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THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

INDEPENDENT TESTING LABORATORIES, INC.  
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

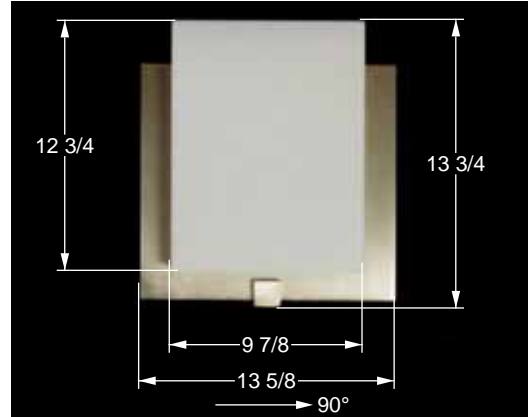
REPORT NUMBER: ITL79827  
ISSUE DATE: 11/13/13  
PREPARED FOR: OXYGEN LIGHTING  
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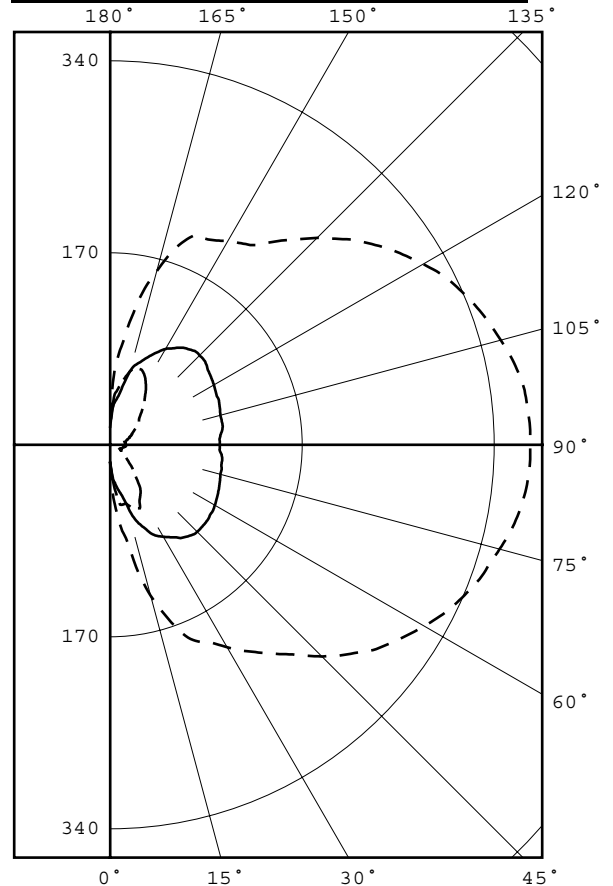
LUMINAIRE: FORMED WHITE PAINTED METAL MOUNTING PLATE WITH 4 RECTANGULAR SLOTS ON TOP AND BOTTOM, TRANSLUCENT WHITE FROSTED PLASTIC DIFFUSER, FABRICATED SEMI-SPECULAR METAL TRIM.  
BALLAST IS EXPOSED AND CENTERED AT TOP OF OPTICAL COMPARTMENT. DIFFUSER FROSTED SIDE OUT.

LAMPS: TWO 26-WATT DOUBLE TWIN TUBE COMPACT FLUORESCENTS, SYLVANIA CF26DD/E/827, VERTICAL BASE-DOWN POSITION.

BALLAST: FULHAM RH3-UNV-226-C  
TOTAL INPUT WATTS = 49.9 AT 120.0 VOLTS  
TOTAL REFLECTANCE OF PAINT = 81.3 %  
MOUNTING: WALL  
REPORT IS BASED ON 1710 LUMENS PER LAMP.



CANDELA DISTRIBUTION						FLUX
	0.0	45.0	90.0	135.0	180.0	
0	16	16	16	16	16	5
5	57	58	31	33	35	26
15	138	118	53	68	54	57
25	193	207	87	66	62	84
35	224	218	100	62	46	108
45	265	229	109	45	26	128
55	305	257	108	29	13	147
65	336	282	105	22	10	164
75	357	300	101	23	11	175
85	371	310	99	27	14	176
90	372	311	97	28	14	168
95	371	311	98	28	14	152
105	358	301	101	31	15	131
115	336	283	104	36	21	109
125	302	255	108	43	28	86
135	259	222	112	54	38	61
145	216	212	105	72	54	30
155	201	219	88	81	70	6
165	159	152	67	67	67	
175	78	80	36	41	45	
180	16	16	16	16	16	



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

ZONAL LUMEN SUMMARY				
ZONE	LUMENS	%LAMP	%FIXT	
0- 30	88	2.6	4.8	
0- 40	172	5.0	9.5	
0- 60	408	11.9	22.5	
0- 90	894	26.1	49.3	
90-120	495	14.5	27.3	
90-130	626	18.3	34.6	
90-150	822	24.0	45.3	
90-180	919	26.9	50.7	
0-180	1812	53.0	100.0	

TOTAL LUMINAIRE EFFICIENCY = 53.0 %

CIE TYPE - GENERAL DIFFUSE

Checked N. WHITE  
Approved R. BEATTIE  
Lighting Engineer



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LUMINANCE DATA IN CANDELA/SQ M			
ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	2699.	2951.	2864.
55	2778.	2993.	2818.
65	2876.	3083.	2801.
75	2975.	3220.	2852.
85	3030.	3321.	3063.



