



LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING
MEMBER

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

LTL NUMBER: 07244

DATE: 02-18-2003

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: TRPO2-SP-4-X-BW-X-120-T8

LUMINAIRE: EXTRUDED ALUMINUM HOUSING, FORMED SPECULAR ALUMINUM REFLECTORS,
12 CELL, 1 1/2" DEEP, FORMED WHITE ENAMEL ALUMINUM LOUVER
BELOW LAMPS.

LAMPS: TWO 32 WATT LINEAR FLUORESCENT T8 LAMPS RATED AT 2850 LUMENS EACH.

LAMP CATALOG NUMBER: PHILIPS F32T8/TL841

BALLAST: ONE UNIVERSAL LIGHTING TECHNOLOGIES B232I120RH-A

MOUNTING: WALL

LUMEN TO CANDELA RATIO USED = 9.18

TOTAL INPUT WATTS = 57.3 AT 120.0 VOLTS

THE 0 DEGREE PLANE IS PERPENDICULAR TO THE LAMPS.

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	FLUX
0	1114	1114	1114	1114	1114	1114	1114	1114	1114	
5	1256	1232	1208	1161	1118	1118	1150	1168	1168	114
15	1253	1259	1270	1212	1080	1164	1268	1272	1265	345
25	1248	1210	1137	1133	985	1126	1143	1211	1242	530
35	1238	1153	1037	955	861	967	1048	1172	1245	660
45	1012	969	907	769	664	773	920	975	1008	674
55	665	639	644	577	507	586	647	644	669	548
65	331	338	343	345	300	350	348	343	327	333
75	156	151	143	140	140	145	149	154	154	155
85	50	46	42	42	40	42	43	45	44	48
90	0	0	0	0	0	0	0	0	0	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	989	17.4	29.0
0- 40	1649	28.9	48.4
0- 60	2871	50.4	84.3
0- 90	3407	59.8	100.0
90-180	0	0.0	0.0
0-180	3407	59.8	100.0

TOTAL LUMINAIRE EFFICIENCY: 59.8%

CIE TYPE: DIRECT

PLANE: 0-DEG 90-DEG 180-DEG

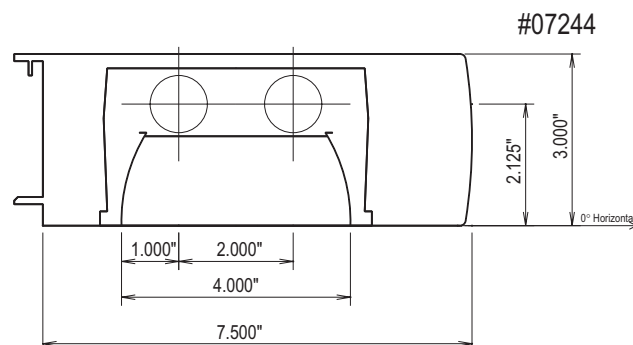
SPACING CRITERIA: 1.6 1.2 1.6

SHIELDING ANGLES: 27 21 27

LUMINOUS LENGTH: 4.000 48.000

LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	8993.	8993.	8993.
45	11553.	10354.	7580.
55	9359.	9063.	7135.
65	6322.	6552.	5730.
75	4865.	4460.	4366.
85	4631.	3890.	3705.



