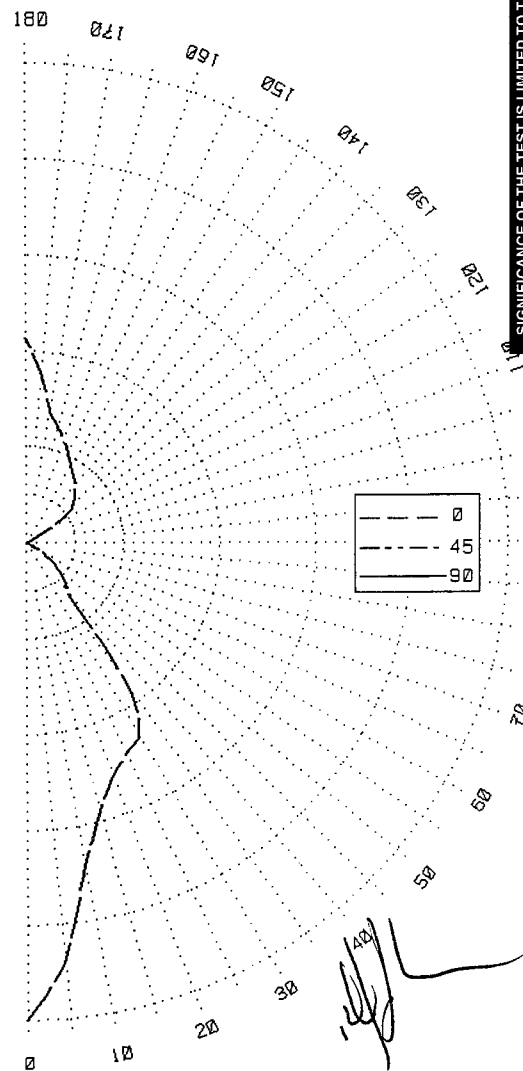


BALLABS CERTIFIED TEST REPORT NO.: 20155.0 DATE 12/12/17
PREPARED FOR: IMPACT ARCHITECTURAL LIGHTING - SAINT LOUIS, MO
DESCRIPTION: 2-1.5"DIA LED ARRAYS(1UP/1DWN) 9"TIKI LUMINAIRE
WHITE REFL w/OPEN BTM & OPEN TOP
ROAL STRATO #RSLD035-12J, #RCL010-0250A
CATALOG NBR: P5109-40HI/UP-PTD
LAMP TYPE : BXRC-40E4000-B-7X-SE

CANDLEPOWER DISTRIBUTION

VERT ANG	AVERAGE CANDELA	ZONAL LUMENS
0	2532.	
5	2227.	212.6
10	1736.	
15	1468.	416.2
20	1314.	
25	1227.	568.0
30	1169.	
35	938.	589.3
40	332.	
45	284.	219.6
50	210.	
55	141.	126.8
60	92.	
65	58.	57.3
70	31.	
75	17.	17.7
80	10.	
85	4.	4.5
90	2.	
95	1.	.9
100	2.	
105	5.	5.1
110	8.	
115	9.	9.0
120	75.	
125	277.	248.3
130	323.	
135	362.	280.3
140	396.	
145	428.	269.2
150	467.	
155	517.	239.2
160	575.	
165	632.	179.2
170	709.	
175	899.	85.8
180	1081.	



NVLAP[®]
TESTING

NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	1197.	NA.	33.9	90-120	15.	NA.	.4
0- 40	1786.	NA.	50.6	90-130	263.	NA.	7.5
0- 60	2132.	NA.	60.4	90-150	813.	NA.	23.0
0- 90	2212.	NA.	62.7	90-180	1317.	NA.	37.3
TOTAL LUMINAIRE =				0-180	3529.	NA.	100.0

IES SPACING CRITERIA: ADJACENT= .6 DIAGONAL= .4

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LUMINANCES-CD/SQ-M
 HORIZONTAL ANGLE

VERT	0
ANGLE	
45	10869.
55	6678.
65	3703.
75	1753.
85	1275.

