

# 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: ITL59495

DATE: 11/14/07

PREPARED FOR: B-K LIGHTING

CATALOG NUMBER: CD-SSL-MR-6-D

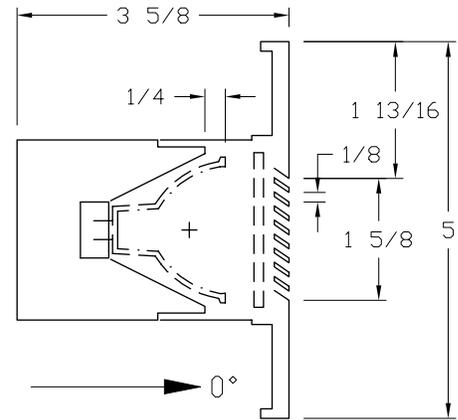
LUMINAIRE: MACHINED BLACK PAINTED METAL HOUSING AND FACEPLATE MOUNTING RING, CLEAR FLAT LINEAR PRISMATIC GLASS LENS IN CAST WHITE PAINTED LOUVERED METAL FACEPLATE, LENS PRISMS OUT AND VERTICAL.

LAMP: ONE 50-WATT MR-16 HALOGEN INCANDESCENT, EYE 12V50WEXT JR1501, HORIZONTAL POSITION.

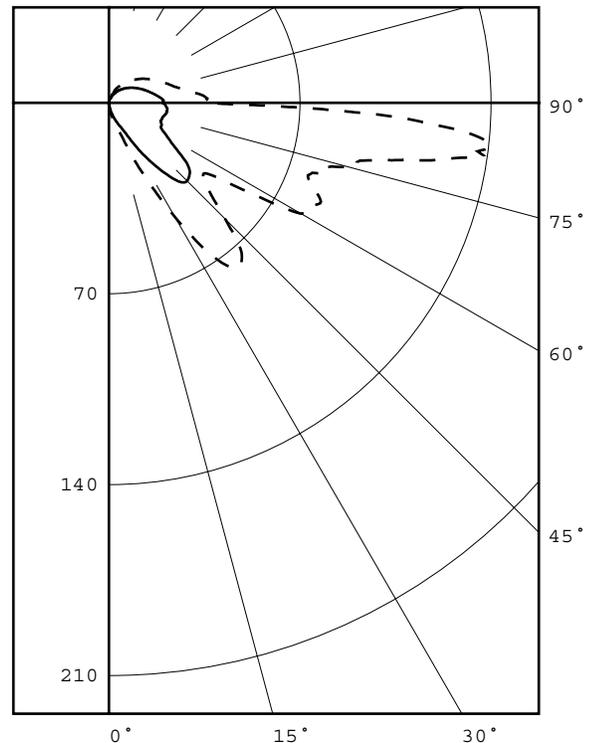
MOUNTING: RECESSED

NOTE: THIS IS A RELATIVE PHOTOMETRIC REPORT BASED ON THE ACTUAL ABSOLUTE FLUX OUTPUT OF THE LAMP AT RATED INPUT VOLTAGE (12VAC) TO THE LAMP.

REPORT IS BASED ON 827 LUMENS PER LAMP.



CANDELA DISTRIBUTION						FLUX
0.0	45.0	90.0	135.0	180.0		
0	0	0	0	0	0	0
5	1	1	0	0	0	0
15	7	4	0	0	0	0
25	27	9	0	0	0	2
35	71	26	0	0	0	9
45	60	41	0	0	0	13
55	47	31	0	0	0	12
65	86	21	0	0	0	14
75	91	20	0	0	0	17
85	134	21	0	0	0	21
90	35	20	0	0	0	
95	34	19	0	0	0	10
105	24	15	0	0	0	7
115	19	12	0	0	0	5
125	15	10	0	0	0	3
135	12	7	0	0	0	2
145	8	5	0	0	0	1
155	5	3	0	0	0	0
165	0	2	0	0	0	0
175	0	0	0	0	0	0
180	0	0	0	0	0	0



