

Photometric Report - (ecs-exm4-wn-454-unv-22h-a0w) - Page 1 of 4

Tue Apr 24 20:06:04 2012

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-exm4-wn-454-unv-22h-a0w

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
6793( 34.0%)	1
5586( 27.9%)	2
1600( 8.0%)	3
1496( 7.5%)	4
651( 3.3%)	5
16127( 80.6%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
375( 1.9%)	5721( 28.6%)	LAMP-F54T5H01
15( 0.1%)	239( 1.2%)	LAMP-F54T5H02
1707( 8.5%)	19288( 96.4%)	Refl-Poly1
67( 0.3%)	482( 2.4%)	Refl-Poly2
18( 0.1%)	19026( 95.1%)	Tran-Lens1
2185( 10.9%)	44758(223.8%)	Total

Absorbed(%)	Incident(%)	Material Name
391( 2.0%)	5960( 29.8%)	PHOSGLAS
1707( 8.5%)	19288( 96.4%)	ANOWHT01
67( 0.3%)	482( 2.4%)	PAINT001
18( 0.1%)	19026( 95.1%)	ACRYLIC1
2185( 10.9%)	44758(223.8%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 1683.05 ( 8.4%)  
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): 3.97 ( 0.0%)

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Number of Lamps: 4 Lumens per Lamp: 5000  
Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00  
Luminaire Width: 1.1118 Length: 4.0000 Height: 0.1842  
Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	5172	5172	5172	5172	5172
5.00	5117	5130	5318	5329	5345
10.00	5647	5156	5363	5298	5317
15.00	5353	5344	5271	5153	5171
20.00	5137	5181	5047	5042	5073
25.00	5063	5039	4820	4819	4799
30.00	4771	4761	4690	4561	4578
35.00	4576	4545	4403	4357	4406
40.00	4413	4265	4097	4060	4099
45.00	4089	3954	3766	3794	3814
50.00	3788	3492	3411	3455	3498
55.00	3408	3125	2975	3052	2950
60.00	2981	2624	2549	2524	2587
65.00	2410	2135	2025	2017	2043
70.00	1808	1549	1485	1616	1663
75.00	1098	990	1005	1139	1130
80.00	488	479	522	510	496
85.00	108	121	111	95.2	80.8
90.00	4.01	4.88	9.58	4.10	6.16

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Zonal Lumens

Cone	Between	Lumens
0.0	0.0- 2.5	30.93
5.0	2.5- 7.5	250.92
10.0	7.5- 12.5	506.83
15.0	12.5- 17.5	745.90
20.0	17.5- 22.5	954.89
25.0	22.5- 27.5	1135.65
30.0	27.5- 32.5	1280.29
35.0	32.5- 37.5	1398.75
40.0	37.5- 42.5	1469.08
45.0	42.5- 47.5	1498.70
50.0	47.5- 52.5	1469.74
55.0	52.5- 57.5	1384.15
60.0	57.5- 62.5	1243.89
65.0	62.5- 67.5	1043.76
70.0	67.5- 72.5	822.30
75.0	72.5- 77.5	562.16
80.0	77.5- 82.5	270.43
85.0	82.5- 87.5	57.51
90.0	87.5- 92.5	3.24

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	4241	21.2	26.3
0- 40	7020	35.1	43.5
0- 60	12740	63.7	79.0
0- 90	16128	80.6	100.0
90-120	2	0.0	0.0
90-130	2	0.0	0.0
90-150	2	0.0	0.0
90-180	2	0.0	0.0
0-180	16129	80.6	100.0

Total Luminaire Optical Efficiency = 80.6%

Luminaire Spacing Criterion:

0 deg	90 deg
1.36	1.32

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

	0	45	90
0	12519.05	12519.05	12519.05
45	13381.67	11214.00	11201.50
50	13520.49	10901.23	11000.97
55	13494.21	10343.65	10068.08
60	13363.64	9800.16	9732.90
65	12562.60	8779.80	8635.57
70	11359.32	7447.53	8089.54
75	8761.39	6029.04	6530.17
80	5397.81	3938.92	3567.56
85	1964.45	1136.80	775.15

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	96	96	96	96	93	93	93	93	89	89	89	85	85	85	82	82	82	80			
1	87	84	80	77	85	82	79	76	78	76	74	75	73	71	72	71	69	68			
2	79	73	67	63	77	71	66	62	68	64	60	66	62	59	63	60	58	56			
3	72	64	57	52	70	62	56	51	60	55	50	58	53	49	56	52	49	47			
4	66	56	49	44	64	55	48	43	53	47	43	51	46	42	49	45	41	40			
5	60	50	43	37	59	49	42	37	47	41	37	46	40	36	44	40	36	34			
6	56	45	38	32	54	44	37	32	43	36	32	41	36	32	40	35	31	30			
7	52	41	33	28	50	40	33	28	39	33	28	37	32	28	36	31	28	26			
8	48	37	30	25	47	36	30	25	35	29	25	34	29	25	33	28	25	23			
9	45	34	27	23	44	33	27	22	32	26	22	31	26	22	31	26	22	21			
10	42	31	25	20	41	31	24	20	30	24	20	29	24	20	28	23	20	19			