

Photometric Report - (ecs-dts4-mn-454-unv-22h-00w) - Page 1 of 4

Sun Jul 19 12:03:11 2009

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-dts4-mn-454-unv-22h-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 499456 initial lamp rays.  
Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens(%)	Reflection
8356( 41.8%)	0
8708( 43.5%)	1
1336( 6.7%)	2
296( 1.5%)	3
127( 0.6%)	4
55( 0.3%)	5
18880( 94.4%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
76( 0.4%)	1180( 5.9%)	LAMP-F54T5H01
4( 0.0%)	74( 0.4%)	LAMP-F54T5H02
568( 2.8%)	9971( 49.9%)	Refl-Poly1
51( 0.3%)	513( 2.6%)	Refl-Poly2
319( 1.6%)	3196( 16.0%)	Refl-Poly3
1020( 5.1%)	14936( 74.7%)	Total

  

Absorbed(%)	Incident(%)	Material Name
81( 0.4%)	1255( 6.3%)	PHOSGLAS
568( 2.8%)	9971( 49.9%)	ALMIRO04
371( 1.9%)	3710( 18.6%)	PAINT006
1020( 5.1%)	14936( 74.7%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 99.06 ( 0.5%)  
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: 1.8791 Length: 4.0268 Height: 0.2566  
Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	7147	7147	7147	7147	7147
5.00	7310	7038	7317	7145	7302
10.00	7266	7321	7010	7016	6884
15.00	7347	6933	6784	6700	6555
20.00	6917	6725	6527	6324	6296
25.00	6655	6320	6152	5798	5696
30.00	6316	6110	5567	4996	4674
35.00	5812	5463	4889	4296	4257
40.00	5284	5069	4197	3932	3909
45.00	4808	4347	3592	3590	3718
50.00	4140	3701	3205	3498	3614
55.00	3634	3078	2972	3364	3463
60.00	2928	2476	2727	3212	3338
65.00	2306	1983	2506	2960	2967
70.00	1634	1537	2131	2376	2366
75.00	1063	1188	1599	1755	1732
80.00	621	758	1002	1076	1032
85.00	236	309	283	224	189
90.00	22.5	23.9	20.5	27.7	28.6

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Zonal Lumens

Cone	Between	Lumens
0.0	0.0- 2.5	42.74
5.0	2.5- 7.5	344.04
10.0	7.5- 12.5	676.32
15.0	12.5- 17.5	970.69
20.0	17.5- 22.5	1227.09
25.0	22.5- 27.5	1415.73
30.0	27.5- 32.5	1518.83
35.0	32.5- 37.5	1547.05
40.0	37.5- 42.5	1567.37
45.0	42.5- 47.5	1530.19
50.0	47.5- 52.5	1499.17
55.0	52.5- 57.5	1455.03
60.0	57.5- 62.5	1370.51
65.0	62.5- 67.5	1252.54
70.0	67.5- 72.5	1035.73
75.0	72.5- 77.5	786.19
80.0	77.5- 82.5	494.27
85.0	82.5- 87.5	140.45
90.0	87.5- 92.5	13.38

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	5407	27.0	28.6
0- 40	8506	42.5	45.0
0- 60	14471	72.4	76.6
0- 90	18881	94.4	100.0
90-120	7	0.0	0.0
90-130	7	0.0	0.0
90-150	7	0.0	0.0
90-180	7	0.0	0.0
0-180	18887	94.4	100.0

Total Luminaire Optical Efficiency = 94.4%

Luminaire Spacing Criterion:

0 deg	90 deg
1.29	1.05

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

	0	45	90
0	10167.41	10167.41	10167.41
45	9093.50	6329.92	6581.69
50	8515.98	6068.57	6877.99
55	8261.62	6131.40	7186.86
60	7502.10	6230.29	7680.38
65	6827.83	6469.87	7726.16
70	5783.63	6381.57	7156.14
75	4721.64	5750.41	6305.67
80	3739.89	4552.60	4763.74
85	2230.42	1764.01	1203.94

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	97	93	90	99	95	92	88	91	88	85	
2	92	85	78	73	90	83	77	72	79	74	70	
3	84	74	66	60	82	73	65	60	70	64	58	
4	77	66	57	51	75	64	57	51	62	55	50	
5	71	59	50	44	69	58	50	44	56	49	43	
6	66	53	44	38	64	52	44	38	50	43	38	
7	61	48	40	34	59	47	39	34	46	39	34	
8	57	44	36	30	55	43	36	30	42	35	30	
9	53	40	33	27	52	40	32	27	39	32	27	
10	50	37	30	25	48	37	30	25	36	29	25	

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	80	78
2	76	72	68	73	70	67	65
3	67	62	57	65	60	56	54
4	60	54	49	58	53	48	46
5	54	47	43	52	47	42	40
6	49	42	37	47	42	37	35
7	44	38	33	43	37	33	31
8	41	34	30	40	34	30	28
9	38	31	27	37	31	27	25
10	35	29	25	34	28	24	23