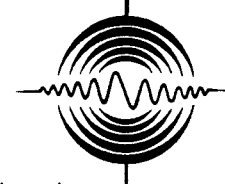


BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC.

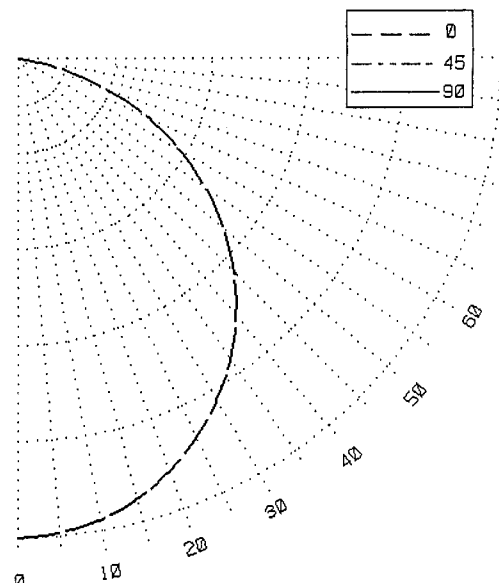
1618 HEADLAND DR.
FENTON, MO 63026
(636) 343-6006
(636) 343-6051 FAX



BALLABS CERTIFIED TEST REPORT NO.: 20776.0 DATE 03/28/19
PREPARED FOR: IMPACT ARCHITECTURAL LIGHTING - SAINT LOUIS, MO
DESCRIPTION: 21-18 LED 4.4"ARRAYS (BTM) w/FROSTED 3 PIECE .125" LENS
37"DIA WHITE ALUM PENDANT RING LUMINAIRE-BTM DISTRIBUTION
3-AC ELECTRONICS #AC50CD1.4APC7 @ 650mA
CATALOG NBR: P7436-40HI-NUL
LAMP TYPE : LM-4.4-40K-80-54V

CANDLEPOWER DISTRIBUTION

VERT ANG	AVERAGE CANDELA	ZONAL LUMENS
0	3333.	
5	3307.	315.6
10	3255.	
15	3168.	898.1
20	3055.	
25	2912.	1347.7
30	2745.	
35	2558.	1606.6
40	2342.	
45	2107.	1631.8
50	1856.	
55	1585.	1422.0
60	1294.	
65	998.	990.2
70	678.	
75	380.	402.2
80	133.	
85	14.	15.4
90	0.	



SIGNIFICANCE OF THE TEST IS LIMITED TO THE DEGREE THAT THE TESTED
SAMPLE IS REPRESENTATIVE. OTHER FACTORS AFFECT FIELD PERFORMANCE.

[Handwritten signature]

NVLAP[®]
TESTING

NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	2561.	NA.	29.7	90-120	0.	NA.	.0
0- 40	4168.	NA.	48.3	90-130	0.	NA.	.0
0- 60	7222.	NA.	83.7	90-150	0.	NA.	.0
0- 90	8630.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE =				0-180	8630.	NA.	100.0

IES SPACING CRITERIA: ADJACENT= 1.2 DIAGONAL= .9

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LUMINANCES-CD/SQ-M
 HORIZONTAL ANGLE
 VERT
 ANGLE

45	4292.
55	3980.
65	3400.
75	2116.
85	233.

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	.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	.97	.95	.96	.94	.92	.93	.91	.89	.87				
2	1.02	.95	.89	.84	.99	.93	.87	.83	.89	.85	.81	.86	.82	.79	.83	.80	.77	.75				
3	.94	.84	.77	.71	.91	.83	.76	.71	.80	.74	.69	.77	.72	.68	.75	.71	.67	.65				
4	.86	.75	.67	.61	.84	.74	.66	.61	.71	.65	.60	.69	.64	.59	.67	.62	.58	.56				
5	.79	.67	.58	.52	.77	.66	.58	.52	.63	.56	.51	.62	.55	.51	.60	.54	.50	.48				
6	.72	.60	.51	.45	.71	.59	.51	.45	.57	.50	.44	.55	.49	.44	.54	.48	.44	.42				
7	.67	.54	.45	.39	.65	.53	.45	.39	.51	.44	.39	.50	.43	.39	.49	.43	.38	.36				
8	.61	.48	.40	.34	.60	.47	.39	.34	.46	.39	.34	.45	.38	.33	.44	.38	.33	.31				
9	.57	.43	.35	.29	.55	.43	.35	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27				
10	.52	.39	.31	.26	.51	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.26	.24				

