

itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

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

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DATE: 04/14/08

REPORT NUMBER: ITL60030

PREPARED FOR: KINO FLO LIGHTING SYSTEMS

CATALOG NUMBER: CFX-7404

LUMINAIRE: FABRICATED CORRUGATED BLACK PLASTIC ADJUSTABLE HOUSING WITH WHITE UPPER INTERIOR, FORMED MULTI-FACETED SPECULAR METAL REFLECTOR, OPEN BOTTOM. ADJUSTABLE HOUSING ADJUSTED AS SHOWN IN DRAWING.

LAMPS: FOUR 100-WATT T-12 KINO FLO KF29 F100T12/HO/800 LINEAR FLUORESCENTS, EACH LAMP ENCASED IN CLEAR PLASTIC PROTECTIVE SLEEVE.

BALLAST: KINO FLO INCORPORATED BAL-405M

NOTE: THIS REPORT WAS PRORATED FROM ITL REPORT NUMBER 60031 WHICH WAS TESTED USING FOUR 120-WATT T-12 KINO FLO KF29 F120T12/HO/800 LINEAR FLUORESCENT LAMPS. ACTUAL PERFORMANCE MAY VARY. THE LAMP UTILIZED FOR THIS TEST WAS NOT CHECKED FOR LIGHT OUTPUT SYMMETRY, AS IS STANDARD PRACTICE PER IESNA LM-41-98.

REPORT IS BASED ON 4675 LUMENS PER LAMP.

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	FLUX
0	4702	4702	4702	4702	4702	
5	4669	4648	4652	4673	4707	444
15	4481	4458	4455	4467	4492	1262
25	4151	4127	4087	4075	4099	1894
35	3656	3634	3586	3728	3818	2299
45	3026	2985	3159	3309	3326	2435
55	2290	2290	2541	2531	2506	2182
65	1441	1627	1648	1536	1474	1546
75	612	830	628	464	382	646
85	78	73	19	7	5	52
90	7	18	5	0	0	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	3600	19.2	28.2
0- 40	5899	31.5	46.2
0- 60	10516	56.2	82.4
0- 90	12760	68.2	100.0
90-180	0	0.0	0.0
0-180	12760	68.2	100.0

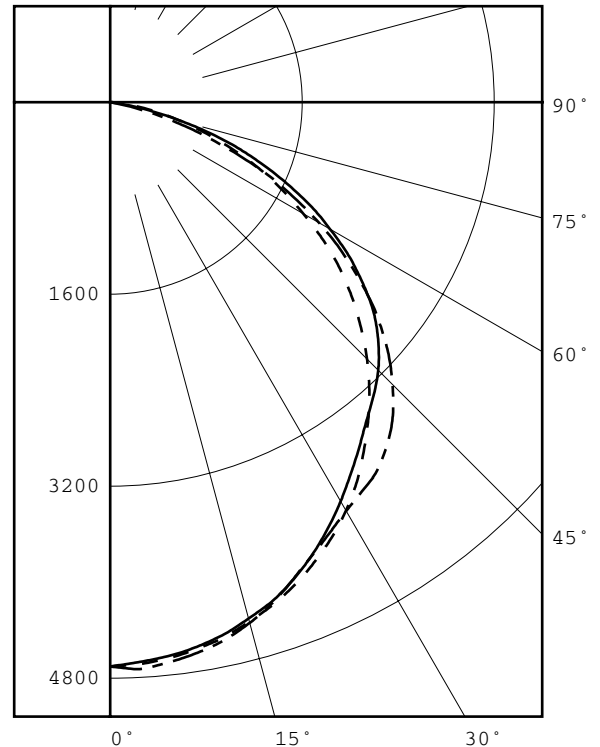
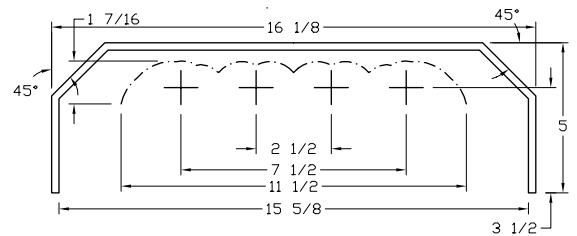
TOTAL LUMINAIRE EFFICIENCY = 68.2 %

