



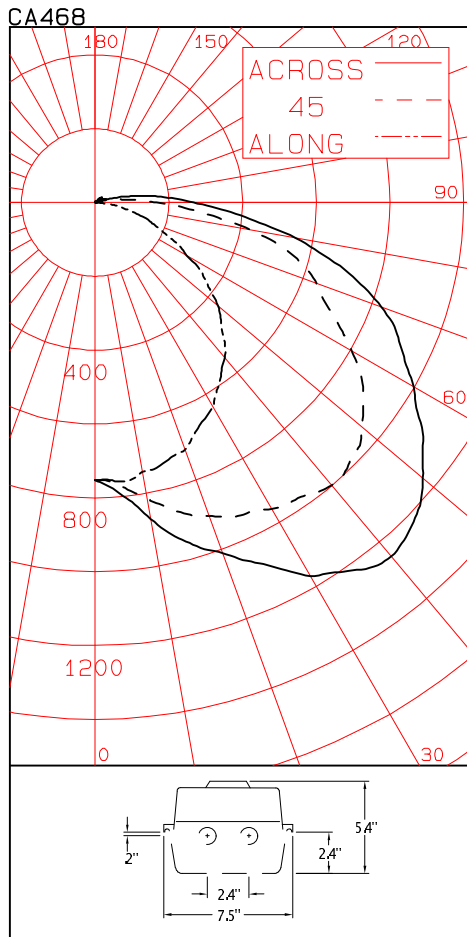
LIGHTING SCIENCES CANADA LTD.

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 A468
 COMPUTED BY LSC PROGRAM **TEST-LITE**

PIONEER LIGHTING 4' ENCLOSED STRIP LUMINAIRE CAT. NO. TO 248-EL-HL
 WITH SPECULAR REFLECTOR AND PATTERNED PLASTIC LENS
 TWO 32WT8/TL841 FLUORESCENT LAMPS. LUMEN RATING = 2950 LMS.
 ONE GE PROLINE 120V 1 OR 2-LAMP ELECTRONIC BALLAST NO. GE-232-120-N

CANDLEPOWER SUMMARY OUTPUT LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	
0	753	753	753	753	753	
5	759	757	770	785	793	76
15	729	781	866	932	950	243
25	667	785	935	1037	1081	421
35	591	763	973	1158	1218	596
45	486	702	982	1175	1222	714
55	364	609	889	1041	1085	725
65	223	460	707	862	913	646
75	116	306	559	669	701	507
85	23	158	282	364	395	279
90	1	77	167	239	267	
95	16	41	87	163	179	109
105	13	16	19	25	41	30
115	2	5	23	23	14	15
125	0	0	15	21	10	9
135	0	0	3	12	17	3
145	0	0	0	2	0	0
155	0	0	0	0	0	0
165	0	0	0	0	0	0
175	0	0	0	0	0	0
180	0	0	0	0	0	

ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	740	12.55	16.92
0-40	1336	22.65	30.54
0-60	2775	47.04	63.45
0-90	4207	71.32	96.20
40-90	2871	48.68	65.66
60-90	1432	24.28	32.75
90-180	166	2.82	3.80
0-180	4374	74.14	100.00

** EFFICIENCY = 74.1% **

LUMINANCE SUMMARY-CD. / SQ. M.

S/MH = 2.2

SC (ALONG) = 1.2, SC (ACROSS) = 2.2

ANGLE	ALONG	45	ACROSS
45	3265	5345	6288
55	2952	5424	6165
65	2375	5092	5992
75	1886	5085	5649
85	847	3650	4292

CERTIFIED BY:

