

REPORT NUMBER: ITL78205

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ISSUE DATE: 07/29/13

REVISED: 08/07/13

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: MLS5-ASYM-D1-4-PB-120-T8

LUMINAIRE: EXTRUDED METAL HOUSING WITH FABRICATED SEMI-DIFFUSE METAL END CAPS, FORMED MULTI-FACETED METAL REFLECTOR WITH PREMIUM SPECULAR FINISH, FABRICATED SEMI-SPECULAR METAL PARABOLIC 32-CELL LOUVER.

LAMP: ONE 32-WATT T-8 FO32/835 LINEAR FLUORESCENT.

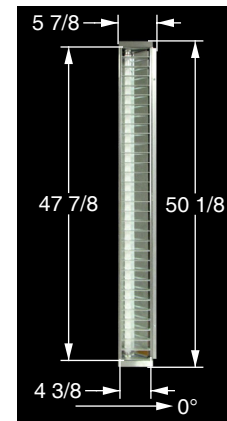
BALLAST: UNIVERSAL B232PUNVHP-A

TOTAL INPUT WATTS = 28.0 AT 120.0 VOLTS

THE 0 DEGREE PLANE IS PERPENDICULAR TO THE LAMP.

MOUNTING: SURFACE

REPORT IS BASED ON 2950 LUMENS PER LAMP.



CANDELA DISTRIBUTION						FLUX
	0.0	45.0	90.0	135.0	180.0	
0	664	664	664	664	664	
5	747	733	684	630	599	65
15	898	850	678	568	460	196
25	1006	882	619	425	294	299
35	1066	858	528	293	224	365
45	977	797	426	189	174	382
55	648	578	284	122	184	308
65	290	222	83	62	145	145
75	19	19	10	13	29	24
85	2	2	1	2	4	3
90	0	0	0	0	0	

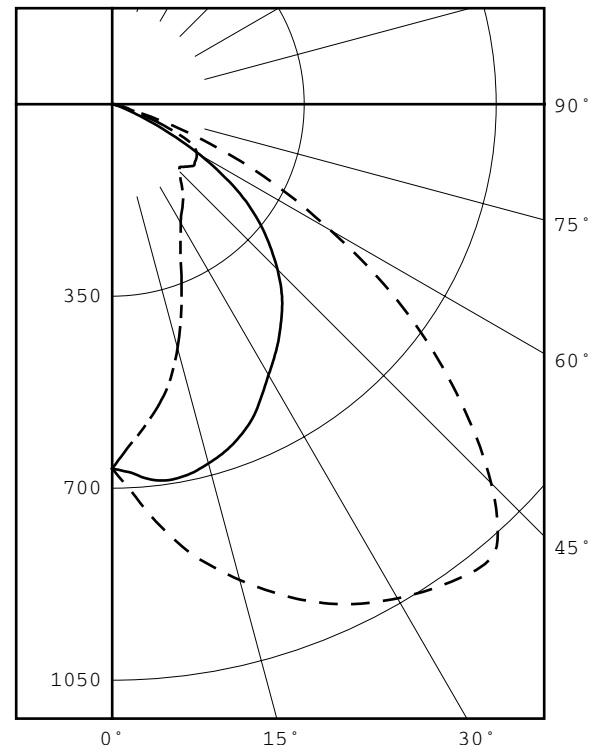
ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT
0- 30	560	19.0	31.3
0- 40	926	31.4	51.8
0- 60	1615	54.8	90.4
0- 90	1788	60.6	100.0
90-180	0	0.0	0.0
0-180	1788	60.6	100.0

TOTAL LUMINAIRE EFFICIENCY = 60.6 %

CIE TYPE - DIRECT

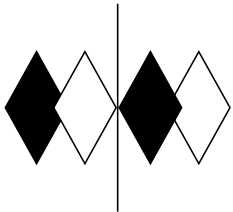
PLANE	: 0-DEG	90-DEG	180-DEG
SPACING CRITERIA	: 2.03	1.27	0.68
SHIELDING ANGLES	: 17	28	
LUMINOUS LENGTH	: 4.375	47.875	

LUMINANCE DATA IN CANDELA/SQ M			
ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 90-DEG	AVERAGE 180-DEG
45	10225.	4458.	1821.
55	8360.	3664.	2374.
65	5078.	1453.	2539.
75	543.	286.	829.
85	170.	85.	340.



LEGEND:  
0-deg -----  
90-deg =====  
180-deg - - - - -

Checked M KLOPF  
Approved R BEATTIE  
Lighting Engineer



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INDEPENDENT TESTING LABORATORIES, INC.  
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: [itl@itlboulder.com](mailto:itl@itlboulder.com) • WEBSITE: [www.itlboulder.com](http://www.itlboulder.com)

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## CANDELA DISTRIBUTION LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	664	664	664	664	664	664	664	664	664
2.5	701	702	693	681	671	651	643	635	628
5.0	747	747	733	709	684	649	630	610	599
7.5	791	792	772	733	692	646	619	588	570
10.0	832	833	805	750	692	638	606	565	540
12.5	866	869	831	761	687	625	586	540	503
15.0	898	899	850	768	678	611	568	506	460
17.5	928	924	863	770	668	592	534	468	415
20.0	957	947	872	770	655	569	498	429	370
22.5	983	965	878	767	639	548	462	392	329
25.0	1006	979	882	760	619	523	425	355	294
27.5	1024	988	882	747	594	493	390	325	270
30.0	1040	992	878	732	570	459	355	299	250
32.5	1054	994	870	718	549	422	321	277	235
35.0	1066	994	858	702	528	386	293	259	224
37.5	1076	993	844	686	505	354	265	242	212
40.0	1077	987	831	667	482	325	238	224	198
42.5	1040	971	815	644	456	298	212	205	184
45.0	977	921	797	618	426	271	189	187	174
47.5	901	849	764	587	394	243	169	173	169
50.0	819	772	722	553	361	214	152	162	177
52.5	735	691	656	514	325	185	137	162	185
55.0	648	611	578	462	284	156	122	160	184
57.5	555	526	494	396	236	128	108	153	182
60.0	459	436	405	319	185	100	95	144	178
62.5	373	342	312	233	131	73	80	130	168
65.0	290	262	222	146	83	49	62	110	145
67.5	209	186	137	85	48	33	44	81	103
70.0	132	116	70	46	27	21	30	52	63
72.5	61	62	33	25	16	14	19	34	41
75.0	19	26	19	15	10	9	13	24	29
77.5	12	14	11	9	7	6	9	15	21
80.0	7	8	7	6	4	4	6	9	13
82.5	4	4	4	3	3	2	4	6	8
85.0	2	2	2	2	1	1	2	3	4
87.5	1	1	1	1	1	1	1	1	2
90.0	0	0	0	0	0	0	0	0	0



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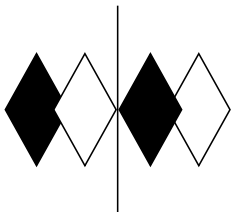
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5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	16
5- 10	49
10- 15	83
15- 20	113
20- 25	139
25- 30	160
30- 35	176
35- 40	189
40- 45	194
45- 50	187
50- 55	169
55- 60	139
60- 65	96
65- 70	50
70- 75	18
75- 80	6
80- 85	2
85- 90	1

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	65
0- 20	261
0- 30	560
0- 40	926
0- 50	1307
0- 60	1615
0- 70	1761
0- 80	1785
0- 90	1788



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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	72	72	72	72	70	70	70	70	67	67	67	64	64	64	62	62	62	62	61
1	67	65	63	61	66	63	61	60	61	59	58	59	57	56	56	55	54	54	53
2	62	57	54	51	60	56	53	50	54	52	49	52	50	48	51	49	47	47	46
3	57	51	47	43	55	50	46	43	48	45	42	47	44	41	45	43	41	41	39
4	52	46	41	37	51	45	40	37	43	39	36	42	39	36	41	38	35	35	34
5	48	41	36	32	47	40	35	32	39	35	32	38	34	31	37	34	31	31	30
6	44	37	32	28	43	36	31	28	35	31	28	34	30	28	33	30	27	27	26
7	41	33	28	25	40	33	28	25	32	28	25	31	27	24	30	27	24	24	23
8	38	31	26	22	37	30	25	22	29	25	22	29	25	22	28	24	22	22	21
9	36	28	23	20	35	28	23	20	27	23	20	26	23	20	26	22	20	20	19
10	34	26	21	18	33	26	21	18	25	21	18	24	21	18	24	20	18	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.

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.