

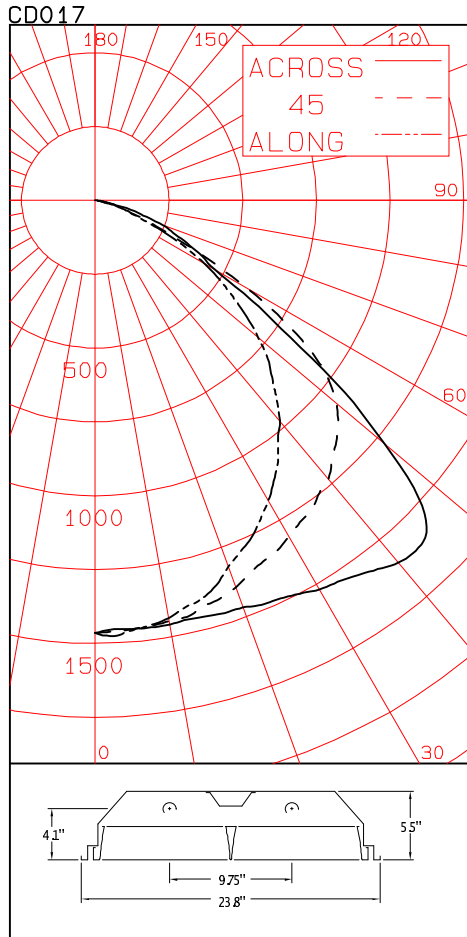


LIGHTING SCIENCES CANADA LTD.

440 Phillip St., Unit 19, Waterloo, Ontario, Canada N2L 5R9
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CERTIFIED TEST REPORT NO. LSC D017
 COMPUTED BY LSC PROGRAM **TEST-LITE**

PIONEER LIGHTING 2x4 RECESSED LUMINAIRE CAT. NO. TBDC 24-248-26-EL
 WITH WHITE PAINTED INTERIOR AND 12-CELL ALUMINUM LOUVER
 TWO F32T8/TL841 32W T8 FLUORESCENT LAMPS. LUMEN RATING = 2950 LMS.
 ONE GE PROLINE 120V 1 OR 2-LAMP ELECTRONIC BALLAST NO. GE-232-120-N-84T



CANDLEPOWER SUMMARY

OUTPUT
LUMENS

ANGLE	ALONG	22.5	45	67.5	ACROSS	
0	1465	1465	1465	1465	1465	
5	1460	1473	1456	1458	1456	141
10	1435	1447	1447	1446	1458	
15	1397	1408	1423	1451	1458	402
20	1321	1342	1395	1444	1467	
25	1258	1283	1349	1441	1487	629
30	1175	1211	1314	1463	1521	
35	1081	1127	1279	1457	1550	810
40	974	1037	1231	1464	1602	
45	848	944	1156	1439	1589	904
50	723	818	1067	1247	1279	
55	571	684	900	841	809	691
60	426	526	598	466	468	
65	264	353	301	293	343	318
70	131	169	150	190	245	
75	72	73	66	99	138	93
80	32	34	20	29	41	
85	7	8	4	0	6	9
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LAMP	%LUMINAIRE
0-30	1172	19.87	29.33
0-40	1982	33.60	49.59
0-60	3577	60.63	89.47
0-90	3998	67.77	100.00
40-90	2015	34.16	50.41
60-90	420	7.13	10.53
90-180	0	.00	.00
0-180	3998	67.77	100.00

** EFFICIENCY = 67.8% **

LUMINANCE SUMMARY-CD. / SQ. M.

ANGLE	ALONG	45	ACROSS
45	2008	2747	3777
55	1668	2638	2369
65	1045	1197	1364
75	468	426	899
85	140	84	123

PAINT REFLECTANCE = .85 S/MH = 1.7
 SC (ALONG) = 1.2, SC (ACROSS) = 1.7

CERTIFIED BY:

