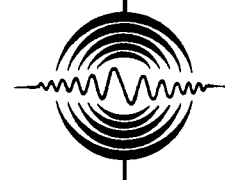


BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC.

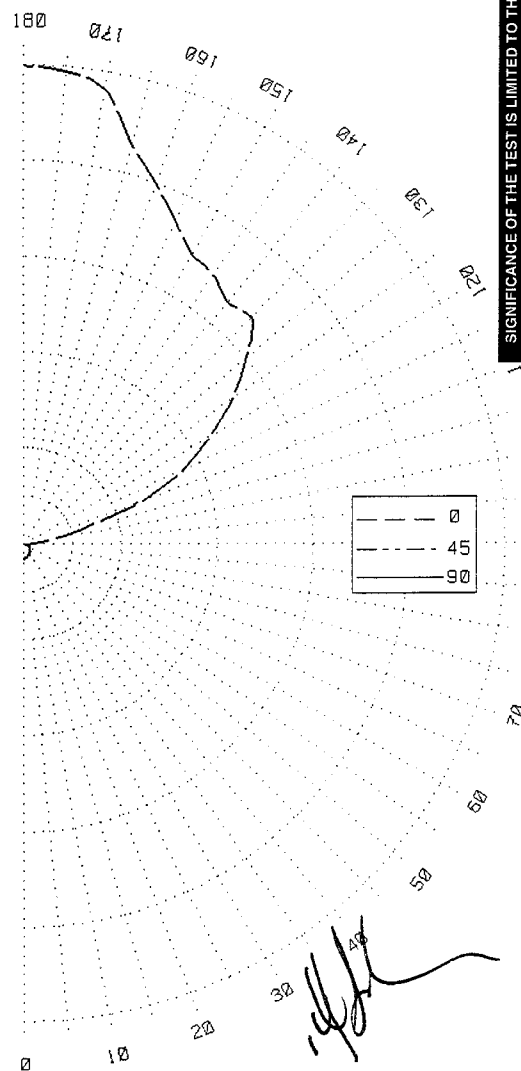
1618 HEADLAND DR.
FENTON, MO 63026
(636) 343-6006
(636) 343-6051 FAX



BALLABS CERTIFIED TEST REPORT NO.: 19451.0 DATE 08/18/16
PREPARED FOR: IMPACT ARCHITECTURAL LIGHTING - SAINT LOUIS, MO
DESCRIPTION: 16-12LED ARRAY 38"DIA MOD PEND LUMINAIRE w/WHITE REFL & 1/8
CLR ACRYLIC TOP LENS/WHITE CTR RND REFL & FROST ACRYLIC BTM
LENS w/.125"WHITE ACRYLIC BTM DOME ROAL STRATO #RSLD035-05
CATALOG NBR: P1838-35LO-XX
LAMP TYPE : M350C835D12N06STC

CANDLEPOWER DISTRIBUTION

VERT ANG	AVERAGE CANDELA	ZONAL LUMENS
0	37.	
5	37.	3.6
10	36.	
15	36.	10.2
20	34.	
25	33.	15.2
30	31.	
35	30.	18.8
40	27.	
45	24.	18.8
50	23.	
55	19.	17.4
60	18.	
65	15.	15.1
70	14.	
75	10.	10.4
80	9.	
85	7.	8.1
90	6.	
95	26.	27.9
100	73.	
105	167.	176.4
110	340.	
115	480.	476.0
120	590.	
125	704.	631.6
130	801.	
135	884.	684.7
140	870.	
145	908.	570.1
150	923.	
155	984.	455.4
160	1059.	
165	1140.	323.1
170	1278.	
175	1311.	125.2
180	1324.	



NVLAP[®]
TESTING

NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	29.	NA.	.8	90-120	680.	NA.	19.0
0- 40	48.	NA.	1.3	90-130	1312.	NA.	36.6
0- 60	84.	NA.	2.3	90-150	2567.	NA.	71.5
0- 90	118.	NA.	3.3	90-180	3470.	NA.	96.7
TOTAL LUMINAIRE =				0-180	3588.	NA.	100.0

IES SPACING CRITERIA: ADJACENT= 1.3 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.

