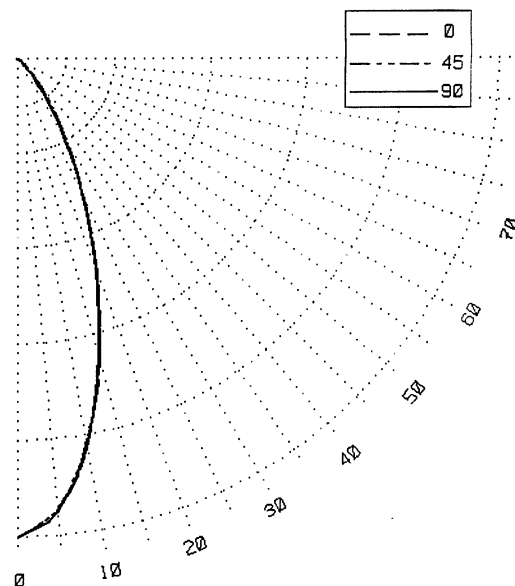


BALLABS CERTIFIED TEST REPORT NO.: 20313.0 DATE 04/20/18
PREPARED FOR: H.E. WILLIAMS, INC - CARTHAGE, MO
DESCRIPTION: GEN7 V13 LED 4"SHORT HEATSINK 4"SQ CAST HOUSING DOWNLIGHT
ACRYLIC NARROW TIR OPTIC & 4"SEMI-SPEC TRIM w/FROST FILM
ADVANCE # XI025C070V054DSM1 @ 625mA
CATALOG NBR: 4DS-L20/835-DIM-UNV-O-OFF-CS
LAMP TYPE : BXRE-35E2000

CANDLEPOWER DISTRIBUTION

VERT ANG	0	22.5	45	67.5	90	ZONAL LUMENS
0	4063.	4063.	4063.	4063.	4063.	
5	3870.	3868.	3847.	3850.	3868.	368.3
10	3367.	3354.	3336.	3349.	3352.	
15	2668.	2645.	2650.	2628.	2639.	749.5
20	1958.	1945.	1953.	1952.	1917.	
25	1331.	1332.	1301.	1313.	1309.	609.4
30	849.	846.	837.	825.	810.	
35	479.	506.	523.	482.	457.	310.9
40	230.	268.	295.	240.	211.	
45	97.	115.	150.	99.	84.	88.0
50	26.	38.	57.	32.	23.	
55	6.	8.	16.	7.	5.	8.4
60	1.	1.	3.	0.	0.	
65	0.	0.	0.	0.	0.	.0
70	0.	0.	0.	0.	0.	
75	0.	1.	0.	0.	0.	.3
80	0.	0.	0.	0.	0.	
85	0.	0.	0.	0.	0.	.0
90	0.	0.	0.	0.	0.	



[Handwritten signature]

NVLAP[®]
TESTING

NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	1727.	NA.	80.9	90-120	0.	NA.	.0
0- 40	2038.	NA.	95.5	90-130	0.	NA.	.0
0- 60	2135.	NA.	100.0	90-150	0.	NA.	.0
0- 90	2135.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE = 0-180					2135.	NA.	100.0

IES SPACING CRITERIA: END= .6 DIAGONAL = .6 CROSS= .6

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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VERT ANGLE	LUMINANCES-CD/SQ-M HORIZONTAL ANGLE		
	0	45	90
45	13143.	20413.	11465.
55	1034.	2758.	862.
65	0.	0.	0.
75	0.	0.	0.
85	0.	0.	0.

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	1.15	1.12	1.10	1.08	1.12	1.10	1.08	1.07	1.06	1.05	1.03	1.02	1.01	1.00	.99	.98	.97	.96	
2	1.10	1.05	1.02	.99	1.08	1.04	1.01	.98	1.01	.98	.96	.98	.96	.94	.95	.93	.92	.90	
3	1.05	1.00	.96	.92	1.03	.98	.95	.91	.96	.93	.90	.94	.91	.89	.91	.89	.87	.86	
4	1.01	.94	.90	.86	.99	.93	.89	.85	.91	.87	.84	.89	.86	.83	.87	.85	.83	.81	
5	.96	.89	.84	.80	.95	.88	.84	.80	.87	.83	.79	.85	.81	.79	.84	.80	.78	.77	
6	.93	.85	.80	.76	.91	.84	.80	.76	.83	.79	.76	.82	.78	.75	.80	.77	.75	.73	
7	.89	.81	.76	.72	.88	.80	.75	.72	.79	.75	.72	.78	.74	.71	.77	.73	.71	.70	
8	.85	.77	.72	.68	.84	.76	.71	.68	.75	.71	.68	.74	.70	.67	.73	.70	.67	.66	
9	.81	.72	.67	.64	.80	.72	.67	.64	.71	.67	.63	.70	.66	.63	.69	.66	.63	.62	
10	.77	.68	.63	.60	.76	.68	.63	.60	.67	.63	.60	.66	.62	.59	.66	.62	.59	.58	

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

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LAMP TYPE : BXRE-35E2000

ELECTRICAL CHARACTERISTICS 119.97V .2099A 24.9810W

LUMINOUS EFFICACY (LUMENS / WATTS) = 85.5

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