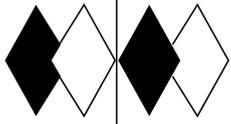
LEGEND:  
0-deg: - - - - -  
45-deg: = = = = =  
90-deg: - - - - -

ZONAL LUMEN ZONE	SUMMARY LUMENS	%LAMP	%FIXT
0- 30	3	0.4	2.8
0- 40	13	1.5	10.1
0- 60	38	4.6	30.6
0- 90	92	11.1	74.2
90-120	23	2.8	18.6
90-130	27	3.3	21.8
90-150	31	3.8	25.1
90-180	32	3.9	25.8
0-180	124	15.0	100.0

TOTAL LUMINAIRE EFFICIENCY = 15.0 %

CIE TYPE - SEMI-DIRECT

Checked N.WHITE  
Approved R.BEATTIE



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	0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	75.0	85.0	90.0	112.5	135.0	157.5
0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.0	1	1	1	1	1	1	0	0	0	0	0	0	0	0
7.5	2	2	2	2	2	1	1	0	0	0	0	0	0	0
10.0	4	4	3	3	3	2	1	1	0	0	0	0	0	0
12.5	5	5	5	4	4	3	2	1	0	0	0	0	0	0
15.0	7	7	7	6	5	4	3	2	1	0	0	0	0	0
17.5	9	9	9	8	7	5	4	2	1	0	0	0	0	0
20.0	12	12	11	10	8	7	5	3	1	0	0	0	0	0
22.5	17	17	15	12	10	8	6	3	1	0	0	0	0	0
25.0	27	26	22	17	12	9	7	4	2	0	0	0	0	0
27.5	36	36	30	24	18	11	8	5	2	0	0	0	0	0
30.0	48	47	38	31	25	15	9	5	3	0	0	0	0	0
32.5	61	59	47	40	32	21	10	6	3	0	0	0	0	0
35.0	71	69	54	49	41	26	13	7	3	0	0	0	0	0
37.5	76	74	60	58	51	31	16	8	4	1	0	0	0	0
40.0	76	74	62	64	58	36	18	9	4	1	0	0	0	0
42.5	71	69	61	66	61	40	20	10	4	1	0	0	0	0
45.0	60	60	56	63	59	41	22	11	5	1	0	0	0	0
47.5	52	51	48	56	56	40	23	12	5	1	0	0	0	0
50.0	46	45	42	48	48	39	23	12	6	1	0	0	0	0
52.5	44	42	39	40	42	36	23	13	6	1	0	0	0	0
55.0	47	45	40	37	35	31	23	13	7	1	0	0	0	0
57.5	62	60	49	37	31	27	23	14	7	1	0	0	0	0
60.0	81	75	58	41	30	25	21	14	7	1	0	0	0	0
62.5	82	75	57	40	29	22	19	14	8	2	0	0	0	0
65.0	86	85	62	43	29	21	17	15	8	2	0	0	0	0
67.5	81	79	59	42	29	21	16	14	8	2	0	0	0	0
70.0	78	73	60	43	28	20	15	12	8	2	0	0	0	0
70.5	78	74	61	44	29	20	14	12	8	2	0	0	0	0
71.0	79	74	62	45	30	20	14	11	8	2	0	0	0	0
71.5	82	76	63	46	30	20	14	11	8	2	0	0	0	0
72.0	83	77	64	47	31	20	14	11	8	2	0	0	0	0
72.5	82	77	63	47	31	20	14	11	8	2	0	0	0	0
73.0	82	77	63	47	31	20	14	10	8	2	0	0	0	0
73.5	83	77	64	48	31	20	14	10	8	2	0	0	0	0
74.0	85	78	65	50	31	20	13	10	8	2	0	0	0	0
74.5	88	81	67	53	31	20	13	10	8	2	0	0	0	0
75.0	91	83	70	56	32	20	13	9	8	2	0	0	0	0
75.5	93	86	72	59	33	20	13	9	8	2	0	0	0	0
76.0	94	87	73	61	33	21	13	9	8	2	0	0	0	0
76.5	93	87	73	61	34	21	13	9	8	2	0	0	0	0
77.0	94	89	74	62	34	21	13	9	8	2	0	0	0	0
77.5	98	91	76	64	34	21	14	9	8	2	0	0	0	0
78.0	101	94	79	65	35	21	14	9	7	2	0	0	0	0
78.5	106	97	82	67	35	21	14	9	7	2	0	0	0	0
79.0	110	101	86	69	36	21	14	9	7	2	0	0	0	0
79.5	116	105	90	73	37	21	14	9	7	2	0	0	0	0
80.0	121	109	94	76	37	21	14	9	7	2	0	0	0	0
80.5	125	112	97	80	38	21	14	9	7	2	0	0	0	0
81.0	129	116	99	83	39	21	14	9	7	2	0	0	0	0
81.5	135	120	102	86	40	22	14	9	6	2	0	0	0	0
82.0	139	120	103	88	41	22	14	9	6	2	0	0	0	0
82.5	136	120	103	90	41	22	14	9	6	2	0	0	0	0
83.0	139	123	105	91	41	22	14	9	6	2	0	0	0	0
83.5	141	124	106	92	41	22	14	9	6	2	0	0	0	0
84.0	139	123	106	93	42	22	14	9	6	2	0	0	0	0
84.5	138	122	103	92	41	22	14	9	6	2	0	0	0	0
85.0	134	118	99	89	41	21	14	9	6	2	0	0	0	0
85.5	129	113	95	85	40	21	14	9	6	2	0	0	0	0
86.0	122	108	91	81	40	21	14	9	6	2	0	0	0	0
86.5	115	103	88	78	39	21	14	10	6	2	0	0	0	0
87.0	109	97	84	73	37	21	14	10	6	2	0	0	0	0
87.5	99	87	78	68	36	21	14	10	6	2	0	0	0	0
88.0	85	76	69	61	34	21	15	10	6	2	0	0	0	0



