



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: 18370

DATE: 07-19-2010

PREPARED FOR: LUMETTA, INC.

CATALOG NUMBER: FP534

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, 0.5747A, 68.83W

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	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	
5	617	617	617	617	617	617	617	617	617	617	617	617	617	617	617	617	58.7
15	601	601	601	601	601	601	601	601	601	601	601	601	601	601	601	601	169.6
25	565	565	565	565	565	565	565	565	565	565	565	565	565	565	565	565	260.4
35	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	319.5
45	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	339.5
55	357	357	357	357	357	357	357	357	357	357	357	357	357	357	357	357	319.1
65	266	266	266	266	266	266	266	266	266	266	266	266	266	266	266	266	263.9
75	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	185.4
85	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	101.1
90	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	
95	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	91.1
105	163	163	163	163	163	163	163	163	163	163	163	163	163	163	163	163	172.5
115	265	265	265	265	265	265	265	265	265	265	265	265	265	265	265	265	261.5
125	358	358	358	358	358	358	358	358	358	358	358	358	358	358	358	358	319.8
135	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	333.8
145	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	298.6
155	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	232.6
165	535	535	535	535	535	535	535	535	535	535	535	535	535	535	535	535	151.1
175	566	566	566	566	566	566	566	566	566	566	566	566	566	566	566	566	53.5
180	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	

Zonal Lumen Summary

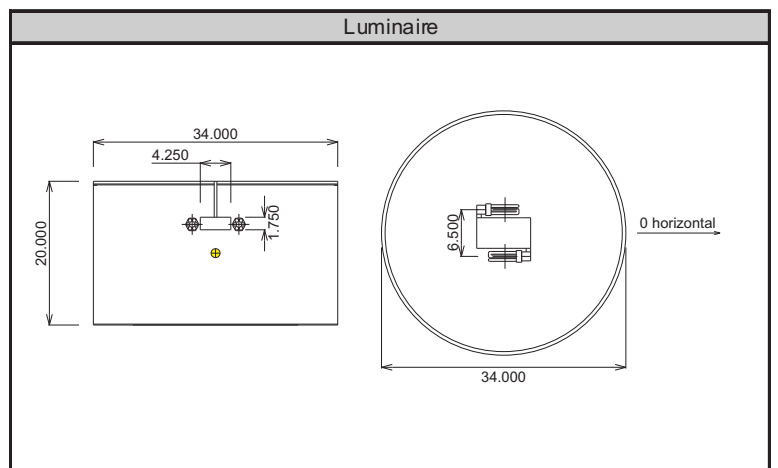
Zone	Lumens	% of Lamp	% of Luminaire
0-30	488.7	10.2%	12.4%
0-40	808.3	16.8%	20.6%
0-60	1466.9	30.6%	37.3%
0-90	2017.3	42.0%	51.3%
90-180	1914.4	39.9%	48.7%
0-180	3931.8	81.9%	100.0%

Total luminaire efficiency: 81.9%

CIE Type: Direct/Indirect

Spacing Criterion: 1.29

Total reflectance of paint: 83.7



Approved By: MG

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



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

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	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
5	617	617	617	617	617	617	617	617	617	617	617	617	617	617	617	617
10	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611	611
15	601	601	601	601	601	601	601	601	601	601	601	601	601	601	601	601
20	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585
25	565	565	565	565	565	565	565	565	565	565	565	565	565	565	565	565
30	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540	540
35	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511
40	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
45	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440	440
50	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
55	357	357	357	357	357	357	357	357	357	357	357	357	357	357	357	357
60	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312
65	266	266	266	266	266	266	266	266	266	266	266	266	266	266	266	266
70	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221	221
75	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
80	132	132	132	132	132	132	132	132	132	132	132	132	132	132	132	132
85	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91
90	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66	66
95	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
100	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116
105	163	163	163	163	163	163	163	163	163	163	163	163	163	163	163	163
110	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214	214
115	265	265	265	265	265	265	265	265	265	265	265	265	265	265	265	265
120	313	313	313	313	313	313	313	313	313	313	313	313	313	313	313	313
125	358	358	358	358	358	358	358	358	358	358	358	358	358	358	358	358
130	399	399	399	399	399	399	399	399	399	399	399	399	399	399	399	399
135	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433
140	461	461	461	461	461	461	461	461	461	461	461	461	461	461	461	461
145	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
150	488	488	488	488	488	488	488	488	488	488	488	488	488	488	488	488
155	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503
160	520	520	520	520	520	520	520	520	520	520	520	520	520	520	520	520
165	535	535	535	535	535	535	535	535	535	535	535	535	535	535	535	535
170	549	549	549	549	549	549	549	549	549	549	549	549	549	549	549	549
175	566	566	566	566	566	566	566	566	566	566	566	566	566	566	566	566
180	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579	579