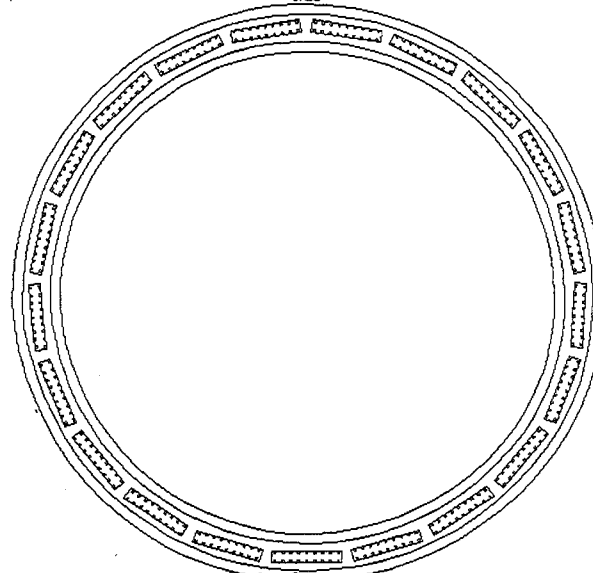
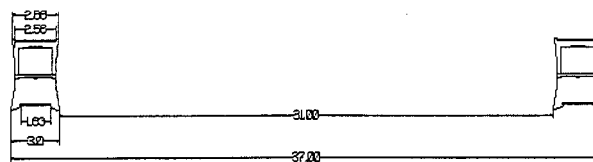
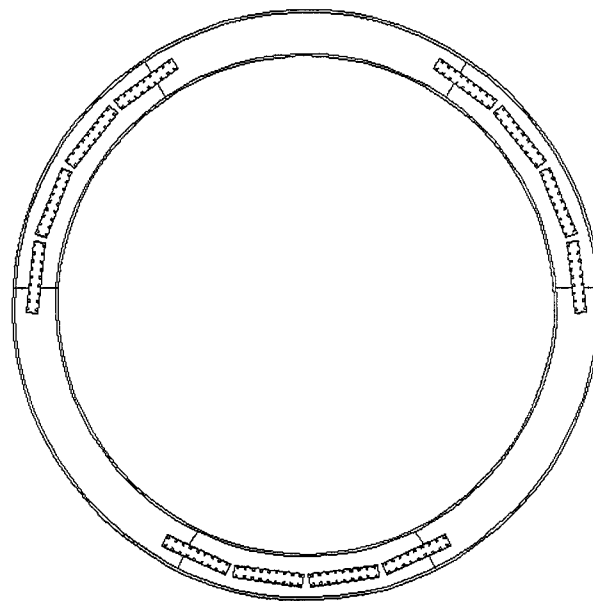
TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

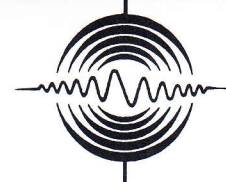
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ELECTRICAL CHARACTERISTICS 120.00V .9657A 115.7400W

