



LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING
MEMBER

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

LTL NUMBER: 07106

DATE: 11-25-2002

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: AR9300 3LP-D/I-4-C-OP/BW-X-120-T8

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

LAMPS: THREE PHILIPS F32T8/TL841 RATED AT 2850 LUMENS EACH.

BALLAST: ONE SYLVANIA QT3X32T8/120 ISN-SC

MOUNTING: PENDENT

LUMEN TO CANDELA RATIO USED = 9.18

TOTAL INPUT WATTS = 89.1 AT 120.0 VOLTS

THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.

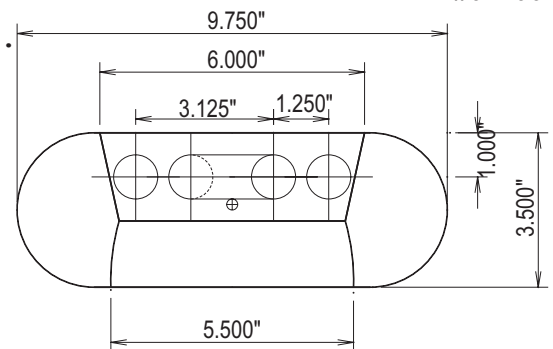
#07106

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	1119	1119	1119	1119	1119
5	1112	1112	1113	1106	1107
15	1033	1030	1011	986	982
25	912	888	838	827	844
35	767	715	704	806	859
45	604	542	640	771	852
55	425	408	534	637	727
65	229	256	340	389	426
75	108	108	113	122	126
85	31	31	31	34	35
90	0	0	0	0	0
95	50	102	92	77	71
105	239	410	502	506	501
115	454	607	788	873	893
125	654	766	954	1070	1107
135	836	936	1039	1157	1198
145	990	1084	1126	1177	1202
155	1105	1198	1224	1228	1233
165	1185	1251	1285	1284	1283
175	1228	1226	1251	1267	1270
180	1227	1227	1227	1227	1227

FLUX

105
284
398
477
517
483
324
127
35
103
468
726
822
802
703
557
358
120



ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	787	9.2	10.6
0- 40	1264	14.8	17.1
0- 60	2264	26.5	30.6
0- 90	2751	32.2	37.1
90-120	1297	15.2	17.5
90-130	2119	24.8	28.6
90-150	3624	42.4	48.9
90-180	4658	54.5	62.9
0-180	7409	86.7	100.0

TOTAL LUMINAIRE EFFICIENCY:

