

Photometric Report - (ecs-exu2-mn-424-unv-22h-p0w) - Page 1 of 4

Fri Apr 27 18:45:50 2012

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-exu2-mn-424-unv-22h-p0w

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 499456 initial lamp rays.
Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens(%)	Reflection
0(0.0%)	0
2524(31.6%)	1
2283(28.5%)	2
670(8.4%)	3
563(7.0%)	4
295(3.7%)	5
6337(79.2%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
242(3.0%)	3702(46.3%)	LAMP-F24T5H01
24(0.3%)	381(4.8%)	LAMP-F24T5H02
402(5.0%)	7113(88.9%)	Refl-Poly1
59(0.7%)	426(5.3%)	Refl-Poly2
7(0.1%)	7475(93.4%)	Tran-Lens1
736(9.2%)	19099(238.7%)	Total

Absorbed(%)	Incident(%)	Material Name
266(3.3%)	4083(51.0%)	PHOSGLAS
402(5.0%)	7113(88.9%)	ALMIRO04
59(0.7%)	426(5.3%)	PAINT001
7(0.1%)	7475(93.4%)	POLYCRB1
736(9.2%)	19099(238.7%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 926.24 (11.6%)
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%)

Photometric Report - (ecs-exu2-mn-424-unv-22h-p0w) - Page 2 of 4

Number of Lamps: 4 Lumens per Lamp: 2000
Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00
Luminaire Width: 0.7070 Length: 2.0000 Height: 0.1932
Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	2561	2561	2561	2561	2561
5.00	2788	2806	2790	2672	2730
10.00	2888	2762	2792	2627	2650
15.00	2779	2706	2507	2299	2349
20.00	2691	2571	2342	2215	2186
25.00	2546	2402	2207	2085	2057
30.00	2374	2224	2028	2068	2045
35.00	2276	1978	1887	1804	1734
40.00	2081	1769	1730	1577	1567
45.00	1809	1595	1500	1385	1382
50.00	1546	1389	1244	1263	1234
55.00	1300	1145	1051	1013	955
60.00	960	905	840	816	798
65.00	706	659	640	691	703
70.00	478	447	481	482	453
75.00	249	255	282	256	220
80.00	101	120	103	62.6	50.0
85.00	22.2	23.1	12.5	8.14	6.71
90.00	1.54	1.20	0.440	0.220	1.33

Zonal Lumens		
Cone	Between	Lumens
0.0	0.0- 2.5	15.31
5.0	2.5- 7.5	131.71
10.0	7.5- 12.5	260.57
15.0	12.5- 17.5	357.38
20.0	17.5- 22.5	448.39
25.0	22.5- 27.5	520.94
30.0	27.5- 32.5	584.38
35.0	32.5- 37.5	603.19
40.0	37.5- 42.5	607.77
45.0	42.5- 47.5	588.64
50.0	47.5- 52.5	554.95
55.0	52.5- 57.5	486.73
60.0	57.5- 62.5	408.24
65.0	62.5- 67.5	334.67
70.0	67.5- 72.5	241.47
75.0	72.5- 77.5	136.06
80.0	77.5- 82.5	48.68
85.0	82.5- 87.5	7.95
90.0	87.5- 92.5	0.45

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	2015	25.2	31.8
0- 40	3218	40.2	50.8
0- 60	5362	67.0	84.6
0- 90	6337	79.2	100.0
90-120	0	0.0	0.0
90-130	0	0.0	0.0
90-150	0	0.0	0.0
90-180	0	0.0	0.0
0-180	6337	79.2	100.0

Total Luminaire Optical Efficiency = 79.2%

Luminaire Spacing Criterion:

0 deg	90 deg
1.37	1.18

Average Luminaire Luminance (cd/m²):

	0	45	90
0	19492.15	19492.15	19492.15
45	17758.42	12800.64	11686.48
50	16423.60	11228.12	11028.07
55	15159.03	10157.16	9113.11
60	12525.26	8802.00	8242.95
65	10539.45	7391.85	7980.85
70	8399.71	6230.88	5764.13
75	5379.87	4203.81	3209.47
80	2873.24	1813.82	859.77
85	923.30	273.07	142.16

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	94	94	94	94	91	91	91	91	87	87	87	84	84	84	80	80	80	79				
1	87	83	80	78	84	81	79	76	78	76	74	75	73	72	72	71	70	68				
2	79	73	68	64	77	72	67	64	69	65	62	67	63	61	64	62	59	58				
3	73	65	59	54	71	64	58	54	61	57	53	59	55	52	57	54	51	49				
4	67	58	51	46	65	57	51	46	55	50	45	53	48	45	51	47	44	43				
5	62	52	45	40	60	51	45	40	49	44	40	48	43	39	46	42	39	37				
6	57	47	40	35	55	46	40	35	45	39	35	43	38	35	42	38	34	33				
7	53	43	36	31	52	42	36	31	41	35	31	40	35	31	39	34	31	29				
8	49	39	32	28	48	38	32	28	37	32	28	36	31	28	36	31	27	26				
9	46	36	30	25	45	35	29	25	34	29	25	34	29	25	33	28	25	23				
10	43	33	27	23	42	33	27	23	32	27	23	31	26	23	30	26	23	21				