

Photometric Report - (ecs-uli4-mn-232-unv-12n) - Page 1 of 4

Fri Apr 27 11:51:20 2012

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-uli4-mn-232-unv-12n

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
2733( 47.1%)	0
1697( 29.3%)	1
322( 5.6%)	2
314( 5.4%)	3
89( 1.5%)	4
86( 1.5%)	5
5243( 90.4%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
110( 1.9%)	1702( 29.4%)	LAMP-F032311
5( 0.1%)	84( 1.5%)	LAMP-F032312
215( 3.7%)	3842( 66.2%)	Refl-Poly1
332( 5.7%)	5628( 97.0%)	Total

  

Absorbed(%)	Incident(%)	Material Name
116( 2.0%)	1786( 30.8%)	PHOSGLAS
215( 3.7%)	3842( 66.2%)	ALMIRO04
332( 5.7%)	5628( 97.0%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 180.25 ( 3.1%)  
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): 43.98 ( 0.8%)

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Number of Lamps: 2 Lumens per Lamp: 2900  
Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00  
Luminaire Width: 0.8088 Length: 4.0000 Height: 0.1381  
Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	1342	1342	1342	1342	1342
5.00	1450	1345	1383	1392	1382
10.00	1299	1388	1443	1436	1520
15.00	1277	1414	1426	1483	1522
20.00	1256	1350	1481	1581	1606
25.00	1219	1348	1500	1762	1833
30.00	1211	1322	1599	1786	1787
35.00	1129	1285	1634	1638	1597
40.00	1083	1255	1545	1460	1391
45.00	932	1228	1365	1149	1094
50.00	893	1138	1115	892	830
55.00	774	1020	850	728	756
60.00	656	860	646	664	676
65.00	560	664	531	624	676
70.00	466	467	493	650	715
75.00	343	330	488	628	693
80.00	224	254	442	532	545
85.00	108	199	279	308	314
90.00	57.3	97.8	128	146	150

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Zonal Lumens

Cone	Between	Lumens
0.0	0.0- 2.5	8.02
5.0	2.5- 7.5	66.13
10.0	7.5- 12.5	135.07
15.0	12.5- 17.5	202.98
20.0	17.5- 22.5	273.88
25.0	22.5- 27.5	355.34
30.0	27.5- 32.5	425.22
35.0	32.5- 37.5	465.35
40.0	37.5- 42.5	484.21
45.0	42.5- 47.5	460.72
50.0	47.5- 52.5	420.58
55.0	52.5- 57.5	377.37
60.0	57.5- 62.5	336.54
65.0	62.5- 67.5	302.68
70.0	67.5- 72.5	283.32
75.0	72.5- 77.5	260.00
80.0	77.5- 82.5	217.55
85.0	82.5- 87.5	136.13
90.0	87.5- 92.5	65.23

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	1246	21.5	23.6
0- 40	2168	37.4	41.1
0- 60	3841	66.2	72.8
0- 90	5244	90.4	99.4
90-120	33	0.6	0.6
90-130	33	0.6	0.6
90-150	33	0.6	0.6
90-180	33	0.6	0.6
0-180	5276	91.0	100.0

Total Luminaire Optical Efficiency = 91.0%

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Luminaire Spacing Criterion:

0 deg	90 deg
1.32	1.62

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

	0	45	90
0	4463.57	4463.57	4463.57
45	4236.71	5609.11	4395.74
50	4441.50	4919.56	3569.44
55	4276.20	4081.85	3526.65
60	4115.69	3436.08	3473.38
65	4102.67	3190.77	3894.11
70	4143.77	3429.42	4732.90
75	3901.41	4069.73	5437.98
80	3581.92	4648.22	5300.73
85	2943.49	4006.10	4055.15

Coefficients of Utilization - Zonal Cavity Method:

pfc = 0.20

pcc	.8				.7				.5			
pw	.7	.5	.3	.1	.7	.5	.3	.1	.5	.3	.1	
RCR												
0	107	107	107	107	105	105	105	105	100	100	100	
1	96	91	87	83	94	89	85	81	85	82	79	
2	87	79	72	66	84	77	71	65	74	68	64	
3	79	69	61	54	77	67	60	54	64	58	53	
4	72	61	52	46	70	59	51	45	57	50	45	
5	66	54	45	39	64	53	45	39	51	44	38	
6	61	48	40	34	59	47	39	34	46	39	33	
7	56	44	35	30	55	43	35	30	41	34	29	
8	52	40	32	26	51	39	31	26	38	31	26	
9	49	36	29	23	48	36	28	23	35	28	23	
10	46	33	26	21	44	33	26	21	32	25	21	

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	96	96	96	92	92	92	90
1	82	79	76	78	76	74	72
2	71	66	62	68	64	61	59
3	62	56	52	59	55	51	49
4	55	49	44	53	48	43	41
5	49	43	38	47	42	37	35
6	44	38	33	43	37	33	31
7	40	34	29	39	33	29	27
8	37	30	26	36	30	26	24
9	34	28	23	33	27	23	21
10	31	25	21	30	25	21	19