BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC.

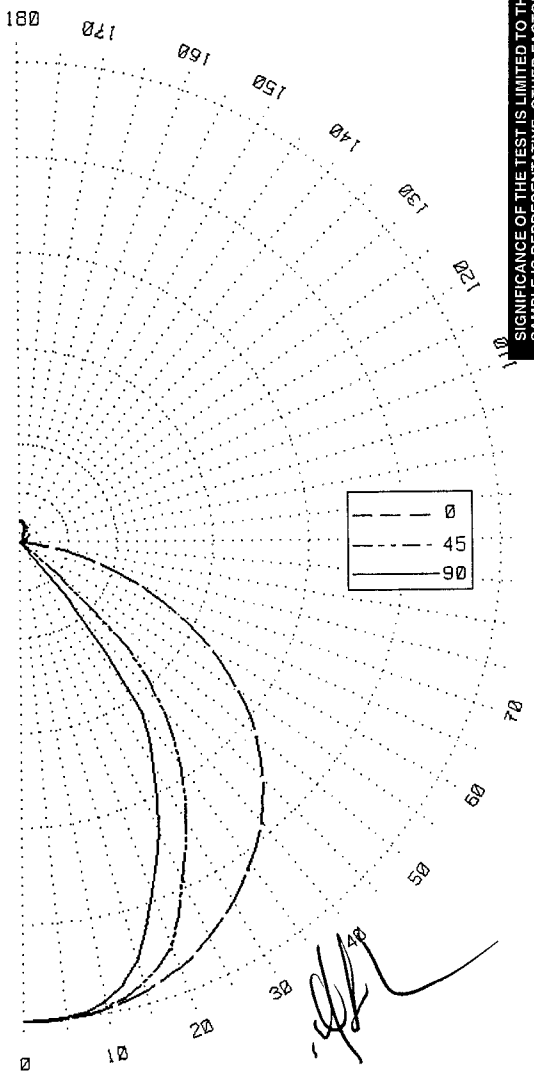
1618 HEADLAND DR.
FENTON, MO 63026
(636) 343-6006
(636) 343-6051 FAX

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.: 19557.0 DATE 10/04/16
PREPARED FOR: H.E. WILLIAMS, INC - CARTHAGE, MO
DESCRIPTION: 4-192 LED 22"ARRAYS EACH ON ALUM HEATSINK 24x19"HIGHBAY LUMINIARE w/SPEC NARROW DL REFL & WHITE UPLIGHT REFLS, CTR DRIVER HOUSING 4 ADVANCE #XI095C275V054DNF1 w/18K RESISTOR
CATALOG NBR: GP4-L460/850-N-UP-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	25943.	25943.	25943.	25943.	25943.	
5	25917.	25941.	25907.	25836.	25839.	2471.4
10	25674.	25746.	25617.	25436.	25249.	
15	25196.	25292.	24739.	23973.	23535.	6971.1
20	24560.	24453.	23354.	20744.	20287.	
25	23705.	23336.	20360.	17947.	17373.	9509.8
30	22669.	21937.	17710.	14830.	14164.	
35	21425.	19992.	14911.	12025.	11181.	9930.6
40	20053.	17244.	11826.	5976.	4105.	
45	18401.	14402.	8062.	627.	371.	6287.9
50	16493.	11681.	2105.	237.	222.	
55	14343.	8802.	259.	180.	159.	3698.9
60	11896.	5694.	173.	95.	86.	
65	9449.	1592.	97.	87.	87.	1623.6
70	6836.	192.	75.	90.	95.	
75	4305.	104.	75.	101.	104.	657.1
80	2056.	71.	75.	116.	123.	
85	501.	45.	44.	56.	37.	113.0
90	20.	0.	0.	1.	0.	
95	24.	12.	11.	12.	8.	14.1
100	84.	44.	53.	42.	41.	
105	182.	69.	91.	95.	90.	103.3
110	292.	110.	111.	133.	137.	
115	405.	149.	129.	146.	151.	174.3
120	513.	190.	161.	162.	164.	
125	606.	257.	196.	188.	183.	232.1
130	681.	330.	222.	222.	216.	
135	745.	443.	258.	253.	253.	281.4
140	798.	572.	320.	280.	276.	
145	844.	681.	421.	334.	311.	316.2
150	887.	783.	522.	440.	376.	
155	922.	862.	661.	545.	484.	320.6
160	953.	941.	808.	725.	627.	
165	1014.	995.	947.	857.	864.	264.9
170	1088.	1023.	1030.	978.	986.	
175	1149.	1094.	1072.	1070.	1085.	103.9
180	1142.	1142.	1142.	1142.	1142.	



