



# LUMINAIRE TESTING LABORATORY, INC.

SUSTAINING  
MEMBER  
of the  
IESNA

905 Harrison Street · Allentown, PA 18103 · 610-770-1044 · Fax 610-770-8912 · www.LuminaireTesting.com

LTL NUMBER: 18376

DATE: 06-18-2010

PREPARED FOR: LUMETTA, INC.

CATALOG NUMBER: FP2TSQ2Z

LUMINAIRE: FORMED STEEL HOUSING WITH WHITE REFLECTOR, WHITE PLASTIC SIDE DIFFUSER WITH TRANSLUCENT WHITE PLASTIC LOWER LENS TRANSLUCENT WHITE PLASTIC UPPER LENS WITH OPEN CENTER.

LAMP: TWO HORIZONTAL 32 WATT TRIPLE TUBE COMPACT FLUORESCENT LAMPS RATED AT 2400 LUMENS EACH.

LAMP CATALOG NUMBER: SYLVANIA CF32DT/E/IN/835

BALLAST: ONE FULHAM RACEHORSE RH4-UNV-242-C

MOUNTING: PENDANT

ELECTRICAL VALUES: 120.0VAC, 0.5762A, 69.03W

### Candela Distribution

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Flux
0	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	
5	366	366	366	367	367	367	366	366	366	366	366	367	367	367	366	366	34.8
15	353	352	352	353	353	353	352	352	353	352	352	353	353	353	352	352	99.5
25	326	326	326	326	327	326	326	326	326	326	326	326	327	326	326	326	150.3
35	292	291	289	291	291	291	289	291	292	291	289	291	291	291	289	291	181.8
45	248	247	247	247	248	247	247	247	248	247	247	247	248	247	247	247	191.0
55	199	199	200	199	199	199	200	199	199	199	200	199	199	199	200	199	177.7
65	145	147	148	147	145	147	148	147	145	147	148	147	145	147	148	147	145.0
75	92	94	96	94	91	94	96	94	92	94	96	94	91	94	96	94	99.3
85	43	46	48	46	42	46	48	46	43	46	48	46	42	46	48	46	50.5
90	28	31	32	30	26	30	32	31	28	31	32	30	26	30	32	31	
95	35	41	46	46	39	46	46	41	35	41	46	46	39	46	46	41	64.1
105	226	228	267	301	267	301	267	228	226	228	267	301	267	301	267	228	260.8
115	298	312	341	361	341	361	341	312	298	312	341	361	341	361	341	312	331.6
125	354	386	418	419	392	419	418	386	354	386	418	419	392	419	418	386	356.9
135	427	450	476	470	453	470	476	450	427	450	476	470	453	470	476	450	354.1
145	489	489	501	495	493	495	501	489	489	489	501	495	493	495	501	489	310.2
155	520	501	503	509	518	509	503	501	520	501	503	509	518	509	503	501	234.6
165	470	469	469	475	477	475	469	469	470	469	469	475	477	475	469	469	134.8
175	446	420	418	432	443	432	418	420	446	420	418	432	443	432	418	420	42.1
180	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	

### Zonal Lumen Summary

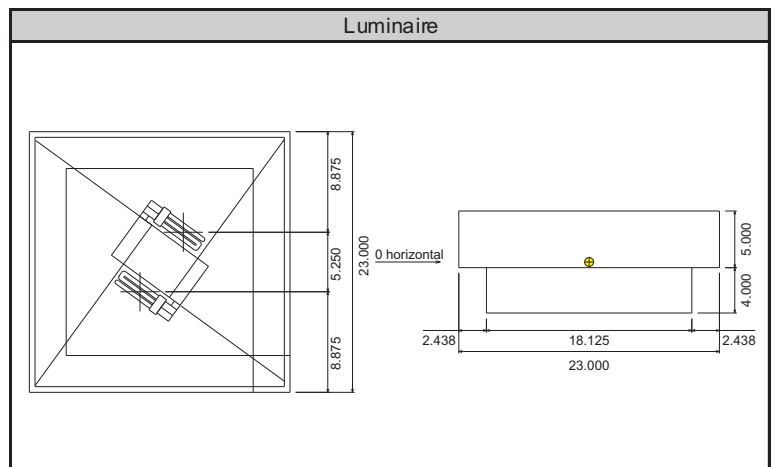
Zone	Lumens	% of Lamp	% of Luminaire
0-30	284.6	5.9%	8.8%
0-40	466.4	9.7%	14.5%
0-60	835.1	17.4%	25.9%
0-90	1129.9	23.5%	35.1%
90-180	2089.1	43.5%	64.9%
0-180	3219.1	67.1%	100.0%

Total luminaire efficiency: 67.1%

CIE Type: Semi-Indirect

Spacing Criterion: 0 deg: 1.25 90 deg: 1.25  
180 deg: 1.25 270 deg: 1.25

Total reflectance of paint: 83.2



Approved By: MG

THIS REPORT BASED ON LM-41 AND OTHER PERTINENT IESNA PROCEDURES.



