BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC.

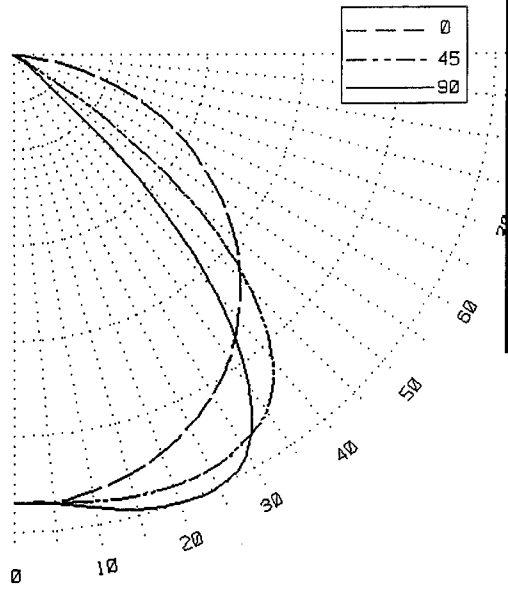
1618 HEADLAND DR.
FENTON, MO 63026
(636) 343-6006
(636) 343-6051 FAX

SIGNIFICANCE OF THE TEST IS LIMITED TO THE DEGREE THAT THE TESTED SAMPLE IS REPRESENTATIVE. OTHER FACTORS AFFECT FIELD PERFORMANCE.

BALLABS CERTIFIED TEST REPORT NO.: 19518.0 DATE 09/23/16
PREPARED FOR: H.E. WILLIAMS, INC - CARTHAGE, MO
DESCRIPTION: 4-192 LED 22"ARRAYS EACH ON ALUM HEATSINK 24x19"HIGHBAY LUMINAIRE w/SPEC MEDIUM DOWNLIGHT REFL & CENTER DRIVER HOUSING 4 ADVANCE #XI095C275V054DNF1 - 18K RESISTORS
CATALOG NBR: GP4-L460/850-M-6CPI/5-15P WHITE-DRV-120
LAMP TYPE : D5638D192C2560A8N50JRB

CANDLEPOWER DISTRIBUTION

VERT ANG	HORIZONTAL ANGLE 0	22.5	45	67.5	90	ZONAL LUMENS
0	18379.	18379.	18379.	18379.	18379.	
5	18368.	18408.	18443.	18448.	18497.	1759.5
10	18179.	18345.	18602.	18772.	18847.	
15	17875.	18204.	18750.	19161.	19293.	5293.7
20	17414.	17973.	18843.	19440.	19572.	
25	16843.	17610.	18801.	19425.	19596.	8569.4
30	16141.	17173.	18479.	18993.	18956.	
35	15263.	16532.	17918.	17151.	16637.	10608.8
40	14174.	15724.	16374.	13572.	12737.	
45	13001.	14719.	13632.	8593.	7091.	9097.9
50	11754.	13580.	9575.	3058.	1332.	
55	10269.	11868.	4199.	673.	591.	4972.7
60	8659.	9298.	734.	532.	424.	
65	7110.	5460.	461.	173.	53.	2401.1
70	5419.	1092.	130.	29.	22.	
75	3524.	345.	39.	22.	16.	575.7
80	1936.	97.	28.	13.	10.	
85	530.	49.	9.	3.	5.	89.6
90	0.	0.	0.	0.	0.	



NVLAP TESTING

NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	15623.	NA.	36.0	90-120	0.	NA.	.0
0- 40	26231.	NA.	60.5	90-130	0.	NA.	.0
0- 60	40302.	NA.	92.9	90-150	0.	NA.	.0
0- 90	43369.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE =				0-180	43369.	NA.	100.0

IES SPACING CRITERIA: END= 1.3 DIAGONAL = 1.5 CROSS= 1.4

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 ANGLE	0	45	90
45	66154.	69363.	36082.
55	64418.	26342.	3708.
65	60529.	3927.	454.
75	48983.	548.	226.
85	21867.	383.	191.

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 RCR	.70	.50	.30	.10	.70	.50	.30	.10	.50	.30	.10	.50	.30	.10	.50	.30	.10	.00
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	1.08	1.05	1.02	1.09	1.06	1.03	1.01	1.02	1.00	.97	.98	.96	.95	.95	.93	.92	.90
2	1.04	.98	.93	.89	1.02	.96	.92	.88	.93	.89	.86	.90	.87	.84	.87	.84	.82	.80
3	.97	.89	.83	.77	.95	.87	.82	.77	.85	.80	.76	.82	.78	.74	.80	.76	.73	.71
4	.90	.80	.73	.68	.88	.79	.73	.67	.77	.71	.67	.75	.70	.66	.73	.68	.65	.63
5	.83	.72	.65	.59	.81	.71	.64	.59	.69	.63	.58	.68	.62	.58	.66	.61	.57	.55
6	.77	.66	.58	.52	.76	.65	.58	.52	.63	.57	.52	.62	.56	.51	.60	.55	.51	.49
7	.71	.59	.52	.46	.70	.59	.51	.46	.57	.51	.46	.56	.50	.45	.55	.49	.45	.43
8	.66	.53	.46	.40	.64	.53	.45	.40	.52	.45	.40	.50	.44	.40	.49	.44	.40	.38
9	.61	.48	.40	.35	.59	.47	.40	.35	.46	.40	.35	.45	.39	.35	.44	.39	.35	.33
10	.56	.44	.36	.31	.55	.43	.36	.31	.42	.35	.31	.41	.35	.31	.40	.35	.31	.29

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

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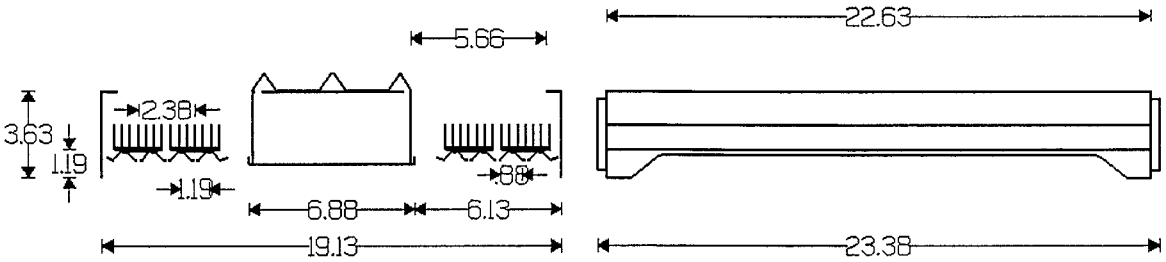
ELECTRICAL CHARACTERISTICS 120.0V 3.1610A 375.280W

LUMINOUS EFFICACY (LUMENS / WATTS) = 115.6

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