

Photometric Report - (ecs-dts4-mn-654-unv-32h-00w) - Page 1 of 4

Sun Jul 19 11:59:06 2009

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-dts4-mn-654-unv-32h-00w

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
12350( 41.2%)	0
12656( 42.2%)	1
2340( 7.8%)	2
538( 1.8%)	3
228( 0.8%)	4
110( 0.4%)	5
28224( 94.1%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
193( 0.6%)	2996( 10.0%)	LAMP-F54T5H01
10( 0.0%)	169( 0.6%)	LAMP-F54T5H02
914( 3.0%)	16220( 54.1%)	Refl-Poly1
74( 0.2%)	749( 2.5%)	Refl-Poly2
359( 1.2%)	3596( 12.0%)	Refl-Poly3
1553( 5.2%)	23732( 79.1%)	Total

  

Absorbed(%)	Incident(%)	Material Name
204( 0.7%)	3166( 10.6%)	PHOSGLAS
914( 3.0%)	16220( 54.1%)	ALMIRO04
434( 1.4%)	4345( 14.5%)	PAINT006
1553( 5.2%)	23732( 79.1%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 222.33 ( 0.7%)  
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%)

Photometric Report - (ecs-dts4-mn-654-unv-32h-00w) - Page 2 of 4

---

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	13199	13199	13199	13199	13199
5.00	13195	12736	12393	11538	11630
10.00	12782	11923	11292	11022	10851
15.00	12306	11415	10726	10519	10632
20.00	12009	10651	10263	10203	10031
25.00	11259	10020	9972	9146	8598
30.00	10631	9479	8772	7531	7103
35.00	9700	8707	7466	6365	6349
40.00	8720	7895	6211	5677	5552
45.00	7734	6780	5314	4951	4881
50.00	6857	5714	4523	4308	4448
55.00	5725	4666	3851	4334	4457
60.00	4654	3662	3483	4269	4230
65.00	3640	2730	3330	3954	4004
70.00	2579	2060	2959	3394	3293
75.00	1702	1629	2264	2423	2515
80.00	850	1120	1420	1591	1584
85.00	319	425	425	351	313
90.00	35.7	39.3	43.6	48.8	36.5

Photometric Report - (ecs-dts4-mn-654-unv-32h-00w) - Page 3 of 4

Zonal Lumens

Cone	Between	Lumens
0.0	0.0- 2.5	78.94
5.0	2.5- 7.5	586.17
10.0	7.5- 12.5	1095.89
15.0	12.5- 17.5	1565.10
20.0	17.5- 22.5	1974.90
25.0	22.5- 27.5	2262.47
30.0	27.5- 32.5	2374.09
35.0	32.5- 37.5	2402.25
40.0	37.5- 42.5	2371.20
45.0	42.5- 47.5	2262.80
50.0	47.5- 52.5	2120.18
55.0	52.5- 57.5	2013.95
60.0	57.5- 62.5	1881.62
65.0	62.5- 67.5	1718.40
70.0	67.5- 72.5	1461.46
75.0	72.5- 77.5	1115.08
80.0	77.5- 82.5	721.62
85.0	82.5- 87.5	206.98
90.0	87.5- 92.5	22.99

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	8706	29.0	30.8
0- 40	13495	45.0	47.8
0- 60	22037	73.5	78.0
0- 90	28225	94.1	100.0
90-120	11	0.0	0.0
90-130	11	0.0	0.0
90-150	11	0.0	0.0
90-180	11	0.0	0.0
0-180	28236	94.1	100.0

Total Luminaire Optical Efficiency = 94.1%

Luminaire Spacing Criterion:

0 deg	90 deg
1.20	0.91

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

	0	45	90
0	18902.79	18902.79	18902.79
45	14720.36	9424.91	8697.67
50	14192.45	8619.02	8523.34
55	13093.55	7994.31	9313.16
60	11996.06	8007.67	9797.18
65	10844.20	8652.61	10493.67
70	9181.11	8913.72	10026.95
75	7596.86	8189.93	9219.08
80	5138.11	6486.84	7363.08
85	3023.46	2660.54	2010.69

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	112	112	112	112	109	109	109	109	104	104	104	
1	102	98	94	90	99	95	92	89	91	88	86	
2	93	85	79	73	90	83	78	73	80	75	71	
3	85	75	67	61	82	73	66	61	71	65	60	
4	78	67	59	52	76	65	58	52	63	56	51	
5	72	60	51	45	70	59	51	45	57	50	45	
6	66	54	46	40	65	53	45	40	51	45	39	
7	62	49	41	35	60	48	41	35	47	40	35	
8	58	45	37	32	56	44	37	32	43	36	32	
9	54	42	34	29	53	41	34	29	40	33	29	
10	51	38	31	26	49	38	31	26	37	31	26	

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	100	100	100	96	96	96	94
1	88	85	83	84	82	81	79
2	77	73	69	74	71	68	66
3	68	63	59	66	61	58	56
4	61	55	50	59	54	50	48
5	55	49	44	53	48	44	42
6	50	44	39	48	43	39	37
7	46	39	35	44	39	35	33
8	42	36	31	41	35	31	29
9	39	33	28	38	32	28	27
10	36	30	26	35	30	26	24