CIE TYPE - DIRECT

PLANE	: 0-DEG	90-DEG	
SPACING CRITERIA	: 1.2	1.3	
SHIELDING ANGLES	: 1	14	
BEAM ANGLE (50%)	: 108.1	X 112.9	DEGREES
FIELD ANGLE (10%)	: 154.1	X 148.2	DEGREES
LUMINOUS LENGTH	: 73.250	15.625	

LUMINANCE DATA IN CANDELA/SQ M

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	5796.	6050.	6370.
55	5407.	6000.	5917.
65	4618.	5281.	4723.
75	3202.	3286.	1999.
85	1212.	295.	78.



LEGEND:

0-deg: - - - - -
45-deg: _____
90-deg: - . - . - .

Checked B. HYRE

Approved R. BEATTIE



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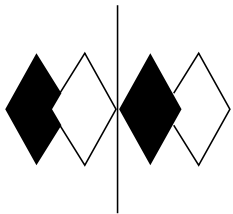
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CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0.0	4702	4702	4702	4702	4702
2.5	4692	4670	4676	4696	4729
5.0	4669	4648	4652	4673	4707
7.5	4638	4617	4621	4640	4671
10.0	4596	4573	4577	4598	4627
12.5	4547	4523	4524	4544	4568
15.0	4481	4458	4455	4467	4492
17.5	4415	4388	4387	4387	4405
20.0	4337	4312	4299	4290	4301
22.5	4250	4222	4198	4182	4193
25.0	4151	4127	4087	4075	4099
27.5	4048	4018	3966	3972	4011
30.0	3930	3902	3841	3880	3933
32.5	3801	3775	3710	3795	3872
35.0	3656	3634	3586	3728	3818
37.5	3505	3477	3466	3657	3731
40.0	3355	3320	3359	3563	3623
42.5	3195	3158	3263	3451	3490
45.0	3026	2985	3159	3309	3326
47.5	2849	2815	3035	3141	3154
50.0	2670	2636	2896	2959	2956
52.5	2485	2460	2733	2754	2745
55.0	2290	2290	2541	2531	2506
57.5	2078	2129	2342	2305	2266
60.0	1859	1958	2115	2056	2008
62.5	1652	1799	1896	1801	1736
65.0	1441	1627	1648	1536	1474
67.5	1229	1447	1401	1260	1171
70.0	999	1240	1158	961	881
72.5	799	1038	901	700	632
75.0	612	830	628	464	382
77.5	444	624	387	232	179
80.0	286	415	183	48	15
82.5	162	209	31	7	5
85.0	78	73	19	7	5
87.5	22	27	9	2	0
90.0	7	18	5	0	0

ZONAL	LUMEN	SUMMARY
0-	5	112.
5-	10	331.
10-	15	538.
15-	20	724.
20-	25	882.
25-	30	1011.
30-	35	1113.
35-	40	1186.
40-	45	1223.
45-	50	1212.
50-	55	1148.
55-	60	1034.
60-	65	874.
65-	70	672.
70-	75	438.
75-	80	208.
80-	85	45.
85-	90	7.



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC RW	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	81	81	81	81	79	79	79	79	76	76	76	73	73	73	70	70	70	68
1	75	72	69	67	73	70	68	66	67	65	63	65	63	62	62	61	60	58
2	68	63	58	55	66	62	57	54	59	56	53	57	54	52	55	53	50	49
3	62	55	50	46	61	54	49	45	52	48	44	50	47	44	49	45	43	41
4	57	49	43	39	55	48	43	38	46	42	38	45	41	37	43	40	37	35
5	52	44	38	33	51	43	37	33	42	37	33	40	36	32	39	35	32	31
6	48	39	33	29	47	39	33	29	37	32	29	36	32	28	35	31	28	27
7	45	36	30	26	44	35	29	26	34	29	25	33	29	25	32	28	25	24
8	42	33	27	23	41	32	27	23	31	26	23	30	26	22	30	25	22	21
9	39	30	24	21	38	29	24	20	29	24	20	28	23	20	27	23	20	19
10	36	28	22	19	36	27	22	19	26	22	18	26	21	18	25	21	18	17

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.