

Photometric Report - (ecs-mgm4-mn-654-unv-32h-00w) - Page 1 of 4

Sat Jul 18 16:50:40 2009

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-mgm4-mn-654-unv-32h-00w

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 499416 initial lamp rays.  
Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens(%)	Reflection
12351( 41.2%)	0
13459( 44.9%)	1
2149( 7.2%)	2
407( 1.4%)	3
136( 0.5%)	4
63( 0.2%)	5
28568( 95.2%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
147( 0.5%)	2290( 7.6%)	LAMP-F54T5H01
8( 0.0%)	136( 0.5%)	LAMP-F54T5H02
1081( 3.6%)	19106( 63.7%)	Refl-Poly1
66( 0.2%)	664( 2.2%)	Refl-Poly2
1304( 4.3%)	22197( 74.0%)	Total

  

Absorbed(%)	Incident(%)	Material Name
156( 0.5%)	2426( 8.1%)	PHOSGLAS
1081( 3.6%)	19106( 63.7%)	ALMIRO04
66( 0.2%)	664( 2.2%)	PAINT006
1304( 4.3%)	22197( 74.0%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 127.65 ( 0.4%)  
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): 0.00 ( 0.0%)

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Number of Lamps: 6 Lumens per Lamp: 5000  
Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00  
Luminaire Width: 1.8791 Length: 4.0000 Height: 0.2566  
Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	13331	13331	13331	13331	13331
5.00	13569	13197	12921	12637	12557
10.00	13258	12508	11892	11843	11734
15.00	13123	12150	11574	11491	11385
20.00	12369	11486	10890	11220	10725
25.00	11717	10881	10587	9972	9235
30.00	11162	10199	9622	8145	7735
35.00	10255	9412	8050	7221	6756
40.00	9377	8501	6864	5489	5079
45.00	8265	7440	5519	4410	4395
50.00	7227	6252	4264	3853	4002
55.00	6095	4872	3428	3852	4078
60.00	4854	3710	3145	3914	3873
65.00	3795	2637	2936	3690	3595
70.00	2789	1904	2720	3026	2973
75.00	1757	1427	2038	2121	2133
80.00	849	963	1202	1293	1330
85.00	286	356	272	152	104
90.00	33.4	16.6	7.55	1.53	2.97

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Zonal Lumens

Cone	Between	Lumens
0.0	0.0- 2.5	79.72
5.0	2.5- 7.5	618.87
10.0	7.5- 12.5	1159.80
15.0	12.5- 17.5	1683.57
20.0	17.5- 22.5	2115.80
25.0	22.5- 27.5	2427.46
30.0	27.5- 32.5	2563.54
35.0	32.5- 37.5	2608.68
40.0	37.5- 42.5	2473.61
45.0	42.5- 47.5	2296.37
50.0	47.5- 52.5	2097.81
55.0	52.5- 57.5	1935.15
60.0	57.5- 62.5	1795.77
65.0	62.5- 67.5	1609.26
70.0	67.5- 72.5	1356.16
75.0	72.5- 77.5	996.89
80.0	77.5- 82.5	613.74
85.0	82.5- 87.5	133.10
90.0	87.5- 92.5	6.01

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	9319	31.1	32.6
0- 40	14462	48.2	50.6
0- 60	22947	76.5	80.3
0- 90	28568	95.2	100.0
90-120	3	0.0	0.0
90-130	3	0.0	0.0
90-150	3	0.0	0.0
90-180	3	0.0	0.0
0-180	28571	95.2	100.0

Total Luminaire Optical Efficiency = 95.2%

Luminaire Spacing Criterion:

0 deg	90 deg
1.24	0.95

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

	0	45	90
0	19091.68	19091.68	19091.68
45	15729.28	9788.34	7831.37
50	14957.26	8126.63	7668.97
55	13941.29	7117.56	8519.73
60	12513.25	7229.98	8971.05
65	11303.81	7627.26	9422.79
70	9929.88	8194.37	9053.51
75	7843.74	7372.32	7819.86
80	5132.55	5494.83	6182.93
85	2715.82	1704.24	667.41

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	113	113	113	113	110	110	110	110	105	105	105
1	104	99	96	92	101	97	94	91	93	90	88
2	95	87	81	76	92	86	80	75	82	77	73
3	87	77	70	64	84	76	69	63	73	67	62
4	80	69	61	55	78	68	60	54	65	59	54
5	74	62	54	48	72	61	53	47	59	52	47
6	68	56	48	42	67	55	47	42	54	47	41
7	64	51	43	37	62	50	43	37	49	42	37
8	59	47	39	34	58	46	39	34	45	38	33
9	56	43	36	31	54	43	35	30	42	35	30
10	52	40	33	28	51	40	33	28	39	32	28

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	101	101	101	97	97	97	95
1	90	87	85	86	84	83	81
2	79	75	72	76	73	70	68
3	70	65	61	68	64	60	58
4	63	57	53	61	56	52	50
5	57	51	46	55	50	46	44
6	52	46	41	50	45	41	39
7	48	41	37	46	41	37	35
8	44	38	33	43	37	33	31
9	41	35	30	40	34	30	28
10	38	32	28	37	31	27	26