

Photometric Report - (ecs-exw4-mn-654-unv-32h-a0w) - Page 1 of 4

Sat Jul 18 18:06:46 2009

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-exw4-mn-654-unv-32h-a0w

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
0( 0.0%)	0
10345( 34.5%)	1
12034( 40.1%)	2
2883( 9.6%)	3
1040( 3.5%)	4
657( 2.2%)	5
26962( 89.9%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
275( 0.9%)	4213( 14.0%)	LAMP-F54T5H01
15( 0.1%)	238( 0.8%)	LAMP-F54T5H02
1317( 4.4%)	23280( 77.6%)	Refl-Poly1
117( 0.4%)	1173( 3.9%)	Refl-Poly2
29( 0.1%)	31165(103.9%)	Tran-Lens1
1755( 5.9%)	60072(200.2%)	Total

Absorbed(%)	Incident(%)	Material Name
290( 1.0%)	4451( 14.8%)	PHOSGLAS
1317( 4.4%)	23280( 77.6%)	ALMIRO04
117( 0.4%)	1173( 3.9%)	PAINT006
29( 0.1%)	31165(103.9%)	ACRYLIC1
1755( 5.9%)	60072(200.2%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 1282.92 ( 4.3%)  
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	13669	13669	13669	13669	13669
5.00	13873	13027	12550	11986	11714
10.00	12876	12108	11763	11456	11572
15.00	12751	11633	11384	11005	11160
20.00	12129	11079	10844	10746	10597
25.00	11308	10481	10386	9408	9201
30.00	10852	9949	9425	8088	7619
35.00	9918	9256	8010	6937	6675
40.00	8834	8212	6846	5573	4975
45.00	8084	7095	5459	4436	4434
50.00	6912	6025	4156	3999	4319
55.00	5692	4698	3434	4070	4214
60.00	4454	3474	3142	3722	3728
65.00	3300	2466	2811	3309	3112
70.00	2314	1677	2238	2353	2381
75.00	1208	1107	1397	1436	1396
80.00	454	545	615	669	638
85.00	107	119	117	69.8	56.7
90.00	12.1	4.72	4.65	0.740	1.66

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Zonal Lumens

Cone	Between	Lumens
0.0	0.0- 2.5	81.74
5.0	2.5- 7.5	601.42
10.0	7.5- 12.5	1131.50
15.0	12.5- 17.5	1630.68
20.0	17.5- 22.5	2063.67
25.0	22.5- 27.5	2347.15
30.0	27.5- 32.5	2514.43
35.0	32.5- 37.5	2554.46
40.0	37.5- 42.5	2425.41
45.0	42.5- 47.5	2252.83
50.0	47.5- 52.5	2078.03
55.0	52.5- 57.5	1925.83
60.0	57.5- 62.5	1712.30
65.0	62.5- 67.5	1464.51
70.0	67.5- 72.5	1109.45
75.0	72.5- 77.5	693.88
80.0	77.5- 82.5	320.57
85.0	82.5- 87.5	52.93
90.0	87.5- 92.5	2.33

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	9066	30.2	33.6
0- 40	14106	47.0	52.3
0- 60	22453	74.8	83.3
0- 90	26962	89.9	100.0
90-120	1	0.0	0.0
90-130	1	0.0	0.0
90-150	1	0.0	0.0
90-180	1	0.0	0.0
0-180	26963	89.9	100.0

Total Luminaire Optical Efficiency = 89.9%

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Luminaire Spacing Criterion:

0 deg	90 deg
1.18	0.93

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

	0	45	90
0	19575.16	19575.16	19575.16
45	15385.45	9682.65	7901.47
50	14304.94	7919.26	8276.62
55	13019.28	7129.77	8805.12
60	11480.86	7223.87	8634.46
65	9829.69	7302.64	8156.61
70	8238.25	6743.03	7248.32
75	5391.28	5054.62	5117.94
80	2742.61	2811.46	2966.60
85	1014.61	736.15	364.02

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	107	107	107	107	104	104	104	104	100	100	100	
1	99	95	91	88	96	93	90	87	89	86	84	
2	90	83	78	73	88	82	77	72	79	74	71	
3	83	74	67	62	81	73	66	61	70	65	60	
4	76	66	59	53	74	65	58	53	63	57	52	
5	70	59	52	46	69	58	51	46	57	50	45	
6	65	54	46	41	64	53	46	41	51	45	40	
7	61	49	42	36	59	48	41	36	47	41	36	
8	57	45	38	33	55	44	37	33	43	37	32	
9	53	41	34	30	52	41	34	30	40	34	29	
10	50	38	32	27	49	38	31	27	37	31	27	

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	95	95	95	91	91	91	90
1	85	83	81	82	81	79	77
2	76	72	69	73	70	67	66
3	68	63	59	65	61	58	56
4	61	55	51	59	54	51	49
5	55	49	45	53	48	44	43
6	50	44	40	49	44	40	38
7	46	40	36	45	39	35	34
8	42	36	32	41	36	32	30
9	39	33	29	38	33	29	28
10	36	31	27	35	30	27	25