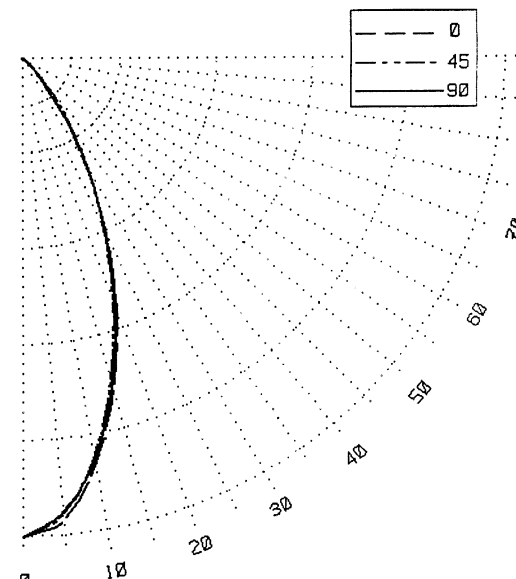


BALLABS CERTIFIED TEST REPORT NO.: 20330.0 DATE 04/13/18  
PREPARED FOR: H.E. WILLIAMS, INC - CARTAGE, MO  
DESCRIPTION: GEN7 V18 LED 4"TALL HEATSINK 4"SQ CAST HOUSING DOWNLIGHT  
ACRYLIC MED TIR OPTIC & 4"SEMI-SPEC TRIM w/FROST FILM  
ADVANCE # XI036C100V054DSM5 @ 915mA  
CATALOG NBR: 4DS-L30/835-DIM-UNV-O-M-OF-CS  
LAMP TYPE : BXRE-35E4000

CANDLEPOWER DISTRIBUTION						
VERT	HORIZONTAL ANGLE					ZONAL
ANG	0	22.5	45	67.5	90	LUMENS
0	5084.	5084.	5084.	5084.	5084.	
5	4933.	4881.	4874.	4856.	4849.	465.4
10	4401.	4353.	4318.	4300.	4354.	
15	3664.	3574.	3561.	3560.	3607.	1015.6
20	2875.	2811.	2783.	2785.	2862.	
25	2076.	2049.	2032.	2010.	2068.	944.6
30	1362.	1335.	1389.	1362.	1374.	
35	772.	773.	879.	823.	782.	510.8
40	338.	398.	499.	434.	359.	
45	138.	158.	227.	180.	133.	135.6
50	41.	50.	83.	64.	44.	
55	13.	14.	21.	15.	11.	13.8
60	2.	2.	6.	3.	1.	
65	0.	0.	0.	0.	0.	.0
70	0.	0.	0.	0.	0.	
75	0.	0.	0.	0.	0.	.0
80	0.	0.	0.	0.	0.	
85	0.	0.	0.	0.	0.	.0
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	2426.	NA.	78.6	90-120	0.	NA.	.0
0- 40	2936.	NA.	95.2	90-130	0.	NA.	.0
0- 60	3086.	NA.	100.0	90-150	0.	NA.	.0
0- 90	3086.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE = 0-180					3086.	NA.	100.0

IES SPACING CRITERIA: END= .7 DIAGONAL = .7 CROSS= .7

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	18696.	30914.	18107.
55	2178.	3448.	1815.
65	0.	0.	0.
75	0.	0.	0.
85	0.	0.	0.

\*\*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	1.14	1.12	1.10	1.08	1.12	1.10	1.08	1.06	1.06	1.04	1.03	1.02	1.01	1.00	.99	.98	.97	.95	
2	1.09	1.05	1.02	.99	1.07	1.03	1.00	.97	1.00	.98	.95	.97	.95	.93	.95	.93	.91	.90	
3	1.05	.99	.95	.91	1.03	.98	.94	.91	.95	.92	.89	.93	.90	.88	.91	.89	.87	.85	
4	1.00	.94	.89	.85	.98	.92	.88	.84	.90	.87	.83	.88	.85	.83	.87	.84	.82	.80	
5	.96	.88	.83	.79	.94	.87	.83	.79	.86	.81	.78	.84	.80	.78	.83	.79	.77	.76	
6	.92	.84	.79	.75	.90	.83	.78	.75	.82	.77	.74	.80	.77	.74	.79	.76	.73	.72	
7	.88	.80	.74	.71	.87	.79	.74	.70	.78	.73	.70	.77	.73	.70	.76	.72	.69	.68	
8	.84	.75	.70	.66	.83	.75	.70	.66	.74	.69	.66	.73	.68	.65	.72	.68	.65	.64	
9	.80	.71	.65	.62	.78	.70	.65	.62	.69	.65	.61	.68	.64	.61	.68	.64	.61	.60	
10	.76	.67	.61	.58	.75	.66	.61	.58	.65	.61	.57	.65	.60	.57	.64	.60	.57	.56	

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

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ELECTRICAL CHARACTERISTICS 120.03V .2971A 35.4640W

LUMINOUS EFFICACY (LUMENS / WATTS) = 87.0

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