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	0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	75.0	85.0	90.0	112.5	135.0	157.5
88.5	73	66	59	53	31	20	15	10	6	2	0	0	0	0
89.0	57	52	49	44	29	20	15	10	7	2	0	0	0	0
89.5	42	40	38	35	26	20	15	11	7	2	0	0	0	0
90.0	35	34	33	31	25	20	15	11	7	2	0	0	0	0
92.5	36	35	34	32	25	20	16	11	7	1	0	0	0	0
95.0	34	33	32	29	24	19	15	11	6	1	0	0	0	0
97.5	31	30	29	27	22	18	14	10	5	1	0	0	0	0
100.0	28	28	27	24	21	17	13	9	5	1	0	0	0	0
102.5	26	26	25	23	20	16	13	9	4	1	0	0	0	0
105.0	24	24	23	21	19	15	12	8	4	1	0	0	0	0
107.5	23	23	22	20	18	15	11	8	4	1	0	0	0	0
110.0	22	22	21	19	17	14	11	7	3	1	0	0	0	0
112.5	20	20	20	18	16	13	10	7	3	1	0	0	0	0
115.0	19	19	18	17	15	12	9	6	3	1	0	0	0	0
117.5	18	18	18	16	14	12	9	6	3	1	0	0	0	0
120.0	17	17	17	15	13	11	8	5	3	1	0	0	0	0
122.5	16	16	16	14	13	10	8	5	2	0	0	0	0	0
125.0	15	15	15	14	12	10	7	5	2	0	0	0	0	0
127.5	14	14	14	13	11	9	7	4	2	0	0	0	0	0
130.0	13	13	13	12	10	8	6	4	2	0	0	0	0	0
132.5	13	13	12	11	10	8	6	4	2	0	0	0	0	0
135.0	12	12	11	10	9	7	5	4	2	0	0	0	0	0
137.5	11	11	10	9	8	7	5	3	2	0	0	0	0	0
140.0	10	10	10	9	8	6	5	3	2	0	0	0	0	0
142.5	9	9	9	8	7	6	4	3	1	0	0	0	0	0
145.0	8	8	8	7	6	5	4	3	1	0	0	0	0	0
147.5	7	7	7	6	6	5	4	2	1	0	0	0	0	0
150.0	7	7	6	6	5	4	3	2	1	0	0	0	0	0
152.5	6	6	6	5	5	4	3	2	1	0	0	0	0	0
155.0	5	5	5	5	4	3	3	2	1	0	0	0	0	0
157.5	1	3	4	4	4	3	2	1	1	0	0	0	0	0
160.0	1	2	4	3	3	3	2	1	1	0	0	0	0	0
162.5	1	1	3	3	3	2	2	1	0	0	0	0	0	0
165.0	0	1	3	2	2	2	1	1	0	0	0	0	0	0
167.5	0	1	2	2	2	1	1	1	0	0	0	0	0	0
170.0	0	0	1	1	1	1	1	0	0	0	0	0	0	0
172.5	0	0	1	1	1	1	0	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION  
LATERAL ANGLE