Charles Sisson

DATE:
NOV 8, 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

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
0	753	753	753	753	753	753	
5	759	757	770	785	793	772	76
10	741	762	816	860	870	811	
15	729	781	866	932	950	855	243
20	713	787	903	1001	1010	888	
25	667	785	935	1037	1081	908	421
30	639	786	959	1098	1168	937	
35	591	763	973	1158	1218	950	596
40	548	732	999	1186	1251	954	
45	486	702	982	1175	1222	928	714
50	435	655	946	1114	1161	878	
55	364	609	889	1041	1085	816	725
60	287	538	804	945	998	732	
65	223	460	707	862	913	649	646
70	165	385	639	791	826	578	
75	116	306	559	669	701	486	507
80	69	239	428	514	554	373	
85	23	158	282	364	395	253	279
90	1	77	167	239	267	154	
95	16	41	87	163	179	97	109
100	16	19	37	82	99	49	
105	13	16	19	25	41	22	30
110	1	8	30	22	25	18	
115	2	5	23	23	14	15	15
120	0	0	20	18	12	11	
125	0	0	15	21	10	11	9
130	0	0	1	10	22	6	
135	0	0	3	12	17	6	3
140	0	0	0	5	3	2	
145	0	0	0	2	0	0	0
150	0	0	0	0	0	0	
155	0	0	0	0	0	0	0
160	0	0	0	0	0	0	
165	0	0	0	0	0	0	0
170	0	0	0	0	0	0	
175	0	0	0	0	0	0	0
180	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	3751 (1094)	3751 (1094)	3751 (1094)	3751 (1094)	3751 (1094)
30	3573 (1042)	4089 (1193)	4713 (1375)	5229 (1526)	5525 (1612)
40	3420 (998)	4117 (1201)	5195 (1516)	5922 (1728)	6188 (1806)
45	3265 (952)	4164 (1215)	5345 (1560)	6084 (1775)	6288 (1835)
50	3187 (930)	4158 (1213)	5403 (1577)	6034 (1761)	6222 (1816)
55	2952 (861)	4171 (1217)	5424 (1583)	5961 (1739)	6165 (1799)
60	2632 (768)	4052 (1182)	5275 (1539)	5784 (1688)	6030 (1760)
65	2375 (693)	3863 (1127)	5092 (1486)	5715 (1668)	5992 (1749)
70	2113 (616)	3700 (1080)	5114 (1492)	5763 (1682)	5930 (1731)
75	1886 (550)	3471 (1013)	5085 (1484)	5467 (1595)	5649 (1648)
80	1545 (450)	3324 (970)	4558 (1330)	4809 (1403)	5082 (1483)
85	847 (247)	2863 (835)	3650 (1065)	4036 (1177)	4292 (1252)

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	.88	.88	.88	.88	.85	.85	.85	.85	.81	.81	.81	.77	.77	.77	.73	.73	.73	.71			
1	.78	.74	.70	.67	.76	.72	.69	.65	.68	.66	.63	.65	.63	.60	.62	.60	.58	.56			
2	.70	.63	.58	.53	.68	.62	.56	.52	.58	.54	.50	.56	.52	.48	.53	.50	.47	.45			
3	.64	.55	.48	.43	.61	.53	.47	.42	.51	.46	.41	.48	.44	.40	.46	.42	.39	.37			
4	.58	.48	.41	.35	.56	.47	.40	.35	.45	.39	.34	.42	.37	.33	.40	.36	.33	.31			
5	.52	.42	.34	.29	.50	.41	.34	.29	.39	.33	.28	.37	.32	.28	.35	.31	.27	.25			
6	.48	.37	.30	.25	.46	.36	.29	.24	.34	.28	.24	.33	.27	.23	.31	.26	.23	.21			
7	.44	.33	.26	.21	.42	.32	.25	.21	.31	.24	.20	.29	.24	.20	.28	.23	.19	.18			
8	.40	.29	.22	.18	.39	.28	.22	.17	.27	.21	.17	.26	.21	.17	.25	.20	.16	.15			
9	.37	.26	.19	.15	.36	.26	.19	.15	.24	.19	.15	.23	.18	.14	.22	.17	.14	.12			
10	.34	.24	.17	.13	.33	.23	.17	.13	.22	.16	.13	.21	.16	.12	.20	.16	.12	.11			

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES
 LUMINAIRE INPUT WATTS = 53.3
 LABORATORY RESULT MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
 BALLAST FACTORS HAVE NOT BEEN APPLIED.