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Candela Tabulation (5 degree Vertical Increments)

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369	369
5	366	366	366	367	367	367	366	366	366	366	366	367	367	367	366	366
10	361	361	361	362	361	362	361	361	361	361	361	362	361	362	361	361
15	353	352	352	353	353	353	352	352	353	352	352	353	353	353	352	352
20	341	341	340	341	341	341	340	341	341	341	340	341	341	341	340	341
25	326	326	326	326	327	326	326	326	326	326	326	326	327	326	326	326
30	310	309	308	309	310	309	308	309	310	309	308	309	310	309	308	309
35	292	291	289	291	291	291	289	291	292	291	289	291	291	291	289	291
40	271	270	269	270	271	270	269	270	271	270	269	270	271	270	269	270
45	248	247	247	247	248	247	247	247	248	247	247	247	248	247	247	247
50	224	223	224	223	224	223	224	223	224	223	224	223	224	223	224	223
55	199	199	200	199	199	199	200	199	199	199	200	199	199	199	200	199
60	172	173	174	172	172	172	174	173	172	173	174	172	172	172	174	173
65	145	147	148	147	145	147	148	147	145	147	148	147	145	147	148	147
70	119	121	122	120	118	120	122	121	119	121	122	120	118	120	122	121
75	92	94	96	94	91	94	96	94	92	94	96	94	91	94	96	94
80	66	70	71	69	65	69	71	70	66	70	71	69	65	69	71	70
85	43	46	48	46	42	46	48	46	43	46	48	46	42	46	48	46
90	28	31	32	30	26	30	32	31	28	31	32	30	26	30	32	31
95	35	41	46	46	39	46	46	41	35	41	46	46	39	46	46	41
100	118	122	170	162	139	162	170	122	118	122	170	162	139	162	170	122
105	226	228	267	301	267	301	267	228	226	228	267	301	267	301	267	228
110	282	280	303	338	315	338	303	280	282	280	303	338	315	338	303	280
115	298	312	341	361	341	361	341	312	298	312	341	361	341	361	341	312
120	322	349	381	390	367	390	381	349	322	349	381	390	367	390	381	349
125	354	386	418	419	392	419	418	386	354	386	418	419	392	419	418	386
130	387	420	450	443	424	443	450	420	387	420	450	443	424	443	450	420
135	427	450	476	470	453	470	476	450	427	450	476	470	453	470	476	450
140	463	470	495	492	471	492	495	470	463	470	495	492	471	492	495	470
145	489	489	501	495	493	495	501	489	489	489	501	495	493	495	501	489
150	513	502	505	510	516	510	505	502	513	502	505	510	516	510	505	502
155	520	501	503	509	518	509	503	501	520	501	503	509	518	509	503	501
160	515	498	486	503	502	503	486	498	515	498	486	503	502	503	486	498
165	470	469	469	475	477	475	469	469	470	469	469	475	477	475	469	469
170	454	447	447	454	443	454	447	447	454	447	447	454	443	454	447	447
175	446	420	418	432	443	432	418	420	446	420	418	432	443	432	418	420
180	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490	490

Zonal Lumen Tabulation (5 degree zones)

Zone	Lumens	Zone	Lumens	Zone	Lumens	Zone	Lumens
0-5	8.8	45-50	95.1	90-95	17.6	135-140	174.5
5-10	26.0	50-55	91.9	95-100	46.5	140-145	162.4
10-15	42.3	55-60	85.8	100-105	111.2	145-150	147.7
15-20	57.2	60-65	77.5	105-110	149.5	150-155	128.5
20-25	69.9	65-70	67.5	110-115	161.8	155-160	106.1
25-30	80.4	70-75	55.8	115-120	169.8	160-165	80.3
30-35	88.3	75-80	43.4	120-125	177.0	165-170	54.5
35-40	93.5	80-85	31.1	125-130	179.9	170-175	31.6
40-45	95.9	85-90	19.5	130-135	179.6	175-180	10.6



