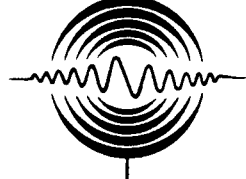


# BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC.

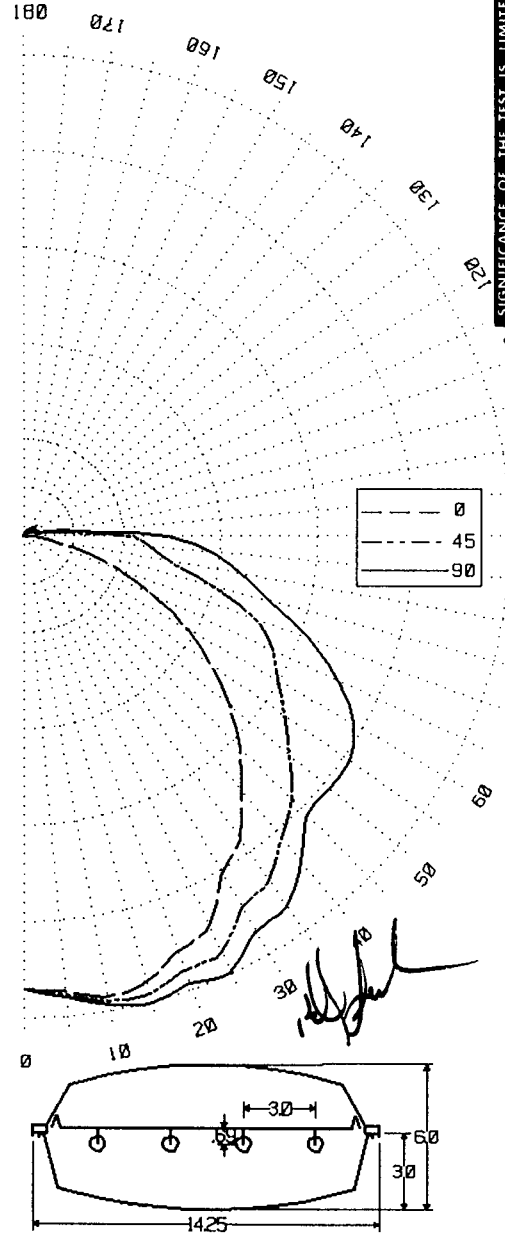
1618 HEADLAND DR.  
 FENTON, MO 63026  
 (636) - 343-6006  
 (636) - 343-6051 FAX



BALLABS CERTIFIED TEST REPORT NO.: 14140.0 DATE 06/03/08  
 PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO  
 DESCRIPTION: 4/54W T5HO C LAMP 51.5x14.5x6" ENCLOSED & GASKETED LUMINAIRE  
 WHITE REFLECTOR w/CLEAR ACRYLIC DROP LENS  
 UNIVERSAL BALLAST #B454IUNV-E WATTS=226 REFL=86%  
 CATALOG NBR: CT4-4LT5  
 LAMP TYPE : FP54T5HO/835/C RATED LUMENS 4900. NBR. LAMPS:- 4

