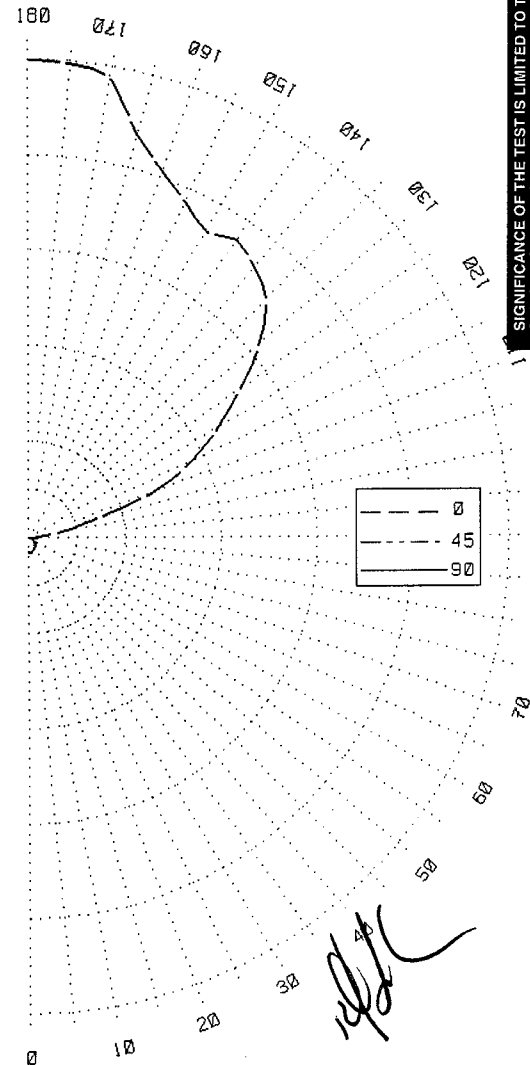


BALLABS CERTIFIED TEST REPORT NO.: 19467.0 DATE 08/31/16
PREPARED FOR: IMPACT ARCHITECTURAL LIGHTING - SAINT LOUIS, MO
DESCRIPTION: 16-12LED ARRAY 38"DIA MOD PEND LUMINAIRE w/WHITE REFL & 1/8
CLR ACRYLIC TOP LENS/WHITE CTR RND REFL & FROST ACRYLIC BTM
LENS w/.125"WHITE ACRYLIC BTM DOME 1ROAL STRATO #RSLD035-6A
CATALOG NBR: P1838-35LO-XX
LAMP TYPE : M350C835D12N06STC

CANDLEPOWER DISTRIBUTION

VERT ANG	AVERAGE CANDELA	ZONAL LUMENS
0	55.	5.2
5	55.	14.9
10	55.	22.4
15	52.	27.4
20	51.	28.0
25	48.	25.4
30	46.	20.6
35	44.	14.5
40	40.	9.7
45	36.	36.6
50	33.	253.7
55	28.	674.2
60	25.	874.8
65	21.	974.0
70	18.	851.8
75	14.	642.0
80	10.	444.6
85	9.	170.8
90	7.	
95	34.	
100	102.	
105	240.	
110	493.	
115	679.	
120	822.	
125	975.	
130	1129.	
135	1258.	
140	1313.	
145	1356.	
150	1322.	
155	1387.	
160	1465.	
165	1568.	
170	1753.	
175	1790.	
180	1797.	



NVLAP[®]
TESTING

NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	42.	NA.	.8	90-120	964.	NA.	18.9
0- 40	70.	NA.	1.4	90-130	1839.	NA.	36.1
0- 60	123.	NA.	2.4	90-150	3665.	NA.	72.0
0- 90	168.	NA.	3.3	90-180	4923.	NA.	96.7

TOTAL LUMINAIRE = 0-180 5091. NA. 100.0

IES SPACING CRITERIA: ADJACENT= 1.3 DIAGONAL= .9

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LUMINANCES-CD/SQ-M
 HORIZONTAL ANGLE

VERT ANGLE	0
45	57.
55	51.
65	45.
75	39.
85	38.

