LIGHTING SCIENCES CANADA LTD.

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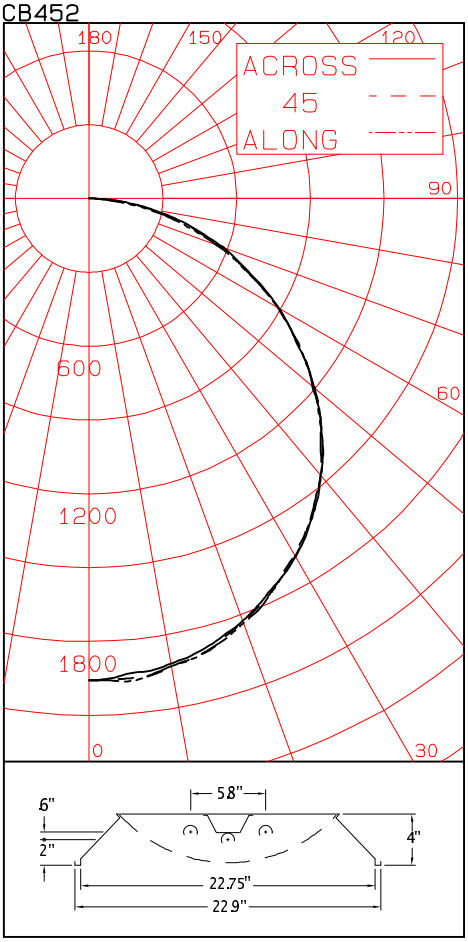
CERTIFIED TEST REPORT NO. LSC B452
COMPUTED BY LSC PROGRAM **TEST-LITE**

PIONEER FLUORESCENT 2'x4' TROFFER LUMINAIRE CAT. NO. TBRL 24-348-EL
WITH ROUND OPAL ACRYLIC LENS AND WHITE PAINTED REFLECTOR
THREE F32T8/TL841 32W T8 FLUORESCENT LAMPS. LUMEN RATING = 2950 LMS.
ONE SYLVANIA 120-277V 2 OR 3-LAMP ELECTRONIC BALLAST NO. QTP3x32T8/UNV ISN-SC

CB452



CANDLEPOWER SUMMARY

ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	1958	1958	1958	1958	1958	
5	1968	1956	1956	1944	1936	188
10	1929	1933	1930	1921	1919	
15	1896	1888	1900	1883	1882	532
20	1836	1838	1830	1829	1827	
25	1762	1764	1761	1756	1754	810
30	1679	1670	1672	1681	1680	
35	1576	1578	1579	1582	1581	986
40	1471	1460	1465	1476	1466	
45	1333	1333	1337	1344	1338	1029
50	1196	1193	1198	1198	1187	
55	1042	1033	1048	1038	1036	929
60	885	876	887	894	893	
65	711	719	716	732	728	716
70	553	555	567	578	581	
75	388	396	414	421	421	429
80	233	234	260	272	265	
85	81	107	118	110	119	124
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	1530	17.29	26.64
0-40	2516	28.44	43.81
0-60	4474	50.56	77.91
0-90	5743	64.90	100.00
40-90	3227	36.47	56.19
60-90	1268	14.34	22.09
90-180	0	.00	.00
0-180	5743	64.90	100.00

** EFFICIENCY = 64.9% **

LUMINANCE SUMMARY-CD. / SQ. M.