BALLABS CERTIFIED TEST REPORT NO.: 19451.0 DATE 08/18/16
 PREPARED FOR: IMPACT ARCHITECTURAL LIGHTING - SAINT LOUIS, MO
 DESCRIPTION: 16-12LED ARRAY 38"DIA MOD PEND LUMINAIRE w/WHITE REFL & 1/8
 CLR ACRYLIC TOP LENS/WHITE CTR RND REFL & FROST ACRYLIC BTM
 LENS w/.125"WHITE ACRYLIC BTM DOME ROAL STRATO #RSLD035-05
 CATALOG NBR: P1838-35LO-XX
 LAMP TYPE : M350C835D12N06STC

LUMINANCES-CD/SQ-M
 HORIZONTAL ANGLE

VERT	0
ANGLE	
45	38.
55	34.
65	32.
75	26.
85	29.

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	.96	.96	.96	.96	.83	.83	.83	.83	.57	.57	.57	.34	.34	.34	.13	.13	.13	.13	.13	.13	.03
1	.87	.83	.79	.76	.75	.71	.68	.66	.50	.48	.46	.30	.29	.28	.11	.11	.11	.11	.11	.11	.03
2	.79	.72	.67	.62	.68	.62	.58	.54	.43	.41	.38	.26	.25	.23	.10	.10	.10	.09	.09	.09	.02
3	.72	.63	.57	.51	.62	.55	.49	.45	.38	.35	.32	.23	.21	.20	.09	.08	.08	.08	.08	.08	.02
4	.66	.56	.49	.43	.56	.48	.42	.38	.34	.30	.27	.20	.18	.17	.08	.07	.07	.07	.07	.07	.02
5	.60	.50	.42	.37	.52	.43	.37	.32	.30	.26	.23	.18	.16	.14	.07	.06	.06	.06	.06	.06	.01
6	.55	.44	.37	.32	.47	.38	.32	.28	.27	.23	.20	.16	.14	.12	.06	.06	.06	.05	.05	.05	.01
7	.51	.40	.33	.28	.44	.35	.29	.24	.24	.20	.17	.15	.12	.11	.06	.05	.05	.04	.04	.04	.01
8	.47	.36	.29	.24	.41	.31	.25	.21	.22	.18	.15	.13	.11	.10	.05	.04	.04	.04	.04	.04	.01
9	.44	.33	.26	.22	.38	.29	.23	.19	.20	.16	.14	.12	.10	.08	.05	.04	.04	.03	.03	.03	.01
10	.41	.30	.24	.19	.35	.26	.21	.17	.19	.15	.12	.11	.09	.08	.04	.04	.04	.03	.03	.03	.01

