

Photometric Report - (ecs-prt4-mn-232-unv-12n-pb11) - Page 1 of 4

Sun Apr 29 17:57:02 2012

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-prt4-mn-232-unv-12n-pb11

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
2497(43.1%)	1
585(10.1%)	2
248(4.3%)	3
129(2.2%)	4
95(1.6%)	5
5020(86.6%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
73(1.3%)	1126(19.4%)	LAMP-F032311
3(0.1%)	55(1.0%)	LAMP-F032312
223(3.9%)	3968(68.4%)	Refl-Poly1
289(5.0%)	2197(37.9%)	Refl-Poly2
3(0.1%)	33(0.6%)	Refl-Poly3
594(10.2%)	7381(127.3%)	Total

Absorbed(%)	Incident(%)	Material Name
77(1.3%)	1181(20.4%)	PHOSGLAS
223(3.9%)	3968(68.4%)	ALMIRO04
289(5.0%)	2197(37.9%)	AL1500G4
3(0.1%)	33(0.6%)	PAINT006
594(10.2%)	7381(127.3%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 184.53 (3.2%)
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	2452	2452	2452	2452	2452
5.00	2478	2464	2446	2403	2515
10.00	2444	2436	2386	2398	2351
15.00	2304	2296	2257	2265	2175
20.00	2273	2252	2162	2051	1983
25.00	2124	2095	1889	1858	1796
30.00	2043	1948	1713	1632	1584
35.00	1839	1741	1527	1329	1246
40.00	1679	1502	1255	967	917
45.00	1496	1283	937	704	633
50.00	1246	1017	646	450	379
55.00	989	693	393	282	250
60.00	656	414	208	174	144
65.00	319	169	96.8	84.0	59.0
70.00	71.2	35.3	29.8	26.0	18.5
75.00	9.34	7.14	6.35	5.83	4.30
80.00	1.63	2.01	1.90	1.18	1.14
85.00	0.270	0.320	0.660	0.710	0.990
90.00	0.310	0.000	0.000	0.000	0.280
95.00	10.2	0.460	0.000	0.000	0.000
100.00	34.3	3.88	0.310	0.070	0.000
105.00	82.0	17.3	2.06	0.130	0.000
110.00	129	44.3	7.43	4.00	3.75
115.00	180	82.5	22.2	11.8	9.88
120.00	232	135	51.7	17.7	13.6
125.00	281	181	86.2	51.5	33.0
130.00	331	227	135	86.5	77.3
135.00	368	294	181	122	123
140.00	441	333	243	183	153
145.00	436	395	292	234	214
150.00	487	433	349	291	280
155.00	511	485	409	361	345
160.00	525	524	458	404	420
165.00	520	542	513	482	459
170.00	568	550	526	547	497
175.00	625	558	584	522	587
180.00	594	594	594	594	594

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Zonal Lumens		
Cone	Between	Lumens
0.0	0.0- 2.5	14.66
5.0	2.5- 7.5	117.16
10.0	7.5- 12.5	228.87
15.0	12.5- 17.5	321.26
20.0	17.5- 22.5	402.73
25.0	22.5- 27.5	451.85
30.0	27.5- 32.5	486.92
35.0	32.5- 37.5	482.58
40.0	37.5- 42.5	442.33
45.0	42.5- 47.5	386.46
50.0	47.5- 52.5	307.07
55.0	52.5- 57.5	223.04
60.0	57.5- 62.5	141.83
65.0	62.5- 67.5	66.95
70.0	67.5- 72.5	17.51
75.0	72.5- 77.5	3.46
80.0	77.5- 82.5	0.87
85.0	82.5- 87.5	0.32
90.0	87.5- 92.5	0.04
95.0	92.5- 97.5	0.76
100.0	97.5-102.5	2.89
105.0	102.5-107.5	8.00
110.0	107.5-112.5	15.75
115.0	112.5-117.5	26.27
120.0	117.5-122.5	38.79
125.0	122.5-127.5	53.32
130.0	127.5-132.5	68.48
135.0	132.5-137.5	81.71
140.0	137.5-142.5	92.99
145.0	142.5-147.5	97.90
150.0	147.5-152.5	99.85
155.0	152.5-157.5	97.44
160.0	157.5-162.5	87.11
165.0	162.5-167.5	71.87
170.0	167.5-172.5	51.29
175.0	172.5-177.5	27.11
180.0	177.5-180.0	3.55

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	1771	30.5	35.3
0- 40	2721	46.9	54.2
0- 60	3935	67.8	78.4
0- 90	4096	70.6	81.6
90-120	73	1.3	1.5
90-130	181	3.1	3.6
90-150	539	9.3	10.7
90-180	925	16.0	18.4
0-180	5021	86.6	100.0

Total Luminaire Optical Efficiency = 86.6%

Luminaire Spacing Criterion:

0 deg	90 deg
1.23	1.01

Average Luminaire Luminance (cd/m²):

	0	45	90
0	9048.91	9048.91	9048.91
45	7232.95	3584.05	2299.32
50	6533.78	2587.31	1431.37
55	5716.85	1661.14	989.94
60	4256.86	939.29	607.20
65	2381.03	474.44	266.17
70	630.84	160.71	90.58
75	102.71	38.36	23.34
80	23.88	13.17	6.98
85	5.99	5.41	7.01

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	0
RCR																		
0	99	99	99	99	95	95	95	95	87	87	87	80	80	80	73	73	73	70
1	93	90	87	84	89	86	84	81	80	78	76	74	72	71	68	67	66	63
2	86	81	76	72	82	78	74	70	72	69	66	67	65	62	62	61	59	56
3	80	73	67	63	77	70	65	61	65	61	58	61	58	55	57	55	52	50
4	74	66	60	55	71	64	58	54	60	55	51	56	52	49	52	49	47	45
5	69	60	53	48	66	58	52	47	54	49	46	51	47	44	48	45	42	40
6	64	54	48	43	61	53	47	42	50	45	41	47	43	39	44	41	38	36
7	60	50	43	39	57	48	42	38	46	40	37	43	39	35	41	37	34	32
8	56	46	39	35	54	44	39	34	42	37	33	40	35	32	38	34	31	29
9	52	42	36	32	50	41	35	31	39	34	30	37	33	29	35	31	28	27
10	49	39	33	29	47	38	32	29	36	31	28	34	30	27	33	29	26	25