Charles Sisson

DATE:
DEC 7, 2007

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	1465	1465	1465	1465	1465	1465	
2.5	1476	1472	1460	1451	1453	1462	
5.0	1460	1473	1456	1458	1456	1461	141
7.5	1451	1468	1453	1455	1458	1458	
10.0	1435	1447	1447	1446	1458	1447	
12.5	1411	1426	1443	1450	1453	1438	
15.0	1397	1408	1423	1451	1458	1427	402
17.5	1366	1381	1412	1443	1464	1413	
20.0	1321	1342	1395	1444	1467	1394	
22.5	1287	1313	1367	1452	1482	1379	
25.0	1258	1283	1349	1441	1487	1361	629
27.5	1215	1244	1337	1447	1502	1347	
30.0	1175	1211	1314	1463	1521	1334	
32.5	1127	1171	1293	1456	1532	1312	
35.0	1081	1127	1279	1457	1550	1294	810
37.5	1018	1079	1249	1460	1575	1271	
40.0	974	1037	1231	1464	1602	1255	
42.5	911	991	1190	1461	1609	1226	
45.0	848	944	1156	1439	1589	1189	904
47.5	793	882	1118	1370	1488	1128	
50.0	723	818	1067	1247	1279	1033	
52.5	648	757	998	1052	1067	916	
55.0	571	684	900	841	809	779	691
57.5	501	618	759	629	627	643	
60.0	426	526	598	466	468	509	
62.5	347	449	432	357	409	404	
65.0	264	353	301	293	343	313	318
67.5	193	254	210	243	286	237	
70.0	131	169	150	190	245	174	
72.5	101	105	100	132	171	118	
75.0	72	73	66	99	138	86	93
77.5	62	50	37	44	61	48	
80.0	32	34	20	29	41	30	
82.5	19	20	16	6	19	15	
85.0	7	8	4	0	6	5	9
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		22.5		45		67.5		ACROSS	
	CD.	/ SQ. M.	(FOOTLAMBERTS)							
0	2453	(716)	2453	(716)	2453	(716)	2453	(716)	2453	(716)
30	2271	(662)	2348	(685)	2546	(743)	2836	(827)	2941	(858)
40	2129	(621)	2272	(663)	2692	(785)	3209	(936)	3502	(1022)
45	2008	(586)	2237	(653)	2747	(801)	3418	(997)	3777	(1102)
50	1884	(549)	2139	(624)	2779	(811)	3257	(950)	3332	(972)
55	1668	(486)	1999	(583)	2638	(770)	2462	(718)	2369	(691)
60	1426	(416)	1768	(516)	2005	(585)	1564	(456)	1567	(457)
65	1045	(305)	1399	(408)	1197	(349)	1164	(339)	1364	(398)
70	641	(187)	829	(242)	737	(215)	931	(271)	1201	(350)
75	468	(136)	473	(138)	426	(124)	639	(186)	899	(262)
80	308	(89)	333	(97)	194	(56)	278	(81)	392	(114)
85	140	(41)	156	(45)	84	(24)	0	(0)	123	(35)

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	.81	.81	.81	.81	.79	.79	.79	.79	.75	.75	.75	.72	.72	.72	.69	.69	.69	.68				
1	.75	.73	.70	.68	.74	.71	.69	.67	.68	.67	.65	.66	.64	.63	.63	.62	.61	.60				
2	.70	.65	.61	.58	.68	.64	.60	.57	.61	.59	.56	.59	.57	.55	.58	.56	.54	.52				
3	.64	.58	.54	.50	.63	.57	.53	.49	.55	.52	.49	.54	.51	.48	.52	.49	.47	.46				
4	.59	.52	.47	.43	.58	.51	.47	.43	.50	.45	.42	.48	.45	.42	.47	.44	.41	.40				
5	.54	.46	.41	.37	.53	.46	.40	.37	.44	.40	.36	.43	.39	.36	.42	.38	.35	.34				
6	.50	.42	.36	.32	.49	.41	.36	.32	.40	.35	.31	.39	.34	.31	.38	.34	.31	.30				
7	.46	.37	.32	.28	.45	.37	.31	.28	.36	.31	.27	.35	.30	.27	.34	.30	.27	.26				
8	.42	.33	.28	.24	.41	.33	.27	.24	.32	.27	.24	.31	.27	.23	.30	.26	.23	.22				
9	.39	.30	.24	.20	.38	.29	.24	.20	.28	.24	.20	.28	.23	.20	.27	.23	.20	.19				
10	.36	.27	.21	.18	.35	.26	.21	.18	.26	.21	.18	.25	.21	.18	.25	.20	.17	.16				

DETERMINED IN ACCORDANCE WITH CURRENT IES PUBLISHED PROCEDURES
 LUMINAIRE INPUT WATTS = 57.6
 LABORATORY RESULT MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
 BALLAST FACTORS HAVE NOT BEEN APPLIED.