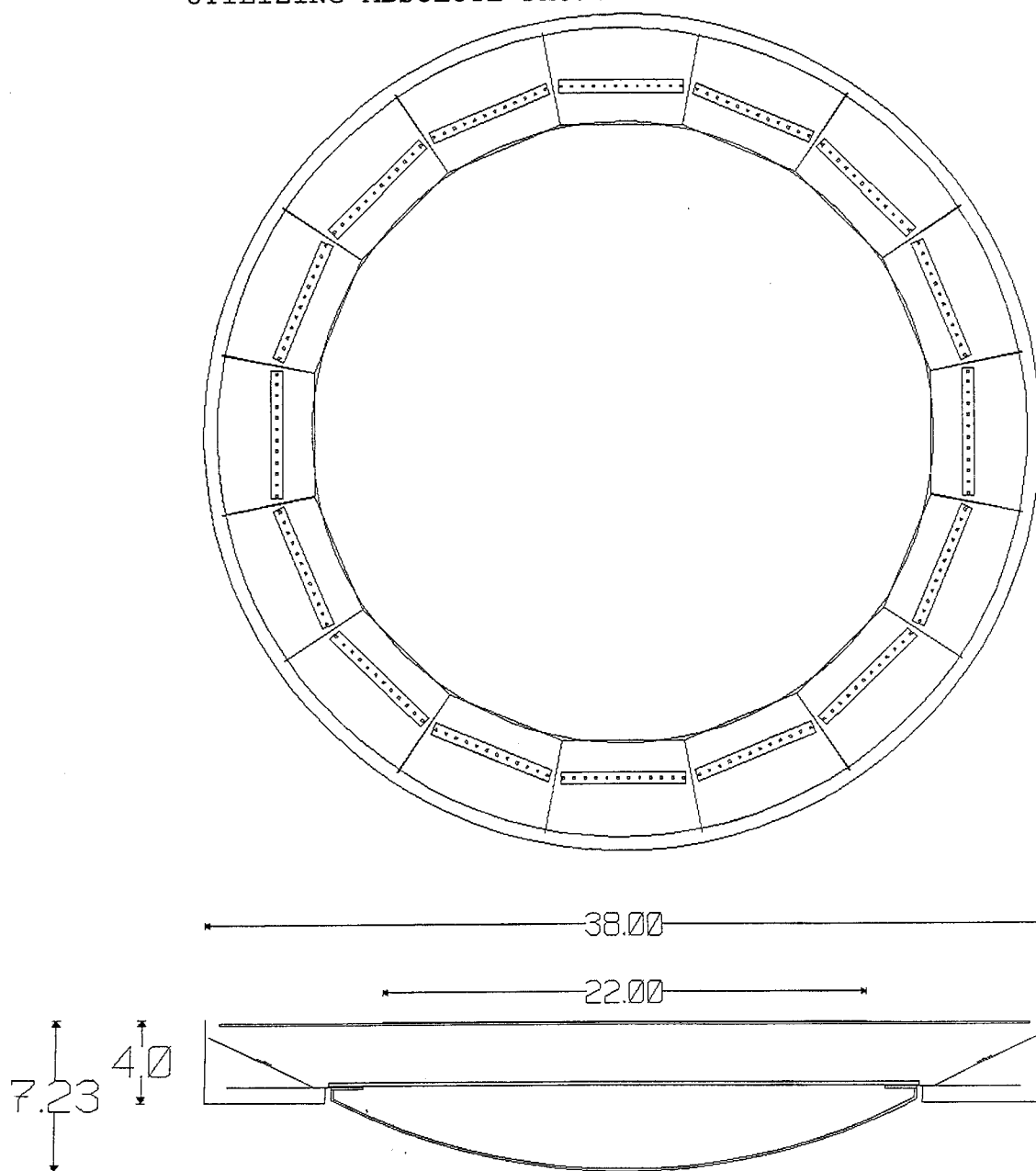
TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

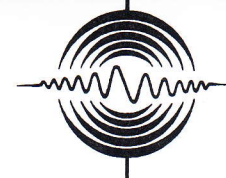
BALLABS CERTIFIED TEST REPORT NO.: 19451.0 DATE 08/18/16
PREPARED FOR: IMPACT ARCHITECTURAL LIGHTING - SAINT LOUIS, MO
DESCRIPTION: 16-12LED ARRAY 38"DIA MOD PEND LUMINAIRE w/WHITE REFL & 1/8
CLR ACRYLIC TOP LENS/WHITE CTR RND REFL & FROST ACRYLIC BTM
LENS w/.125"WHITE ACRYLIC BTM DOME ROAL STRATO #RSLD035-05
CATALOG NBR: P1838-35LO-XX
LAMP TYPE : M350C835D12N06STC