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	.69	.66	.50	.48	.46	.30	.29	.28	.12	.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	.18	.15	.13	.11	.06	.05	.04	.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	.09	.05	.04	.03	.03	.03	.03	.01
10	.41	.30	.24	.19	.35	.26	.21	.17	.19	.15	.12	.11	.09	.08	.04	.04	.03	.03	.03	.03	.01

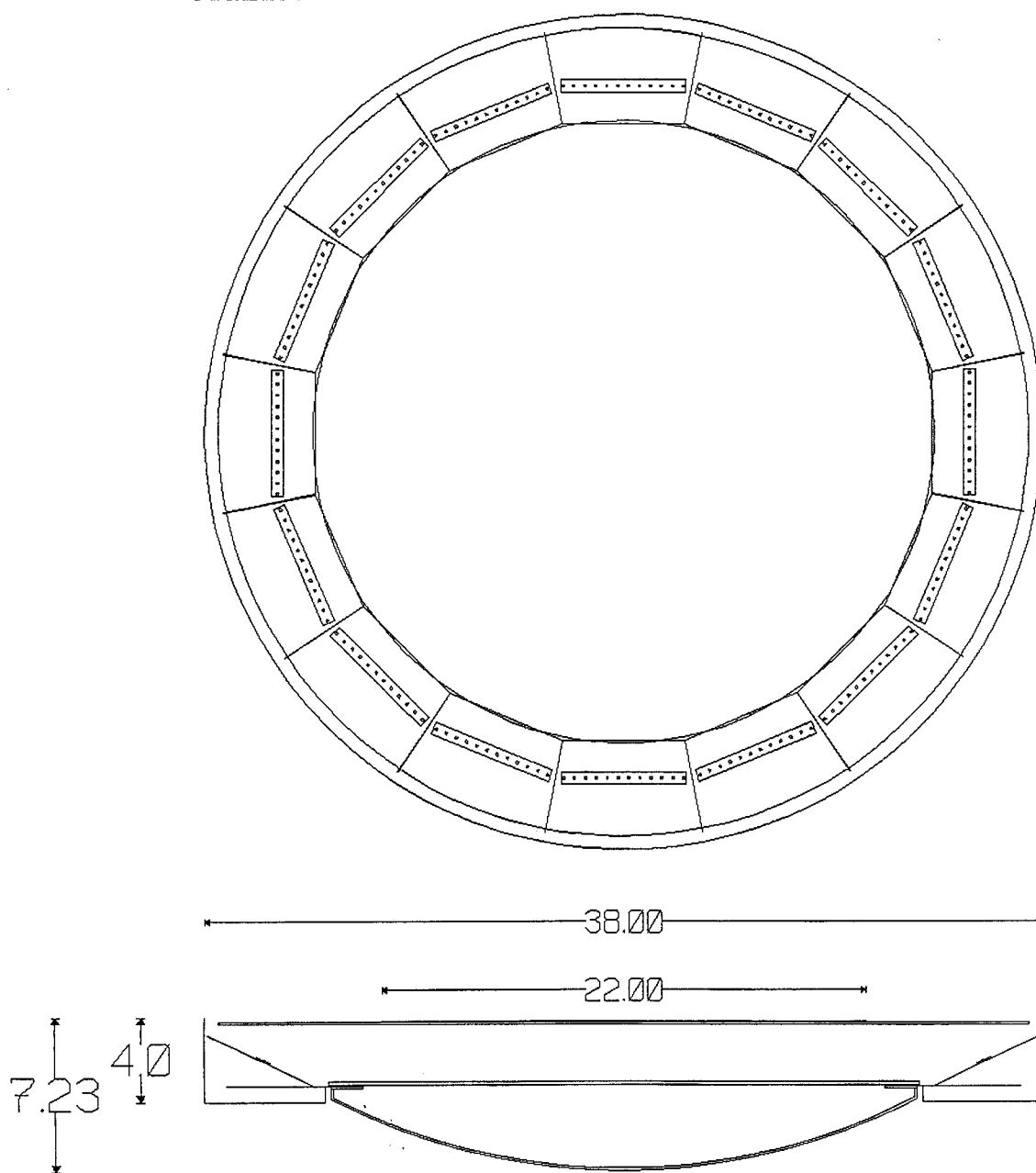
TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

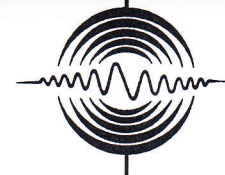
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LAMP TYPE : M350C835D12N06STC

