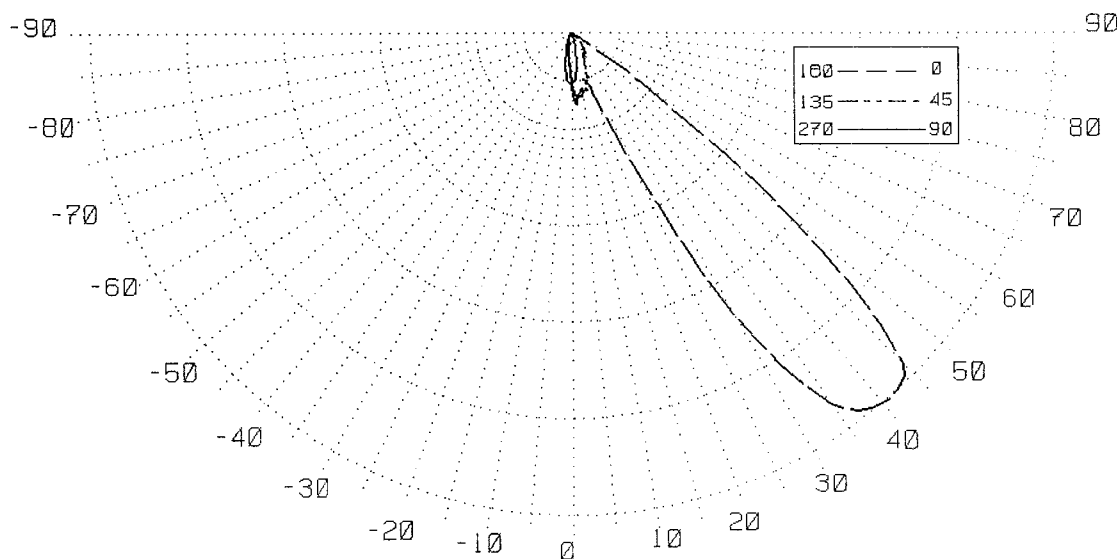


BALLABS CERTIFIED TEST REPORT NO.: 20450.0 DATE 05/29/18
PREPARED FOR: H.E. WILLIAMS, INC - CARTHAGE, MO
DESCRIPTION: GEN7 V13 LED 4"SHORT HEATSINK 4"RND ADJ DOWNLIGHT @ 45 TILT
ACRYLIC MED TIR OPTIC & 4"OPEN ASYM SEMI-SPEC TRIM
ADVANCE #XI025C070V054DSM1 @ 610mA
CATALOG NBR: 4AR-L20/835-DIM-UNV-O-M-OF-CS (45 DEGREE TILT)
LAMP TYPE : BXRE-35E2000

0 DEGREE PLANE CONTAINS MAXIMUM CANDLEPOWER



[Handwritten signature]



NVLAP LAB CODE 200921-0

LUMEN SUMMARY							
ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	359.	NA.	21.4	90-120	0.	NA.	.0
0- 40	910.	NA.	54.2	90-130	0.	NA.	.0
0- 60	1680.	NA.	100.0	90-150	0.	NA.	.0
0- 90	1680.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE =				0-180	1680.	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	738.	738.	738.	738.	738.	738.	738.	738.	738.			
5	1044.	998.	934.	834.	684.	521.	411.	369.	335.	43.7	21.2	65.0
10	836.	878.	912.	745.	471.	280.	202.	173.	159.			
15	683.	833.	835.	505.	230.	141.	109.	92.	90.	94.8	16.5	111.3
20	980.	1009.	663.	250.	113.	72.	58.	53.	49.			
25	2116.	1381.	467.	134.	58.	38.	32.	30.	30.	175.3	7.9	183.2
30	4658.	2189.	363.	79.	31.	20.	18.	18.	18.			
35	6509.	3444.	330.	42.	14.	10.	10.	10.	10.	547.6	3.2	550.8
40	6951.	4244.	283.	21.	5.	5.	5.	6.	6.			
45	6751.	3641.	190.	8.	2.	2.	3.	3.	4.	706.6	1.0	707.6
50	4161.	1768.	35.	0.	0.	0.	0.	1.	2.			
55	1241.	277.	5.	0.	0.	0.	0.	0.	2.	62.1	.0	62.1
60	175.	24.	0.	0.	0.	0.	0.	0.	0.			
65	7.	0.	0.	0.	0.	0.	0.	0.	0.	.0	.0	.0
70	0.	0.	0.	0.	0.	0.	0.	0.	0.			
75	0.	0.	0.	0.	0.	0.	0.	0.	0.	.0	.0	.0
80	0.	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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 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	1.12	1.09	1.06	1.03	1.10	1.07	1.04	1.01	1.02	1.00	.98	.99	.97	.95	.95	.94	.92	.91				
2	1.05	.99	.94	.90	1.03	.98	.93	.89	.94	.91	.87	.91	.88	.85	.88	.86	.84	.82				
3	.98	.90	.84	.79	.96	.89	.83	.78	.86	.81	.77	.83	.79	.76	.81	.77	.75	.73				
4	.91	.81	.75	.69	.89	.80	.74	.69	.78	.72	.68	.76	.71	.67	.74	.70	.66	.64				
5	.84	.73	.66	.60	.82	.72	.65	.60	.70	.64	.59	.68	.63	.59	.67	.62	.58	.56				
6	.77	.66	.58	.53	.76	.65	.58	.53	.63	.57	.52	.62	.56	.52	.60	.55	.51	.50				
7	.71	.58	.50	.45	.69	.58	.50	.45	.56	.49	.45	.55	.49	.44	.53	.48	.44	.42				
8	.64	.51	.43	.38	.62	.50	.43	.38	.49	.42	.37	.48	.42	.37	.47	.41	.37	.35				
9	.58	.45	.37	.31	.56	.44	.36	.31	.43	.36	.31	.42	.35	.31	.41	.35	.31	.29				
10	.53	.40	.32	.26	.51	.39	.31	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24				

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

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LAMP TYPE : BXRE-35E2000

ELECTRICAL CHARACTERISTICS 119.98V .2031A 24.1440W

LUMINOUS EFFICACY (LUMENS / WATTS) = 69.6

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

