

# itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

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

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REPORT NUMBER: ITL77195

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ISSUE DATE: 06/06/13

PREPARED FOR: OXYGEN LIGHTING

CATALOG NUMBER: 2-6107-24

LUMINAIRE: FABRICATED SEMI-SPECULAR METAL MOUNTING PLATE, SPUN SEMI-DIFFUSE SOCKET MOUNT WITH THREE SEMI-DIFFUSE METAL DIFFUSER RETAINING RODS, FROSTED CYLINDRICAL GLASS DIFFUSER WITH WHITE FINISHED INTERIOR, FORMED DIFFUSE PERFORATED CYLINDRICAL METAL EXTERIOR DIFFUSER, GLASS DIFFUSER FROSTED SIDE OUT. OPEN BOTTOM.

LAMP: ONE 13-WATT DOUBLE TWIN TUBE COMPACT FLUORESCENT, PENNSYLVANIA CF13DD/E/827, VERTICAL BASE-UP POSITION.

BALLAST: FULHAM WH2-120-C

TOTAL INPUT WATTS = 16.3 AT 120.0 VOLTS

MOUNTING: PENDANT

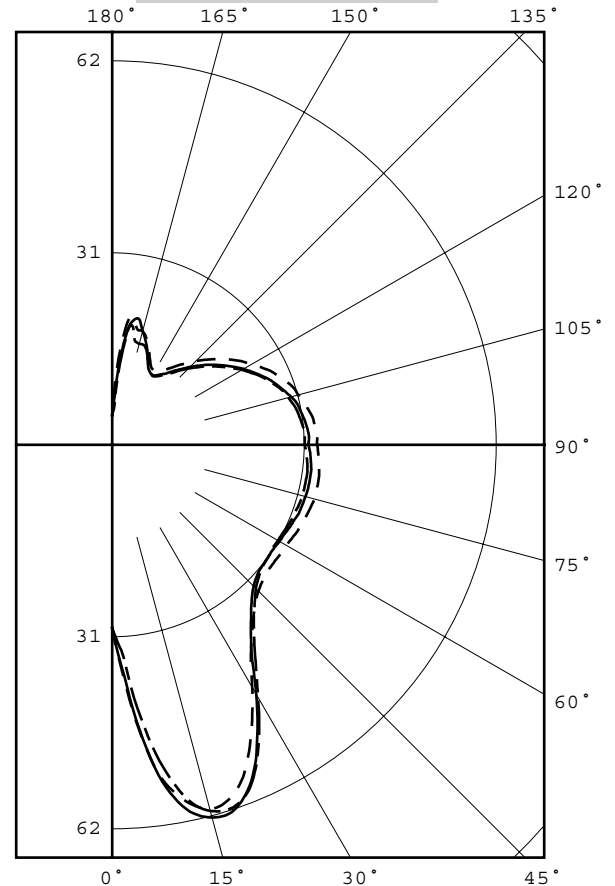
REPORT IS BASED ON 900 LUMENS PER LAMP.



### CANDELA DISTRIBUTION

### FLUX

	0.0	45.0	90.0	135.0	180.0	
0	29.6	29.6	29.6	29.6	29.6	
5	45.0	44.9	44.6	43.0	41.2	5
15	60.9	63.2	62.3	65.6	61.2	18
25	52.8	53.8	55.1	56.6	55.5	25
35	39.2	38.9	39.1	39.8	40.1	25
45	33.4	32.9	32.3	32.6	32.8	26
55	32.3	31.8	31.0	30.9	31.0	28
65	33.0	32.4	31.6	31.2	31.2	32
75	33.8	33.2	32.3	31.8	31.8	34
85	33.5	33.0	32.2	31.7	31.6	35
90	33.1	32.6	31.7	31.2	31.1	
95	32.9	32.5	31.6	31.1	31.0	35
105	31.1	30.7	29.9	29.5	29.4	32
115	28.2	27.9	26.5	27.0	26.3	27
125	23.9	23.7	22.3	22.7	21.9	21
135	19.1	18.8	17.8	17.8	17.4	14
145	14.8	14.5	13.9	13.6	13.6	9
155	14.6	14.3	13.8	13.6	13.9	7
165	19.0	18.3	19.0	18.0	16.9	5
175	15.7	14.7	13.3	12.4	11.9	2
180	4.8	4.8	4.8	4.8	4.8	



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

### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	47	5.2	12.5
0- 40	72	8.0	19.1
0- 60	126	14.0	33.3
0- 90	227	25.2	60.2
90-120	93	10.4	24.7
90-130	114	12.7	30.2
90-150	137	15.2	36.3
90-180	150	16.7	39.8
0-180	378	41.9	100.0

