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## INDEPENDENT TEST LABORATORY REPORT No. 31700

### Description:

PRUDENTIAL LIGHTING - 4' LED LUMINAIRE, CAT# Bio-PSTD-FLSH-LED4HO-04-AWW-D1G  
WITH WHITE REFLECTOR AND LINEAR PRISMATIC FROSTED PLASTIC FLAT LENS  
128 LEDS. LUMINAIRE OUTPUT = 2899 LMS  
ONE EPTRONICS LD50W-29-C1750-RD DRIVER OPERATING AT 120 VAC AND 47.4 WATTS

### The sample(s) was(were) tested in accordance with the following applied standards/regulations:

IES LM-41-98: Approved Method for Photometric Testing of Indoor Fluorescent Luminaire (withdrawn)

IES LM-79-08: Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products

### Prepared for:

PRUDENTIAL LIGHTING  
  
LOS ANGELES, CA

### Approved by:

JIM DOMIGAN

VS SUPERVISOR

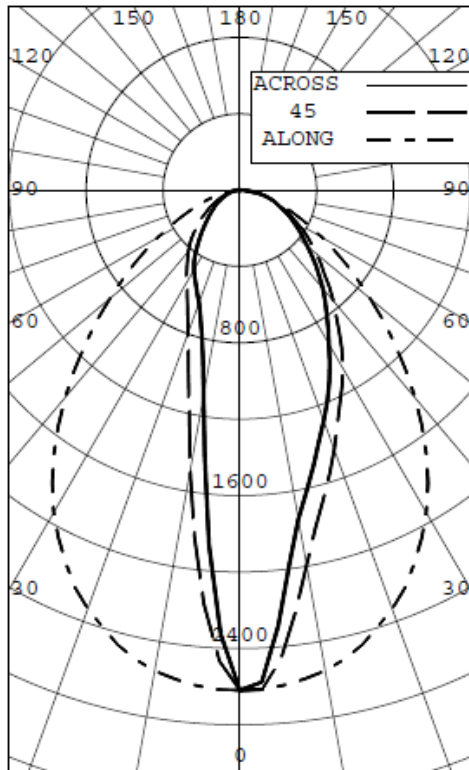
APR 12, 2013

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BEAM SIDE  
INTENSITY(CANDLEPOWER) DATA  
IN 2.5 DEGREE STEPS

ANGLE	PLANE						OUTPUT
	ALONG	67.5	45	22.5	ACROSS	AVERAGE	LUMENS
0.0	2619	2619	2619	2619	2619	2619	
2.5	2617	2626	2619	2588	2580	2608	
5.0	2603	2578	2462	2337	2290	2456	112
7.5	2583	2494	2224	2030	1976	2257	
10.0	2556	2370	1996	1801	1751	2080	
12.5	2516	2234	1811	1651	1610	1940	
15.0	2463	2096	1675	1526	1486	1818	254
17.5	2395	1949	1556	1407	1371	1699	
20.0	2327	1823	1438	1306	1278	1592	
22.5	2251	1707	1326	1221	1189	1493	
25.0	2149	1588	1233	1134	1101	1395	320
27.5	2050	1465	1152	1048	1012	1299	
30.0	1942	1349	1072	967	926	1205	
32.5	1819	1248	987	886	854	1114	
35.0	1692	1145	898	814	787	1024	320
37.5	1556	1046	820	747	727	939	
40.0	1416	962	755	689	670	862	
42.5	1277	873	689	634	612	785	
45.0	1141	792	623	580	559	711	275
47.5	1012	717	574	534	507	646	
50.0	887	645	521	486	460	582	
52.5	778	579	472	439	419	522	
55.0	673	521	432	394	381	468	210
57.5	579	460	390	357	347	417	
60.0	492	407	346	322	315	370	
62.5	413	357	306	290	284	325	
65.0	346	311	272	260	255	286	142
67.5	285	266	241	231	228	249	
70.0	231	228	211	203	203	215	
72.5	187	189	181	177	180	183	
75.0	146	147	151	153	157	151	80
77.5	111	117	122	128	130	122	
80.0	80	89	96	102	103	95	
82.5	53	64	71	75	78	69	
85.0	32	41	47	50	54	45	25
87.5	16	20	23	26	29	23	
90.0	0	0	0	0	0	0	