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	1.10	1.10	1.10	1.10	1.03	1.03	1.03	1.03	.90	.90	.90	.79	.79	.79	.68	.68	.68	.68	.68	.68	.63
1	1.03	1.00	.97	.94	.97	.94	.91	.89	.83	.81	.79	.73	.72	.71	.64	.63	.62	.62	.62	.62	.58
2	.96	.90	.85	.81	.90	.85	.81	.78	.76	.73	.70	.68	.65	.63	.60	.58	.57	.57	.57	.57	.53
3	.90	.82	.76	.72	.85	.78	.73	.69	.70	.66	.63	.63	.60	.57	.56	.54	.52	.52	.52	.52	.49
4	.84	.75	.68	.63	.79	.71	.66	.61	.64	.60	.56	.58	.55	.52	.52	.50	.47	.47	.47	.47	.45
5	.78	.68	.62	.57	.74	.65	.59	.55	.59	.54	.51	.54	.50	.47	.48	.46	.43	.43	.43	.43	.41
6	.73	.63	.56	.51	.69	.60	.54	.50	.55	.50	.46	.50	.46	.43	.45	.42	.40	.40	.40	.40	.38
7	.69	.58	.51	.46	.65	.56	.49	.45	.51	.46	.42	.46	.42	.39	.42	.39	.37	.37	.37	.37	.35
8	.64	.53	.47	.42	.61	.51	.45	.41	.47	.42	.38	.43	.39	.36	.39	.36	.34	.34	.34	.34	.31
9	.60	.49	.42	.38	.57	.47	.41	.37	.43	.38	.35	.39	.35	.33	.36	.33	.30	.30	.30	.30	.29
10	.56	.45	.39	.35	.53	.43	.38	.34	.40	.35	.32	.37	.33	.30	.33	.30	.28	.28	.28	.28	.26

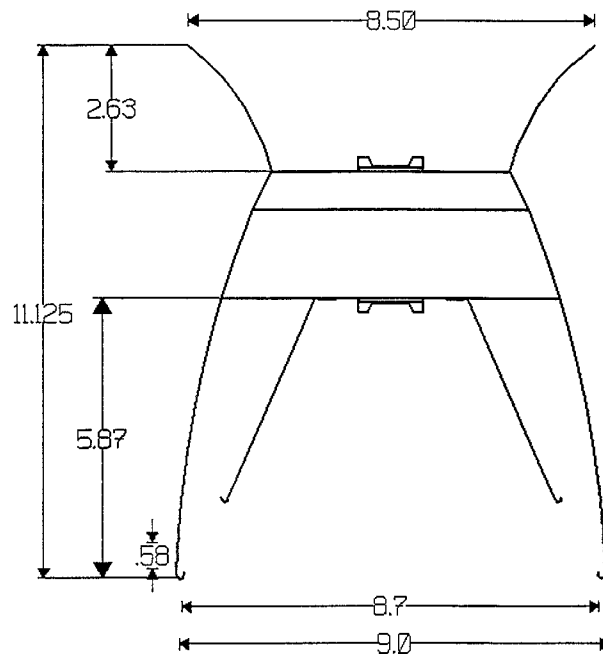
TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

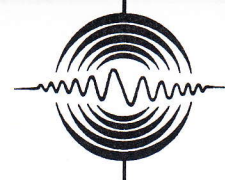
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LAMP TYPE : BXRC-40E4000-B-7X-SE

