



# LIGHTING SCIENCES CANADA LTD.

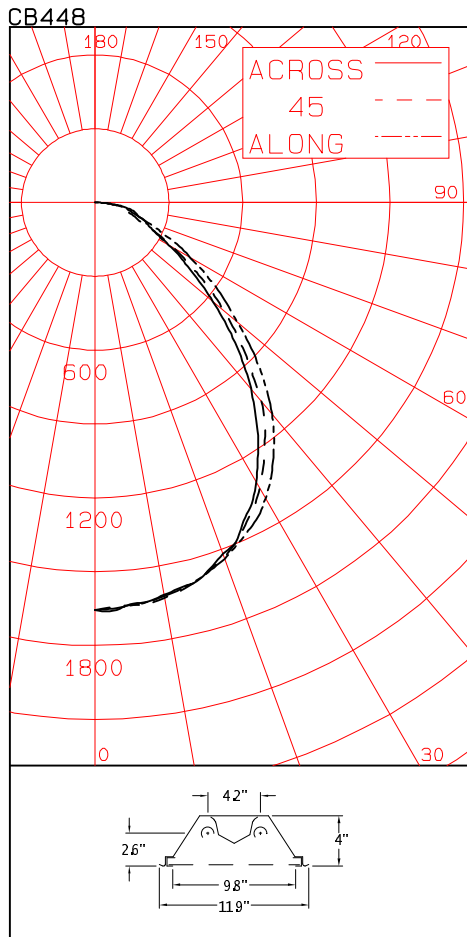
440 Phillip St., Unit 19, Waterloo, Ontario, Canada N2L 5R9  
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CERTIFIED TEST REPORT NO. LSC B448  
 COMPUTED BY LSC PROGRAM \*\*TEST-LITE\*\*

PIONEER FLUORESCENT 1'x4' TROFFER LUMINAIRE CAT. NO. TB 14-248-EL  
 WITH WHITE PAINTED INTERIOR AND ACRYLIC K12 LENS  
 TWO F32T8/TL841 32W T8 FLUORESCENT LAMPS. LUMEN RATING = 2950 LMS.  
 ONE SYLVANIA 120-277V 1 OR 2-LAMP ELECTRONIC BALLAST NO. QTP2x32T8/UNV ISN-SC

### CANDLEPOWER SUMMARY

OUTPUT  
LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	
0	1656	1656	1656	1656	1656	
5	1644	1650	1642	1640	1638	159
10	1624	1630	1631	1629	1618	
15	1591	1586	1593	1589	1593	447
20	1540	1539	1534	1525	1520	
25	1473	1455	1445	1441	1428	665
30	1387	1364	1340	1328	1312	
35	1264	1243	1202	1168	1156	750
40	1119	1084	1053	1010	986	
45	943	909	860	814	805	665
50	755	732	685	635	626	
55	600	561	516	494	469	472
60	448	406	370	362	346	
65	312	278	243	256	256	272
70	213	192	174	207	212	
75	156	147	132	155	173	160
80	116	109	109	110	137	
85	63	52	56	58	61	62
90	0	0	0	0	0	

### ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	1271	21.55	34.81
0-40	2021	34.26	55.34
0-60	3158	53.54	86.48
0-90	3652	61.91	100.00
40-90	1631	27.65	44.66
60-90	493	8.37	13.52
90-180	0	.00	.00
0-180	3652	61.91	100.00

\*\* EFFICIENCY = 61.9% \*\*

LUMINANCE SUMMARY-CD. / SQ. M.

PAINT REFLECTANCE = .82 S/MH = 1.2  
 SC = 1.2

ANGLE	ALONG	45	ACROSS
45	4607	4215	3944
55	3610	3118	2834
65	2550	1989	2101
75	2081	1761	2315
85	2479	2215	2427

CERTIFIED BY:

*Charles Sisson*

DATE:  
NOV 24, 2006

PREPARED FOR:

PIONEER LIGHTING  
 TORONTO, ONTARIO

TESTED ACCORDING TO IES PROCEDURES. TEST DISTANCE EXCEEDS FIVE  
 TIMES THE GREATEST LUMINOUS OPENING OF LUMINAIRE.

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CANDLEPOWER DATA  
 IN 2.5 DEGREE STEPS

