	3.3559
490	37.0133	750	2.4230
500	47.8380	760	1.8151
510	55.6315	770	1.3486
520	60.4583	780	0.9958
530	64.7730	790	0.7528
540	69.2991	800	0.5623
550	74.0532	810	0.4377
560	79.3763	820	0.3521
570	84.4692	830	0.2757
580	89.1624	840	0.2063
590	91.8327	850	0.1680
600	91.4128		

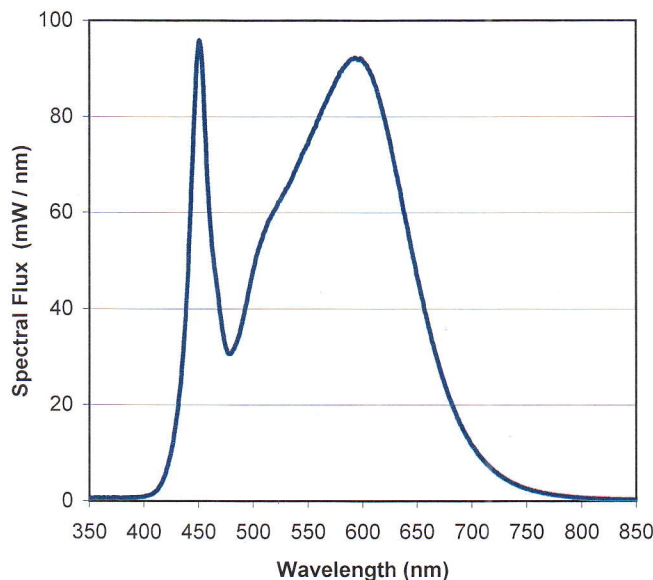


Data collected per LM79-08 using a Labsphere integrating sphere and 2100 spectroradiometer. Calibration of the spectroradiometer-sphere is traceable to the National Institute of Standards and Technology.



NVLAP LAB CODE 200921-0

Kelly C. Lerbs
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Vice President



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