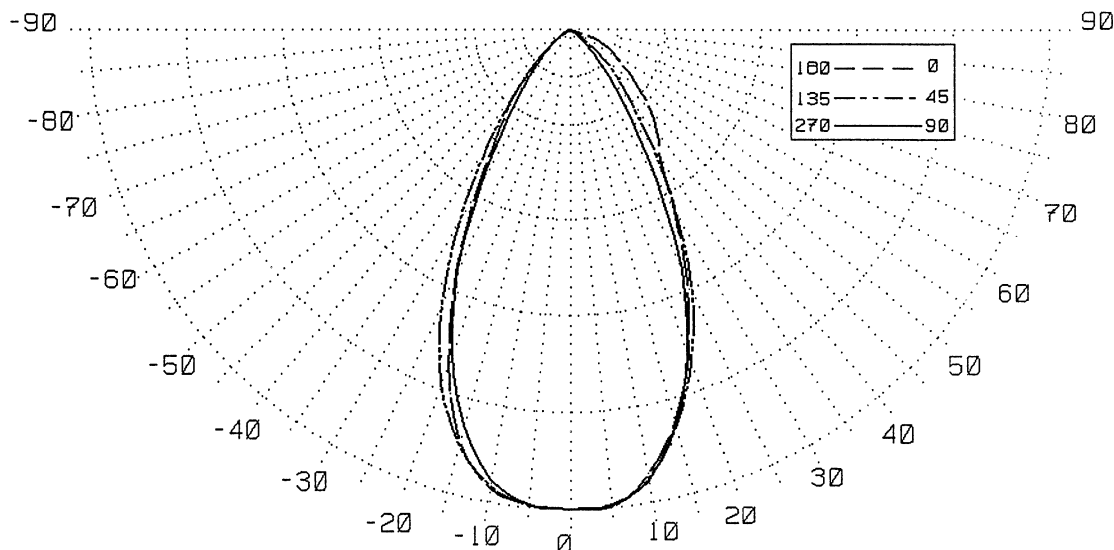


BALLABS CERTIFIED TEST REPORT NO.: 20314.0 DATE 04/16/18  
PREPARED FOR: H.E. WILLIAMS, INC - CARTHAGE, MO  
DESCRIPTION: GEN7 V13 LED 4"SHORT HEATSINK 4"SQ CAST HOUSING DOWNLIGHT  
WHITE MIXING CHAMBER & SEMISPEC WALLWASH TRIM w/FROST FILM  
ADVANCE #XI025C070V054DSM1 @ 625mA  
CATALOG NBR: 4DS-L20/835-DIM-UNV-O-WW-OF-CS  
LAMP TYPE : BXRE-352000

0 DEGREE PLANE CONTAINS MAXIMUM CANDLEPOWER



*[Handwritten signature]*

**NVLAP**<sup>®</sup>  
TESTING

NVLAP LAB CODE 200921-0

LUMEN SUMMARY							
ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	1145.	NA.	64.7	90-120	0.	NA.	.0
0- 40	1478.	NA.	83.5	90-130	0.	NA.	.0
0- 60	1728.	NA.	97.6	90-150	0.	NA.	.0
0- 90	1770.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE =				0-180	1770.	NA.	100.0

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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CANDLEPOWER DISTRIBUTION  
 0 DEGREE PLANE CONTAINS MAXIMUM CANDLEPOWER

VERT	HORIZONTAL									LUMENS		TOTAL
	.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	FRONT	BACK	
0	1863.	1863.	1863.	1863.	1863.	1863.	1863.	1863.	1863.			
5	1861.	1847.	1852.	1852.	1853.	1851.	1855.	1855.	1854.	88.3	88.4	176.7
10	1759.	1755.	1774.	1776.	1774.	1778.	1801.	1810.	1807.			
15	1587.	1588.	1603.	1615.	1596.	1634.	1674.	1682.	1663.	226.9	235.0	462.0
20	1352.	1383.	1384.	1391.	1344.	1399.	1472.	1443.	1383.			
25	1084.	1120.	1134.	1061.	1038.	1077.	1183.	1123.	1048.	252.3	254.6	506.8
30	821.	829.	841.	713.	678.	774.	855.	786.	733.			
35	620.	613.	580.	460.	409.	509.	563.	533.	480.	168.5	163.6	332.1
40	535.	498.	379.	282.	241.	292.	338.	346.	333.			
45	454.	417.	267.	164.	134.	153.	193.	183.	179.	112.5	65.2	177.7
50	356.	320.	174.	84.	75.	74.	92.	84.	83.			
55	274.	239.	84.	32.	19.	26.	31.	27.	21.	60.9	11.8	72.7
60	207.	180.	40.	4.	0.	1.	8.	3.	3.			
65	166.	132.	18.	0.	0.	0.	0.	0.	0.	32.6	.0	32.6
70	118.	82.	5.	0.	0.	0.	0.	0.	0.			
75	56.	37.	0.	0.	0.	0.	0.	0.	0.	9.9	.0	9.9
80	1.	0.	0.	0.	0.	0.	0.	0.	0.			
85	0.	0.	0.	0.	0.	0.	0.	0.	0.	.0	.0	.0
90	0.	0.	0.	0.	0.	0.	0.	0.	0.			

USE .333 FT. AS LENGTH AND .333 FT. AS WIDTH

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 CATALOG NBR: 4DS-L20/835-DIM-UNV-O-WW-OF-CS  
 LAMP TYPE : BXRE-352000

# 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	1.11	1.08	1.06	1.11	1.09	1.06	1.04	1.05	1.03	1.01	1.01	.99	.98	.97	.96	.95	.94
2	1.08	1.03	.99	.95	1.06	1.01	.97	.94	.98	.95	.92	.95	.92	.90	.92	.90	.88	.87
3	1.02	.96	.91	.87	1.00	.94	.90	.86	.92	.88	.85	.89	.86	.83	.87	.84	.82	.80
4	.97	.89	.83	.79	.95	.88	.83	.78	.86	.81	.78	.84	.80	.77	.82	.78	.76	.74
5	.91	.83	.77	.72	.90	.82	.76	.72	.80	.75	.71	.78	.74	.71	.77	.73	.70	.68
6	.87	.78	.71	.67	.85	.77	.71	.67	.75	.70	.66	.74	.69	.66	.72	.69	.65	.64
7	.82	.73	.66	.62	.81	.72	.66	.62	.71	.65	.62	.69	.65	.61	.68	.64	.61	.59
8	.77	.68	.61	.57	.76	.67	.61	.57	.66	.60	.57	.65	.60	.56	.64	.59	.56	.55
9	.73	.63	.56	.52	.72	.62	.56	.52	.61	.56	.52	.60	.55	.52	.59	.55	.52	.50
10	.69	.58	.52	.48	.68	.58	.52	.48	.57	.52	.48	.56	.51	.48	.55	.51	.48	.46

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

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ELECTRICAL CHARACTERISTICS 119.95V .2099A 24.9740W

LUMINOUS EFFICACY (LUMENS / WATTS) = 70.9

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