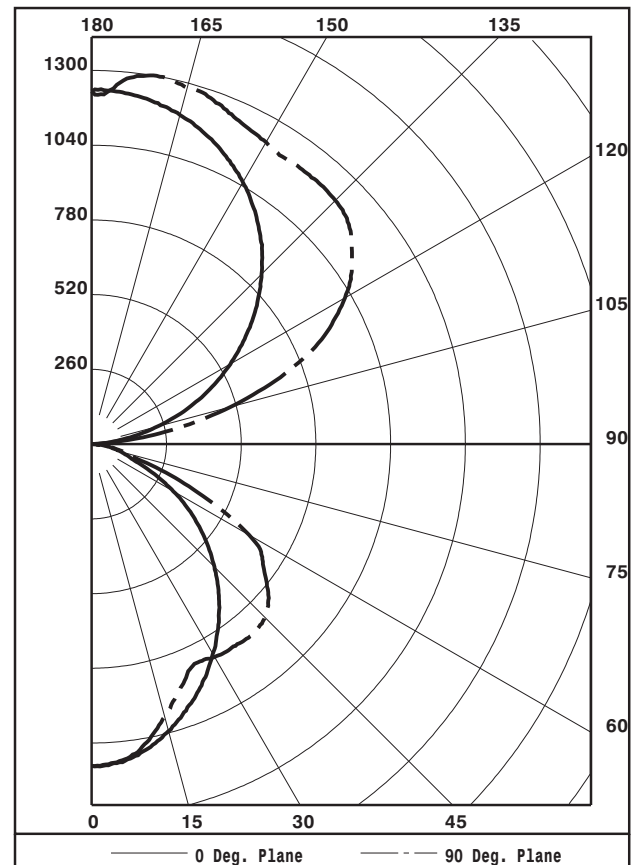
86.7%

CIE TYPE: SEMI-INDIRECT

PLANE: 0-DEG 90-DEG

SPACING CRITERIA: 1.1 1.1

SHIELDING ANGLES: 21 21



TESTED BY HERSCHEL SCHRECK
CHECKED BY MIKE GRATHER

THIS REPORT BASED ON LM-41 AND OTHER PERTINENT IES 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: 07106

DATE: 11-25-2002

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	90	90	90	90	82	82	82	82	66	66	66	52	52	52	38	38	38	32
1	83	79	76	73	75	72	69	67	58	56	55	46	45	44	34	34	33	28
2	75	69	64	60	68	63	59	55	51	48	46	41	39	37	31	29	28	24
3	69	61	55	50	62	56	51	46	46	42	39	36	34	32	27	26	24	21
4	63	54	48	43	57	49	44	39	41	36	33	32	29	27	25	23	21	18
5	58	48	41	36	52	44	38	33	36	32	28	29	26	23	22	20	18	15
6	53	43	36	31	48	39	33	29	32	28	24	26	22	20	20	17	16	13
7	49	38	32	27	44	35	29	25	29	24	21	23	20	17	18	15	14	11
8	45	34	28	23	41	32	26	22	26	22	18	21	18	15	16	14	12	10
9	42	31	25	20	38	28	23	19	23	19	16	19	16	13	14	12	10	8
10	39	28	22	18	35	26	20	17	21	17	14	17	14	12	13	11	9	7

PLANE: 0-DEG 90-DEG
LUMINOUS LENGTH: 48.000 5.500

LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	6569.	6569.	6569.
45	5015.	5314.	7074.
55	4350.	5466.	7441.
65	3181.	4723.	5918.
75	2450.	2563.	2858.
85	2088.	2088.	2358.



LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING
MEMBER

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

LTL NUMBER: 07106

DATE: 11-25-2002

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	1119	1119	1119	1119	1119
5	1112	1112	1113	1106	1107
10	1080	1081	1082	1065	1060
15	1033	1030	1011	986	982
20	974	968	925	904	902
25	912	888	838	827	844
30	843	805	758	809	856
35	767	715	704	806	859
40	688	629	678	793	868
45	604	542	640	771	852
50	516	465	595	721	802
55	425	408	534	637	727
60	328	340	443	554	632
65	229	256	340	389	426
70	147	159	213	231	238
75	108	108	113	122	126
80	68	71	72	76	79
85	31	31	31	34	35
90	0	0	0	0	0
95	50	102	92	77	71
100	135	275	294	288	283
105	239	410	502	506	501
110	349	521	664	714	715
115	454	607	788	873	893
120	557	686	884	991	1018
125	654	766	954	1070	1107
130	750	852	1001	1132	1170
135	836	936	1039	1157	1198
140	917	1017	1078	1168	1205
145	990	1084	1126	1177	1202
150	1052	1144	1176	1199	1213
155	1105	1198	1224	1228	1233
160	1150	1232	1255	1265	1264
165	1185	1251	1285	1284	1283
170	1212	1244	1292	1300	1302
175	1228	1226	1251	1267	1270
180	1227	1227	1227	1227	1227

ZONAL LUMEN SUMMARY

0- 5	27.
5- 10	78.
10- 15	124.
15- 20	160.
20- 25	188.
25- 30	210.
30- 35	230.
35- 40	247.
40- 45	258.
45- 50	259.
50- 55	250.
55- 60	232.
60- 65	192.
65- 70	132.
70- 75	77.
75- 80	51.
80- 85	28.
85- 90	7.
90- 95	7.
95-100	95.
100-105	191.
105-110	277.
110-115	343.
115-120	383.
120-125	407.
125-130	415.
130-135	409.
135-140	392.
140-145	367.
145-150	336.
150-155	300.
155-160	257.
160-165	207.
165-170	151.
170-175	91.
175-180	29.

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 07106
LUMINAIRE SUSPENSION LENGTH = 1.5
WORKING PLANE HEIGHT = 2.50
FLOOR REFLECTANCE = 20

ROOM HT CEIL RF WALL RF	HT RF 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.	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3
10.	15.	2	2	2	2	2	2	2	3	2	2	3	3	2	3	3	3
15.	20.	3	3	3	4	3	3	4	4	3	4	4	4	3	4	4	5
15.	30.	4	4	5	5	4	5	5	5	4	5	5	6	5	5	6	7
20.	20.	4	4	4	4	4	4	4	5	4	4	5	5	4	5	5	6
20.	30.	5	5	6	6	5	6	6	7	5	6	6	7	6	6	7	8
20.	40.	6	7	7	8	7	7	8	8	7	7	8	9	7	8	9	10
20.	60.	9	10	11	11	10	10	11	12	10	11	12	12	10	11	13	14
30.	30.	7	7	8	9	7	8	8	9	7	8	9	9	8	9	10	10
30.	40.	9	10	10	11	9	10	11	11	10	10	11	12	10	11	12	13
30.	50.	11	12	13	13	11	12	13	14	12	12	14	14	12	13	15	16
30.	60.	13	14	15	16	14	14	16	16	14	15	16	17	14	16	17	18
60.	60.	25	26	29	29	26	27	29	30	26	27	30	31	27	28	31	33
60.	80.	33	34	37	38	34	35	38	39	34	35	39	40	35	37	40	42
60.	100.	41	42	46	47	42	43	47	48	42	44	48	49	43	45	50	52
100.	100.	68	69	76	77	68	70	77	78	69	71	78	79	70	72	80	82

QUANTITY OF LUMINAIRES