LUMINOUS EFFICACY (LUMENS / WATTS) = 74.6

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

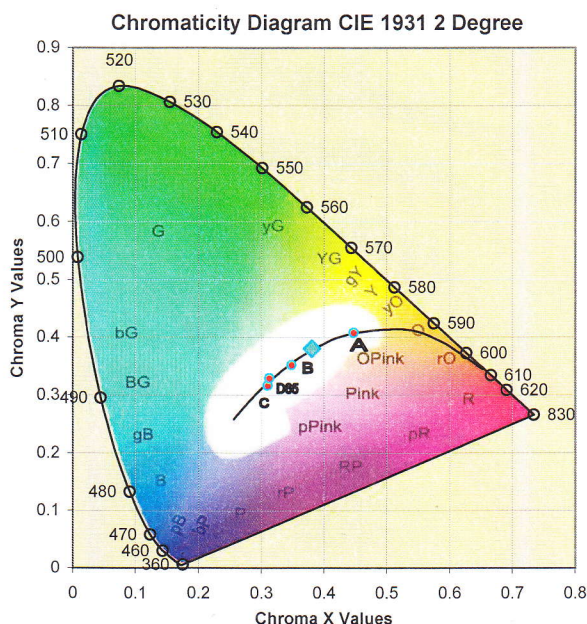




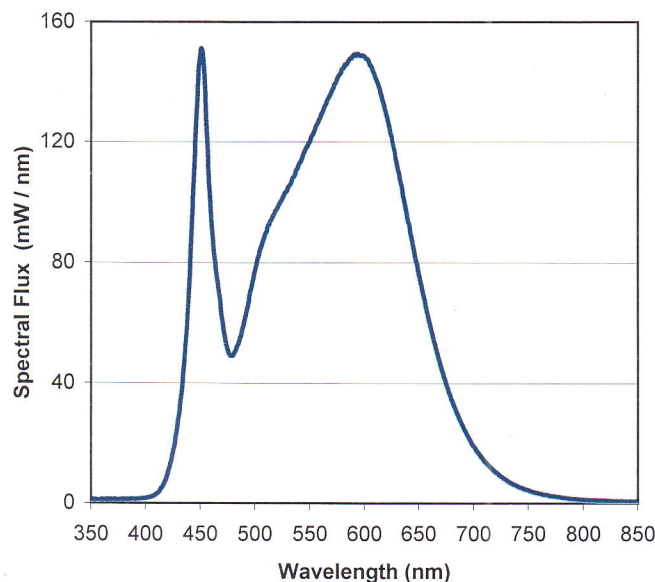
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INPUT VOLTAGE (V)	120.00
INPUT CURRENT (A)	0.9657
INPUT WATTS (W)	115.7400
POWER FACTOR	0.9988
THDv (%)	0.206
THDi (%)	2.338
LUMINOUS EFFICACY-LPW	74.6
LUMINOUS FLUX- LUMENS	8630
CHROMA x	0.3811
CHROMA y	0.3802
CHROMA u	0.2242
CHROMA v	0.5032
DELTA uv (Duv)	0.0014
CORR COLOR TEMP (K)	4007
COLOR REND INDEX (RA)	83.34
COLOR REND INDEX (R9)	8.1

Wavelength (nm)	Spectral Flux mW/nm	Wavelength (nm)	Spectral Flux mW/nm
350	0.8258	610	141.1405
360	1.0398	620	128.5812
370	0.9849	630	112.2350
380	1.0275	640	93.9011
390	1.1181	650	76.0585
400	1.4021	660	59.5483
410	2.8303	670	45.5504
420	9.2007	680	34.4162
430	27.7094	690	25.6416
440	72.1554	700	18.8747
450	148.7688	710	13.8311
460	95.5701	720	10.2207
470	61.6544	730	7.4132
480	48.9109	740	5.4166
490	59.4819	750	4.0478
500	76.6924	760	2.9818
510	89.3480	770	2.1879
520	97.4446	780	1.6166
530	104.3669	790	1.2276
540	112.1988	800	0.9195
550	119.8943	810	0.7200
560	128.4324	820	0.5949
570	136.6304	830	0.4454
580	144.2218	840	0.3307
590	148.7795	850	0.2716
600	148.3160		



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
Vice President

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