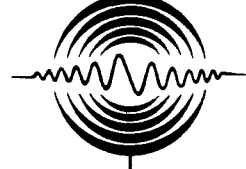


BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC.

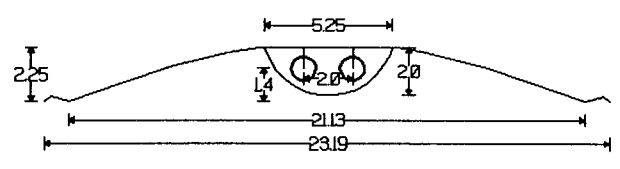
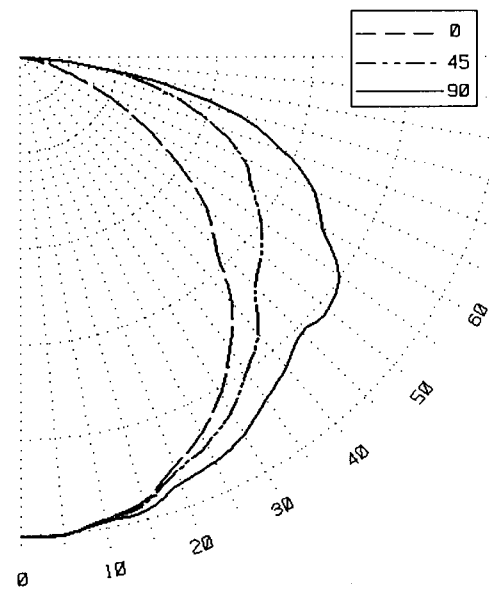
1618 HEADLAND DR.
 FENTON, MO 63026
 (636) - 343-6006
 (636) - 343-6051 FAX



BALLABS CERTIFIED TEST REPORT NO.: 15109.0 DATE 11/20/09
 PREPARED FOR: SPECTRUM LIGHTING - FALL RIVER, MA
 DESCRIPTION: 2/32W T8 LAMP 2x4'RECESSED TROFFER RETROFIT KIT
 FORMED WHITE REFL w/CLEAR RIBBED ACRYLIC CENTER DIFFUSER
 UNIVERSAL LTG TECH BLST #B232IUNVEL-A WATTS=48.5 REFL=89%
 CATALOG NBR: LR24SH2T8LBFEX
 LAMP TYPE : F32T8/835/RS RATED LUMENS 2950. NBR. LAMPS:- 2

CANDLEPOWER DISTRIBUTION

VERT ANG	HORIZONTAL ANGLE					ZONAL LUMENS
	0	22.5	45	67.5	90	
0	1472.	1472.	1472.	1472.	1472.	1472.
5	1472.	1472.	1472.	1472.	1472.	140.5
10	1442.	1440.	1444.	1450.	1450.	404.8
15	1416.	1420.	1425.	1437.	1444.	611.6
20	1341.	1345.	1358.	1382.	1394.	746.2
25	1280.	1289.	1317.	1354.	1371.	778.5
30	1198.	1210.	1261.	1315.	1341.	790.3
35	1099.	1117.	1184.	1258.	1287.	669.8
40	987.	1020.	1113.	1201.	1246.	466.6
45	833.	878.	998.	1130.	1198.	130.5
50	732.	794.	947.	1138.	1210.	7.
55	585.	657.	884.	1102.	1175.	
60	435.	521.	807.	994.	1054.	
65	302.	407.	741.	911.	979.	
70	190.	325.	626.	788.	846.	
75	114.	259.	486.	627.	670.	
80	61.	183.	326.	399.	407.	
85	25.	87.	151.	153.	149.	
90	7.	18.	20.	11.	7.	



[Handwritten signature]

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	1157.	19.6	24.4	90-120	0.	.0	.0
0- 40	1903.	32.3	40.2	90-130	0.	.0	.0
0- 60	3472.	58.8	73.3	90-150	0.	.0	.0
0- 90	4739.	80.3	100.0	90-180	0.	.0	.0
TOTAL LUMINAIRE = 0-180					4739.	80.3	100.0

IES SPACING CRITERIA: END= 1.2 DIAGONAL = 1.3 CROSS= 1.4

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

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LUMINANCES-CD/SQ-M
 HORIZONTAL ANGLE

VERT ANGLE	0	45	90
45	1807.	2164.	2598.
55	1564.	2364.	3142.
65	1096.	2690.	3552.
75	674.	2878.	3972.
85	448.	2657.	2625.

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	.96	.96	.96	.96	.93	.93	.93	.93	.89	.89	.89	.85	.85	.85	.82	.82	.82	.80
1	.87	.83	.80	.77	.85	.81	.78	.75	.78	.75	.73	.75	.73	.71	.72	.70	.69	.67
2	.79	.72	.67	.62	.77	.71	.66	.61	.68	.64	.60	.65	.62	.58	.63	.60	.57	.55
3	.72	.64	.57	.51	.70	.62	.56	.51	.60	.55	.50	.58	.53	.49	.56	.52	.48	.47
4	.66	.56	.49	.43	.64	.55	.48	.43	.53	.47	.42	.51	.46	.42	.49	.45	.41	.40
5	.60	.49	.42	.36	.58	.48	.41	.36	.47	.40	.36	.45	.40	.35	.43	.39	.35	.33
6	.55	.44	.36	.31	.53	.43	.36	.31	.42	.35	.31	.40	.35	.30	.39	.34	.30	.28
7	.51	.39	.32	.27	.49	.39	.32	.27	.37	.31	.27	.36	.31	.26	.35	.30	.26	.25
8	.47	.35	.28	.23	.45	.35	.28	.23	.34	.27	.23	.32	.27	.23	.31	.26	.23	.21
9	.43	.32	.25	.20	.42	.31	.24	.20	.30	.24	.20	.29	.24	.20	.28	.23	.20	.18
10	.40	.29	.22	.18	.39	.28	.22	.18	.27	.22	.17	.27	.21	.17	.26	.21	.17	.16

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES