

Photometric Report - (ecs-sgs4-mn-132-unv-11n) - Page 1 of 4

Tue Apr 24 09:47:00 2012

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-sgs4-mn-132-unv-11n

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 500066 initial lamp rays.
Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens(%)	Reflection
1853(63.9%)	0
778(26.9%)	1
38(1.3%)	2
85(2.9%)	3
10(0.4%)	4
17(0.6%)	5
2784(96.0%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
20(0.7%)	319(11.0%)	LAMP-F032311
1(0.0%)	15(0.6%)	LAMP-F032312
66(2.3%)	1183(40.8%)	Refl-Poly1
88(3.1%)	1518(52.4%)	Total

Absorbed(%)	Incident(%)	Material Name
21(0.8%)	335(11.6%)	PHOSGLAS
66(2.3%)	1183(40.8%)	ALMIRO04
88(3.1%)	1518(52.4%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 26.78 (0.9%)
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): 0.00 (0.0%)

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Number of Lamps: 1 Lumens per Lamp: 2900
 Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00
 Luminaire Width: 0.3750 Length: 4.0000 Height: 0.1292
 Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	316	316	316	316	316
5.00	306	347	375	357	358
10.00	317	352	376	425	420
15.00	319	367	425	483	476
20.00	320	374	472	524	548
25.00	309	389	503	586	610
30.00	291	400	539	616	629
35.00	283	407	563	620	634
40.00	266	415	551	615	646
45.00	251	400	540	607	625
50.00	230	395	513	593	630
55.00	205	368	493	586	614
60.00	180	339	468	530	561
65.00	162	301	422	469	483
70.00	127	263	357	395	409
75.00	105	216	287	328	342
80.00	77.5	158	227	288	318
85.00	48.5	108	204	289	320
90.00	25.3	92.2	208	288	313
95.00	9.33	90.5	204	293	320
100.00	2.67	56.5	199	289	321
105.00	1.53	22.5	149	264	301
110.00	1.79	3.46	84.7	194	230
115.00	0.820	1.21	30.6	119	156
120.00	0.570	0.560	3.02	50.0	76.9
125.00	0.100	0.190	0.050	4.36	15.9
130.00	0.090	0.000	0.050	0.000	0.000
135.00	0.000	0.000	0.000	0.000	0.000
140.00	0.000	0.000	0.000	0.000	0.000
145.00	0.000	0.000	0.000	0.000	0.000
150.00	0.000	0.000	0.000	0.000	0.000
155.00	0.000	0.000	0.000	0.000	0.000
160.00	0.000	0.000	0.000	0.000	0.000
165.00	0.000	0.000	0.000	0.000	0.000
170.00	0.000	0.000	0.000	0.000	0.000
175.00	0.000	0.000	0.000	0.000	0.000
180.00	0.000	0.000	0.000	0.000	0.000

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Zonal Lumens		
Cone	Between	Lumens
0.0	0.0- 2.5	1.89
5.0	2.5- 7.5	16.85
10.0	7.5- 12.5	36.19
15.0	12.5- 17.5	59.29
20.0	17.5- 22.5	84.52
25.0	22.5- 27.5	112.18
30.0	27.5- 32.5	138.12
35.0	32.5- 37.5	161.02
40.0	37.5- 42.5	179.43
45.0	42.5- 47.5	192.25
50.0	47.5- 52.5	202.71
55.0	52.5- 57.5	208.30
60.0	57.5- 62.5	202.65
65.0	62.5- 67.5	188.25
70.0	67.5- 72.5	165.28
75.0	72.5- 77.5	139.62
80.0	77.5- 82.5	117.36
85.0	82.5- 87.5	107.16
90.0	87.5- 92.5	103.71
95.0	92.5- 97.5	102.79
100.0	97.5-102.5	95.22
105.0	102.5-107.5	77.70
110.0	107.5-112.5	51.25
115.0	112.5-117.5	28.47
120.0	117.5-122.5	10.95
125.0	122.5-127.5	1.41
130.0	127.5-132.5	0.01
135.0	132.5-137.5	0.00
140.0	137.5-142.5	0.00
145.0	142.5-147.5	0.00
150.0	147.5-152.5	0.00
155.0	152.5-157.5	0.00
160.0	157.5-162.5	0.00
165.0	162.5-167.5	0.00
170.0	167.5-172.5	0.00
175.0	172.5-177.5	0.00
180.0	177.5-180.0	0.00

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	377	13.0	13.6
0- 40	697	24.1	25.0
0- 60	1493	51.5	53.6
0- 90	2365	81.5	84.9
90-120	413	14.2	14.8
90-130	420	14.5	15.1
90-150	420	14.5	15.1
90-180	420	14.5	15.1
0-180	2785	96.0	100.0

Total Luminaire Optical Efficiency = 96.0%

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Luminaire Spacing Criterion:

0 deg	90 deg
1.37	2.45

Average Luminaire Luminance (cd/m²):

	0	45	90
0	2270.97	2270.97	2270.97
45	2469.69	4323.73	4717.10
50	2469.48	4345.52	4982.32
55	2451.28	4467.79	5148.01
60	2447.42	4600.39	5038.61
65	2574.59	4564.92	4721.14
70	2438.92	4326.69	4412.12
75	2586.14	3991.26	4153.63
80	2706.12	3728.35	4443.41
85	2914.09	4146.60	5343.24

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	110	110	110	110	106	106	106	106	98	98	98
1	97	91	86	81	93	88	83	78	81	77	73
2	87	77	70	63	83	74	67	61	68	62	57
3	78	66	57	50	74	64	55	49	59	52	46
4	71	58	48	41	67	55	47	40	51	44	38
5	64	51	41	34	61	49	40	33	45	37	32
6	59	45	36	29	56	43	35	28	40	32	27
7	54	40	31	25	52	39	30	24	36	28	23
8	50	36	28	22	48	35	27	21	33	25	20
9	47	33	25	19	44	32	24	19	30	23	18
10	43	30	22	17	41	29	22	16	27	20	16

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	91	91	91	84	84	84	81
1	75	71	68	69	66	64	61
2	63	58	54	58	54	50	47
3	54	48	43	50	45	41	38
4	47	41	36	43	38	34	31
5	42	35	30	38	33	28	26
6	37	30	25	34	28	24	22
7	33	27	22	31	25	21	18
8	30	24	19	28	22	18	16
9	28	21	17	26	20	16	14
10	25	19	15	23	18	14	12