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CANDELA DISTRIBUTION  
 LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	16	16	16	16	16	16	16	16	16
5.0	57	61	58	52	31	36	33	33	35
10.0	87	94	92	75	40	43	60	60	54
15.0	138	148	118	95	53	68	68	59	54
20.0	173	185	174	124	74	85	65	61	60
25.0	193	207	207	144	87	92	66	65	62
30.0	207	214	221	174	94	92	67	56	53
35.0	224	227	218	191	100	89	62	49	46
40.0	242	241	222	206	106	90	53	39	34
45.0	265	261	229	206	109	89	45	30	26
50.0	286	282	241	197	109	85	36	22	19
55.0	305	302	257	191	108	77	29	16	13
60.0	321	318	271	189	107	72	24	13	12
65.0	336	333	282	191	105	67	22	12	10
70.0	348	345	292	198	103	65	22	12	10
75.0	357	355	300	202	101	63	23	13	11
80.0	366	363	306	205	100	64	25	14	12
85.0	371	368	310	206	99	65	27	17	14
90.0	372	370	311	206	97	66	28	17	14
95.0	371	369	311	207	98	67	28	17	14
100.0	367	365	308	206	101	69	29	18	13
105.0	358	356	301	202	101	70	31	19	15
110.0	348	346	293	198	103	72	33	21	18
115.0	336	334	283	192	104	74	36	24	21
120.0	320	318	271	187	106	77	39	27	24
125.0	302	300	255	184	108	81	43	31	28
130.0	282	279	238	188	111	86	48	36	33
135.0	259	257	222	198	112	90	54	42	38
140.0	236	236	214	205	110	93	63	51	46
145.0	216	221	212	204	105	90	72	61	54
150.0	208	215	220	189	98	85	78	70	63
155.0	201	216	219	165	88	82	81	76	70
160.0	192	203	196	144	78	80	78	76	72
165.0	159	169	152	120	67	72	67	72	67
170.0	119	127	108	89	45	51	60	59	55
175.0	78	81	80	70	36	43	41	49	45
180.0	16	16	16	16	16	16	16	16	16



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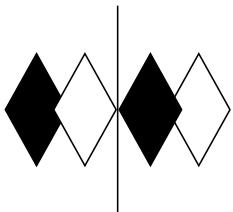
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5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	1
5- 10	4
10- 15	9
15- 20	17
20- 25	25
25- 30	32
30- 35	39
35- 40	45
40- 45	51
45- 50	57
50- 55	61
55- 60	66
60- 65	71
65- 70	76
70- 75	80
75- 80	84
80- 85	87
85- 90	88
90- 95	88
95-100	88
100-105	85
105-110	82
110-115	78
115-120	74
120-125	68
125-130	63
130-135	57
135-140	52
140-145	46
145-150	40
150-155	34
155-160	27
160-165	19
165-170	11
170-175	5
175-180	1

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	5
0- 20	31
0- 30	88
0- 40	172
0- 50	280
0- 60	408
0- 70	555
0- 80	719
0- 90	894
0-100	1070
0-110	1237
0-120	1389
0-130	1520
0-140	1629
0-150	1716
0-160	1777
0-170	1806
0-180	1812



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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	57	57	57	57	52	52	52	52	44	44	44	36	36	36	29	29	29	26	
1	49	46	43	40	45	42	39	37	35	33	31	28	27	25	22	21	20	17	
2	44	39	34	31	40	35	32	28	29	26	24	23	21	19	18	16	15	12	
3	39	33	28	25	36	30	26	23	25	22	19	20	17	15	15	13	12	9	
4	36	29	24	20	32	26	22	19	22	18	15	17	15	12	13	11	9	7	
5	33	25	20	17	29	23	19	15	19	16	13	15	12	10	12	9	8	6	
6	30	23	18	14	27	21	16	13	17	13	11	14	11	9	10	8	7	5	
7	27	20	15	12	25	18	14	11	15	12	9	12	9	7	9	7	6	4	
8	25	18	14	11	23	17	13	10	14	10	8	11	8	6	8	6	5	4	
9	24	16	12	9	21	15	11	8	13	9	7	10	7	6	8	6	4	3	
10	22	15	11	8	20	14	10	7	11	8	6	9	7	5	7	5	4	3	

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.