ELECTRICAL CHARACTERISTICS 120.0V .2848A 33.501W

LUMINOUS EFFICACY (LUMENS / WATTS) = 107.1

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

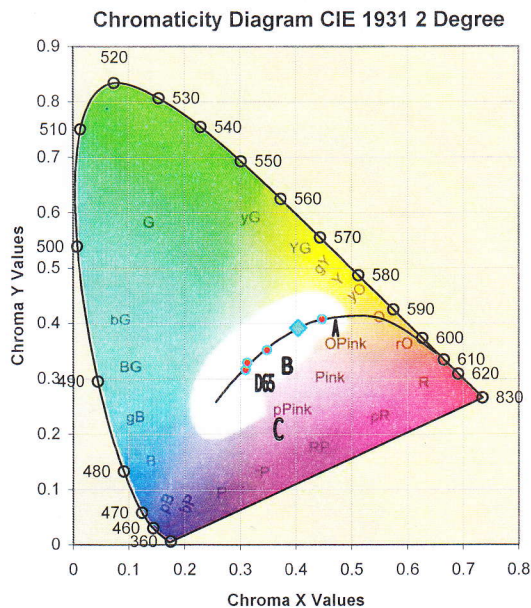




BALLABS CERTIFIED TEST REPORT NO.: 19451.0 A DATE 08/18/16
PREPARED FOR: IMPACT ARCHITECTURAL LIGHTING - SAINT LOUIS, MO
DESCRIPTION: 16-12LED ARRAY 38"DIA MOD PEND LUMINAIRE w/WHITE REFL & 1/8
CLR ACRYLIC TOP LENS/WHITE CTR RND REFL & FROST ACRYLIC BTM
LENS w/.125"WHITE ACRYLIC BTM DOME ROAL STRATO #RSLD035-05
CATALOG NBR: P1838-35LO-XX
LAMP TYPE : M350C835D12N06STC

INPUT VOLTAGE (V)	120.1
INPUT CURRENT (A)	0.2848
INPUT WATTS (W)	33.501
POWER FACTOR	0.9797
THDv (%)	0.127
THDi (%)	15.510
LUMINOUS EFFICACY-LPW	107.1
LUMINOUS FLUX- LUMENS	3588
CHROMA x	0.4047
CHROMA y	0.3918
CHROMA u	0.2349
CHROMA v	0.3411
DELTA uv (Duv)	0.0006
CORR COLOR TEMP (K)	3521
COLOR REND INDEX (RA)	85.04
COLOR REND INDEX (R9)	22.8

Wavelength (nm)	Spectral Flux mW/nm	Wavelength (nm)	Spectral Flux mW/nm
350	0.2646	610	62.9085
360	0.3049	620	59.7678
370	0.3379	630	54.6277
380	0.3232	640	48.0887
390	0.3205	650	40.8931
400	0.4016	660	33.6972
410	0.7290	670	27.0435
420	2.1018	680	21.2174
430	7.2797	690	16.3660
440	21.8766	700	12.4525
450	51.2944	710	9.3712
460	33.6101	720	7.0146
470	23.3443	730	5.1536
480	18.9032	740	3.7951
490	23.1886	750	2.8096
500	28.9226	760	2.0737
510	33.3838	770	1.5271
520	36.6669	780	1.1410
530	40.1321	790	0.8462
540	44.4987	800	0.6346
550	49.0782	810	0.4766
560	53.3758	820	0.3601
570	57.2141	830	0.2709
580	60.4756	840	0.2120
590	62.8643	850	0.1290
600	64.0593		

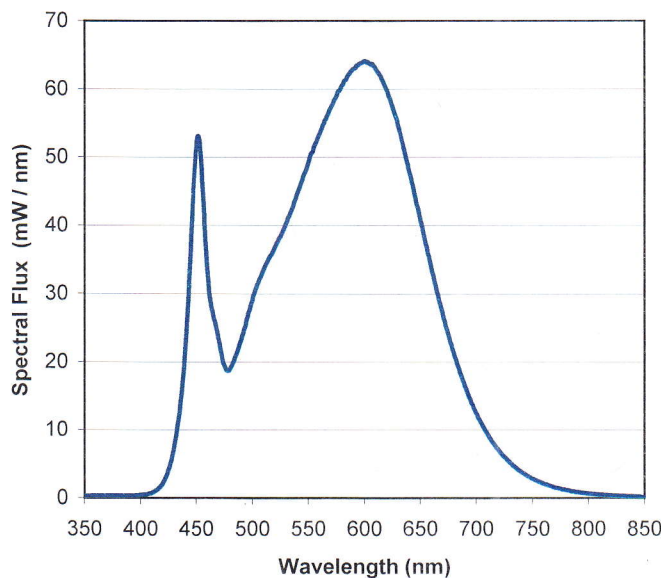


Data collected utilizing a Labsphere integrating sphere and 2100 spectroradiometer. Calibration of the spectroradiometer-sphere is traceable to the National Institute of Standards and Technology.



NVLAP LAB CODE 200921-0

Kelly C. Lerbs
Kelly C. Lerbs
Vice President



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.