Zonal Lumen Tabulation (5 degree zones)

Zone	Lumens	Zone	Lumens	Zone	Lumens	Zone	Lumens
0-5	14.8	45-50	169.7	90-95	38.7	135-140	165.7
5-10	43.9	50-55	164.5	95-100	52.4	140-145	156.6
10-15	71.9	55-60	154.6	100-105	74.2	145-150	142.0
15-20	97.7	60-65	140.7	105-110	98.3	150-155	125.3
20-25	120.6	65-70	123.2	110-115	121.1	155-160	107.3
25-30	139.8	70-75	103.5	115-120	140.4	160-165	86.9
30-35	154.7	75-80	82.0	120-125	155.1	165-170	64.2
35-40	164.8	80-85	60.4	125-130	164.7	170-175	39.8
40-45	169.9	85-90	40.7	130-135	168.1	175-180	13.7



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	0.95	0.95	0.95	0.95	0.88	0.88	0.88	0.88	0.813	0.813	0.813	0.813
1	0.861	0.816	0.775	0.739	0.795	0.756	0.721	0.689	0.732	0.699	0.668	0.641
2	0.782	0.706	0.645	0.593	0.72	0.655	0.601	0.555	0.662	0.605	0.558	0.518
3	0.711	0.617	0.545	0.488	0.655	0.572	0.509	0.458	0.601	0.53	0.474	0.429
4	0.649	0.543	0.467	0.409	0.597	0.504	0.436	0.384	0.548	0.467	0.407	0.36
5	0.595	0.482	0.404	0.347	0.547	0.448	0.379	0.327	0.502	0.415	0.354	0.307
6	0.547	0.43	0.354	0.299	0.503	0.401	0.332	0.282	0.462	0.372	0.31	0.266
7	0.505	0.387	0.312	0.261	0.465	0.361	0.294	0.246	0.427	0.335	0.275	0.232
8	0.467	0.35	0.278	0.229	0.431	0.327	0.262	0.217	0.396	0.304	0.245	0.204
9	0.434	0.319	0.25	0.203	0.401	0.298	0.235	0.192	0.369	0.278	0.221	0.182
10	0.405	0.292	0.225	0.181	0.374	0.273	0.212	0.172	0.345	0.255	0.2	0.163

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	0.689	0.689	0.689	0.689	0.574	0.574	0.574	0.47	0.47	0.47	0.42
1	0.616	0.591	0.569	0.548	0.493	0.476	0.461	0.402	0.39	0.38	0.337
2	0.554	0.513	0.477	0.447	0.427	0.401	0.378	0.348	0.33	0.313	0.275
3	0.502	0.449	0.406	0.371	0.374	0.342	0.316	0.305	0.282	0.262	0.228
4	0.458	0.397	0.35	0.313	0.332	0.296	0.267	0.271	0.245	0.223	0.193
5	0.419	0.354	0.305	0.268	0.296	0.259	0.23	0.243	0.215	0.192	0.166
6	0.386	0.318	0.269	0.232	0.267	0.229	0.2	0.219	0.191	0.168	0.144
7	0.358	0.287	0.239	0.204	0.242	0.204	0.176	0.2	0.171	0.148	0.127
8	0.333	0.261	0.214	0.18	0.221	0.183	0.156	0.183	0.154	0.132	0.112
9	0.311	0.239	0.193	0.16	0.203	0.166	0.139	0.169	0.14	0.119	0.101
10	0.291	0.22	0.175	0.144	0.187	0.151	0.126	0.156	0.128	0.107	0.091

Average Luminance Table (cd/m²)

	0	45	90
0	1057	1057	1057
45	697	697	697
55	608	608	608
65	506	506	506
75	391	391	391
85	254	254	254

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.