	180.0
0.0	0
2.5	0
5.0	0
7.5	0
10.0	0
12.5	0
15.0	0
17.5	0
20.0	0
22.5	0
25.0	0
27.5	0
30.0	0
32.5	0
35.0	0
37.5	0
40.0	0
42.5	0
45.0	0
47.5	0
50.0	0
52.5	0
55.0	0
57.5	0
60.0	0
62.5	0
65.0	0
67.5	0
70.0	0
70.5	0
71.0	0
71.5	0
72.0	0
72.5	0
73.0	0
73.5	0
74.0	0
74.5	0
75.0	0
75.5	0
76.0	0
76.5	0
77.0	0
77.5	0
78.0	0
78.5	0
79.0	0
79.5	0
80.0	0
80.5	0
81.0	0
81.5	0
82.0	0
82.5	0
83.0	0
83.5	0
84.0	0
84.5	0
85.0	0
85.5	0
86.0	0
86.5	0
87.0	0
87.5	0
88.0	0



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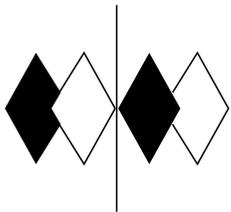
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LATERAL ANGLE

180.0	0
88.5	0
89.0	0
89.5	0
90.0	0
92.5	0
95.0	0
97.5	0
100.0	0
102.5	0
105.0	0
107.5	0
110.0	0
112.5	0
115.0	0
117.5	0
120.0	0
122.5	0
125.0	0
127.5	0
130.0	0
132.5	0
135.0	0
137.5	0
140.0	0
142.5	0
145.0	0
147.5	0
150.0	0
152.5	0
155.0	0
157.5	0
160.0	0
162.5	0
165.0	0
167.5	0
170.0	0
172.5	0
175.0	0
177.5	0
180.0	0



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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	17	17	17	17	16	16	16	16	15	15	15	13	13	13	12	12	12	11
1	14	13	12	11	13	12	11	10	11	10	9	10	9	8	8	8	7	7
2	13	11	9	8	12	10	9	8	9	8	7	8	7	6	7	6	5	5
3	11	9	7	6	10	9	7	6	8	6	5	7	6	5	6	5	4	4
4	10	8	6	5	9	7	6	5	6	5	4	6	5	4	5	4	3	3
5	9	7	5	4	9	6	5	4	6	4	3	5	4	3	4	3	3	2
6	8	6	4	3	8	6	4	3	5	4	3	4	3	2	4	3	2	2
7	8	5	4	3	7	5	4	3	4	3	2	4	3	2	3	2	2	1
8	7	5	3	2	7	5	3	2	4	3	2	4	3	2	3	2	2	1
9	7	4	3	2	6	4	3	2	4	3	2	3	2	2	3	2	1	1
10	6	4	3	2	6	4	3	2	3	2	2	3	2	1	3	2	1	1

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.