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WITH WHITE REFLECTOR AND LINEAR PRISMATIC FROSTED PLASTIC FLAT LENS  
128 LEDS. LUMINAIRE OUTPUT = 2899 LMS  
ONE EPTRONICS LD50W-29-C1750-RD DRIVER OPERATING AT 120 VAC AND 47.4 WATTS

BEAM SIDE  
AVERAGE LUMINANCE DATA

CD./SQ.M (FOOTLAMBERTS)

ANGLE	ALONG		67.5		45		22.5		ACROSS	
0	21140(	6170)	21140(	6170)	21140(	6170)	21140(	6170)	21140(	6170)
30	18102(	5283)	12608(	3679)	10015(	2923)	9035(	2637)	8634(	2520)
40	14922(	4355)	10168(	2967)	7958(	2322)	7275(	2123)	7058(	2060)
45	13026(	3802)	9053(	2642)	7134(	2082)	6643(	1939)	6407(	1870)
50	11140(	3251)	8133(	2373)	6549(	1911)	6124(	1787)	5782(	1687)
55	9472(	2764)	7339(	2142)	6097(	1779)	5562(	1623)	5387(	1572)
60	7943(	2318)	6600(	1926)	5592(	1632)	5217(	1522)	5079(	1482)
65	6609(	1929)	5942(	1734)	5214(	1521)	4980(	1453)	4895(	1428)
70	5452(	1591)	5391(	1573)	4987(	1455)	4801(	1401)	4782(	1395)
75	4553(	1329)	4596(	1341)	4721(	1378)	4782(	1395)	4922(	1436)
80	3719(	1085)	4153(	1212)	4475(	1306)	4734(	1381)	4783(	1396)
85	2964(	865)	3801(	1109)	4355(	1271)	4685(	1367)	5030(	1468)

LUMINOUS LENGTH: 4.000 INS  
WIDTH: 48.000 INS

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OPPOSITE SIDE TO BEAM  
INTENSITY(CANDLEPOWER) DATA  
IN 2.5 DEGREE STEPS

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	112.5	135	157.5	ACROSS	AVERAGE	
0.0	2619	2619	2619	2619	2619	2619	
2.5	2617	2551	2468	2378	2328	2468	
5.0	2603	2443	2176	1952	1866	2201	97
7.5	2583	2282	1827	1520	1419	1907	
10.0	2556	2098	1497	1186	1101	1652	
12.5	2516	1903	1228	964	901	1451	
15.0	2463	1701	1036	827	778	1296	182
17.5	2395	1515	900	732	694	1173	
20.0	2327	1348	795	662	629	1071	
22.5	2251	1211	715	606	586	988	
25.0	2149	1085	650	568	547	913	210
27.5	2050	973	601	533	515	847	
30.0	1942	892	557	500	481	790	
32.5	1819	818	519	467	448	734	
35.0	1692	748	483	435	408	679	211
37.5	1556	688	451	395	365	624	
40.0	1416	633	422	354	329	570	
42.5	1277	581	392	318	295	519	
45.0	1141	531	359	286	263	470	181
47.5	1012	490	326	256	236	424	
50.0	887	449	293	229	212	380	
52.5	778	408	263	204	190	340	
55.0	673	368	235	183	171	302	135
57.5	579	329	208	163	154	267	
60.0	492	293	183	145	136	234	
62.5	413	257	160	127	120	203	
65.0	346	222	139	111	105	174	87
67.5	285	189	119	95	91	148	
70.0	231	157	101	82	79	124	
72.5	187	127	84	70	68	102	
75.0	146	101	69	59	58	83	44
77.5	111	77	56	49	49	66	
80.0	80	57	44	40	40	50	
82.5	53	40	32	31	31	36	
85.0	32	24	21	22	23	24	13
87.5	16	11	10	12	13	12	
90.0	0	0	0	0	0	0	

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OPPOSITE SIDE TO BEAM  
AVERAGE LUMINANCE DATA

CD./SQ.M (FOOTLAMBERTS)

