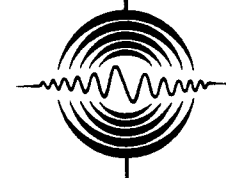


BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC.

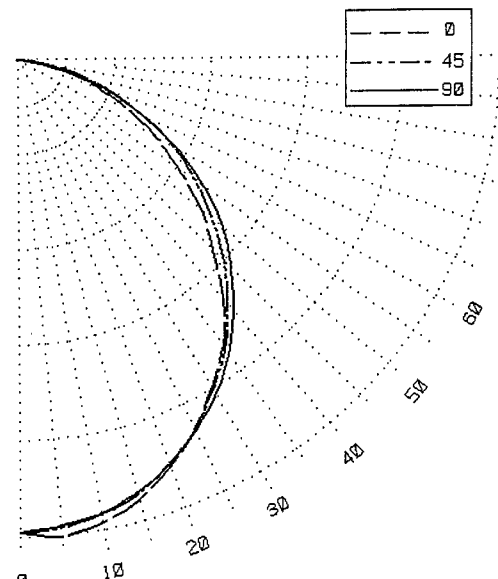
1618 HEADLAND DR.
FENTON, MO 63026
(636) 343-6006
(636) 343-6051 FAX



BALLABS CERTIFIED TEST REPORT NO.: 20935.0 DATE 08/16/19
PREPARED FOR: H.E. WILLIAMS, INC - CARTHAGE, MO
DESCRIPTION: 2-28LED 22"ARRAY 1X4'RETROFIT KIT w/WHITE REFL & RIBBED
FROST CENTER LENS-LITHONIA GT8232A12MVOLT TEST HOUSING
ADVANCE #XI020C056V054BST2 @ 380mA
CATALOG NBR: PTR-14-L27/835-RA-(L23)-DIM-PH-UNV
LAMP TYPE : 10560202 HLM2228_5630 REV B

CANDLEPOWER DISTRIBUTION

VERT ANG	0	22.5	45	67.5	90	ZONAL LUMENS
0	956.	956.	956.	956.	956.	
5	966.	953.	948.	945.	945.	90.7
10	950.	936.	934.	930.	931.	
15	921.	911.	910.	908.	906.	258.1
20	880.	872.	873.	872.	874.	
25	831.	821.	830.	832.	833.	383.6
30	770.	769.	775.	785.	786.	
35	712.	702.	720.	727.	732.	450.9
40	636.	626.	650.	664.	669.	
45	550.	559.	581.	596.	601.	447.6
50	479.	493.	507.	528.	533.	
55	392.	406.	434.	453.	453.	384.5
60	319.	331.	361.	372.	371.	
65	242.	260.	282.	281.	276.	268.3
70	174.	195.	205.	202.	200.	
75	110.	129.	134.	125.	117.	132.4
80	54.	68.	68.	51.	45.	
85	16.	16.	7.	4.	5.	10.3
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.

[Handwritten signature]

NVLAP[®]
TESTING

NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	732.	NA.	30.2	90-120	0.	NA.	.0
0- 40	1183.	NA.	48.8	90-130	0.	NA.	.0
0- 60	2015.	NA.	83.1	90-150	0.	NA.	.0
0- 90	2427.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE = 0-180				2427.	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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 LAMP TYPE : 10560202 HLM2228_5630 REV B

LUMINANCES-CD/SQ-M				
HORIZONTAL ANGLE				
VERT	0		45	90
ANGLE				
45	2609.		2755.	2849.
55	2291.		2537.	2645.
65	1923.		2236.	2187.
75	1425.		1730.	1522.
85	618.		285.	190.
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	1.10	1.06	1.03	.99	1.08	1.04	1.01	.98	1.00	.97	.95	.96	.94	.92	.93	.91	.89	.87		
2	1.02	.94	.88	.83	.99	.93	.87	.82	.89	.84	.80	.86	.82	.79	.83	.80	.77	.75		
3	.94	.84	.77	.71	.91	.83	.76	.70	.80	.74	.69	.77	.72	.68	.75	.70	.67	.65		
4	.86	.75	.67	.61	.84	.74	.66	.60	.71	.65	.60	.69	.63	.59	.67	.62	.58	.56		
5	.79	.67	.58	.52	.77	.65	.58	.52	.63	.56	.51	.61	.55	.50	.60	.54	.50	.48		
6	.73	.60	.51	.45	.71	.59	.51	.45	.57	.50	.45	.55	.49	.44	.54	.48	.44	.42		
7	.67	.54	.45	.39	.65	.53	.45	.39	.51	.44	.39	.50	.44	.39	.49	.43	.38	.37		
8	.62	.48	.40	.34	.60	.48	.40	.34	.46	.39	.34	.45	.38	.34	.44	.38	.34	.32		
9	.57	.43	.35	.30	.55	.43	.35	.30	.42	.34	.29	.40	.34	.29	.39	.33	.29	.27		
10	.53	.39	.32	.26	.51	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.26	.24		

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

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 LAMP TYPE : 10560202 HLM2228_5630 REV B

ELECTRICAL CHARACTERISTICS 119.99V .1565A 18.5200W

LUMINOUS EFFICACY (LUMENS / WATTS) = 131.0

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

