

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

Tue Apr 24 20:03:06 2012

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-exm4-mn-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
6796(34.0%)	1
8658(43.3%)	2
613(3.1%)	3
1168(5.8%)	4
483(2.4%)	5
17720(88.6%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
249(1.2%)	3784(18.9%)	LAMP-F54T5H01
11(0.1%)	175(0.9%)	LAMP-F54T5H02
861(4.3%)	15752(78.8%)	Refl-Poly1
58(0.3%)	421(2.1%)	Refl-Poly2
19(0.1%)	20585(102.9%)	Tran-Lens1
1201(6.0%)	40720(203.6%)	Total

Absorbed(%)	Incident(%)	Material Name
260(1.3%)	3960(19.8%)	PHOSGLAS
861(4.3%)	15752(78.8%)	ALMIRO04
58(0.3%)	421(2.1%)	PAINT001
19(0.1%)	20585(102.9%)	ACRYLIC1
1201(6.0%)	40720(203.6%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 1074.91 (5.4%)
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): 3.52 (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	7084	7084	7084	7084	7084
5.00	7641	6895	7737	7406	7238
10.00	7154	7573	7206	7330	7418
15.00	6931	7111	7071	6566	6302
20.00	6983	6988	6478	5933	5799
25.00	6622	6506	5817	5607	5478
30.00	6230	6075	5378	5156	5058
35.00	5910	5513	4849	4805	4889
40.00	5485	4921	4425	4501	4448
45.00	4897	4214	4083	3994	3928
50.00	4248	3669	3595	3658	3817
55.00	3617	3100	3102	3158	3112
60.00	2839	2514	2629	2492	2357
65.00	2081	1934	1970	1737	1710
70.00	1430	1361	1248	1413	1438
75.00	822	807	910	1103	1090
80.00	378	386	507	491	450
85.00	87.9	104	86.8	75.5	65.8
90.00	3.92	4.08	2.75	0.470	0.880

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Zonal Lumens

Cone	Between	Lumens
0.0	0.0- 2.5	42.36
5.0	2.5- 7.5	352.06
10.0	7.5- 12.5	699.47
15.0	12.5- 17.5	970.54
20.0	17.5- 22.5	1208.71
25.0	22.5- 27.5	1388.80
30.0	27.5- 32.5	1524.65
35.0	32.5- 37.5	1616.51
40.0	37.5- 42.5	1657.23
45.0	42.5- 47.5	1618.64
50.0	47.5- 52.5	1569.76
55.0	52.5- 57.5	1428.38
60.0	57.5- 62.5	1214.35
65.0	62.5- 67.5	936.07
70.0	67.5- 72.5	702.62
75.0	72.5- 77.5	499.89
80.0	77.5- 82.5	242.65
85.0	82.5- 87.5	46.89
90.0	87.5- 92.5	1.33

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	5395	27.0	30.4
0- 40	8610	43.1	48.6
0- 60	14677	73.4	82.8
0- 90	17720	88.6	100.0
90-120	1	0.0	0.0
90-130	1	0.0	0.0
90-150	1	0.0	0.0
90-180	1	0.0	0.0
0-180	17721	88.6	100.0

Total Luminaire Optical Efficiency = 88.6%

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Luminaire Spacing Criterion:

0 deg	90 deg
1.30	1.08

Average Luminaire Luminance (cd/m²):

	0	45	90
0	17146.62	17146.62	17146.62
45	16026.51	12157.15	11534.34
50	15164.67	11486.81	12003.90
55	14321.02	10786.16	10619.19
60	12728.61	10106.82	8866.10
65	10848.42	8541.12	7227.03
70	8984.79	6260.07	6995.99
75	6563.58	5459.93	6298.31
80	4175.46	3825.84	3236.60
85	1599.25	888.79	631.85

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	105	105	105	105	102	102	102	102	98	98	98
1	97	93	89	86	94	91	88	85	87	84	82
2	88	81	76	71	86	80	74	70	77	72	68
3	81	72	65	59	79	70	64	59	68	62	58
4	74	64	56	51	72	63	56	50	60	54	50
5	68	57	49	44	66	56	49	44	54	48	43
6	63	52	44	38	61	51	44	38	49	43	38
7	59	47	39	34	57	46	39	34	45	38	34
8	55	43	35	30	53	42	35	30	41	35	30
9	51	39	32	27	50	39	32	27	38	32	27
10	48	36	29	25	47	36	29	25	35	29	25

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	94	94	94	90	90	90	88
1	84	81	79	80	79	77	75
2	74	70	67	71	68	65	63
3	65	61	57	63	59	56	54
4	58	53	49	57	52	48	46
5	53	47	43	51	46	42	40
6	48	42	38	46	41	37	35
7	44	38	33	42	37	33	31
8	40	34	30	39	34	30	28
9	37	31	27	36	31	27	25
10	34	29	25	33	28	25	23