ELECTRICAL CHARACTERISTICS 119.97V .2409A 28.5020W

LUMINOUS EFFICACY (LUMENS / WATTS) = 123.8

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

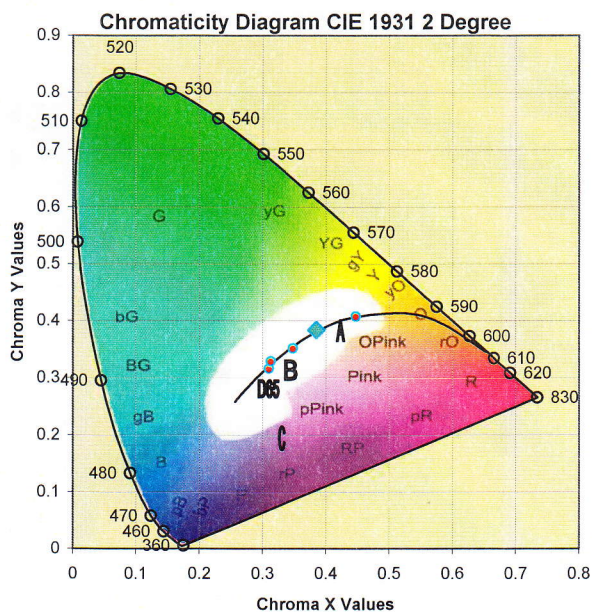




BALLABS CERTIFIED TEST REPORT NO.: 20155.0 A DATE 12/12/17
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LAMP TYPE : BXRC-40E4000-B-7X-SE

INPUT VOLTAGE (V)	119.97
INPUT CURRENT (A)	0.2409
INPUT WATTS (W)	28.5020
POWER FACTOR	0.9864
THDv (%)	0.171
THDi (%)	13.307
LUMINOUS EFFICACY-LPW	123.8
LUMINOUS FLUX- LUMENS	3529
CHROMA x	0.3852
CHROMA y	0.3835
CHROMA u	0.2255
CHROMA v	0.5052
DELTA uv (Duv)	0.0018
CORR COLOR TEMP (K)	3925
COLOR REND INDEX (RA)	82.87
COLOR REND INDEX (R9)	10.4

Wavelength (nm)	Spectral Flux mW/nm	Wavelength (nm)	Spectral Flux mW/nm
350	0.2509	610	57.9802
360	0.2441	620	53.3909
370	0.2390	630	47.1509
380	0.2714	640	40.0755
390	0.2680	650	32.7105
400	0.3892	660	25.9770
410	0.8646	670	20.0690
420	2.8237	680	15.2616
430	9.2993	690	11.5165
440	27.3740	700	8.5385
450	65.6434	710	6.3093
460	36.2200	720	4.6366
470	22.2957	730	3.4376
480	17.2421	740	2.4677
490	21.1857	750	1.8275
500	29.2176	760	1.3559
510	35.5084	770	0.9991
520	39.9358	780	0.7344
530	43.3326	790	0.5425
540	46.5764	800	0.4261
550	49.7594	810	0.3209
560	53.0353	820	0.2506
570	55.9420	830	0.1905
580	58.5337	840	0.1556
590	60.0841	850	0.1287
600	60.1039		



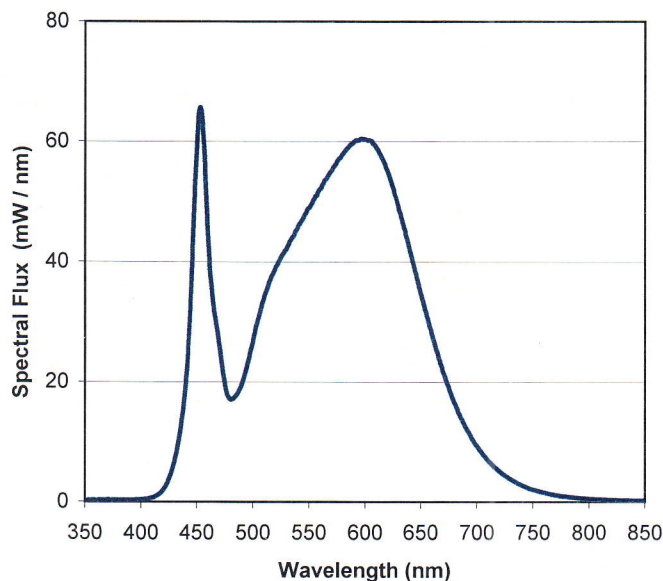
Data collected utilizing a Labsphere integrating sphere and 2100 spectroradiometer. Calibration of the spectroradiometer-sphere is traceable to the National Institute of Standards and Technology.



[Signature]

Kelly C. Lerbs
Vice President

NVLAP LAB CODE 200921-0



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