Fri Apr 27 11:49:03 2012

IESNA:LM-63-1995
Photopia 2.0.0.17 PHOTOMETRIC REPORT
PROJECT: ecs-uli4-mn-332-unv-13n
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 499884 initial lamp rays.
  Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens(%)	Reflection
3911(45.0%)	0
2391(27.5%)	1
614(7.1%)	2
519(6.0%)	3
164(1.9%)	4
145(1.7%)	5
7747(89.0%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
220(2.5%)	3385(38.9%)	LAMP-FO32311
11(0.1%)	172(2.0%)	LAMP-FO32312
328(3.8%)	5836(67.1%)	Refl-Poly1
560(6.4%)	9393(108.0%)	Total

Absorbed(%)	Incident(%)	Material Name
231(2.7%)	3557(40.9%)	PHOSGLAS
328(3.8%)	5836(67.1%)	ALMIRO04
560(6.4%)	9393(108.0%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit:	340.76 (	3.9%)
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):	51.75 (	0.6%)

Number of Lamps: 3 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	2563	2563	2563	2563	2563
5.00	2568	2651	2674	2675	2702
10.00	2774	2675	2583	2597	2392
15.00	2615	2598	2503	2494	2442
20.00	2565	2464	2360	2324	2385
25.00	2350	2304	2293	2391	2429
30.00	2270	2179	2251	2340	2388
35.00	2135	2044	2205	2208	2135
40.00	1981	1919	2036	1896	1805
45.00	1824	1787	1786	1540	1462
50.00	1565	1621	1453	1287	1236
55.00	1369	1415	1166	1134	1231
60.00	1164	1173	973	1130	1163
65.00	955	905	895	1039	1079
70.00	769	683	787	925	982
75.00	557	512	672	781	788
80.00	346	379	501	525	541
85.00	165	230	275	303	294
90.00	78.2	102	121	143	155

Zonal Lumens

Cone	Between	Lumens
0.0	0.0- 2.5	15.33
5.0	2.5- 7.5	127.02
10.0	7.5- 12.5	248.37
15.0	12.5- 17.5	359.07
20.0	17.5- 22.5	451.06
25.0	22.5- 27.5	543.09
30.0	27.5- 32.5	623.40
35.0	32.5- 37.5	675.35
40.0	37.5- 42.5	682.10
45.0	42.5- 47.5	654.70
50.0	47.5- 52.5	604.88
55.0	52.5- 57.5	562.99
60.0	57.5- 62.5	526.84
65.0	62.5- 67.5	478.85
70.0	67.5- 72.5	421.12
75.0	72.5- 77.5	348.99
80.0	77.5- 82.5	249.41
85.0	82.5- 87.5	141.61
90.0	87.5- 92.5	66.13

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	2044	23.5	26.3
0- 40	3375	38.8	43.4
0- 60	5807	66.8	74.6
0- 90	7747	89.0	99.6
90-120	33	0.4	0.4
90-130	33	0.4	0.4
90-150	33	0.4	0.4
90-180	33	0.4	0.4
0-180	7780	89.4	100.0

Total Luminaire Optical Efficiency = 89.4%

Luminaire Spacing Criterion:

0 deg	90 deg
1.30	1.32

Average Luminaire Luminance (cd/m^2):

	0	45	90
0	8527.27	8527.27	8527.27
45	8295.09	7339.71	5876.86
50	7781.88	6410.58	5316.75
55	7569.41	5604.40	5742.51
60	7305.22	5174.75	5969.99
65	7003.19	5373.06	6216.20
70	6830.88	5475.53	6501.69
75	6342.17	5603.95	6182.90
80	5541.12	5265.91	5268.42
85	4518.42	3948.10	3798.83

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	106	106	106	106	103	103	103	103	99	99	99
1	96	91	87	83	93	89	85	82	85	82	79
2	87	79	72	67	84	77	71	66	74	69	65
3	79	69	61	55	77	68	61	55	65	59	54
4	72	61	53	47	70	60	52	46	58	51	46
5	66	55	46	40	64	54	46	40	52	45	39
6	61	49	41	35	59	48	40	35	47	40	35
7	57	44	36	31	55	44	36	31	42	35	31
8	53	41	33	28	51	40	33	27	39	32	27
9	49	37	30	25	48	37	30	25	36	29	25
10	46	34	27	22	45	34	27	22	33	27	22

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	95	95	95	91	91	91	89
1	82	79	77	78	76	74	72
2	71	67	63	68	65	62	60
3	62	57	53	60	56	52	50
4	55	50	45	54	49	44	42
5	50	44	39	48	43	39	37
6	45	39	34	44	38	34	32
7	41	35	30	40	34	30	28
8	38	32	27	37	31	27	25
9	35	29	24	34	28	24	23
10	32	26	22	31	26	22	20