

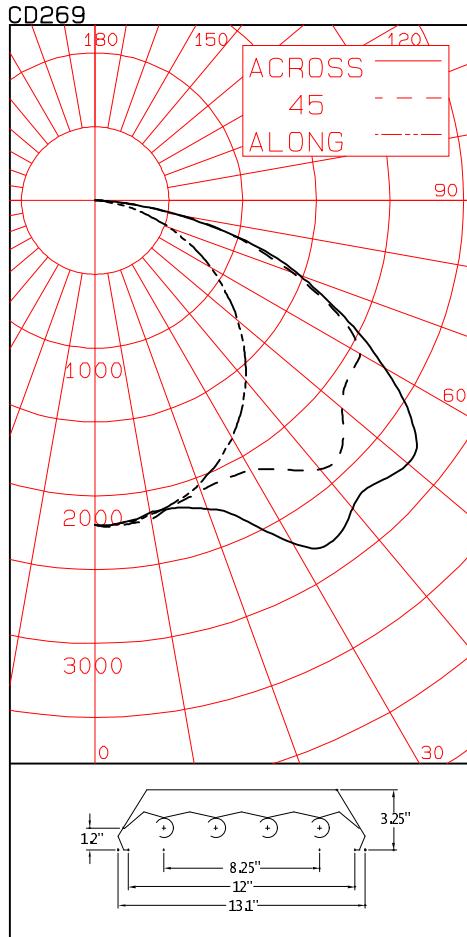


LIGHTING SCIENCES CANADA LTD.

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CERTIFIED TEST REPORT NO. LSC D269
 COMPUTED BY LSC PROGRAM **TEST-LITE**

PIONEER LIGHTING 4' HIBAY FLUORESCENT LUMINAIRE CAT. NO. HB 448-T8
 WITH SPECULAR REFLECTOR
 FOUR F32T8/TL841 32W T8 FLUORESCENT LAMPS. LUMEN RATING = 2950 LMS.
 ONE GE PROLINE 120V 3 OR 4-LAMP ELECTRONIC BALLAST NO. GE-432-120-N-84T



CANDLEPOWER SUMMARY OUTPUT LUMENS

ANGLE	ALONG	22.5	45	67.5	ACROSS	
0	2198	2198	2198	2198	2198	
5	2189	2201	2204	2191	2187	212
10	2159	2190	2191	2162	2146	
15	2111	2140	2125	2143	2156	605
20	2050	2063	2094	2183	2224	
25	1964	1969	2087	2281	2382	989
30	1858	1867	2109	2522	2676	
35	1733	1778	2222	2752	2813	1404
40	1592	1687	2374	2678	2719	
45	1430	1589	2366	2575	2704	1662
50	1258	1517	2188	2607	2772	
55	1076	1493	2097	2576	2631	1779
60	906	1427	2076	2251	2265	
65	718	1237	1813	1859	1866	1528
70	536	1069	1425	1455	1476	
75	357	912	1029	1070	1061	960
80	191	567	617	593	592	
85	62	218	203	191	194	233
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	1806	15.31	19.27
0-40	3210	27.21	34.26
0-60	6650	56.36	70.97
0-90	9371	79.42	100.00
40-90	6161	52.21	65.74
60-90	2721	23.06	29.03
90-180	0	.00	.00
0-180	9371	79.42	100.00

** EFFICIENCY = 79.4% **

LUMINANCE SUMMARY-CD. / SQ. M.

ANGLE	ALONG	45	ACROSS
45	5527	9181	10492
55	5128	10033	12585
65	4643	11770	12115
75	3775	10881	11246
85	1938	6381	6115

S/MH = 1.8

SC (ALONG) = 1.3, SC (ACROSS) = 1.8

CERTIFIED BY:

