

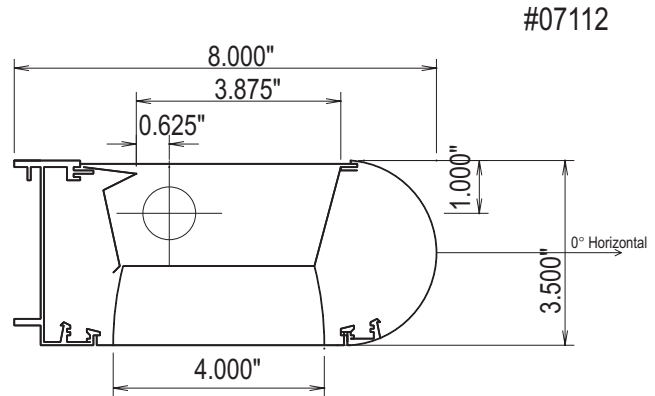


LTL NUMBER: 07112 DATE: 11-22-2002  
 PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING  
 CATALOG NUMBER: AR9300 1LP-D/I-4-WM-OP/BW-X-120-T8  
 LUMINAIRE: EXTRUDED ALUMINUM HOUSING, FORMED SPECULAR ALUMINUM REFLECTORS  
 BESIDE LAMP, 12 CELL, 1 1/2" DEEP, FORMED WHITE ENAMEL  
 ALUMINUM LOUVER BELOW LAMP, OPEN TOP.  
 LAMP: ONE PHILIPS F32T8/TL841 RATED AT 2850 LUMENS.  
 BALLAST: ONE ADVANCE REL-1P32-SC  
 MOUNTING: WALL  
 LUMEN TO CANDELA RATIO USED = 9.18  
 TOTAL INPUT WATTS = 32.3 AT 120.0 VOLTS  
 THE 0 DEGREE PLANE IS PERPENDICULAR TO THE LAMPS.

CANDELA DISTRIBUTION										FLUX
	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	
0	404	404	404	404	404	404	404	404	404	
5	460	449	439	420	402	386	382	376	377	39
15	571	550	501	431	373	351	360	348	339	118
25	548	541	512	425	327	312	256	198	181	168
35	397	393	430	393	271	243	140	74	69	173
45	363	342	282	317	211	150	76	88	92	163
55	146	164	214	207	148	83	85	93	99	125
65	117	113	80	99	79	59	69	85	94	83
75	35	35	38	37	37	38	41	46	49	42
85	9	9	11	11	11	11	12	13	13	15
90	0	0	0	0	0	0	0	0	0	
95	15	16	16	37	19	20	3	3	4	24
105	211	250	300	206	80	100	210	188	178	196
115	548	522	422	209	148	130	210	300	332	293
125	584	519	365	262	207	190	195	242	273	271
135	472	410	339	327	261	255	230	240	248	235
145	386	385	385	367	306	312	284	267	266	207
155	421	422	422	383	342	344	343	323	327	170
165	439	425	409	383	362	362	369	371	375	109
175	395	386	381	377	377	374	375	372	371	36
180	376	376	376	376	376	376	376	376	376	

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT
0- 30	325	11.4	13.2
0- 40	499	17.5	20.2
0- 60	786	27.6	31.9
0- 90	926	32.5	37.5
90-120	512	18.0	20.8
90-130	783	27.5	31.8
90-150	1225	43.0	49.7
90-180	1540	54.0	62.5
0-180	2466	86.5	100.0

TOTAL LUMINAIRE EFFICIENCY: 86.5%  
 CIE TYPE: SEMI-INDIRECT  
 PLANE: 0-DEG 90-DEG 180-DEG  
 SPACING CRITERIA: 1.5 1.1 0.8  
 SHIELDING ANGLES: 32 21 65



#07112

TESTED BY HERSCHEL SCHRECK  
 CHECKED BY MIKE GRATHER



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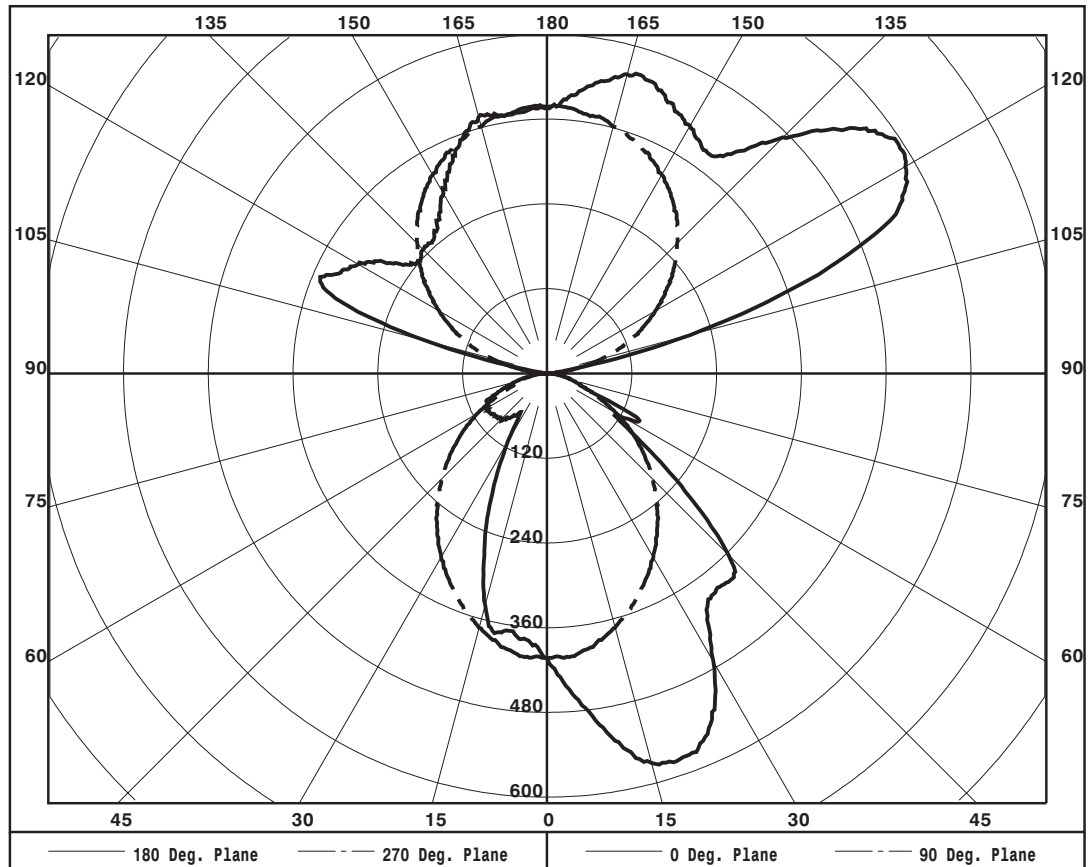
ZONAL LUMEN SUMMARY

0- 5	10.
5- 10	30.
10- 15	50.
15- 20	68.
20- 25	81.
25- 30	88.
30- 35	88.
35- 40	85.
40- 45	83.
45- 50	80.
50- 55	69.
55- 60	56.
60- 65	47.
65- 70	36.
70- 75	25.
75- 80	17.
80- 85	10.
85- 90	4.
90- 95	2.
95-100	22.
100-105	72.
105-110	124.
110-115	146.
115-120	147.
120-125	140.
125-130	131.
130-135	121.
135-140	114.
140-145	107.
145-150	100.
150-155	91.
155-160	79.
160-165	64.
165-170	46.
170-175	27.
175-180	9.

PLANE: 0-DEG 90-DEG  
 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	3261.	3261.	3261.
45	4144.	3219.	2409.
55	2055.	3012.	2083.
65	2235.	1528.	1509.
75	1092.	1185.	1154.
85	834.	1019.	1019.







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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

Table with columns for RC, RW, and various reflectance values (80, 70, 50, 30, 10, 0) and rows for cavity ratios (0-10).

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.



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INITIAL ILLUMINATION OF 50 FOOTCANDLES USING LTL TEST NUMBER 07112  
 LUMINAIRE SUSPENSION LENGTH = 1.5  
 WORKING PLANE HEIGHT = 2.50  
 FLOOR REFLECTANCE = 20

ROOM HT		8				9				10				12			
CEIL RF		80		70		80		70		80		70		80		70	
WALL RF		70	50	50	30	70	50	50	30	70	50	50	30	70	50	50	30
WIDTH	LENGTH																
10.	10.	3	4	4	4	4	4	4	5	4	4	5	6	4	5	6	7
10.	15.	4	5	5	6	5	5	6	7	5	6	6	7	6	7	7	9
15.	20.	8	8	9	10	8	9	10	11	8	10	10	11	9	11	12	13
15.	30.	11	12	13	14	11	12	14	15	12	13	14	16	13	15	16	18
20.	20.	10	11	12	12	10	11	12	13	11	12	13	14	12	13	14	16
20.	30.	14	15	16	17	14	16	17	18	15	16	18	19	16	18	20	22
20.	40.	18	19	21	22	19	20	22	24	19	21	23	25	21	23	25	28
20.	60.	27	28	31	32	27	29	32	34	28	31	34	36	30	33	36	39
30.	30.	20	21	23	24	21	22	24	26	21	23	25	27	23	25	27	30
30.	40.	26	28	30	32	27	29	31	33	28	30	33	34	29	32	35	38
30.	50.	32	34	37	39	33	35	39	40	34	36	40	42	36	39	42	46
30.	60.	39	40	44	46	39	42	46	48	40	43	47	49	42	46	50	54
60.	60.	75	77	84	86	76	78	86	89	77	80	88	91	79	84	92	96
60.	80.	99	101	111	113	100	103	113	116	101	105	115	119	104	109	120	125
60.	100.	123	125	138	140	124	128	140	144	126	130	143	147	128	134	148	154
100.	100.	202	205	226	229	203	208	229	233	205	210	231	236	209	216	238	244

QUANTITY OF LUMINAIRES