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
.0	1656	1656	1656	1656	1656	1656	
2.5	1651	1659	1645	1655	1660	1654	
5.0	1644	1650	1642	1640	1638	1643	159
7.5	1637	1648	1645	1633	1635	1641	
10.0	1624	1630	1631	1629	1618	1628	
12.5	1609	1606	1615	1615	1604	1611	
15.0	1591	1586	1593	1589	1593	1590	447
17.5	1566	1559	1562	1558	1559	1560	
20.0	1540	1539	1534	1525	1520	1532	
22.5	1507	1497	1496	1489	1494	1496	
25.0	1473	1455	1445	1441	1428	1448	665
27.5	1438	1413	1398	1381	1379	1400	
30.0	1387	1364	1340	1328	1312	1345	
32.5	1330	1305	1274	1249	1231	1277	
35.0	1264	1243	1202	1168	1156	1206	750
37.5	1196	1168	1136	1080	1069	1129	
40.0	1119	1084	1053	1010	986	1050	
42.5	1033	995	949	906	898	954	
45.0	943	909	860	814	805	864	665
47.5	850	826	771	724	716	776	
50.0	755	732	685	635	626	686	
52.5	674	654	602	568	548	609	
55.0	600	561	516	494	469	526	472
57.5	524	479	441	424	409	453	
60.0	448	406	370	362	346	383	
62.5	387	340	306	307	292	323	
65.0	312	278	243	256	256	265	272
67.5	264	230	194	223	229	224	
70.0	213	192	174	207	212	196	
72.5	183	168	147	179	186	170	
75.0	156	147	132	155	173	150	160
77.5	139	126	126	134	159	134	
80.0	116	109	109	110	137	114	
82.5	97	86	84	87	103	89	
85.0	63	52	56	58	61	57	62
87.5	26	25	25	24	25	25	
90.0	0	0	0	0	0	0	

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AVERAGE LUMINANCE DATA

ANGLE	ALONG	CD. / SQ. M. (FOOTLAMBERTS)			ACROSS
		22.5	45	67.5	
0	5720 ( 1669)	5720 ( 1669)	5720 ( 1669)	5720 ( 1669)	5720 ( 1669)
30	5530 ( 1614)	5454 ( 1591)	5355 ( 1563)	5310 ( 1549)	5230 ( 1526)
40	5043 ( 1472)	4899 ( 1430)	4750 ( 1386)	4566 ( 1332)	4443 ( 1296)
45	4607 ( 1344)	4444 ( 1297)	4215 ( 1230)	3987 ( 1163)	3944 ( 1151)
50	4057 ( 1184)	3949 ( 1152)	3683 ( 1074)	3418 ( 997)	3363 ( 981)
55	3610 ( 1053)	3386 ( 988)	3118 ( 910)	2984 ( 870)	2834 ( 827)
60	3091 ( 902)	2811 ( 820)	2556 ( 746)	2504 ( 731)	2389 ( 697)
65	2550 ( 744)	2271 ( 663)	1989 ( 580)	2096 ( 611)	2101 ( 613)
70	2147 ( 626)	1947 ( 568)	1763 ( 514)	2090 ( 610)	2139 ( 624)
75	2081 ( 607)	1966 ( 574)	1761 ( 513)	2078 ( 606)	2315 ( 675)
80	2304 ( 672)	2170 ( 633)	2177 ( 635)	2193 ( 640)	2723 ( 794)
85	2479 ( 723)	2081 ( 607)	2215 ( 646)	2310 ( 674)	2427 ( 708)

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES

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COEFFICIENTS OF UTILIZATION

ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

CC WALL	80				70				50				30				10				0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	.74	.74	.74	.74	.72	.72	.72	.72	.69	.69	.69	.66	.66	.66	.63	.63	.63	.63	.63	.63	.62
1	.68	.66	.64	.62	.67	.65	.63	.61	.62	.60	.59	.60	.58	.57	.57	.56	.55	.55	.55	.55	.54
2	.63	.59	.56	.52	.62	.58	.55	.52	.56	.53	.51	.54	.52	.50	.52	.50	.49	.49	.49	.49	.47
3	.59	.53	.49	.45	.57	.52	.48	.45	.50	.47	.44	.49	.46	.43	.47	.45	.43	.43	.43	.43	.42
4	.54	.48	.43	.40	.53	.47	.43	.39	.46	.42	.39	.44	.41	.38	.43	.40	.38	.38	.38	.38	.37
5	.50	.43	.38	.34	.49	.42	.38	.34	.41	.37	.34	.40	.36	.33	.39	.36	.33	.33	.33	.33	.32
6	.47	.39	.34	.30	.45	.38	.34	.30	.37	.33	.30	.36	.33	.30	.35	.32	.29	.29	.29	.29	.28
7	.43	.35	.30	.27	.42	.35	.30	.27	.34	.30	.27	.33	.29	.26	.32	.29	.26	.26	.26	.26	.25
8	.40	.32	.27	.24	.39	.31	.27	.23	.31	.26	.23	.30	.26	.23	.29	.26	.23	.23	.23	.23	.22
9	.37	.29	.24	.21	.36	.28	.24	.21	.28	.23	.20	.27	.23	.20	.26	.23	.20	.20	.20	.20	.19
10	.34	.26	.21	.18	.33	.26	.21	.18	.25	.21	.18	.25	.21	.18	.24	.21	.18	.18	.18	.18	.17

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES  
 LUMINAIRE INPUT WATTS = 57.8  
 LABORATORY RESULT MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.  
 BALLAST FACTORS HAVE NOT BEEN APPLIED.