Charles Sisson

DATE:
JUN 17, 2008

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	2198	2198	2198	2198	2198	2198	
2.5	2201	2204	2212	2189	2201	2202	
5.0	2189	2201	2204	2191	2187	2196	212
7.5	2183	2203	2197	2186	2175	2191	
10.0	2159	2190	2191	2162	2146	2174	
12.5	2139	2165	2153	2136	2144	2149	
15.0	2111	2140	2125	2143	2156	2135	605
17.5	2086	2104	2110	2165	2184	2128	
20.0	2050	2063	2094	2183	2224	2119	
22.5	2001	2023	2083	2213	2275	2114	
25.0	1964	1969	2087	2281	2382	2128	989
27.5	1905	1912	2090	2391	2527	2152	
30.0	1858	1867	2109	2522	2676	2191	
32.5	1793	1823	2157	2651	2793	2231	
35.0	1733	1778	2222	2752	2813	2256	1404
37.5	1658	1736	2306	2752	2782	2254	
40.0	1592	1687	2374	2678	2719	2224	
42.5	1510	1627	2405	2599	2681	2182	
45.0	1430	1589	2366	2575	2704	2149	1662
47.5	1345	1545	2284	2594	2745	2117	
50.0	1258	1517	2188	2607	2772	2082	
52.5	1176	1500	2125	2624	2752	2053	
55.0	1076	1493	2097	2576	2631	2005	1779
57.5	996	1467	2088	2446	2468	1933	
60.0	906	1427	2076	2251	2265	1835	
62.5	815	1348	1976	2063	2074	1708	
65.0	718	1237	1813	1859	1866	1550	1528
67.5	618	1142	1615	1657	1663	1389	
70.0	536	1069	1425	1455	1476	1239	
72.5	434	1005	1221	1269	1290	1089	
75.0	357	912	1029	1070	1061	930	960
77.5	271	742	828	823	813	734	
80.0	191	567	617	593	592	542	
82.5	107	387	391	365	370	345	
85.0	62	218	203	191	194	185	233
87.5	15	72	59	63	63	58	
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	6007(1753)	6007(1753)	6007(1753)	6007(1753)	6007(1753)
30	5866(1712)	5910(1724)	6674(1948)	7978(2328)	8446(2465)
40	5679(1657)	6035(1761)	8480(2475)	9583(2796)	9702(2831)
45	5527(1613)	6152(1795)	9181(2679)	9985(2914)	10492(3062)
50	5350(1561)	6477(1890)	9304(2715)	11117(3244)	11790(3441)
55	5128(1496)	7127(2080)	10033(2928)	12315(3594)	12585(3673)
60	4954(1446)	7827(2284)	11361(3316)	12341(3601)	12382(3613)
65	4643(1355)	8010(2337)	11770(3435)	12061(3520)	12115(3535)
70	4280(1249)	8571(2501)	11424(3334)	11656(3402)	11795(3442)
75	3775(1101)	9674(2823)	10881(3175)	11344(3310)	11246(3282)
80	3012(879)	8967(2617)	9743(2843)	9344(2727)	9318(2719)
85	1938(565)	6873(2006)	6381(1862)	5998(1750)	6115(1785)

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	.95	.95	.95	.95	.92	.92	.92	.92	.88	.88	.88	.84	.84	.84	.81	.81	.81	.79				
1	.86	.82	.78	.75	.84	.80	.77	.74	.77	.74	.72	.74	.71	.69	.71	.69	.67	.66				
2	.77	.71	.65	.60	.76	.69	.64	.59	.66	.62	.58	.64	.60	.57	.61	.58	.55	.53				
3	.70	.61	.55	.49	.68	.60	.54	.49	.58	.52	.48	.55	.51	.47	.53	.50	.46	.44				
4	.64	.54	.46	.41	.62	.53	.46	.40	.51	.45	.40	.49	.44	.39	.47	.42	.39	.37				
5	.58	.47	.39	.33	.56	.46	.38	.33	.44	.38	.33	.42	.37	.32	.41	.36	.32	.30				
6	.53	.41	.34	.28	.51	.40	.33	.28	.39	.33	.28	.37	.32	.27	.36	.31	.27	.25				
7	.48	.37	.29	.24	.47	.36	.29	.24	.35	.28	.24	.33	.28	.23	.32	.27	.23	.21				
8	.44	.32	.25	.20	.43	.32	.25	.20	.31	.24	.20	.30	.24	.20	.29	.24	.20	.18				
9	.41	.29	.22	.17	.39	.29	.22	.17	.28	.21	.17	.27	.21	.17	.26	.21	.17	.15				
10	.37	.26	.19	.15	.37	.26	.19	.15	.25	.19	.15	.24	.18	.15	.23	.18	.14	.13				

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES
 LUMINAIRE INPUT WATTS = 108.0
 LABORATORY RESULT MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
 BALLAST FACTORS HAVE NOT BEEN APPLIED.