PAINT REFLECTANCE = .84 S/MH = 1.3
SC = 1.3

ANGLE	ALONG	45	ACROSS
45	2689	2708	2709
55	2592	2617	2587
65	2402	2426	2465
75	2139	2287	2327
85	1326	1928	1949

CERTIFIED BY:
Charles Lasson
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
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	LUMENS
.0	1958	1958	1958	1958	1958	1958	
2.5	1960	1960	1956	1954	1952	1957	
5.0	1968	1956	1956	1944	1936	1952	188
7.5	1951	1946	1954	1931	1935	1943	
10.0	1929	1933	1930	1921	1919	1927	
12.5	1919	1913	1916	1911	1904	1913	
15.0	1896	1888	1900	1883	1882	1890	532
17.5	1870	1870	1860	1861	1854	1863	
20.0	1836	1838	1830	1829	1827	1832	
22.5	1806	1800	1796	1797	1791	1798	
25.0	1762	1764	1761	1756	1754	1760	810
27.5	1720	1715	1713	1715	1721	1716	
30.0	1679	1670	1672	1681	1680	1675	
32.5	1631	1629	1627	1630	1635	1630	
35.0	1576	1578	1579	1582	1581	1579	986
37.5	1519	1520	1526	1535	1529	1526	
40.0	1471	1460	1465	1476	1466	1467	
42.5	1397	1390	1406	1409	1409	1402	
45.0	1333	1333	1337	1344	1338	1337	1029
47.5	1265	1256	1271	1273	1270	1267	
50.0	1196	1193	1198	1198	1187	1195	
52.5	1119	1113	1122	1117	1122	1118	
55.0	1042	1033	1048	1038	1036	1040	929
57.5	966	957	963	970	967	964	
60.0	885	876	887	894	893	887	
62.5	804	801	802	804	811	804	
65.0	711	719	716	732	728	722	716
67.5	638	640	642	657	651	646	
70.0	553	555	567	578	581	567	
72.5	464	472	481	497	493	482	
75.0	388	396	414	421	421	409	429
77.5	312	310	335	344	341	329	
80.0	233	234	260	272	265	254	
82.5	158	161	186	192	197	179	
85.0	81	107	118	110	119	109	124
87.5	25	40	43	45	48	41	
90.0	0	0	0	0	0	0	

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AVERAGE LUMINANCE DATA

CD. / SQ. M. (FOOTLAMBERTS)

ANGLE	ALONG	22.5	45	67.5	ACROSS
0	2794(815)	2794(815)	2794(815)	2794(815)	2794(815)
30	2765(807)	2759(805)	2761(805)	2775(810)	2767(807)
40	2740(799)	2725(795)	2731(797)	2756(804)	2730(796)
45	2689(785)	2693(786)	2708(790)	2720(794)	2709(790)
50	2653(774)	2657(775)	2660(776)	2667(778)	2635(769)
55	2592(756)	2574(751)	2617(764)	2589(755)	2587(755)
60	2526(737)	2509(732)	2533(739)	2556(746)	2549(744)
65	2402(701)	2431(709)	2426(708)	2478(723)	2465(719)
70	2305(672)	2323(678)	2370(691)	2416(705)	2425(707)
75	2139(624)	2191(639)	2287(667)	2327(679)	2327(679)
80	1917(559)	1929(563)	2144(625)	2237(653)	2179(636)
85	1326(387)	1753(511)	1928(562)	1813(529)	1949(568)

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES

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COEFFICIENTS OF UTILIZATION

ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

CC	80				70				50			30			10			0
WALL	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	.77	.77	.77	.77	.75	.75	.75	.75	.72	.72	.72	.69	.69	.69	.66	.66	.66	.65
1	.71	.68	.65	.63	.69	.67	.64	.62	.64	.62	.60	.61	.60	.58	.59	.58	.56	.55
2	.65	.60	.55	.52	.63	.58	.54	.51	.56	.53	.50	.54	.51	.49	.52	.50	.48	.46
3	.59	.53	.48	.44	.58	.52	.47	.43	.50	.46	.42	.48	.45	.42	.46	.44	.41	.40
4	.54	.47	.41	.37	.53	.46	.41	.37	.44	.40	.36	.43	.39	.36	.41	.38	.35	.34
5	.50	.41	.36	.31	.48	.41	.35	.31	.39	.34	.31	.38	.34	.30	.37	.33	.30	.29
6	.46	.37	.31	.27	.44	.36	.31	.27	.35	.30	.27	.34	.30	.26	.33	.29	.26	.25
7	.42	.33	.28	.24	.41	.33	.27	.23	.32	.27	.23	.31	.26	.23	.30	.26	.23	.22
8	.39	.30	.24	.20	.38	.29	.24	.20	.28	.24	.20	.28	.23	.20	.27	.23	.20	.19
9	.36	.27	.21	.18	.35	.26	.21	.18	.26	.21	.17	.25	.20	.17	.24	.20	.17	.16
10	.33	.24	.19	.15	.32	.24	.19	.15	.23	.19	.15	.23	.18	.15	.22	.18	.15	.14

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES
LUMINAIRE INPUT WATTS = 82.7
LABORATORY RESULT MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
BALLAST FACTORS HAVE NOT BEEN APPLIED.