

# 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: ITL66579

DATE: 11/15/10

PREPARED FOR: OXYGEN LIGHTING

CATALOG NUMBER: 2-5153-224

LUMINAIRE: FABRICATED SEMI-DIFFUSE METAL MOUNTING PLATE/REFLECTOR, TRANSLUCENT WHITE PLASTIC DIFFUSER, TRANSLUCENT WHITE PLASTIC TOP AND BOTTOM END CAPS, CAST SEMI-DIFFUSE METAL DIFFUSER MOUNTING BRACKETS, OPEN BACK. BALLAST IS EXPOSED AND CENTERED AT TOP OF OPTICAL COMPARTMENT.

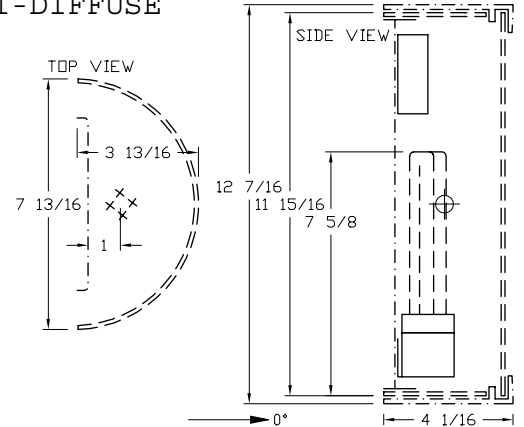
LAMP: ONE 26-WATT DOUBLE TWIN TUBE COMPACT FLUORESCENT, SYLVANIA CF26DD/E/830, VERTICAL BASE-DOWN POSITION.

BALLAST: ANTRON ELECTRONICS CSS-UV42PS

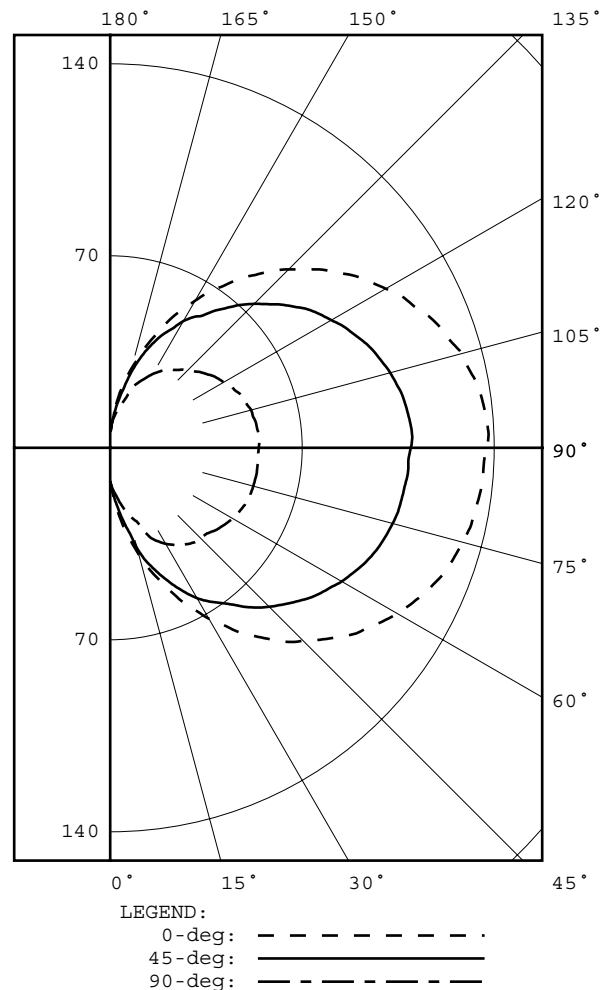
MOUNTING: WALL

TOTAL INPUT WATTS = 25.3 AT 120.0 VOLTS

REPORT IS BASED ON 1710 LUMENS PER LAMP.



CANDELA DISTRIBUTION						FLUX
	0.0	45.0	90.0	135.0	180.0	
0	12	12	12	12	12	2
5	20	19	16	15	15	8
15	40	38	25	22	23	20
25	62	56	37	29	35	34
35	82	69	44	36	48	50
45	100	82	47	45	60	66
55	115	93	50	52	69	79
65	126	101	53	55	75	88
75	133	107	54	56	79	92
85	136	109	54	55	80	92
90	137	110	54	54	80	87
95	137	110	54	54	80	77
105	133	106	53	53	79	63
115	122	98	50	51	76	46
125	109	88	46	47	70	30
135	92	74	40	41	61	17
145	72	59	35	34	48	6
155	52	46	27	26	36	1
165	30	27	17	18	22	
175	11	10	10	10	11	
180	8	8	8	8	8	



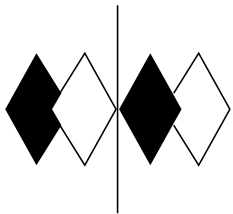
ZONAL ZONE	LUMEN LUMENS	%LAMP	%FIXT
0- 30	30	1.7	3.5
0- 40	64	3.7	7.4
0- 60	181	10.6	21.0
0- 90	441	25.8	51.2
90-120	256	15.0	29.8
90-130	319	18.7	37.1
90-150	395	23.1	46.0
90-180	420	24.5	48.8
0-180	861	50.3	100.0

