

Photometric Report - (ecs-mxl4-mn-454-unv-22h) - Page 1 of 4

Fri Jul 17 14:38:42 2009

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-mxl4-mn-454-unv-22h

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
10436(52.2%)	0
7535(37.7%)	1
543(2.7%)	2
414(2.1%)	3
121(0.6%)	4
61(0.3%)	5
19112(95.6%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
170(0.9%)	2641(13.2%)	LAMP-F54T5H01
6(0.0%)	95(0.5%)	LAMP-F54T5H02
553(2.8%)	9735(48.7%)	Refl-Poly1
730(3.7%)	12473(62.4%)	Total

Absorbed(%)	Incident(%)	Material Name
177(0.9%)	2737(13.7%)	PHOSGLAS
553(2.8%)	9735(48.7%)	ALMIRO04
730(3.7%)	12473(62.4%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 156.71 (0.8%)
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: 4 Lumens per Lamp: 5000
Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00
Luminaire Width: 1.0000 Length: 4.0000 Height: 0.1131
Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	5290	5290	5290	5290	5290
5.00	5318	5395	5552	5452	5357
10.00	5417	5699	5470	5205	5070
15.00	5608	5379	4898	4493	4497
20.00	5229	5062	4449	4275	4224
25.00	5181	4622	4094	4067	4216
30.00	4710	4265	3858	4377	4761
35.00	4358	3815	3920	4671	4792
40.00	4022	3456	4120	4344	4172
45.00	3724	3181	3879	3964	4090
50.00	3147	2964	3558	4088	4361
55.00	2702	2750	3315	4002	4084
60.00	2223	2367	3194	3714	3851
65.00	1757	2141	2941	3341	3382
70.00	1310	1794	2544	2621	2679
75.00	951	1491	1956	2291	2438
80.00	631	1090	1554	1945	2013
85.00	349	691	1038	1190	1247
90.00	149	295	509	649	694
95.00	42.1	248	557	774	825
100.00	23.1	137	399	605	732
105.00	5.68	40.4	284	492	556
110.00	0.580	3.70	165	376	440
115.00	0.000	0.280	66.2	234	322
120.00	0.000	0.000	7.42	102	165
125.00	0.000	0.000	0.000	13.6	30.0
130.00	0.000	0.000	0.000	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

Zonal Lumens		
Cone	Between	Lumens
0.0	0.0- 2.5	31.63
5.0	2.5- 7.5	259.61
10.0	7.5- 12.5	514.42
15.0	12.5- 17.5	703.06
20.0	17.5- 22.5	867.69
25.0	22.5- 27.5	1012.41
30.0	27.5- 32.5	1180.91
35.0	32.5- 37.5	1334.73
40.0	37.5- 42.5	1410.73
45.0	42.5- 47.5	1446.87
50.0	47.5- 52.5	1507.86
55.0	52.5- 57.5	1510.86
60.0	57.5- 62.5	1461.21
65.0	62.5- 67.5	1365.25
70.0	67.5- 72.5	1153.04
75.0	72.5- 77.5	983.83
80.0	77.5- 82.5	797.76
85.0	82.5- 87.5	507.33
90.0	87.5- 92.5	256.94
95.0	92.5- 97.5	274.70
100.0	97.5-102.5	204.79
105.0	102.5-107.5	145.25
110.0	107.5-112.5	98.38
115.0	112.5-117.5	57.27
120.0	117.5-122.5	22.76
125.0	122.5-127.5	3.20
130.0	127.5-132.5	0.00
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	3957	19.8	20.7
0- 40	6591	33.0	34.5
0- 60	12502	62.5	65.4
0- 90	18178	90.9	95.1
90-120	920	4.6	4.8
90-130	935	4.7	4.9
90-150	935	4.7	4.9
90-180	935	4.7	4.9
0-180	19112	95.6	100.0

Total Luminaire Optical Efficiency = 95.6%

Luminaire Spacing Criterion:

0 deg	90 deg
1.30	1.39

Average Luminaire Luminance (cd/m²):

	0	45	90
0	14234.79	14234.79	14234.79
45	13782.96	13421.30	13983.27
50	12746.55	13308.25	16086.77
55	12183.33	13607.38	16496.78
60	11405.19	14653.93	17330.65
65	10546.89	15422.49	17329.43
70	9563.73	15703.76	16079.97
75	8940.40	14813.64	17820.76
80	8426.17	15370.85	19007.59
85	8132.23	14948.84	16789.05

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	109	109	109	109	103	103	103	
1	101	95	90	86	97	92	88	84	87	84	80	
2	90	81	74	67	87	79	72	66	75	69	64	
3	82	70	62	55	79	68	60	54	65	58	52	
4	74	62	52	45	71	60	51	45	57	49	44	
5	68	55	45	38	65	53	44	38	51	43	37	
6	62	49	40	33	60	48	39	33	45	38	32	
7	58	44	35	29	56	43	35	29	41	34	28	
8	54	40	31	26	52	39	31	25	37	30	25	
9	50	37	28	23	48	36	28	23	34	27	22	
10	47	34	26	21	45	33	25	20	32	25	20	

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	98	98	98	93	93	93	91
1	83	80	77	78	76	74	71
2	71	66	62	67	63	60	57
3	61	56	51	58	53	49	47
4	54	48	42	51	46	41	39
5	48	41	36	46	40	35	33
6	43	37	31	41	35	31	29
7	39	33	28	37	32	27	25
8	36	29	24	34	28	24	22
9	33	26	22	32	26	21	20
10	30	24	20	29	24	19	18