### CANDLEPOWER DISTRIBUTION

VERT ANG	HORIZONTAL ANGLE					ZONAL LUMENS
	0	22.5	45	67.5	90	
0	4445.	4445.	4445.	4445.	4445.	
5	4476.	4509.	4514.	4526.	4536.	430.9
10	4579.	4585.	4621.	4652.	4658.	
15	4524.	4561.	4640.	4712.	4731.	1313.9
20	4325.	4385.	4518.	4628.	4664.	
25	4221.	4313.	4507.	4664.	4712.	2077.1
30	3822.	3955.	4210.	4404.	4470.	
35	3634.	3816.	4124.	4355.	4428.	2564.1
40	3258.	3495.	3870.	4094.	4173.	
45	2950.	3289.	3665.	3889.	3877.	2760.1
50	2586.	2956.	3349.	3706.	3859.	
55	2205.	2635.	3077.	3652.	3852.	2779.3
60	1811.	2265.	2834.	3519.	3689.	
65	1369.	1828.	2653.	3228.	3361.	2500.0
70	969.	1429.	2386.	2816.	2931.	
75	594.	1139.	1884.	2350.	2465.	1825.4
80	290.	829.	1429.	1938.	2125.	
85	127.	545.	1211.	1677.	1805.	1199.9
90	72.	424.	1035.	1308.	1380.	
95	30.	224.	400.	521.	557.	392.2
100	0.	96.	187.	314.	357.	
105	0.	84.	114.	151.	169.	114.9
110	0.	72.	96.	120.	133.	
115	0.	72.	84.	103.	114.	78.5
120	0.	33.	103.	103.	114.	
125	0.	0.	127.	114.	109.	66.4
130	0.	0.	103.	145.	151.	
135	0.	0.	54.	109.	66.	37.9
140	0.	0.	0.	103.	120.	
145	0.	0.	0.	72.	84.	17.9
150	0.	0.	0.	60.	72.	
155	0.	0.	0.	48.	48.	8.3
160	0.	0.	0.	0.	36.	
165	0.	0.	0.	0.	0.	.0
170	0.	0.	0.	0.	0.	
175	0.	0.	0.	0.	0.	.0
180	0.	0.	0.	0.	0.	



### LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	3822.	19.5	21.0	90-120	586.	3.0	3.2
0- 40	6386.	32.6	35.2	90-130	652.	3.3	3.6
0- 60	11925.	60.8	65.6	90-150	708.	3.6	3.9
0- 90	17451.	89.0	96.1	90-180	716.	3.7	3.9
TOTAL LUMINAIRE =				0-180	18167.	92.7	100.0

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

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.: 14140.0 DATE 06/03/08  
 PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO  
 DESCRIPTION: 4/54W T5HO C LAMP 51.5x14.5x6"ENCLOSED & GASKETED LUMINAIRE  
 WHITE REFLECTOR w/CLEAR ACRYLIC DROP LENS  
 UNIVERSAL BALLAST #B454IUNV-E WATTS=226 REFL=86%

CATALOG NBR: CT4-4LT5  
 LAMP TYPE : FP54T5HO/835/C RATED LUMENS 4900. NBR. LAMPS:- 4  
 \*\*\*\*\*

VERT ANGLE	LUMINANCES-CD/SQ-M HORIZONTAL ANGLE		
	0	45	90
45	9365.	9520.	10071.
55	8630.	9142.	11444.
65	7271.	9544.	12092.
75	5149.	8932.	11687.
85	3273.	8809.	13135.

\*\*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	1.09	1.09	1.09	1.09	1.07	1.07	1.07	1.07	1.01	1.01	1.01	.96	.96	.96	.91	.91	.91	.89
1	.98	.93	.89	.84	.95	.91	.86	.83	.86	.83	.79	.82	.79	.76	.78	.76	.73	.71
2	.89	.80	.73	.67	.86	.78	.72	.66	.74	.69	.64	.71	.66	.62	.67	.63	.60	.58
3	.81	.70	.62	.56	.78	.68	.61	.55	.65	.59	.53	.62	.57	.52	.59	.55	.51	.48
4	.74	.62	.53	.47	.71	.60	.52	.46	.57	.51	.45	.55	.49	.44	.52	.47	.43	.41
5	.67	.54	.45	.39	.65	.53	.45	.38	.50	.43	.38	.48	.42	.37	.46	.41	.36	.34
6	.61	.48	.39	.33	.59	.47	.39	.33	.45	.38	.32	.43	.37	.32	.41	.36	.31	.29
7	.56	.43	.35	.29	.54	.42	.34	.28	.40	.33	.28	.39	.32	.27	.37	.31	.27	.25
8	.52	.39	.30	.25	.50	.38	.30	.24	.36	.29	.24	.35	.28	.24	.33	.27	.23	.21
9	.48	.35	.27	.21	.46	.34	.26	.21	.32	.25	.21	.31	.25	.20	.30	.24	.20	.18
10	.44	.31	.24	.19	.43	.31	.23	.18	.30	.23	.18	.28	.22	.18	.27	.22	.18	.16

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES