



itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

INDEPENDENT TESTING LABORATORIES, INC.
3386 LONGHORN ROAD, BOULDER, CO 80302 USA

PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL59279

DATE: 09/25/07

PREPARED FOR: AMERICAN LIGHTING, LLC

CATALOG NUMBER: 043T-18-120-28WH1

LUMINAIRE: EXTRUDED METAL HOUSING WITH WHITE PAINTED GENERAL INTERIOR FINISH AND MOLDED WHITE PLASTIC END CAPS, FORMED WHITE PAINTED METAL BALLAST COVER, FORMED SEMI-SPECULAR METAL REFLECTOR, CLEAR FLAT MICRO-PRISMATIC GLASS LENS IN FABRICATED WHITE PAINTED METAL DOOR, LENS PRISMS UP.

LAMP: ONE 18-WATT T-2 AMERICAN LIGHTING 043A-18-T2BULB1 LINEAR FLUORESCENT.

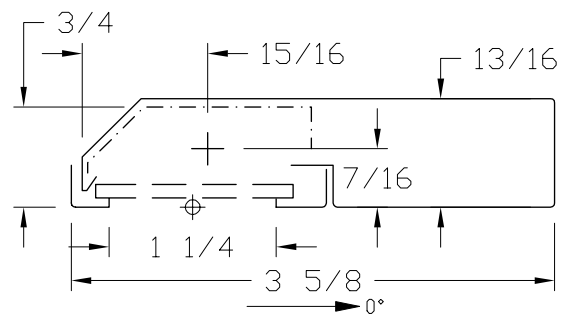
BALLAST: AMERICAN LIGHTING, LLC 043B-18W

THE 0 DEGREE PLANE IS PERPENDICULAR TO THE LAMP.

MOUNTING: SURFACE

NOTE: THE LAMP UTILIZED FOR THIS TEST WAS NOT CHECKED FOR LIGHT OUTPUT SYMMETRY, AS IS STANDARD PRACTICE PER IESNA LM-41-98, LAMP AND BALLAST INFORMATION PROVIDED BY CLIENT.

TOTAL INPUT WATTS= 15.5 AT 120.0 VOLTS
REPORT IS BASED ON 1120 LUMENS PER LAMP.



CANDELA DISTRIBUTION

	0.0	45.0	90.0	135.0	180.0	FLUX
0	265	265	265	265	265	25
5	273	270	263	262	262	76
15	298	284	254	259	264	116
25	261	277	235	246	246	131
35	190	222	204	211	203	124
45	146	153	160	160	160	101
55	97	105	115	114	121	68
65	51	62	74	73	75	34
75	22	27	36	35	33	8
85	8	6	7	8	8	0
90	0	0	0	0	0	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	218	19.4	31.9
0- 40	349	31.1	51.0
0- 60	573	51.2	83.9
0- 90	684	61.0	100.0
90-180	0	0.0	0.0
0-180	684	61.0	100.0

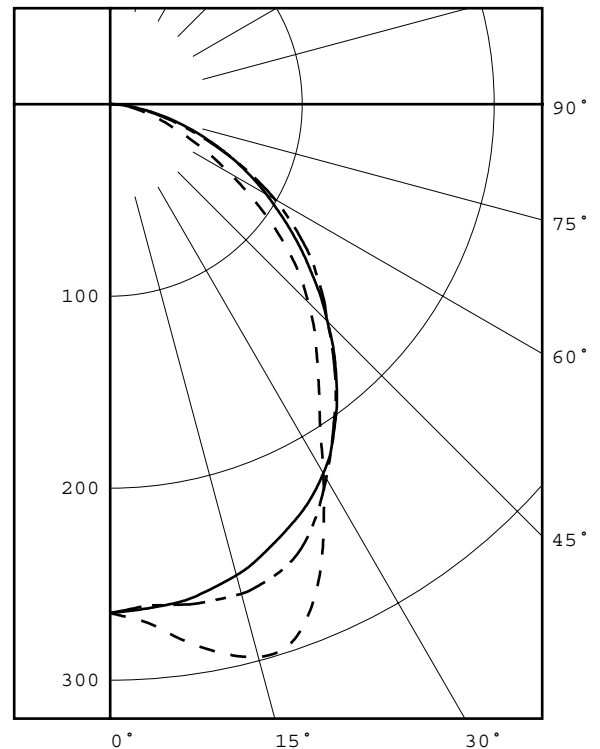
TOTAL LUMINAIRE EFFICIENCY = 61.0 %

CIE TYPE - DIRECT

PLANE	0-DEG	90-DEG	180-DEG
SPACING CRITERIA	1.2	1.2	1.2
SHIELDING ANGLES	90	90	
LUMINOUS LENGTH	1.250	25.188	

LUMINANCE DATA IN CANDELA/SQ M

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 90-DEG	AVERAGE 180-DEG
45	10165.	11139.	11139.
55	8325.	9870.	10385.
65	5941.	8620.	8737.
75	4185.	6848.	6277.
85	4519.	3954.	4519.



LEGEND:
0-deg: - - - - -
90-deg: = = = = =
180-deg: - . - . - .

Checked B.HYRE
Approved R.BEATTIE



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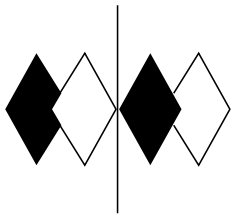
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CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	265	265	265	265	265	265	265	265	265
2.5	268	268	267	266	264	264	263	263	263
5.0	273	273	270	266	263	262	262	262	262
7.5	281	279	273	267	262	260	261	262	263
10.0	288	285	277	267	260	258	260	263	264
12.5	294	291	281	267	257	256	260	263	264
15.0	298	295	284	266	254	253	259	263	264
17.5	298	296	286	266	250	250	257	261	262
20.0	291	292	287	264	245	246	254	258	259
22.5	278	282	284	263	240	242	251	253	254
25.0	261	268	277	260	235	237	246	247	246
27.5	241	250	267	256	229	231	239	238	236
30.0	222	232	254	250	222	225	231	228	225
32.5	204	213	239	243	214	217	222	216	214
35.0	190	196	222	233	204	207	211	204	203
37.5	178	181	204	223	194	197	199	193	193
40.0	167	168	186	210	183	187	186	181	182
42.5	157	157	168	197	172	176	173	170	171
45.0	146	146	153	183	160	164	160	159	160
47.5	135	136	139	168	149	152	148	149	151
50.0	123	125	127	153	137	140	136	139	141
52.5	110	113	116	138	126	128	125	130	132
55.0	97	101	105	123	115	116	114	120	121
57.5	84	89	94	110	104	104	104	109	110
60.0	72	76	83	97	94	93	94	98	99
62.5	61	65	73	85	84	82	84	87	87
65.0	51	54	62	74	74	72	73	76	75
67.5	42	45	53	64	64	62	63	64	63
70.0	34	36	43	53	54	52	53	53	52
72.5	28	29	35	44	45	43	44	43	42
75.0	22	23	27	35	36	35	35	34	33
77.5	17	18	20	27	28	27	27	25	25
80.0	13	13	14	19	20	19	19	18	18
82.5	10	10	9	12	13	13	13	12	12
85.0	8	7	6	7	7	7	8	8	8
87.5	4	4	4	3	2	4	5	5	4
90.0	0	0	0	0	0	0	0	0	0



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ZONAL LUMEN SUMMARY

0- 5	6.
5- 10	19.
10- 15	32.
15- 20	44.
20- 25	55.
25- 30	62.
30- 35	65.
35- 40	66.
40- 45	64.
45- 50	60.
50- 55	54.
55- 60	47.
60- 65	39.
65- 70	30.
70- 75	21.
75- 80	13.
80- 85	6.
85- 90	2.



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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	73	73	73	73	71	71	71	71	68	68	68	65	65	65	62	62	62	61	
1	67	64	62	60	65	63	61	59	60	58	57	58	56	55	56	55	53	52	
2	61	57	53	49	60	55	52	49	53	50	48	51	49	47	49	47	46	44	
3	56	50	45	42	55	49	45	41	47	44	41	46	43	40	44	41	39	38	
4	52	45	40	36	50	44	39	35	42	38	35	41	37	35	40	37	34	33	
5	48	40	35	31	46	39	35	31	38	34	31	37	33	30	36	33	30	29	
6	44	36	31	27	43	36	31	27	35	30	27	34	30	27	33	29	26	25	
7	41	33	28	24	40	33	28	24	32	27	24	31	27	24	30	26	24	22	
8	38	30	25	22	37	30	25	22	29	25	22	28	24	21	28	24	21	20	
9	36	28	23	20	35	27	23	20	27	22	19	26	22	19	25	22	19	18	
10	34	26	21	18	33	25	21	18	25	21	18	24	20	18	24	20	18	17	

ALL CANDELA, LUMENS, LUMINANCE, COEFFICIENT OF UTILIZATION AND VCP VALUES IN THIS REPORT ARE BASED ON RELATIVE PHOTOMETRY WHICH ASSUMES A BALLAST FACTOR OF 1.000. ANY CALCULATIONS PREPARED FROM THESE DATA SHOULD INCLUDE AN APPROPRIATE BALLAST FACTOR.

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.