



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: 18369

DATE: 06-25-2010

PREPARED FOR: LUMETTA, INC.

CATALOG NUMBER: FP523

LUMINAIRE: FORMED ALUMINUM AND STEEL HOUSING/REFLECTOR, WHITE PLASTIC SIDE DIFFUSER WITH TRANSLUCENT WHITE PLASTIC TOP AND BOTTOM ENCLOSURES.

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, 0.5789A, 69.33W

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	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	
5	502	502	502	502	502	502	502	502	502	502	502	502	502	502	502	502	47.8
15	491	491	491	491	491	491	491	491	491	491	491	491	491	491	491	491	138.8
25	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464	213.9
35	421	421	421	421	421	421	421	421	421	421	421	421	421	421	421	421	263.3
45	365	365	365	365	365	365	365	365	365	365	365	365	365	365	365	365	281.4
55	299	299	299	299	299	299	299	299	299	299	299	299	299	299	299	299	267.6
65	228	228	228	228	228	228	228	228	228	228	228	228	228	228	228	228	226.2
75	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	166.7
85	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	102.2
90	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	
95	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	91.7
105	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	144.9
115	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	199.8
125	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	232.6
135	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	239.3
145	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347	216.8
155	359	359	359	359	359	359	359	359	359	359	359	359	359	359	359	359	165.5
165	351	351	351	351	351	351	351	351	351	351	351	351	351	351	351	351	100.0
175	377	377	377	377	377	377	377	377	377	377	377	377	377	377	377	377	35.4
180	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	

Zonal Lumen Summary

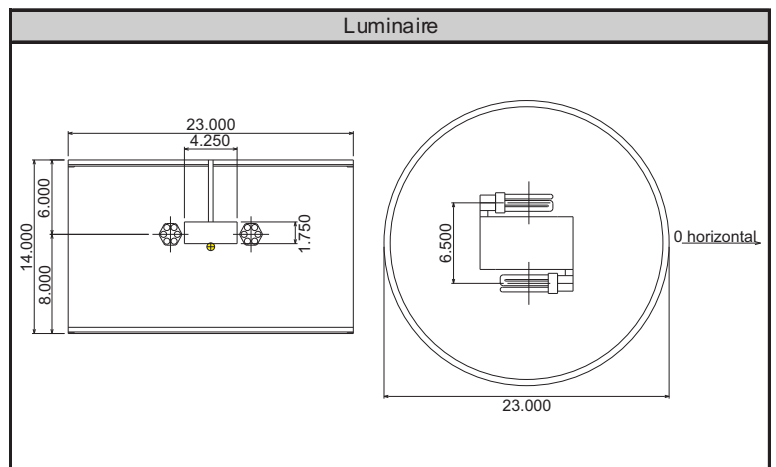
Zone	Lumens	% of Lamp	% of Luminaire
0-30	400.5	8.3%	12.8%
0-40	663.8	13.8%	21.2%
0-60	1212.8	25.3%	38.7%
0-90	1708.0	35.6%	54.5%
90-180	1426.1	29.7%	45.5%
0-180	3134.0	65.3%	100.0%

Total luminaire efficiency: 65.3%

CIE Type: Direct/Indirect

Spacing Criterion: 1.31

Total reflectance of paint: 89.3



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	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503
5	502	502	502	502	502	502	502	502	502	502	502	502	502	502	502	502
10	499	499	499	499	499	499	499	499	499	499	499	499	499	499	499	499
15	491	491	491	491	491	491	491	491	491	491	491	491	491	491	491	491
20	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480
25	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464	464
30	444	444	444	444	444	444	444	444	444	444	444	444	444	444	444	444
35	421	421	421	421	421	421	421	421	421	421	421	421	421	421	421	421
40	395	395	395	395	395	395	395	395	395	395	395	395	395	395	395	395
45	365	365	365	365	365	365	365	365	365	365	365	365	365	365	365	365
50	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333	333
55	299	299	299	299	299	299	299	299	299	299	299	299	299	299	299	299
60	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
65	228	228	228	228	228	228	228	228	228	228	228	228	228	228	228	228
70	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193
75	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158	158
80	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124
85	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93
90	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73
95	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
100	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
105	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
110	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
115	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202	202
120	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232
125	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260
130	287	287	287	287	287	287	287	287	287	287	287	287	287	287	287	287
135	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310
140	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332
145	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347	347
150	355	355	355	355	355	355	355	355	355	355	355	355	355	355	355	355
155	359	359	359	359	359	359	359	359	359	359	359	359	359	359	359	359
160	355	355	355	355	355	355	355	355	355	355	355	355	355	355	355	355
165	351	351	351	351	351	351	351	351	351	351	351	351	351	351	351	351
170	361	361	361	361	361	361	361	361	361	361	361	361	361	361	361	361
175	377	377	377	377	377	377	377	377	377	377	377	377	377	377	377	377
180	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390

