

Photometric Report - (ecs-egs4-mn-132-unv-11n) - Page 1 of 4

Tue Apr 24 10:15:07 2012

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-egs4-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
1881( 64.9%)	0
670( 23.1%)	1
47( 1.6%)	2
105( 3.6%)	3
16( 0.6%)	4
30( 1.0%)	5
2751( 94.9%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
30( 1.1%)	466( 16.1%)	LAMP-F032311
1( 0.1%)	22( 0.8%)	LAMP-F032312
69( 2.4%)	1229( 42.4%)	Refl-Poly1
101( 3.5%)	1718( 59.3%)	Total

  

Absorbed(%)	Incident(%)	Material Name
31( 1.1%)	489( 16.9%)	PHOSGLAS
69( 2.4%)	1229( 42.4%)	ALMIRO04
101( 3.5%)	1718( 59.3%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 47.10 ( 1.6%)  
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%)

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Number of Lamps: 1                      Lumens per Lamp: 2900  
 Ballast Factor: 1.00    Ballast-Lamp Photometric Factor: 1.00  
 Luminaire Width: 0.2550    Length: 4.0000    Height: 0.1234  
 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	314	341	326	363	401
10.00	325	330	357	385	396
15.00	320	351	388	424	446
20.00	312	353	418	479	485
25.00	295	364	446	509	548
30.00	279	369	466	554	581
35.00	286	370	496	602	615
40.00	247	367	516	614	650
45.00	237	360	521	626	652
50.00	216	354	521	599	607
55.00	187	346	505	564	573
60.00	169	328	462	507	532
65.00	142	300	407	457	472
70.00	121	263	354	408	433
75.00	98.2	213	304	356	367
80.00	75.1	161	245	299	331
85.00	53.9	117	210	294	326
90.00	24.4	96.6	212	292	326
95.00	9.92	88.8	210	295	328
100.00	1.72	59.8	190	289	320
105.00	0.490	33.4	147	242	281
110.00	0.140	11.0	105	196	225
115.00	0.300	2.19	62.6	139	180
120.00	0.080	0.090	27.9	98.4	124
125.00	0.080	0.000	4.91	48.9	70.9
130.00	0.090	0.060	0.000	10.4	25.0
135.00	0.000	0.000	0.000	0.000	0.450
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

Zonal Lumens		
Cone	Between	Lumens
0.0	0.0- 2.5	1.89
5.0	2.5- 7.5	16.58
10.0	7.5- 12.5	34.08
15.0	12.5- 17.5	54.82
20.0	17.5- 22.5	77.27
25.0	22.5- 27.5	100.79
30.0	27.5- 32.5	124.61
35.0	32.5- 37.5	150.81
40.0	37.5- 42.5	171.40
45.0	42.5- 47.5	189.15
50.0	47.5- 52.5	197.98
55.0	52.5- 57.5	201.48
60.0	57.5- 62.5	195.56
65.0	62.5- 67.5	182.76
70.0	67.5- 72.5	167.71
75.0	72.5- 77.5	146.30
80.0	77.5- 82.5	122.48
85.0	82.5- 87.5	110.63
90.0	87.5- 92.5	106.24
95.0	92.5- 97.5	104.02
100.0	97.5-102.5	94.38
105.0	102.5-107.5	74.50
110.0	107.5-112.5	54.75
115.0	112.5-117.5	36.51
120.0	117.5-122.5	22.38
125.0	122.5-127.5	10.02
130.0	127.5-132.5	2.42
135.0	132.5-137.5	0.02
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	345	11.9	12.6
0- 40	644	22.2	23.4
0- 60	1417	48.9	51.5
0- 90	2299	79.3	83.6
90-120	429	14.8	15.6
90-130	451	15.5	16.4
90-150	452	15.6	16.4
90-180	452	15.6	16.4
0-180	2752	94.9	100.0

Total Luminaire Optical Efficiency = 94.9%

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Luminaire Spacing Criterion:

0 deg	90 deg
1.39	2.40

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

	0	45	90
0	3332.06	3332.06	3332.06
45	3432.44	5700.89	6553.34
50	3420.07	5965.59	6323.55
55	3300.94	6116.04	6234.81
60	3394.76	5986.38	6105.05
65	3318.01	5707.86	5788.04
70	3434.57	5457.04	5731.69
75	3590.16	5251.43	5326.50
80	3885.37	4858.23	5373.20
85	4821.31	4929.10	6044.93

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	109	109	109	109	105	105	105	105	96	96	96
1	96	90	84	79	91	86	81	77	79	75	71
2	85	76	68	61	81	73	65	59	67	61	55
3	77	65	56	49	73	62	54	47	57	50	44
4	69	56	47	40	66	54	45	39	50	42	36
5	63	50	40	33	60	47	39	32	44	36	30
6	58	44	35	28	55	42	33	27	39	31	26
7	53	39	30	24	50	38	29	23	35	27	22
8	49	35	27	21	47	34	26	20	31	24	19
9	46	32	24	18	43	31	23	18	29	22	17
10	43	29	21	16	40	28	21	16	26	20	15

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	89	89	89	82	82	82	79
1	72	69	66	67	64	62	58
2	61	56	52	56	52	48	45
3	52	46	42	48	43	39	36
4	45	39	34	42	36	32	29
5	40	34	29	37	31	27	24
6	36	29	24	33	27	23	20
7	32	26	21	29	24	20	17
8	29	23	18	27	21	17	15
9	26	20	16	24	19	15	13
10	24	18	14	22	17	13	11