



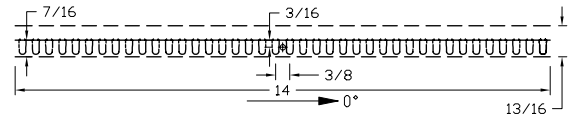
INDEPENDENT TESTING LABORATORIES, INC.
 3386 LONGHORN ROAD, BOULDER, CO 80302 USA

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

REPORT NUMBER: ITL56284
 PREPARED FOR: J & J ELECTRONICS
 CATALOG NUMBER: LLS-14-30-W6000
 LUMINAIRE: ONE WHITE CIRCUIT BOARD WITH 40 LED'S, CLEAR CYLINDRICAL PLASTIC LENS ENCOMPASSING CIRCUIT BOARD, OPEN ENDS.
 LAMP: FORTY WHITE LIGHT EMITTING DIODES (LED'S), VERTICAL BASE-UP POSITION.
 NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT 24 VOLTS AC INPUT TO THE LED ASSEMBLY. UPPER HEMISPHERE LIGHT NOT MEASURED AT CLIENT'S REQUEST.
 TOTAL INPUT WATTS= 4.1 AT 24.0 VOLTS

DATE: 06/15/05

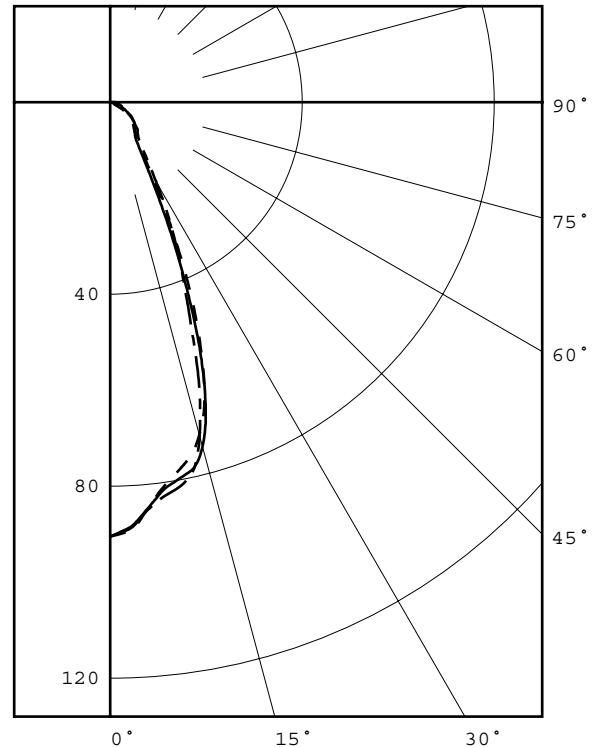
CANDELA DISTRIBUTION						FLUX
	0.0	22.5	45.0	67.5	90.0	
0	91	91	91	91	91	8
5	86	85	85	85	86	20
15	72	71	74	73	72	14
25	33	33	30	29	32	7
35	10	10	9	11	12	6
45	7	6	7	8	8	4
55	4	4	6	5	5	3
65	1	3	3	3	3	2
75	1	2	2	2	2	1
85	0	1	1	1	1	
90	0	1	1	1	1	



ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	42	65.5
0- 40	49	76.2
0- 60	59	91.4
0- 90	65	100.0
90-180	0	0.0
0-180	65	100.0

CIE TYPE - DIRECT
 PLANE : 0-DEG 90-DEG
 SPACING CRITERIA : 0.7 0.7
 PLANE : 0-DEG 90-DEG
 LUMINOUS LENGTH : 14.000 0.812
 HEIGHT OF SIDE : 0.438 0.438

LUMINANCE DATA IN CANDELA/SQ M			
ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	1287.	1408.	1418.
55	1019.	1162.	928.
65	280.	665.	582.
75	346.	518.	368.
85	260.	371.	302.



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

Checked *N.WHITE*
 Approved *R.BEATTIE*



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CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0.0	91	91	91	91	91
2.5	90	88	89	89	89
5.0	86	85	85	85	86
7.5	81	81	82	82	83
10.0	79	78	80	81	82
12.5	76	76	79	79	79
15.0	72	71	74	73	72
17.5	65	65	66	63	62
20.0	56	56	55	50	49
22.5	45	44	41	38	40
25.0	33	33	30	29	32
27.5	24	24	21	23	25
30.0	17	18	15	18	19
32.5	13	13	11	14	15
35.0	10	10	9	11	12
37.5	9	9	9	10	10
40.0	8	8	8	9	9
42.5	7	7	8	8	8
45.0	7	6	7	8	8
47.5	6	6	7	7	7
50.0	6	5	7	7	7
52.5	5	4	6	6	6
55.0	4	4	6	5	5
57.5	4	3	5	5	5
60.0	2	3	4	4	4
62.5	1	3	4	3	3
65.0	1	3	3	3	3
67.5	1	3	3	3	3
70.0	1	2	3	3	3
72.5	1	2	2	2	2
75.0	1	2	2	2	2
77.5	1	1	2	2	2
80.0	0	1	1	1	1
82.5	0	1	1	1	1
85.0	0	1	1	1	1
87.5	0	1	1	1	1
90.0	0	1	1	1	1

ZONAL LUMEN SUMMARY

0- 5	2.
5- 10	6.
10- 15	9.
15- 20	11.
20- 25	9.
25- 30	6.
30- 35	4.
35- 40	3.
40- 45	3.
45- 50	3.
50- 55	2.
55- 60	2.
60- 65	1.
65- 70	1.
70- 75	1.
75- 80	1.
80- 85	1.
85- 90	1.



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	99	91	86	81	97	90	85	80	87	83	79	85	81	78	82	79	76	75
4	94	85	78	74	92	84	78	73	81	76	72	79	75	71	77	74	71	69
5	89	79	73	68	87	78	72	67	76	71	67	75	70	66	73	69	66	64
6	84	74	68	63	82	73	67	63	72	66	62	70	65	62	69	65	61	60
7	80	70	63	59	78	69	63	59	68	62	58	67	62	58	65	61	58	56
8	76	66	59	55	75	65	59	55	64	59	55	63	58	54	62	58	54	53
9	73	62	56	52	71	62	56	52	61	55	52	60	55	51	59	55	51	50
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	47

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.