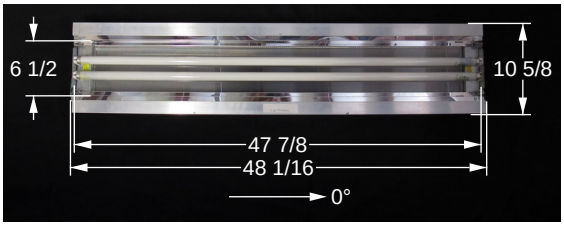
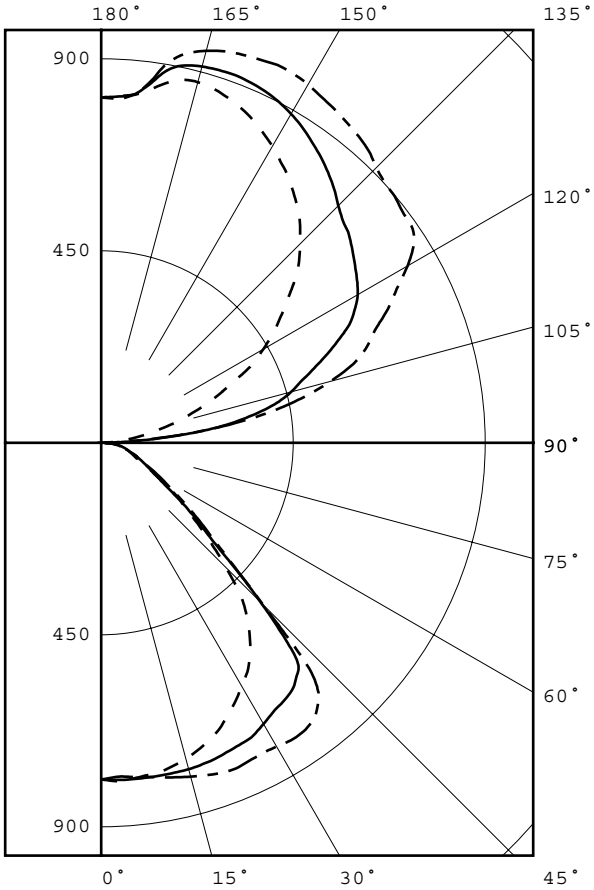
itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955
INDEPENDENT TESTING LABORATORIES, INC.
3386 LONGHORN ROAD, BOULDER, CO 80302 USA
PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL70239
ISSUE DATE: 11/10/11
PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING
CATALOG NUMBER: 907S-02-X-4-X-OP/MPL-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, CLEAR MICRO-PRISMATIC PLASTIC LENS. LENS PRISMS DOWN. 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 = 56.0 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	789	789	789	789	789	
5	791	792	792	788	786	75
15	767	774	792	805	810	224
25	703	726	778	814	822	356
35	608	661	742	805	826	456
45	415	476	529	543	536	390
55	214	210	205	215	224	195
65	99	112	109	108	109	109
75	60	68	64	61	64	68
85	27	29	29	29	25	29
90	0	0	0	0	0	
95	37	157	162	178	151	162
105	175	349	461	543	556	446
115	348	468	636	709	741	582
125	513	593	726	852	887	641
135	659	698	786	889	912	611
145	763	790	861	929	954	539
155	837	854	909	958	977	418
165	875	886	913	939	951	258
175	818	818	818	817	817	80
180	809	809	809	809	809	



LEGEND:
0-deg: — — — — — — —
45-deg: ————————
90-deg: — — — — — — —

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	655	11.1	11.6
0- 40	1110	18.8	19.7
0- 60	1695	28.7	30.1
0- 90	1900	32.2	33.7
90-120	1190	20.2	21.1
90-130	1831	31.0	32.5
90-150	2981	50.5	52.9
90-180	3737	63.3	66.3
0-180	5637	95.5	100.0

TOTAL LUMINAIRE EFFICIENCY = 95.5 %

CIE TYPE - SEMI-INDIRECT
PLANE : 0-DEG 90-DEG
SHIELDING ANGLES : 90 90

Checked S BERGIN
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	3748.	4778.	4841.
55	2383.	2283.	2494.
65	1496.	1647.	1647.
75	1481.	1579.	1579.
85	1979.	2125.	1832.

