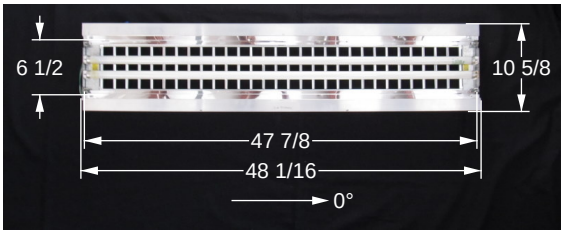
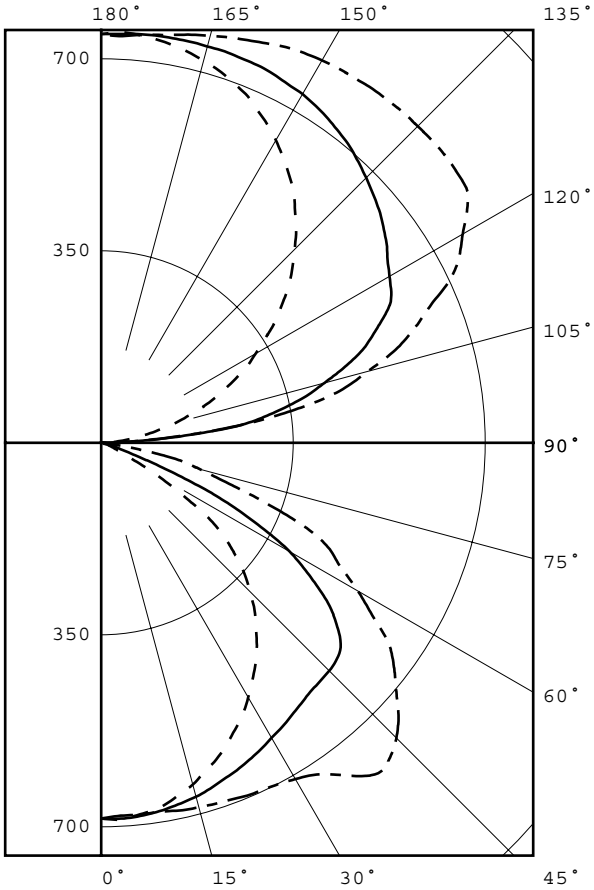
itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955
INDEPENDENT TESTING LABORATORIES, INC.
3386 LONGHORN ROAD, BOULDER, CO 80302 USA
PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL70238
ISSUE DATE: 11/08/11
PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING
CATALOG NUMBER: 907S-02-X-4-X-OP/PB-X-120-T8
LUMINAIRE: EXTRUDED SEMI-DIFFUSE METAL HOUSING WITH FABRICATED SEMI-DIFFUSE METAL END CAPS, TWO FORMED METAL SIDE REFLECTORS WITH PREMIUM SPECULAR FINISH, FABRICATED SEMI-SPECULAR METAL PARABOLIC 29-CELL LOUVER. OPEN TOP.
LAMPS: TWO 32-WATT T-8 FO32/835 LINEAR FLUORESCENTS.
BALLAST: SYLVANIA QTP 2X32T8/UNV ISN-SC
MOUNTING: SUSPENDED
THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.
TOTAL INPUT WATTS = 56.2 AT 120.0 VOLTS
LUMEN TO CANDELA RATIO USED = 9.17
REPORT IS BASED ON 2950 LUMENS PER LAMP.



CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	FLUX
0	685	685	685	685	685	
5	683	684	685	680	681	65
15	645	650	668	682	688	188
25	577	597	638	679	698	295
35	491	528	606	685	738	383
45	383	452	588	708	761	446
55	239	359	502	575	641	411
65	35	74	239	373	460	232
75	8	13	22	100	187	66
85	0	2	3	6	11	6
90	0	0	0	0	0	
95	31	145	159	171	151	154
105	141	299	421	488	503	402
115	265	390	577	673	701	521
125	388	483	635	764	812	553
135	499	570	683	778	816	520
145	597	643	721	784	810	447
155	671	698	742	778	796	341
165	721	732	748	761	768	211
175	747	748	748	744	746	71
180	745	745	745	745	745	



ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	548	9.3	10.3
0- 40	931	15.8	17.5
0- 60	1788	30.3	33.7
0- 90	2092	35.5	39.4
90-120	1077	18.3	20.3
90-130	1630	27.6	30.7
90-150	2597	44.0	48.9
90-180	3221	54.6	60.6
0-180	5313	90.0	100.0

TOTAL LUMINAIRE EFFICIENCY = 90.0 %

CIE TYPE - SEMI-INDIRECT

PLANE	: 0-DEG	90-DEG
SHIELDING ANGLES :	27	14

Checked *M KLOPF*
Approved *R BEATTIE*
Lighting Engineer

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PLANE	: 0-DEG	90-DEG
LUMINOUS LENGTH	:44.125	5.500

LUMINANCE DATA IN CANDELA/SQ M

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	3459.	5311.	6874.
55	2661.	5590.	7138.
65	529.	3612.	6952.
75	197.	543.	4615.
85	0.	220.	806.

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	0.0	22.5	45.0	67.5	90.0
0.0	685	685	685	685	685
5.0	683	684	685	680	681
10.0	670	671	678	680	682
15.0	645	650	668	682	688
20.0	614	624	653	681	692
25.0	577	597	638	679	698
30.0	536	565	621	679	708
35.0	491	528	606	685	738
40.0	439	491	593	717	786
45.0	383	452	588	708	761
50.0	320	414	570	650	702
55.0	239	359	502	575	641
60.0	115	226	397	479	540
65.0	35	74	239	373	460
70.0	17	28	62	238	317
75.0	8	13	22	100	187
80.0	4	6	9	18	71
85.0	0	2	3	6	11
90.0	0	0	0	0	0
95.0	31	145	159	171	151
100.0	80	234	322	373	370
105.0	141	299	421	488	503
110.0	204	342	512	584	607
115.0	265	390	577	673	701
120.0	325	433	607	732	761
125.0	388	483	635	764	812
130.0	447	528	661	772	817
135.0	499	570	683	778	816
140.0	550	608	705	782	814
145.0	597	643	721	784	810
150.0	637	672	734	783	805
155.0	671	698	742	778	796
160.0	700	717	746	770	781
165.0	721	732	748	761	768
170.0	737	743	749	751	755
175.0	747	748	748	744	746
180.0	745	745	745	745	745

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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	16.
5- 10	49.
10- 15	80.
15- 20	109.
20- 25	135.
25- 30	159.
30- 35	181.
35- 40	202.
40- 45	220.
45- 50	226.
50- 55	219.
55- 60	192.
60- 65	142.
65- 70	90.
70- 75	46.
75- 80	20.
80- 85	5.
85- 90	1.
90- 95	35.
95-100	119.
100-105	181.
105-110	221.
110-115	251.
115-120	270.
120-125	278.
125-130	276.
130-135	267.
135-140	253.
140-145	235.
145-150	212.
150-155	185.
155-160	155.
160-165	123.
165-170	89.
170-175	53.
175-180	18.

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	65.
0- 20	253.
0- 30	548.
0- 40	931.
0- 50	1377.
0- 60	1788.
0- 70	2020.
0- 80	2086.
0- 90	2092.
0-100	2246.
0-110	2648.
0-120	3169.
0-130	3722.
0-140	4242.
0-150	4689.
0-160	5030.
0-170	5242.
0-180	5313.

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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	94	94	94	94	86	86	86	86	70	70	70	55	55	55	42	42	42	35
1	86	83	79	76	78	75	72	70	62	60	58	49	48	47	37	37	36	31
2	79	72	67	62	71	66	61	57	54	51	48	43	41	39	33	32	30	26
3	72	63	57	52	65	58	52	48	48	44	40	38	35	33	29	27	26	22
4	65	56	49	44	59	51	45	40	42	38	34	34	31	28	26	24	22	18
5	60	50	42	37	54	45	39	34	37	33	29	30	27	24	23	21	19	16
6	55	44	37	32	50	41	34	30	34	29	25	27	24	21	21	18	17	14
7	51	40	33	28	46	37	30	26	30	26	22	24	21	18	19	16	15	12
8	47	36	29	24	43	33	27	23	27	23	19	22	19	16	17	15	13	11
9	44	33	26	22	40	30	24	20	25	20	17	20	17	14	16	13	12	10
10	41	30	23	19	37	27	22	18	23	18	15	19	15	13	15	12	10	9

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.

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