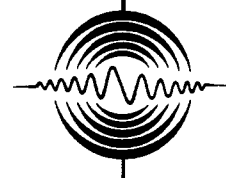


# BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC.

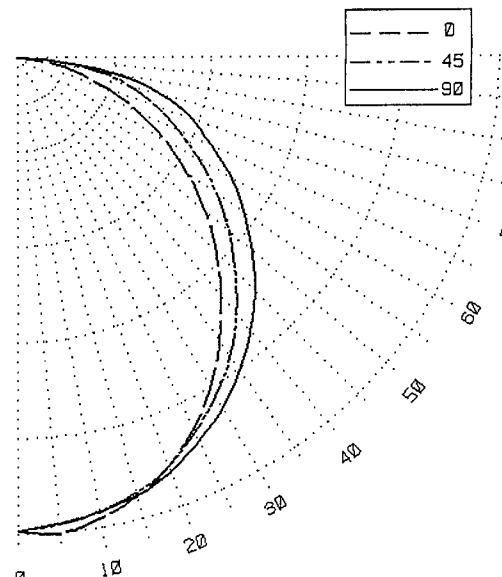
1618 HEADLAND DR.  
FENTON, MO 63026  
(636) 343-6006  
(636) 343-6051 FAX



BALLABS CERTIFIED TEST REPORT NO.: 20931.0 DATE 08/16/19  
PREPARED FOR: H.E. WILLIAMS, INC - CARTHAGE, MO  
DESCRIPTION: 2-28LED 22"ARRAY 2x4'LT LED TROFFER LUMINAIRE  
WHITE REFL & BLACK SIDE VENTS w/5.375"FROST CENTER LENS  
ADVANCE #CI031C068V045CNN2 @ 680mA  
CATALOG NBR: LT-AR24-L40/835-AF-DIM-UNV  
LAMP TYPE : 10560202 HLM2228\_5630 REV B

## CANDLEPOWER DISTRIBUTION

VERT ANG	0	22.5	45	67.5	90	ZONAL LUMENS
0	1491.	1491.	1491.	1491.	1491.	
5	1505.	1484.	1476.	1475.	1473.	141.4
10	1473.	1457.	1453.	1452.	1453.	
15	1431.	1418.	1419.	1424.	1427.	403.3
20	1374.	1362.	1373.	1385.	1391.	
25	1297.	1290.	1308.	1331.	1338.	607.1
30	1205.	1205.	1237.	1270.	1281.	
35	1102.	1110.	1157.	1192.	1210.	724.8
40	986.	1009.	1064.	1114.	1130.	
45	880.	906.	962.	1027.	1049.	747.3
50	767.	794.	863.	933.	959.	
55	648.	677.	760.	837.	863.	679.5
60	532.	567.	657.	739.	772.	
65	418.	459.	554.	644.	667.	545.7
70	308.	354.	463.	551.	579.	
75	203.	256.	366.	452.	475.	373.9
80	113.	172.	266.	324.	323.	
85	39.	81.	109.	111.	109.	102.3
90	0.	0.	0.	0.	0.	



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

**NVLAP**<sup>®</sup>  
TESTING

NVLAP LAB CODE 200921-0

## LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	1152.	NA.	26.6	90-120	0.	NA.	.0
0- 40	1877.	NA.	43.4	90-130	0.	NA.	.0
0- 60	3303.	NA.	76.4	90-150	0.	NA.	.0
0- 90	4325.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE = 0-180					4325.	NA.	100.0

IES SPACING CRITERIA: END= 1.2 DIAGONAL = 1.2 CROSS= 1.3

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.: 20931.0 DATE 08/16/19  
 PREPARED FOR: H.E. WILLIAMS, INC - CARTHAGE, MO  
 DESCRIPTION: 2-28LED 22"ARRAY 2x4'LT LED TROFFER LUMINAIRE  
 WHITE REFL & BLACK SIDE VENTS w/5.375"FROST CENTER LENS  
 ADVANCE #CI031C068V045CNN2 @ 680mA  
 CATALOG NBR: LT-AR24-L40/835-AF-DIM-UNV  
 LAMP TYPE : 10560202 HLM2228\_5630 REV B  
 \*\*\*\*\*

LUMINANCES-CD/SQ-M			
HORIZONTAL ANGLE			
VERT	0	45	90
ANGLE			
45	1716.	1874.	2044.
55	1558.	1825.	2073.
65	1362.	1805.	2176.
75	1083.	1950.	2528.
85	622.	1716.	1716.
**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	1.09	1.04	1.00	.96	1.06	1.02	.98	.95	.98	.95	.92	.94	.91	.89	.90	.88	.86	.84					
2	.99	.91	.85	.79	.97	.89	.83	.78	.86	.81	.76	.83	.78	.74	.80	.76	.73	.71					
3	.91	.81	.73	.66	.89	.79	.72	.66	.76	.70	.65	.73	.68	.63	.71	.66	.62	.60					
4	.83	.72	.63	.56	.81	.70	.62	.56	.68	.61	.55	.65	.59	.54	.63	.58	.54	.51					
5	.76	.63	.54	.48	.74	.62	.54	.47	.60	.52	.47	.58	.51	.46	.56	.50	.46	.44					
6	.70	.57	.48	.41	.68	.56	.47	.41	.54	.46	.41	.52	.45	.40	.50	.44	.40	.38					
7	.64	.51	.42	.36	.63	.50	.42	.36	.48	.41	.35	.47	.40	.35	.46	.39	.35	.33					
8	.59	.46	.37	.31	.58	.45	.37	.31	.43	.36	.31	.42	.35	.30	.41	.35	.30	.28					
9	.55	.41	.32	.27	.53	.40	.32	.27	.39	.32	.26	.38	.31	.26	.37	.31	.26	.24					
10	.51	.37	.29	.24	.49	.37	.29	.24	.36	.28	.23	.35	.28	.23	.34	.28	.23	.21					

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