TESTED BY HERSCHEL SCHRECK
CHECKED BY MIKE GRATHER

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



LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING
MEMBER

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

LTL NUMBER: 07244

DATE: 02-18-2003

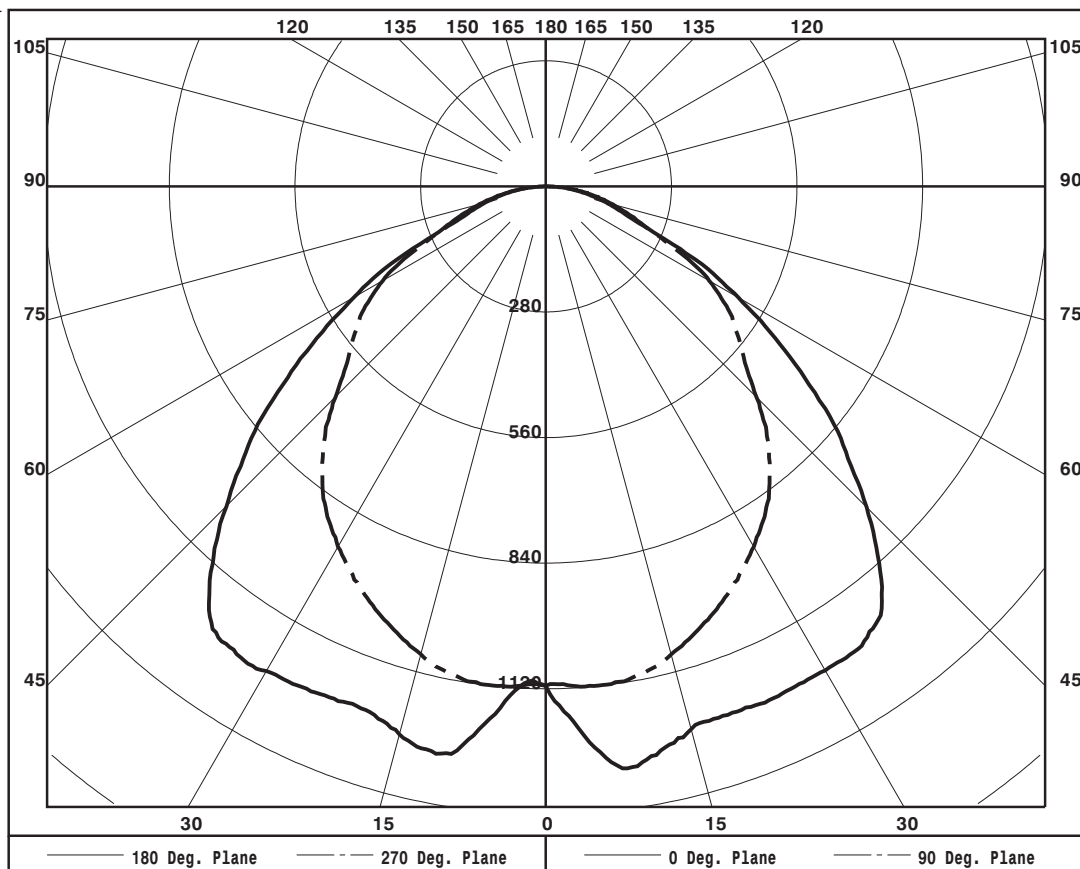
PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0	1114	1114	1114	1114	1114	1114	1114	1114	1114
5	1256	1232	1208	1161	1118	1118	1150	1168	1168
10	1297	1307	1290	1201	1112	1149	1237	1282	1283
15	1253	1259	1270	1212	1080	1164	1268	1272	1265
20	1246	1224	1201	1195	1035	1163	1211	1226	1233
25	1248	1210	1137	1133	985	1126	1143	1211	1242
30	1246	1184	1093	1044	928	1053	1096	1193	1248
35	1238	1153	1037	955	861	967	1048	1172	1245
40	1166	1104	973	862	774	869	991	1119	1168
45	1012	969	907	769	664	773	920	975	1008
50	849	803	800	674	571	676	803	809	846
55	665	639	644	577	507	586	647	644	669
60	497	476	490	470	420	478	494	482	494
65	331	338	343	345	300	350	348	343	327
70	213	209	223	208	196	211	230	216	217
75	156	151	143	140	140	145	149	154	154
80	100	97	93	89	90	91	95	96	96
85	50	46	42	42	40	42	43	45	44
90	0	0	0	0	0	0	0	0	0

ZONAL LUMEN SUMMARY

0- 5	27.
5- 10	87.
10- 15	147.
15- 20	198.
20- 25	245.
25- 30	285.
30- 35	318.
35- 40	341.
40- 45	346.
45- 50	328.
50- 55	297.
55- 60	251.
60- 65	198.
65- 70	135.
70- 75	92.
75- 80	63.
80- 85	36.
85- 90	12.





LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING
MEMBER

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

LTL NUMBER: 07244

DATE: 02-18-2003

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	71	71	71	71	70	70	70	70	66	66	66	64	64	64	61	61	61	60
1	66	63	61	59	64	62	60	58	60	58	56	57	56	55	55	54	53	52
2	61	56	53	50	59	55	52	49	53	50	48	51	49	47	49	48	46	45
3	56	50	46	42	54	49	45	42	48	44	41	46	43	41	45	42	40	39
4	51	45	40	36	50	44	40	36	43	39	36	41	38	35	40	37	35	34
5	47	40	35	31	46	39	34	31	38	34	31	37	33	30	36	33	30	29
6	43	36	31	27	42	35	30	27	34	30	27	33	29	26	32	29	26	25
7	40	32	27	23	39	32	27	23	31	26	23	30	26	23	29	26	23	22
8	37	29	24	20	36	28	24	20	28	23	20	27	23	20	26	23	20	19
9	34	26	21	17	33	25	21	17	25	20	17	24	20	17	23	20	17	16
10	31	23	19	15	31	23	18	15	22	18	15	22	18	15	21	18	15	14

NOTE: THE ZONAL CAVITY CALCULATION TECHNIQUE IS ACCURATE WHEN LUMINAIRES WITH SYMMETRIC CANDELA DISTRIBUTIONS ARE EMPLOYED AND WHEN THE LUMINAIRES ARE LOCATED SYMMETRICALLY THROUGHOUT THE ROOM. THIS UNIT HAS SPECIAL CHARACTERISTICS AND THEREFORE THESE COEFFICIENTS SHOULD BE USED WITH CAUTION.

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.



LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING
MEMBER

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

INITIAL ILLUMINATION OF 50 FOOTCANDLES USING LTL TEST NUMBER 07244

LUMINAIRE SUSPENSION LENGTH = 1.5

WORKING PLANE HEIGHT = 2.50

FLOOR REFLECTANCE = 20

ROOM HT CEIL RF WALL RF	HT RF	8				9				10				12			
		80		70		80		70		80		70		80		70	
		70	50	50	30	70	50	50	30	70	50	50	30	70	50	50	30
WIDTH	LENGTH																
10.	10.	2	2	2	3	2	3	3	3	3	3	3	3	3	4	4	4
10.	15.	3	3	3	4	3	3	4	4	3	4	4	4	4	4	5	5
15.	20.	5	5	5	6	5	6	6	6	5	6	6	7	6	7	7	8
15.	30.	7	8	8	8	7	8	8	9	8	8	8	9	8	9	9	10
20.	20.	6	7	7	7	7	7	7	8	7	7	8	8	7	8	8	9
20.	30.	9	9	10	10	9	10	10	11	10	10	11	11	10	11	12	13
20.	40.	12	12	12	13	12	13	13	14	12	13	14	14	13	14	15	16
20.	60.	17	18	18	19	17	18	19	20	18	19	20	21	19	21	21	23
30.	30.	13	13	14	14	13	14	14	15	14	15	15	16	14	16	16	17
30.	40.	17	17	18	18	17	18	18	19	17	19	19	20	18	20	20	22
30.	50.	21	21	22	23	21	22	23	23	21	23	23	24	22	24	25	26
30.	60.	24	25	26	27	25	26	27	28	25	27	27	29	27	29	29	31
60.	60.	47	48	49	50	48	49	50	52	48	50	51	53	50	52	53	56
60.	80.	62	64	65	66	63	65	66	68	64	66	67	69	65	68	70	72
60.	100.	78	79	81	82	78	80	82	84	79	82	83	86	81	84	86	89
100.	100.	128	129	132	134	129	131	134	136	130	132	135	138	132	136	139	142

QUANTITY OF LUMINAIRES