



LIGHTING SCIENCES CANADA LTD.

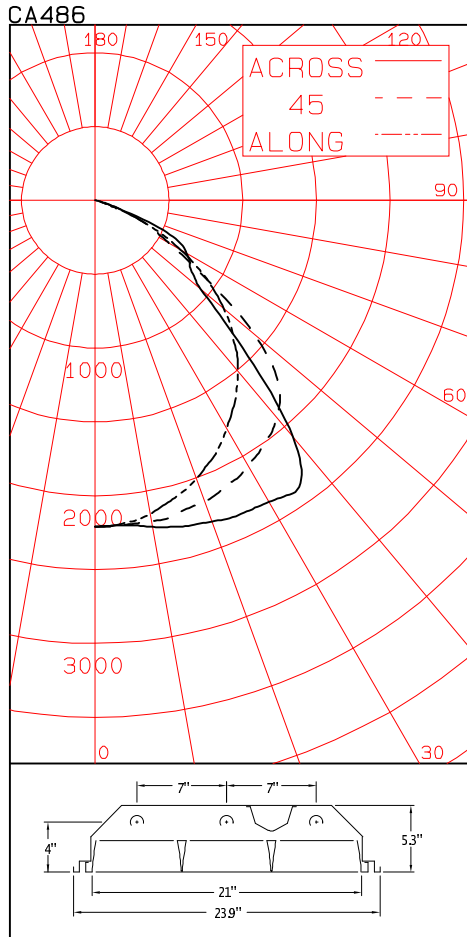
440 Phillip St., Unit 19, Waterloo, Ontario, Canada N2L 5R9
 Tel: (519) 746-3140 Fax: (519) 746-3156 lsc@lightingsciences.ca

CERTIFIED TEST REPORT NO. LSC A486
 COMPUTED BY LSC PROGRAM **TEST-LITE**

PIONEER 2'x4' RECESSED TROFFER LUMINAIRE CAT. NO. TBDC 348-EL-38
 WITH WHITE PAINTED INTERIOR AND SEMI-SPECULAR DEEP CELL LOUVER
 THREE F32T8/TL841 32W T8 FLUORESCENT LAMPS. LUMEN RATING = 2950 LMS.
 ENERGY SAVINGS 120V 3-LAMP ELECTRONIC BALLAST NO. ES-3-T8-32/25/17-120-NMT-IS

CANDLEPOWER SUMMARY

OUTPUT LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	
0	2208	2208	2208	2208	2208	
5	2195	2216	2206	2212	2208	214
10	2155	2180	2203	2228	2245	
15	2085	2135	2188	2260	2286	619
20	2009	2058	2170	2279	2313	
25	1910	1981	2125	2268	2342	980
30	1785	1893	2067	2246	2358	
35	1655	1778	2004	2248	2392	1250
40	1505	1653	1914	2103	2087	
45	1327	1501	1757	1594	1414	1189
50	1137	1325	1403	1021	937	
55	925	1097	906	741	784	815
60	671	804	574	614	714	
65	393	447	385	493	581	440
70	139	158	199	230	220	
75	38	34	42	47	63	66
80	0	0	2	11	11	
85	0	0	0	0	0	1
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	1812	20.48	32.53
0-40	3062	34.61	54.96
0-60	5066	57.24	90.91
0-90	5572	62.97	100.00
40-90	2509	28.36	45.04
60-90	506	5.72	9.09
90-180	0	.00	.00
0-180	5572	62.97	100.00

** EFFICIENCY = 63.0% **

LUMINANCE SUMMARY-CD. / SQ. M.

ANGLE	ALONG	45	ACROSS
45	3090	4108	3306
55	2657	2612	2259
65	1533	1504	2274
75	242	266	404
85	0	0	0

PAINT REFLECTANCE = .83 S/MH = 1.6
 SC (ALONG) = 1.2, SC (ACROSS) = 1.6

CERTIFIED BY:

Charles Lison

DATE:
 DEC 1, 2004

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	2208	2208	2208	2208	2208	2208	
2.5	2207	2223	2209	2204	2206	2210	
5.0	2195	2216	2206	2212	2208	2209	214
7.5	2181	2194	2205	2219	2220	2205	
10.0	2155	2180	2203	2228	2245	2203	
12.5	2118	2156	2212	2248	2265	2202	
15.0	2085	2135	2188	2260	2286	2192	619
17.5	2050	2102	2176	2266	2300	2180	
20.0	2009	2058	2170	2279	2313	2167	
22.5	1955	2022	2154	2263	2335	2146	
25.0	1910	1981	2125	2268	2342	2125	980
27.5	1851	1936	2109	2257	2347	2100	
30.0	1785	1893	2067	2246	2358	2069	
32.5	1718	1830	2045	2246	2378	2042	
35.0	1655	1778	2004	2248	2392	2013	1250
37.5	1580	1722	1972	2219	2299	1963	
40.0	1505	1653	1914	2103	2087	1866	
42.5	1428	1585	1854	1881	1763	1729	
45.0	1327	1501	1757	1594	1414	1555	1189
47.5	1247	1416	1614	1279	1145	1376	
50.0	1137	1325	1403	1021	937	1196	
52.5	1034	1220	1161	841	844	1040	
55.0	925	1097	906	741	784	900	815
57.5	798	963	728	676	758	786	
60.0	671	804	574	614	714	671	
62.5	544	634	473	571	668	571	
65.0	393	447	385	493	581	453	440
67.5	268	297	293	391	434	333	
70.0	139	158	199	230	220	192	
72.5	60	79	101	109	99	92	
75.0	38	34	42	47	63	43	66
77.5	9	16	17	22	29	19	
80.0	0	0	2	11	11	5	
82.5	0	0	0	2	0	1	
85.0	0	0	0	0	0	0	1
87.5	0	0	0	0	0	0	
90.0	0	0	0	0	0	0	

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AVERAGE LUMINANCE DATA

ANGLE	ALONG	CD. / SQ. M. (FOOTLAMBERTS)			
		22.5	45	67.5	ACROSS
0	3637(1061)	3637(1061)	3637(1061)	3637(1061)	3637(1061)
30	3395(991)	3610(1053)	3941(1150)	4283(1250)	4486(1309)
40	3236(944)	3563(1040)	4119(1202)	4534(1323)	4488(1310)
45	3090(902)	3501(1021)	4108(1199)	3724(1086)	3306(965)
50	2914(850)	3407(994)	3595(1049)	2623(765)	2400(700)
55	2657(775)	3157(921)	2612(762)	2133(622)	2259(659)
60	2211(645)	2657(775)	1892(552)	2027(591)	2351(686)
65	1533(447)	1744(509)	1504(439)	1926(562)	2274(663)
70	670(195)	763(222)	960(280)	1112(324)	1057(308)
75	242(70)	214(62)	266(77)	301(88)	404(118)
80	0(0)	0(0)	22(6)	102(30)	107(31)
85	0(0)	0(0)	0(0)	0(0)	0(0)

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	.75	.75	.75	.75	.73	.73	.73	.73	.70	.70	.70	.67	.67	.67	.64	.64	.64	.64	.64	.64	.63
1	.70	.68	.66	.64	.69	.67	.65	.63	.64	.62	.61	.61	.60	.59	.59	.58	.57	.57	.57	.57	.56
2	.65	.61	.58	.55	.64	.60	.57	.54	.58	.55	.53	.56	.54	.52	.54	.52	.51	.51	.51	.51	.50
3	.60	.55	.51	.48	.59	.54	.50	.47	.52	.49	.46	.51	.48	.46	.49	.47	.45	.45	.45	.45	.44
4	.56	.50	.45	.41	.55	.49	.45	.41	.47	.44	.41	.46	.43	.40	.45	.42	.40	.40	.40	.40	.38
5	.51	.44	.39	.36	.50	.44	.39	.35	.42	.38	.35	.41	.38	.35	.40	.37	.34	.34	.34	.34	.33
6	.48	.40	.35	.31	.46	.39	.35	.31	.38	.34	.31	.37	.33	.31	.36	.33	.30	.30	.30	.30	.29
7	.44	.36	.31	.28	.43	.35	.31	.27	.35	.30	.27	.34	.30	.27	.33	.29	.27	.27	.27	.27	.25
8	.40	.32	.27	.24	.39	.32	.27	.24	.31	.27	.24	.30	.26	.23	.29	.26	.23	.23	.23	.23	.22
9	.37	.29	.24	.21	.36	.29	.24	.21	.28	.23	.20	.27	.23	.20	.27	.23	.20	.20	.20	.20	.19
10	.34	.26	.21	.18	.34	.26	.21	.18	.25	.21	.18	.25	.21	.18	.24	.20	.18	.18	.18	.18	.17

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES
 LUMINAIRE INPUT WATTS = 79.5
 LABORATORY RESULT MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
 BALLAST FACTORS HAVE NOT BEEN APPLIED.