Coefficients of Utilization - Zonal Cavity Method												
Effective Floor Cavity Reflectance 20%												
Ceiling Cavity Reflectance	90				80				70			
Wall Reflectance	70	50	30	10	70	50	30	10	70	50	30	10
Room Cavity Ratio (RCR)												
0	0.765	0.765	0.765	0.765	0.695	0.695	0.695	0.695	0.628	0.628	0.628	0.628
1	0.695	0.659	0.628	0.599	0.63	0.599	0.572	0.548	0.567	0.542	0.519	0.499
2	0.632	0.572	0.524	0.483	0.571	0.521	0.479	0.444	0.514	0.471	0.436	0.405
3	0.576	0.501	0.444	0.399	0.52	0.456	0.407	0.367	0.467	0.413	0.37	0.336
4	0.526	0.441	0.38	0.334	0.474	0.402	0.349	0.308	0.426	0.364	0.319	0.283
5	0.481	0.391	0.329	0.284	0.434	0.357	0.302	0.262	0.39	0.324	0.277	0.241
6	0.442	0.349	0.288	0.244	0.399	0.319	0.265	0.226	0.359	0.29	0.242	0.208
7	0.408	0.313	0.254	0.212	0.368	0.287	0.234	0.197	0.331	0.261	0.214	0.181
8	0.377	0.283	0.225	0.186	0.341	0.259	0.208	0.173	0.307	0.236	0.191	0.159
9	0.35	0.257	0.202	0.164	0.317	0.236	0.186	0.153	0.286	0.215	0.171	0.141
10	0.326	0.235	0.181	0.146	0.295	0.216	0.168	0.136	0.267	0.197	0.154	0.126

Ceiling Cavity Reflectance	50				30			10			0
Wall Reflectance	70	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)											
0	0.503	0.503	0.503	0.503	0.389	0.389	0.389	0.285	0.285	0.285	0.235
1	0.452	0.435	0.419	0.404	0.336	0.325	0.316	0.245	0.239	0.232	0.19
2	0.408	0.378	0.353	0.331	0.292	0.275	0.26	0.213	0.202	0.192	0.156
3	0.37	0.332	0.301	0.276	0.257	0.236	0.218	0.187	0.173	0.162	0.13
4	0.337	0.294	0.26	0.233	0.228	0.204	0.185	0.166	0.151	0.138	0.11
5	0.309	0.261	0.226	0.2	0.203	0.178	0.159	0.149	0.132	0.119	0.095
6	0.285	0.235	0.199	0.173	0.183	0.158	0.138	0.135	0.118	0.104	0.083
7	0.263	0.212	0.177	0.151	0.166	0.14	0.121	0.123	0.105	0.092	0.073
8	0.244	0.192	0.158	0.133	0.151	0.126	0.107	0.112	0.095	0.082	0.065
9	0.228	0.176	0.142	0.118	0.139	0.114	0.096	0.104	0.086	0.073	0.058
10	0.213	0.161	0.128	0.106	0.128	0.103	0.086	0.096	0.079	0.066	0.053

Average Luminance Table (cd/m<sup>2</sup>)

	0	45	90
0	1081	1081	1081
45	823	790	823
55	724	674	724
65	608	547	607
75	469	40	467
85	294	247	289

THIS TEST WAS CONDUCTED USING RELATIVE PHOTOMETRY TECHNIQUES ACCORDING TO STANDARD IESNA PROCEDURES. THE USER MUST THEREFORE USE CAUTION IN THE FOLLOWING SITUATIONS: 1) THIS TEST WAS PERFORMED USING A SPECIFIC BALLAST/LAMP COMBINATION. EXTRAPOLATION OF THESE DATA FOR OTHER BALLAST/LAMP COMBINATIONS MAY PRODUCE ERRONEOUS RESULTS. 2) ACCORDING TO IESNA PROCEDURES, THE BALLAST(S) AND LAMP(S) ARE PRESUMED TO PRODUCE 100% OF RATED OUTPUT. AN APPROPRIATE BALLAST FACTOR MUST BE APPLIED TO THE LUMEN OUTPUT RATINGS AND LUMINOUS INTENSITY VALUES GIVEN. 3) THIS TEST WAS CONDUCTED IN A CONTROLLED LABORATORY ENVIRONMENT WHERE THE AMBIENT TEMPERATURE WAS HELD AT 25 °C ±1°C. FIELD PERFORMANCE MAY DIFFER PARTICULARLY IN REGARDS TO CHANGE IN LUMINOUS OUTPUT AS A RESULT OF DIFFERENCE IN AMBIENT TEMPERATURE AND METHOD OF MOUNTING THE LUMINAIRE.