NVLAP TESTING

NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	18952.	NA.	44.0	90-120	292.	NA.	.7
0- 40	28883.	NA.	67.1	90-130	524.	NA.	1.2
0- 60	38870.	NA.	90.2	90-150	1122.	NA.	2.6
0- 90	41263.	NA.	95.8	90-180	1811.	NA.	4.2
TOTAL LUMINAIRE =				0-180	43074.	NA.	100.0

IES SPACING CRITERIA: END= 1.3 DIAGONAL = 1.1 CROSS= .9

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	93627.	41023.	1890.
55	89971.	1624.	996.
65	80444.	824.	738.
75	59849.	1048.	1440.
85	20677.	1812.	1533.

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	1.18	1.18	1.18	1.18	1.15	1.15	1.15	1.15	1.09	1.09	1.09	1.03	1.03	1.03	.98	.98	.98	.96
1	1.11	1.08	1.05	1.02	1.08	1.05	1.03	1.00	1.00	.98	.96	.96	.94	.93	.92	.91	.89	.87
2	1.04	.98	.93	.89	1.02	.96	.92	.88	.92	.89	.85	.89	.86	.83	.85	.83	.81	.79
3	.98	.90	.84	.79	.95	.88	.83	.78	.85	.80	.76	.82	.78	.75	.79	.76	.73	.71
4	.91	.82	.75	.70	.89	.81	.74	.70	.78	.72	.68	.75	.71	.67	.73	.69	.66	.64
5	.85	.75	.68	.63	.83	.74	.67	.62	.71	.65	.61	.69	.64	.60	.67	.63	.59	.57
6	.79	.69	.62	.56	.78	.68	.61	.56	.66	.60	.55	.64	.58	.55	.62	.57	.54	.52
7	.74	.63	.56	.51	.72	.62	.55	.50	.60	.54	.50	.59	.53	.49	.57	.52	.49	.47
8	.69	.58	.50	.45	.67	.57	.50	.45	.55	.49	.45	.54	.48	.44	.52	.47	.44	.42
9	.64	.52	.45	.40	.63	.52	.45	.40	.50	.44	.40	.49	.43	.39	.48	.43	.39	.37
10	.60	.48	.41	.36	.58	.47	.41	.36	.46	.40	.36	.45	.39	.36	.44	.39	.35	.34

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

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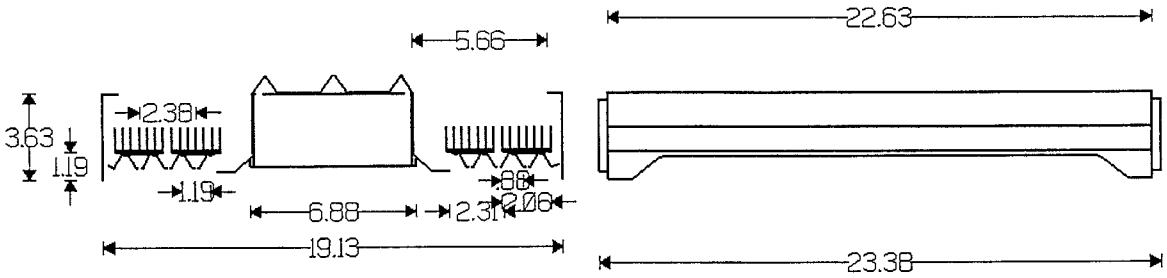
ELECTRICAL CHARACTERISTICS 120.0V 3.1614A 375.360W

LUMINOUS EFFICACY (LUMENS / WATTS) = 114.8

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