Zonal Lumen Tabulation (5 degree zones)

Zone	Lumens	Zone	Lumens	Zone	Lumens	Zone	Lumens
0-5	12.0	45-50	140.9	90-95	41.4	135-140	118.8
5-10	35.8	50-55	137.5	95-100	50.4	140-145	113.3
10-15	58.7	55-60	130.1	100-105	64.6	145-150	103.5
15-20	80.1	60-65	119.7	105-110	80.3	150-155	90.5
20-25	99.0	65-70	106.5	110-115	94.3	155-160	75.1
25-30	114.9	70-75	91.6	115-120	105.5	160-165	57.9
30-35	127.4	75-80	75.1	120-125	113.8	165-170	42.1
35-40	135.9	80-85	58.7	125-130	118.8	170-175	26.3
40-45	140.6	85-90	43.6	130-135	120.5	175-180	9.1



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	0.76	0.76	0.76	0.76	0.707	0.707	0.707	0.707	0.656	0.656	0.656	0.656
1	0.687	0.65	0.617	0.587	0.636	0.604	0.575	0.549	0.588	0.56	0.535	0.512
2	0.623	0.561	0.511	0.47	0.576	0.522	0.478	0.441	0.531	0.485	0.446	0.413
3	0.566	0.49	0.431	0.386	0.523	0.456	0.404	0.363	0.482	0.423	0.378	0.341
4	0.517	0.431	0.369	0.323	0.477	0.402	0.346	0.304	0.439	0.373	0.324	0.286
5	0.473	0.382	0.32	0.274	0.437	0.356	0.3	0.259	0.402	0.332	0.281	0.244
6	0.435	0.341	0.28	0.236	0.402	0.319	0.263	0.223	0.37	0.297	0.247	0.211
7	0.402	0.307	0.247	0.206	0.371	0.287	0.233	0.195	0.342	0.268	0.219	0.184
8	0.372	0.278	0.22	0.181	0.344	0.26	0.208	0.171	0.318	0.243	0.195	0.162
9	0.346	0.253	0.197	0.16	0.32	0.237	0.186	0.152	0.296	0.222	0.176	0.144
10	0.322	0.232	0.178	0.143	0.299	0.217	0.169	0.136	0.277	0.204	0.159	0.129

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	0.56	0.56	0.56	0.56	0.473	0.473	0.473	0.393	0.393	0.393	0.356
1	0.499	0.478	0.459	0.442	0.403	0.389	0.376	0.334	0.324	0.315	0.281
2	0.448	0.414	0.384	0.359	0.349	0.327	0.307	0.288	0.272	0.258	0.228
3	0.406	0.362	0.327	0.297	0.305	0.278	0.256	0.252	0.232	0.215	0.189
4	0.37	0.32	0.281	0.251	0.27	0.24	0.216	0.224	0.201	0.183	0.159
5	0.339	0.285	0.245	0.214	0.241	0.21	0.186	0.2	0.177	0.158	0.137
6	0.312	0.256	0.216	0.186	0.217	0.186	0.161	0.181	0.157	0.138	0.119
7	0.289	0.231	0.192	0.163	0.197	0.165	0.142	0.165	0.14	0.121	0.104
8	0.269	0.21	0.172	0.144	0.18	0.149	0.126	0.151	0.126	0.108	0.093
9	0.251	0.193	0.155	0.128	0.165	0.135	0.113	0.139	0.115	0.097	0.083
10	0.235	0.177	0.14	0.115	0.152	0.122	0.101	0.129	0.105	0.088	0.075

Average Luminance Table (cd/m²)

	0	45	90
0	1877	1877	1877
45	1084	1084	1084
55	924	924	924
65	757	757	757
75	584	584	584
85	402	402	402

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.