TOTAL LUMINAIRE EFFICIENCY = 50.3 %

CIE TYPE - DIRECT-INDIRECT

Checked .....*R. HUMPHREYS*

Approved .....*R. BEATTIE*



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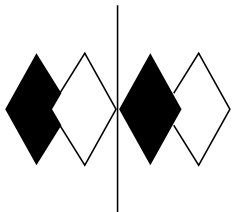
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LUMINANCE DATA IN CANDELA/SQ M			
ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	1977.	1886.	1619.
55	2066.	1959.	1635.
65	2144.	2028.	1694.
75	2205.	2092.	1747.
85	2269.	2156.	1818.



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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	12	12	12	12	12	12	12	12	12
5.0	20	18	19	16	16	15	15	15	15
10.0	30	27	27	22	20	18	18	17	17
15.0	40	40	38	30	25	23	22	20	23
20.0	51	51	47	39	29	28	25	25	29
25.0	62	60	56	45	37	33	29	31	35
30.0	72	69	63	52	40	41	32	37	42
35.0	82	76	69	56	44	47	36	43	48
40.0	91	85	76	59	46	52	41	48	54
45.0	100	93	82	64	47	58	45	54	60
50.0	108	101	88	68	48	61	48	59	65
55.0	115	107	93	71	50	63	52	63	69
60.0	121	113	98	75	52	65	54	66	73
65.0	126	118	101	77	53	67	55	68	75
70.0	130	122	105	79	54	69	56	70	78
75.0	133	125	107	81	54	70	56	71	79
80.0	135	127	108	82	54	71	56	71	79
85.0	136	128	109	82	54	71	55	71	80
90.0	137	129	110	83	54	70	54	70	80
95.0	137	129	110	83	54	69	54	71	80
100.0	136	127	108	82	54	69	53	71	80
105.0	133	124	106	80	53	68	53	71	79
110.0	128	120	102	78	52	67	52	70	78
115.0	122	115	98	74	50	64	51	68	76
120.0	116	109	93	71	48	61	49	66	73
125.0	109	102	88	66	46	57	47	63	70
130.0	101	94	81	62	43	53	44	59	66
135.0	92	86	74	57	40	48	41	55	61
140.0	82	77	67	51	37	43	38	49	55
145.0	72	68	59	48	35	38	34	43	48
150.0	62	60	53	42	31	32	29	37	42
155.0	52	50	46	37	27	25	26	30	36
160.0	40	40	37	30	23	20	23	24	28
165.0	30	30	27	21	17	16	18	19	22
170.0	20	19	18	15	13	13	14	14	14
175.0	11	10	10	10	10	9	10	10	11
180.0	8	8	8	8	8	8	8	8	8



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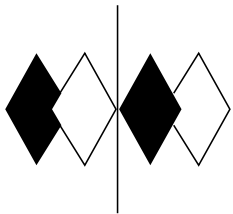
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5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	0.
5- 10	1.
10- 15	3.
15- 20	5.
20- 25	8.
25- 30	12.
30- 35	15.
35- 40	19.
40- 45	23.
45- 50	27.
50- 55	31.
55- 60	35.
60- 65	38.
65- 70	41.
70- 75	43.
75- 80	45.
80- 85	46.
85- 90	46.
90- 95	47.
95-100	46.
100-105	45.
105-110	43.
110-115	40.
115-120	37.
120-125	33.
125-130	29.
130-135	25.
135-140	21.
140-145	17.
145-150	13.
150-155	10.
155-160	7.
160-165	4.
165-170	2.
170-175	1.
175-180	0.

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	2.
0- 20	10.
0- 30	30.
0- 40	64.
0- 50	115.
0- 60	181.
0- 70	260.
0- 80	349.
0- 90	441.
0-100	533.
0-110	621.
0-120	697.
0-130	760.
0-140	806.
0-150	836.
0-160	853.
0-170	859.
0-180	861.



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	54	54	54	54	50	50	50	50	42	42	42	35	35	35	29	29	29	26
1	47	43	40	37	43	40	37	35	33	31	29	27	25	24	21	20	19	16
2	41	36	32	28	38	33	29	26	27	24	22	22	20	18	17	15	14	11
3	37	31	26	22	34	28	24	21	23	20	17	19	16	14	14	12	11	8
4	33	27	22	18	30	24	20	17	20	17	14	16	13	11	12	10	8	6
5	30	23	19	15	28	21	17	14	18	14	11	14	11	9	11	9	7	5
6	28	21	16	13	25	19	15	12	16	12	10	12	10	8	9	7	6	4
7	26	19	14	11	23	17	13	10	14	11	8	11	8	6	9	6	5	3
8	24	17	12	9	21	15	11	9	13	9	7	10	7	6	8	6	4	3
9	22	15	11	8	20	14	10	7	11	8	6	9	7	5	7	5	4	2
10	20	14	10	7	19	13	9	7	10	7	5	8	6	4	6	5	3	2

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.