ELECTRICAL CHARACTERISTICS 120.0V .4214A 48.415W

LUMINOUS EFFICACY (LUMENS / WATTS) = 105.2

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

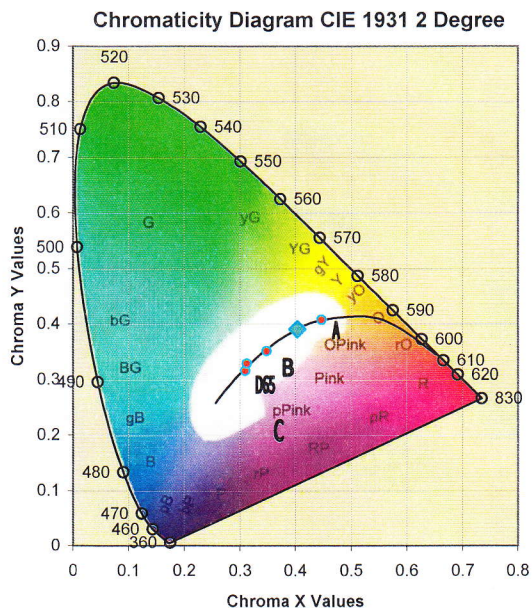




BALLABS CERTIFIED TEST REPORT NO.: 19467.0 A DATE 08/31/16
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CATALOG NBR: P1838-35LO-XX
LAMP TYPE : M350C835D12N06STC

INPUT VOLTAGE (V)	120.0
INPUT CURRENT (A)	0.4214
INPUT WATTS (W)	48.415
POWER FACTOR	0.9576
THDv (%)	0.132
THDi (%)	20.833
LUMINOUS EFFICACY-LPW	105.2
LUMINOUS FLUX- LUMENS	5091
CHROMA x	0.4038
CHROMA y	0.3907
CHROMA u	0.2347
CHROMA v	0.3407
DELTA uv (Duv)	0.0003
CORR COLOR TEMP (K)	3534
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	0.3659	610	88.8649
360	0.4462	620	84.6653
370	0.4268	630	77.3407
380	0.4364	640	67.9635
390	0.4486	650	57.7381
400	0.5991	660	47.7000
410	1.1424	670	38.2791
420	3.3551	680	30.1000
430	11.2532	690	23.2236
440	32.5564	700	17.6979
450	72.2397	710	13.3050
460	48.5402	720	9.9360
470	33.2442	730	7.3745
480	27.1096	740	5.4099
490	32.8640	750	4.0031
500	41.0744	760	2.9902
510	47.2975	770	2.1968
520	52.0690	780	1.6224
530	57.1593	790	1.2026
540	63.1548	800	0.9224
550	69.5370	810	0.6946
560	75.6603	820	0.5253
570	81.0412	830	0.4120
580	85.8447	840	0.3114
590	89.3483	850	0.2468
600	90.8653		

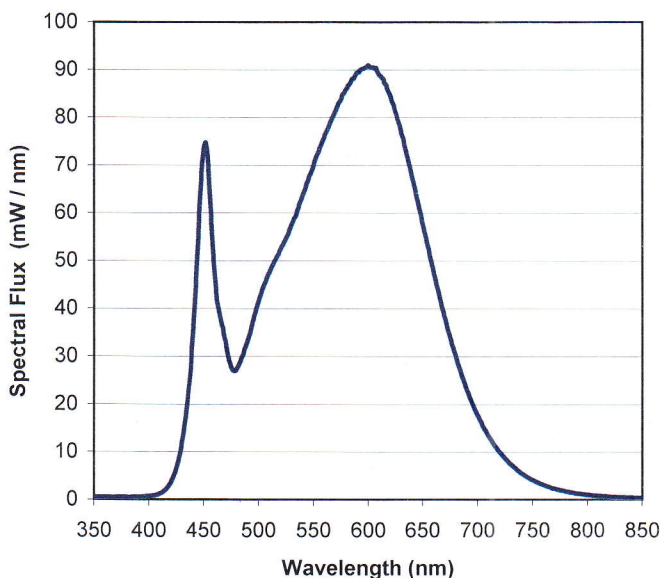


Data collected utilizing a Labsphere integrating sphere and 2100 spectroradiometer. Calibration of the spectroradiometer-sphere is traceable to the National Institute of Standards and Technology.



NVLAP LAB CODE 200921-0

Kelly C. Lerbs
Kelly C. Lerbs
Vice President



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