ANGLE	ALONG		112.5		135		157.5		ACROSS	
0	21140(	6170)	21140(	6170)	21140(	6170)	21140(	6170)	21140(	6170)
30	18102(	5283)	8339(	2433)	5206(	1519)	4675(	1364)	4487(	1309)
40	14922(	4355)	6692(	1953)	4450(	1298)	3741(	1092)	3462(	1010)
45	13026(	3802)	6073(	1772)	4110(	1199)	3278(	956)	3015(	880)
50	11140(	3251)	5665(	1653)	3683(	1074)	2878(	840)	2660(	776)
55	9472(	2764)	5181(	1512)	3314(	967)	2579(	752)	2420(	706)
60	7943(	2318)	4738(	1383)	2956(	862)	2343(	684)	2199(	641)
65	6609(	1929)	4246(	1239)	2656(	775)	2125(	620)	2007(	585)
70	5452(	1591)	3707(	1081)	2381(	695)	1937(	565)	1859(	542)
75	4553(	1329)	3165(	923)	2157(	629)	1843(	538)	1825(	532)
80	3719(	1085)	2669(	779)	2030(	592)	1862(	543)	1859(	542)
85	2964(	865)	2258(	659)	1950(	569)	2045(	596)	2110(	616)

LUMINOUS LENGTH: 4.000 INS  
WIDTH: 48.000 INS

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COEFFICIENTS OF UTILIZATION

ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

CC	90				80				70				50				30				10				0
WALL	70	50	30	10	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																									
0	1.221	.221	.221	.22	1.191	.191	.191	.19	1.161	.161	.161	.16	1.111	.111	.11	1.061	.061	.06	1.021	.021	.02	1.00			
1	1.141	.091	.061	.02	1.111	.071	.041	.01	1.091	.051	.020	.99	1.010	.980	.96	0.970	.950	.93	0.940	.920	.90	0.89			
2	1.060	.990	.930	.88	1.030	.970	.920	.87	1.010	.950	.900	.86	0.920	.880	.84	0.890	.850	.82	0.860	.830	.81	0.79			
3	0.980	.890	.820	.77	0.960	.880	.810	.76	0.940	.860	.810	.76	0.840	.790	.74	0.810	.770	.73	0.790	.750	.72	0.70			
4	0.920	.820	.740	.69	0.900	.810	.730	.68	0.880	.790	.730	.68	0.770	.710	.67	0.750	.700	.66	0.730	.690	.65	0.63			
5	0.860	.750	.670	.61	0.840	.740	.660	.61	0.820	.730	.650	.60	0.700	.640	.60	0.690	.630	.59	0.670	.620	.59	0.57			
6	0.810	.680	.610	.55	0.790	.670	.600	.55	0.770	.670	.590	.54	0.650	.590	.54	0.630	.580	.54	0.620	.570	.53	0.51			
7	0.750	.620	.550	.50	0.730	.620	.540	.49	0.720	.610	.540	.49	0.600	.530	.49	0.580	.520	.48	0.570	.520	.48	0.46			
8	0.700	.580	.500	.45	0.690	.570	.500	.45	0.670	.560	.490	.44	0.550	.490	.44	0.540	.480	.44	0.530	.480	.44	0.42			
9	0.660	.540	.460	.41	0.640	.530	.460	.41	0.630	.520	.450	.41	0.510	.450	.40	0.500	.440	.40	0.490	.440	.40	0.38			
10	0.620	.490	.420	.37	0.610	.490	.420	.37	0.590	.480	.420	.37	0.470	.410	.37	0.470	.410	.37	0.460	.400	.36	0.35			

THE ABOVE COEFFICIENTS HAVE BEEN CALCULATED BASED ON LUMINAIRE LUMENS  
BECAUSE IN AN ABSOLUTE TEST THE BARE LAMP LUMENS ARE UNKNOWN.  
LIGHTING DESIGN CALCULATIONS MADE USING THESE COEFFICIENTS SHOULD  
THEREFORE USE THE LUMINAIRE LUMENS IN THE CALCULATION FORMULA

LUMINAIRE INPUT WATTS 47.4

LABORATORY RESULTS MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.  
BALLAST AND FIELD FACTORS HAVE NOT BEEN APPLIED.

TEST DISTANCE EXCEEDS FIVE TIMES THE GREATEST  
LUMINOUS OPENING OF LUMINAIRE.