

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

Fri Jul 17 14:27:41 2009

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-mxl4-wn-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
10440(52.2%)	0
5968(29.8%)	1
840(4.2%)	2
805(4.0%)	3
215(1.1%)	4
159(0.8%)	5
18428(92.1%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
293(1.5%)	4514(22.6%)	LAMP-F54T5H01
10(0.1%)	162(0.8%)	LAMP-F54T5H02
926(4.6%)	10714(53.6%)	Refl-Poly1
1230(6.2%)	15391(77.0%)	Total

Absorbed(%)	Incident(%)	Material Name
303(1.5%)	4676(23.4%)	PHOSGLAS
926(4.6%)	10714(53.6%)	ANOWHT01
1230(6.2%)	15391(77.0%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 340.96 (1.7%)
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	4090	4090	4090	4090	4090
5.00	3750	4078	4132	4011	4417
10.00	4293	4173	4212	4291	4307
15.00	4286	4231	4152	4186	4045
20.00	4173	4032	3958	3982	4269
25.00	3965	4034	4025	3905	4048
30.00	3670	3819	3873	4060	4286
35.00	3655	3702	3785	4177	4183
40.00	3406	3371	3887	3909	3950
45.00	3132	3214	3646	3745	3845
50.00	2811	3063	3391	3754	3932
55.00	2715	2911	3233	3652	3587
60.00	2366	2589	3019	3298	3405
65.00	2043	2337	2764	3171	3269
70.00	1675	2057	2492	2758	2918
75.00	1302	1700	2127	2450	2597
80.00	830	1263	1755	2078	2173
85.00	411	801	1136	1331	1357
90.00	164	342	552	693	733
95.00	51.9	271	597	833	887
100.00	16.8	141	421	656	754
105.00	6.78	47.6	308	524	577
110.00	1.08	5.75	166	389	481
115.00	1.16	0.280	57.4	249	302
120.00	0.000	0.000	8.62	105	181
125.00	0.000	0.000	0.000	11.6	43.3
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

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Zonal Lumens		
Cone	Between	Lumens
0.0	0.0- 2.5	24.46
5.0	2.5- 7.5	194.72
10.0	7.5- 12.5	403.94
15.0	12.5- 17.5	593.52
20.0	17.5- 22.5	758.96
25.0	22.5- 27.5	924.92
30.0	27.5- 32.5	1077.79
35.0	32.5- 37.5	1224.82
40.0	37.5- 42.5	1307.61
45.0	42.5- 47.5	1365.65
50.0	47.5- 52.5	1425.45
55.0	52.5- 57.5	1453.36
60.0	57.5- 62.5	1399.23
65.0	62.5- 67.5	1357.23
70.0	67.5- 72.5	1236.62
75.0	72.5- 77.5	1088.86
80.0	77.5- 82.5	890.28
85.0	82.5- 87.5	566.77
90.0	87.5- 92.5	278.88
95.0	92.5- 97.5	296.27
100.0	97.5-102.5	216.45
105.0	102.5-107.5	155.07
110.0	107.5-112.5	103.19
115.0	112.5-117.5	56.96
120.0	117.5-122.5	24.28
125.0	122.5-127.5	3.74
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	3419	17.1	18.6
0- 40	5840	29.2	31.7
0- 60	11446	57.2	62.1
0- 90	17434	87.2	94.6
90-120	980	4.9	5.3
90-130	995	5.0	5.4
90-150	995	5.0	5.4
90-180	995	5.0	5.4
0-180	18429	92.1	100.0

Total Luminaire Optical Efficiency = 92.1%

Luminaire Spacing Criterion:

0 deg	90 deg
1.37	1.52

Average Luminaire Luminance (cd/m²):

	0	45	90
0	11005.08	11005.08	11005.08
45	11591.30	12613.04	13144.76
50	11385.37	12683.52	14507.15
55	12244.66	13272.26	14488.21
60	12136.61	13848.28	15321.32
65	12266.06	14492.78	16750.60
70	12231.74	15381.57	17515.18
75	12244.02	16102.11	18983.22
80	11090.44	17357.35	20511.13
85	9588.67	16366.91	18270.06

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	106	106	106	106	100	100	100	
1	96	91	86	81	93	88	84	79	83	79	76	
2	86	77	70	63	83	75	68	62	71	65	60	
3	78	66	58	51	75	64	56	50	61	54	48	
4	70	58	49	42	68	56	48	41	53	46	40	
5	64	51	42	35	62	50	41	35	47	40	34	
6	59	46	37	30	57	44	36	30	42	35	29	
7	55	41	32	26	53	40	32	26	38	31	25	
8	51	37	29	23	49	36	28	23	35	27	22	
9	47	34	26	20	45	33	25	20	32	25	20	
10	44	31	23	18	43	30	23	18	29	22	18	

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	94	94	94	89	89	89	87
1	79	75	73	74	72	70	67
2	67	62	58	63	59	55	53
3	57	52	47	54	49	45	43
4	50	44	39	48	42	38	35
5	45	38	33	42	37	32	30
6	40	33	28	38	32	28	26
7	36	30	25	35	29	24	22
8	33	27	22	32	26	21	19
9	30	24	19	29	23	19	17
10	28	22	17	27	21	17	15