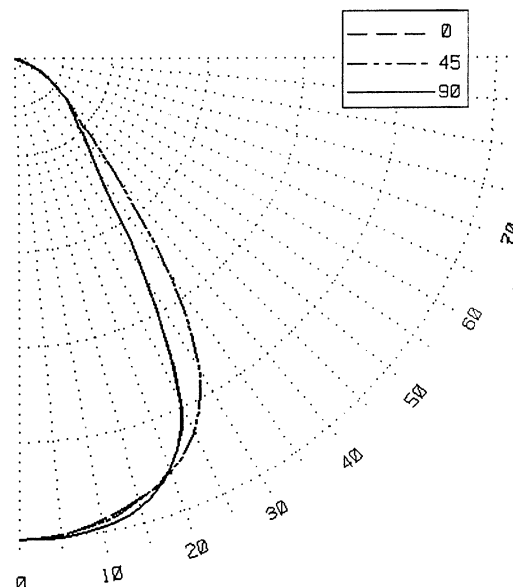


BALLABS CERTIFIED TEST REPORT NO.: 20321.0 DATE 04/16/18  
PREPARED FOR: H.E. WILLIAMS, INC - CARTHAGE, MO  
DESCRIPTION: GEN7 V13 LED 4"SHORT HEATSINK 4"SQ CAST HOUSING DOWNLIGHT  
WHITE MIXING CHAMBER & 4"CAST WHITE REGRESS w/SOLITE LENS  
ADVANCE #XI025C070V054DSM1 @ 625mA  
CATALOG NBR: 4DS-L20/835-DIM-UNV-R-W-OF-WH  
LAMP TYPE : BXRE-35E2000

## CANDLEPOWER DISTRIBUTION

VERT ANG	0	22.5	45	67.5	90	ZONAL LUMENS
0	1505.	1505.	1505.	1505.	1505.	
5	1496.	1496.	1495.	1497.	1501.	142.9
10	1468.	1466.	1473.	1482.	1488.	
15	1427.	1426.	1433.	1445.	1452.	407.0
20	1373.	1371.	1380.	1380.	1372.	
25	1203.	1239.	1293.	1250.	1199.	576.6
30	789.	898.	1129.	978.	789.	
35	449.	504.	829.	570.	450.	369.4
40	323.	348.	474.	370.	332.	
45	269.	277.	300.	287.	268.	219.3
50	220.	224.	223.	220.	213.	
55	168.	172.	162.	165.	165.	149.4
60	122.	122.	115.	118.	120.	
65	80.	81.	75.	78.	78.	77.8
70	40.	44.	44.	43.	41.	
75	22.	22.	24.	22.	23.	23.9
80	14.	14.	10.	12.	12.	
85	4.	3.	3.	3.	4.	3.7
90	0.	0.	0.	0.	0.	



**NVLAP**<sup>®</sup>  
TESTING

NVLAP LAB CODE 200921-0

## LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	1127.	NA.	57.2	90-120	0.	NA.	.0
0- 40	1496.	NA.	75.9	90-130	0.	NA.	.0
0- 60	1865.	NA.	94.6	90-150	0.	NA.	.0
0- 90	1970.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE =				0-180	1970.	NA.	100.0

IES SPACING CRITERIA: END= 1.0 DIAGONAL = 1.1 CROSS= 1.0

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	36554.	40821.	36412.
55	28231.	27179.	27705.
65	18086.	17134.	17848.
75	8160.	8938.	8549.
85	4616.	3462.	4616.

\*\*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	1.13	1.10	1.07	1.04	1.10	1.08	1.05	1.03	1.03	1.01	1.00	1.00	.98	.97	.96	.95	.94	.92	
2	1.06	1.01	.96	.92	1.04	.99	.95	.91	.96	.92	.89	.93	.90	.87	.90	.88	.86	.84	
3	1.00	.93	.87	.83	.98	.92	.86	.82	.89	.84	.81	.86	.83	.80	.84	.81	.78	.77	
4	.94	.86	.79	.75	.92	.84	.79	.74	.82	.77	.73	.80	.76	.72	.78	.74	.71	.70	
5	.88	.79	.72	.67	.86	.78	.72	.67	.76	.70	.66	.74	.69	.66	.72	.68	.65	.63	
6	.83	.73	.66	.62	.82	.72	.66	.61	.71	.65	.61	.69	.64	.60	.68	.63	.60	.58	
7	.78	.68	.61	.56	.77	.67	.61	.56	.66	.60	.56	.64	.59	.55	.63	.59	.55	.54	
8	.73	.63	.56	.51	.72	.62	.56	.51	.61	.55	.51	.60	.54	.51	.59	.54	.50	.49	
9	.69	.58	.51	.46	.67	.57	.51	.46	.56	.50	.46	.55	.50	.46	.54	.49	.46	.44	
10	.64	.53	.47	.42	.63	.53	.46	.42	.52	.46	.42	.51	.46	.42	.50	.45	.42	.40	

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

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ELECTRICAL CHARACTERISTICS 119.97V .2099A 24.9790W

LUMINOUS EFFICACY (LUMENS / WATTS) = 78.8

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