TOTAL LUMINAIRE EFFICIENCY = 41.9 %

CIE TYPE - SEMI-DIRECT

PLANE : 0-DEG 90-DEG 180-DEG

SPACING CRITERIA : 1.76 1.74 1.76

Checked B. HYRE  
 Approved R. BEATTIE  
 Lighting Engineer



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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	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6
5.0	45.0	44.6	44.9	44.7	44.6	44.2	43.0	42.6	41.2
10.0	56.8	57.3	58.5	58.2	57.9	58.6	59.2	57.7	54.9
15.0	60.9	61.5	63.2	62.8	62.3	64.1	65.6	64.4	61.2
20.0	59.1	59.6	60.9	61.1	61.2	62.9	63.8	63.0	61.1
25.0	52.8	53.2	53.8	54.4	55.1	56.2	56.6	55.9	55.5
30.0	45.2	45.0	45.2	46.1	46.5	46.9	47.2	46.8	47.1
35.0	39.2	39.0	38.9	39.1	39.1	39.6	39.8	39.8	40.1
40.0	35.6	35.4	35.2	35.0	34.9	35.0	35.3	35.4	35.6
45.0	33.4	33.2	32.9	32.7	32.3	32.3	32.6	32.8	32.8
50.0	32.4	32.2	31.9	31.6	31.2	31.2	31.2	31.4	31.4
55.0	32.3	32.1	31.8	31.5	31.0	30.9	30.9	31.0	31.0
60.0	32.5	32.3	32.0	31.7	31.2	31.0	30.9	31.0	30.9
65.0	33.0	32.8	32.4	32.1	31.6	31.4	31.2	31.3	31.2
70.0	33.4	33.2	32.9	32.6	32.1	31.7	31.6	31.7	31.5
75.0	33.8	33.5	33.2	32.9	32.3	32.1	31.8	31.9	31.8
80.0	33.8	33.6	33.3	33.0	32.4	32.1	31.9	32.0	31.8
85.0	33.5	33.3	33.0	32.8	32.2	31.9	31.7	31.7	31.6
90.0	33.1	32.9	32.6	32.3	31.7	31.4	31.2	31.2	31.1
95.0	32.9	32.7	32.5	32.2	31.6	31.3	31.1	31.1	31.0
100.0	32.2	32.0	31.8	31.5	30.9	30.6	30.4	30.5	30.4
105.0	31.1	31.0	30.7	30.4	29.9	29.6	29.5	29.5	29.4
110.0	29.9	29.7	29.7	28.9	28.3	28.7	28.8	28.3	28.1
115.0	28.2	27.9	27.9	27.2	26.5	27.0	27.0	26.5	26.3
120.0	26.0	25.9	25.9	25.2	24.5	24.9	25.0	24.5	24.2
125.0	23.9	23.7	23.7	23.0	22.3	22.6	22.7	22.3	21.9
130.0	21.5	21.4	21.3	20.6	20.1	20.3	20.3	20.0	19.7
135.0	19.1	19.0	18.8	18.2	17.8	17.9	17.8	17.6	17.4
140.0	16.8	16.6	16.5	16.0	15.6	15.7	15.5	15.4	15.2
145.0	14.8	14.6	14.5	14.1	13.9	13.9	13.6	13.6	13.6
150.0	13.9	13.5	13.6	13.3	13.0	13.2	12.9	12.8	12.9
155.0	14.6	14.2	14.3	14.0	13.8	14.2	13.6	13.6	13.9
160.0	17.0	16.6	16.9	16.4	16.5	16.9	16.3	15.7	16.2
165.0	19.0	18.8	18.3	18.3	19.0	18.9	18.0	16.9	16.9
170.0	20.4	20.5	20.4	20.6	20.5	19.1	19.1	19.2	19.3
175.0	15.7	15.2	14.7	14.1	13.3	12.9	12.4	11.9	11.9
180.0	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8



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5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	1
5- 10	4
10- 15	7
15- 20	10
20- 25	12
25- 30	13
30- 35	13
35- 40	12
40- 45	13
45- 50	13
50- 55	14
55- 60	15
60- 65	15
65- 70	16
70- 75	17
75- 80	17
80- 85	18
85- 90	18
90- 95	17
95-100	17
100-105	16
105-110	15
110-115	14
115-120	13
120-125	11
125-130	9
130-135	8
135-140	6
140-145	5
145-150	4
150-155	3
155-160	3
160-165	3
165-170	2
170-175	1
175-180	0

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	5
0- 20	22
0- 30	47
0- 40	72
0- 50	98
0- 60	126
0- 70	157
0- 80	192
0- 90	227
0-100	262
0-110	294
0-120	321
0-130	341
0-140	355
0-150	364
0-160	371
0-170	376
0-180	378



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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	46	46	46	46	43	43	43	43	37	37	37	32	32	32	27	27	27	25	
1	40	38	35	33	37	35	33	31	30	28	27	26	24	23	21	21	20	18	
2	36	32	29	26	33	30	27	24	26	23	21	22	20	18	18	17	15	14	
3	33	28	24	21	30	26	23	20	22	20	17	19	17	15	16	14	13	11	
4	30	24	21	18	27	23	19	17	20	17	15	17	14	13	14	12	11	9	
5	27	22	18	15	25	20	17	14	17	15	12	15	13	11	12	11	9	8	
6	25	19	16	13	23	18	15	12	16	13	11	13	11	9	11	9	8	7	
7	23	18	14	11	21	16	13	11	14	11	9	12	10	8	10	8	7	6	
8	22	16	12	10	20	15	12	9	13	10	8	11	9	7	9	8	6	5	
9	20	15	11	9	19	14	11	8	12	9	7	10	8	7	9	7	6	5	
10	19	13	10	8	17	13	10	8	11	8	7	10	7	6	8	6	5	4	

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.