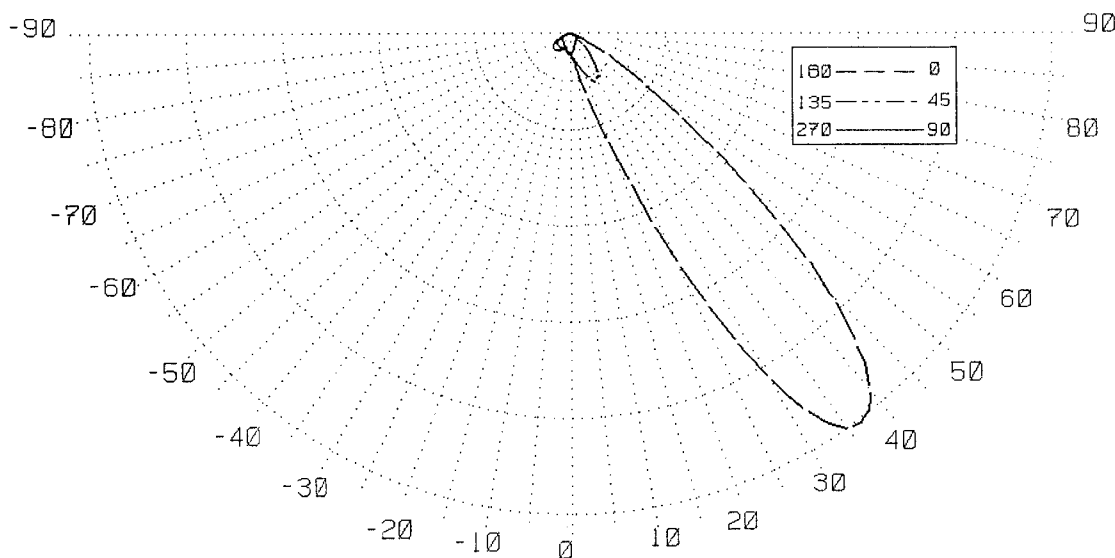


BALLABS CERTIFIED TEST REPORT NO.: 20459.0 DATE 05/29/18  
PREPARED FOR: H.E. WILLIAMS, INC - CARTHAGE, MO  
DESCRIPTION: GEN7 V13 LED 4"SHORT HEATSINK 4"RND ADJ DOWNLIGHT @ 45 TILT  
ACRYLIC MED TIR OPTIC & 4"WHITE ASYM FLUSH REFL w/SOLITE  
LENS ADVANCE # XI025C070V054DSM1 @ 610mA  
CATALOG NBR: 4AR-L20/835-DIM-UNV-L-M-OF-WH (45 DEGREE TILT)  
LAMP TYPE : BXRE-35E2000

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	287.	NA.	19.9	90-120	0.	NA.	.0
0- 40	739.	NA.	51.2	90-130	0.	NA.	.0
0- 60	1344.	NA.	93.1	90-150	0.	NA.	.0
0- 90	1443.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE =				0-180	1443.	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

HORIZONTAL										LUMENS		
VERT	.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	FRONT	BACK	TOTAL
0	179.	179.	179.	179.	179.	179.	179.	179.	179.			
5	215.	210.	199.	188.	175.	164.	157.	154.	156.	9.5	7.6	17.1
10	290.	268.	229.	192.	164.	147.	139.	138.	139.			
15	528.	430.	285.	190.	142.	129.	128.	132.	136.	44.0	18.5	62.5
20	1033.	802.	356.	175.	122.	116.	124.	133.	140.			
25	2088.	1384.	428.	155.	108.	112.	128.	142.	151.	178.0	29.4	207.5
30	3364.	2040.	462.	132.	98.	112.	134.	154.	163.			
35	4097.	2491.	430.	112.	92.	113.	142.	164.	176.	408.8	43.5	452.3
40	3968.	2398.	338.	90.	88.	115.	147.	171.	185.			
45	3135.	1795.	223.	74.	83.	112.	147.	171.	186.	361.9	54.8	416.7
50	1917.	1058.	143.	61.	73.	103.	133.	159.	172.			
55	929.	561.	91.	51.	64.	88.	115.	139.	151.	137.2	50.9	188.1
60	440.	266.	59.	41.	51.	69.	93.	112.	120.			
65	179.	125.	41.	31.	39.	52.	70.	84.	95.	38.6	33.8	72.5
70	76.	54.	26.	22.	27.	38.	50.	60.	67.			
75	36.	26.	15.	13.	16.	22.	30.	39.	42.	10.5	16.1	26.6
80	16.	11.	7.	6.	7.	10.	13.	17.	21.			
85	0.	0.	0.	0.	0.	0.	0.	0.	2.	.0	.0	.0
90	0.	0.	0.	0.	0.	0.	0.	0.	0.			

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

BALLABS CERTIFIED TEST REPORT NO.: 20459.0 DATE 05/29/18  
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 LAMP TYPE : BXRE-35E2000

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	1.11	1.07	1.04	1.01	1.09	1.05	1.02	.99	1.01	.99	.96	.97	.95	.93	.94	.92	.91	.89		
2	1.03	.97	.91	.86	1.01	.95	.90	.85	.91	.87	.83	.88	.85	.82	.85	.83	.80	.78		
3	.95	.86	.79	.74	.93	.85	.78	.73	.82	.77	.72	.79	.75	.71	.77	.73	.70	.68		
4	.88	.77	.69	.63	.85	.76	.69	.63	.73	.67	.62	.71	.66	.61	.69	.65	.61	.59		
5	.80	.68	.60	.54	.78	.67	.60	.54	.65	.58	.53	.63	.57	.53	.62	.56	.52	.50		
6	.73	.61	.52	.46	.72	.60	.52	.46	.58	.51	.46	.57	.50	.45	.55	.49	.45	.43		
7	.67	.54	.45	.39	.65	.53	.45	.39	.51	.44	.39	.50	.43	.39	.49	.43	.38	.36		
8	.61	.47	.39	.33	.59	.46	.38	.33	.45	.38	.32	.44	.37	.32	.43	.37	.32	.30		
9	.55	.41	.33	.27	.53	.40	.32	.27	.39	.32	.27	.38	.31	.27	.37	.31	.26	.25		
10	.50	.36	.28	.23	.49	.36	.28	.23	.35	.28	.23	.34	.27	.22	.33	.27	.22	.21		

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

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ELECTRICAL CHARACTERISTICS 119.97V .2028A 24.1070W

LUMINOUS EFFICACY (LUMENS / WATTS) = 59.8

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