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	0.0	22.5	45.0	67.5	90.0
0.0	789	789	789	789	789
5.0	791	792	792	788	786
10.0	784	786	792	794	796
15.0	767	774	792	805	810
20.0	741	754	787	814	823
25.0	703	726	778	814	822
30.0	658	694	761	805	822
35.0	608	661	742	805	826
40.0	531	608	713	772	792
45.0	415	476	529	543	536
50.0	295	293	312	337	329
55.0	214	210	205	215	224
60.0	141	146	144	146	157
65.0	99	112	109	108	109
70.0	78	86	81	79	86
75.0	60	68	64	61	64
80.0	51	48	48	48	45
85.0	27	29	29	29	25
90.0	0	0	0	0	0
95.0	37	157	162	178	151
100.0	100	249	351	392	389
105.0	175	349	461	543	556
110.0	258	405	542	630	664
115.0	348	468	636	709	741
120.0	439	532	694	798	829
125.0	513	593	726	852	887
130.0	592	648	758	868	898
135.0	659	698	786	889	912
140.0	717	749	827	910	938
145.0	763	790	861	929	954
150.0	803	825	890	947	970
155.0	837	854	909	958	977
160.0	862	874	917	953	968
165.0	875	886	913	939	951
170.0	855	867	886	899	905
175.0	818	818	818	817	817
180.0	809	809	809	809	809

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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	19.
5- 10	57.
10- 15	94.
15- 20	130.
20- 25	163.
25- 30	192.
30- 35	218.
35- 40	238.
40- 45	228.
45- 50	161.
50- 55	113.
55- 60	82.
60- 65	61.
65- 70	48.
70- 75	38.
75- 80	30.
80- 85	21.
85- 90	8.
90- 95	36.
95-100	126.
100-105	199.
105-110	246.
110-115	277.
115-120	305.
120-125	321.
125-130	320.
130-135	312.
135-140	300.
140-145	282.
145-150	257.
150-155	227.
155-160	191.
160-165	151.
165-170	107.
170-175	61.
175-180	19.

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	75.
0- 20	299.
0- 30	655.
0- 40	1110.
0- 50	1500.
0- 60	1695.
0- 70	1804.
0- 80	1871.
0- 90	1900.
0-100	2062.
0-110	2508.
0-120	3090.
0-130	3731.
0-140	4342.
0-150	4881.
0-160	5299.
0-170	5557.
0-180	5637.

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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	99	99	99	99	89	89	89	89	71	71	71	54	54	54	39	39	39	32
1	90	87	83	80	81	78	75	73	63	61	59	49	47	46	35	35	34	28
2	83	76	71	66	74	69	64	61	56	52	50	43	41	39	32	31	29	24
3	76	67	61	56	68	61	56	51	49	46	42	39	36	34	29	27	26	21
4	69	60	53	47	63	54	48	44	44	40	36	35	32	29	26	24	22	19
5	64	53	46	41	58	49	42	38	40	35	32	31	28	26	23	21	20	16
6	59	48	41	35	53	44	37	33	36	31	28	28	25	23	21	19	18	15
7	54	43	36	31	49	40	33	29	32	28	24	26	23	20	20	17	16	13
8	50	39	32	27	46	36	30	25	30	25	22	24	20	18	18	16	14	12
9	47	36	29	24	42	33	27	23	27	23	19	22	18	16	17	14	13	11
10	44	33	26	22	40	30	24	20	25	20	17	20	17	14	15	13	12	10

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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