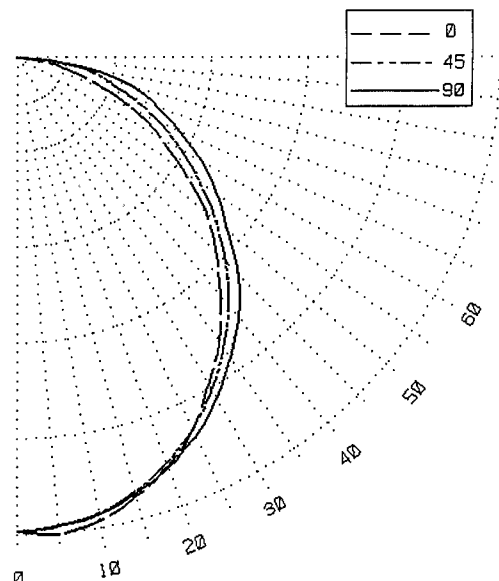


BALLABS CERTIFIED TEST REPORT NO.: 20933.0 DATE 08/16/19  
PREPARED FOR: H.E. WILLIAMS, INC - CARTHAGE, MO  
DESCRIPTION: 2-28LED 22"ARRAY 2X4'RETROFIT KIT w/WHITE REFL & RIBBED  
FROST CENTER LENS - LITHONIA 2GT833212MVOLT TEST HOUSING  
ADVANCE #CI031C068V045CNN2 @ 270mA  
CATALOG NBR: PTR-24-L38/835-RA-DIM\_PH-UNV  
LAMP TYPE : 10560202 HLM2228\_5630 REV B

## CANDLEPOWER DISTRIBUTION

VERT ANG	0	22.5	45	67.5	90	ZONAL LUMENS
0	1570.	1570.	1570.	1570.	1570.	
5	1581.	1564.	1555.	1555.	1555.	148.9
10	1555.	1541.	1532.	1534.	1535.	
15	1503.	1489.	1486.	1491.	1494.	422.8
20	1442.	1432.	1430.	1442.	1444.	
25	1363.	1354.	1360.	1380.	1385.	632.9
30	1254.	1262.	1277.	1301.	1307.	
35	1157.	1162.	1178.	1210.	1218.	744.0
40	1034.	1051.	1077.	1113.	1128.	
45	920.	928.	964.	1007.	1025.	749.5
50	808.	799.	847.	896.	899.	
55	667.	682.	730.	782.	799.	656.4
60	544.	565.	621.	673.	695.	
65	430.	448.	512.	568.	585.	504.9
70	302.	329.	404.	463.	489.	
75	191.	229.	305.	369.	396.	316.6
80	99.	150.	226.	272.	264.	
85	36.	67.	93.	93.	93.	86.4
90	0.	0.	0.	0.	0.	



*[Handwritten signature]*

**NVLAP<sup>®</sup>**  
TESTING

NVLAP LAB CODE 200921-0

## LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	1205.	NA.	28.3	90-120	0.	NA.	.0
0- 40	1949.	NA.	45.7	90-130	0.	NA.	.0
0- 60	3354.	NA.	78.7	90-150	0.	NA.	.0
0- 90	4262.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE = 0-180					4262.	NA.	100.0

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

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.

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LUMINANCES-CD/SQ-M			
HORIZONTAL ANGLE			
VERT	0	45	90
ANGLE			
45	1895.	1003.	1067.
55	1692.	773.	846.
65	1480.	569.	650.
75	1076.	369.	479.
85	609.	127.	127.
**MAXIMUM BRIGHTNESSES NOT MEASURED**			

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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	1.10	1.05	1.01	.97	1.07	1.03	.99	.96	.99	.95	.93	.95	.92	.90	.91	.89	.87	.85
2	1.00	.92	.86	.80	.98	.91	.85	.79	.87	.82	.78	.84	.80	.76	.81	.77	.74	.72
3	.92	.82	.74	.68	.90	.80	.73	.67	.77	.71	.66	.75	.69	.65	.72	.68	.64	.62
4	.84	.73	.64	.58	.82	.72	.64	.58	.69	.62	.57	.67	.61	.56	.65	.60	.55	.53
5	.77	.65	.56	.49	.75	.63	.55	.49	.61	.54	.48	.59	.53	.48	.57	.52	.47	.45
6	.71	.58	.49	.43	.69	.57	.49	.43	.55	.48	.42	.53	.47	.42	.52	.46	.41	.39
7	.65	.52	.43	.37	.64	.51	.43	.37	.50	.42	.37	.48	.42	.37	.47	.41	.36	.34
8	.60	.47	.38	.32	.59	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.32	.30
9	.56	.42	.34	.28	.54	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.27	.26
10	.52	.38	.30	.25	.50	.38	.30	.25	.37	.29	.25	.36	.29	.24	.35	.29	.24	.23

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

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\*\*\*\*\*

ELECTRICAL CHARACTERISTICS 120.03V .2694A 32.1670W

LUMINOUS EFFICACY (LUMENS / WATTS) = 132.5

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

