

Photometric Report - (ecs-prt4-wn-232-unv-12n-pbl1) - Page 1 of 4

Sun Apr 29 18:01:24 2012

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-prt4-wn-232-unv-12n-pbl1

OPTIONS:

Spawning 1 rays for each reaction.  
Random number generator seed: 8.  
Tracing 5 reflections.  
Stop tracing ray at 1.0% of initial magnitude.  
Tracing 500092 initial lamp rays.  
Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens(%)	Reflection
1464( 25.2%)	0
1530( 26.4%)	1
757( 13.1%)	2
380( 6.6%)	3
217( 3.8%)	4
128( 2.2%)	5
4479( 77.2%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
126( 2.2%)	1926( 33.2%)	LAMP-FO32311
6( 0.1%)	97( 1.7%)	LAMP-FO32312
490( 8.4%)	4900( 84.5%)	Refl-Poly1
322( 5.6%)	2449( 42.2%)	Refl-Poly2
3( 0.1%)	38( 0.7%)	Refl-Poly3
948( 16.4%)	9413(162.3%)	Total

  

Absorbed(%)	Incident(%)	Material Name
132( 2.3%)	2024( 34.9%)	PHOSGLAS
490( 8.4%)	4900( 84.5%)	AMWHITE0
322( 5.6%)	2449( 42.2%)	AL1500G4
3( 0.1%)	38( 0.7%)	PAINT006
948( 16.4%)	9413(162.3%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 371.93 ( 6.4%)  
fell below continuation minimum: 0.00 ( 0.0%)  
could not find in/out refractor facet: 0.00 ( 0.0%)  
reached try limit for scatter bounce: 0.00 ( 0.0%)  
lost elsewhere(i.e. outside distrib): 0.00 ( 0.0%)

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Number of Lamps: 2                      Lumens per Lamp: 2900  
 Ballast Factor: 1.00    Ballast-Lamp Photometric Factor: 1.00  
 Luminaire Width: 0.7292    Length: 4.0000    Height: 0.3179  
 Photometry Type: C                      Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	1655	1655	1655	1655	1655
5.00	1715	1525	1576	1514	1634
10.00	1586	1530	1558	1578	1562
15.00	1504	1560	1555	1508	1567
20.00	1441	1478	1472	1467	1481
25.00	1360	1420	1430	1439	1462
30.00	1315	1358	1350	1413	1457
35.00	1201	1234	1282	1398	1477
40.00	1121	1142	1231	1271	1238
45.00	1018	1053	1103	1028	965
50.00	867	917	898	722	681
55.00	729	751	628	501	504
60.00	524	508	383	338	306
65.00	270	246	186	169	158
70.00	79.0	62.3	56.3	56.3	49.0
75.00	12.8	8.10	9.30	7.67	7.19
80.00	1.10	2.68	2.69	1.80	1.29
85.00	0.520	0.650	0.480	0.620	0.900
90.00	0.920	0.410	0.260	0.720	1.17
95.00	14.8	8.44	6.88	7.18	8.19
100.00	38.1	18.7	15.7	15.6	15.9
105.00	71.9	32.3	28.5	27.3	27.5
110.00	132	41.0	41.7	37.2	38.9
115.00	176	59.3	54.4	48.4	47.3
120.00	232	85.7	67.3	60.7	60.0
125.00	277	125	68.4	72.9	80.1
130.00	332	176	66.8	85.6	91.8
135.00	384	229	78.5	85.2	85.4
140.00	433	295	133	77.3	84.2
145.00	459	344	196	106	91.0
150.00	504	402	270	184	152
155.00	538	454	335	254	238
160.00	578	503	408	348	305
165.00	590	545	491	429	422
170.00	608	580	541	525	478
175.00	625	601	550	578	578
180.00	593	593	593	593	593

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Zonal Lumens		
Cone	Between	Lumens
0.0	0.0- 2.5	9.90
5.0	2.5- 7.5	75.11
10.0	7.5- 12.5	148.48
15.0	12.5- 17.5	218.42
20.0	17.5- 22.5	275.49
25.0	22.5- 27.5	330.11
30.0	27.5- 32.5	377.40
35.0	32.5- 37.5	412.89
40.0	37.5- 42.5	424.90
45.0	42.5- 47.5	404.57
50.0	47.5- 52.5	347.59
55.0	52.5- 57.5	280.24
60.0	57.5- 62.5	195.12
65.0	62.5- 67.5	101.17
70.0	67.5- 72.5	30.77
75.0	72.5- 77.5	4.64
80.0	77.5- 82.5	1.13
85.0	82.5- 87.5	0.34
90.0	87.5- 92.5	0.33
95.0	92.5- 97.5	4.64
100.0	97.5-102.5	10.39
105.0	102.5-107.5	18.23
110.0	107.5-112.5	26.42
115.0	112.5-117.5	34.03
120.0	117.5-122.5	42.67
125.0	122.5-127.5	49.98
130.0	127.5-132.5	56.70
135.0	132.5-137.5	60.75
140.0	137.5-142.5	67.30
145.0	142.5-147.5	72.30
150.0	147.5-152.5	81.18
155.0	152.5-157.5	82.87
160.0	157.5-162.5	79.73
165.0	162.5-167.5	69.88
170.0	167.5-172.5	52.09
175.0	172.5-177.5	27.82
180.0	177.5-180.0	3.55

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	1239	21.4	27.7
0- 40	2055	35.4	45.9
0- 60	3401	58.6	75.9
0- 90	3638	62.7	81.2
90-120	115	2.0	2.6
90-130	215	3.7	4.8
90-150	486	8.4	10.8
90-180	841	14.5	18.8
0-180	4479	77.2	100.0

Total Luminaire Optical Efficiency = 77.2%

Luminaire Spacing Criterion:

0 deg	90 deg
1.18	1.37

Average Luminaire Luminance (cd/m<sup>2</sup>):

	0	45	90
0	6108.97	6108.97	6108.97
45	4922.51	4218.03	3506.16
50	4546.49	3595.86	2574.24
55	4210.05	2656.71	1999.15
60	3397.87	1733.07	1285.17
65	2012.40	911.49	712.45
70	699.56	303.74	240.46
75	140.98	56.18	39.02
80	16.11	18.64	7.89
85	11.54	3.93	6.37

Coefficients of Utilization - Zonal Cavity Method:

pfc = 0.20

pcc	.8				.7				.5				.3				.1				0
pw	.7	.5	.3	.1	.7	.5	.3	.1	.5	.3	.1	.5	.3	.1	.5	.3	.1	.5	.3	.1	0
RCR																					
0	88	88	88	88	84	84	84	84	78	78	78	71	71	71	65	65	65	62			
1	82	79	77	74	79	76	74	72	70	68	67	65	64	62	60	59	58	56			
2	76	71	66	63	73	68	64	61	63	60	57	58	56	54	54	52	51	48			
3	70	63	58	53	67	61	56	52	56	53	49	53	49	47	49	46	44	42			
4	64	56	50	46	62	54	49	45	51	46	43	47	44	41	44	41	39	37			
5	59	51	44	40	57	49	43	39	46	41	37	43	39	36	40	37	34	32			
6	55	46	39	35	52	44	38	34	41	37	33	39	35	32	36	33	30	28			
7	51	41	35	31	49	40	34	30	38	33	29	35	31	28	33	30	27	25			
8	47	38	32	28	45	37	31	27	34	30	26	32	28	25	31	27	24	23			
9	44	35	29	25	42	34	28	24	32	27	24	30	26	23	28	24	22	20			
10	41	32	26	22	40	31	26	22	29	25	21	28	23	21	26	22	20	18			