

Photometric Report - (ecs-dts4-mn-1054-unv-52h-00w) - Page 1 of 4

Sat Jul 18 19:39:24 2009

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-dts4-mn-1054-unv-52h-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 500480 initial lamp rays.  
Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens(%)	Reflection
20459( 40.9%)	0
11695( 23.4%)	1
4042( 8.1%)	2
2963( 5.9%)	3
1523( 3.0%)	4
1196( 2.4%)	5
41879( 83.8%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
1795( 3.6%)	27533( 55.1%)	LAMP-F54T5H01
76( 0.2%)	1182( 2.4%)	LAMP-F54T5H02
1991( 4.0%)	34524( 69.0%)	Refl-Poly1
150( 0.3%)	1502( 3.0%)	Refl-Poly2
401( 0.8%)	4014( 8.0%)	Refl-Poly3
4415( 8.8%)	68757(137.5%)	Total

  

Absorbed(%)	Incident(%)	Material Name
1872( 3.7%)	28715( 57.4%)	PHOSGLAS
1991( 4.0%)	34524( 69.0%)	ALMIRO04
551( 1.1%)	5516( 11.0%)	PAINT006
4415( 8.8%)	68757(137.5%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 3705.29 ( 7.4%)  
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-1054-unv-52h-00w) - Page 2 of 4

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Number of Lamps: 10 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	12059	12059	12059	12059	12059
5.00	12386	11842	13069	13142	13249
10.00	12280	12371	12954	13477	12794
15.00	11517	12321	12775	12882	12175
20.00	11184	12374	12309	12075	12140
25.00	10962	11952	11635	11268	11077
30.00	10297	11600	10610	10568	10890
35.00	10170	10510	10001	11041	11256
40.00	9381	9678	9856	10462	10365
45.00	8875	8852	9376	9509	10007
50.00	7690	7904	8693	10102	10611
55.00	6879	6985	8121	9581	9302
60.00	5854	6119	7795	7903	7991
65.00	4707	5304	6553	7323	7541
70.00	3659	4376	5539	5853	5649
75.00	2620	3346	4016	3859	3652
80.00	1525	2178	2049	1907	1737
85.00	611	718	514	399	354
90.00	49.1	59.2	40.0	63.0	64.0

Zonal Lumens

Cone	Between	Lumens
0.0	0.0- 2.5	72.11
5.0	2.5- 7.5	607.55
10.0	7.5- 12.5	1221.63
15.0	12.5- 17.5	1767.10
20.0	17.5- 22.5	2269.32
25.0	22.5- 27.5	2656.70
30.0	27.5- 32.5	2971.70
35.0	32.5- 37.5	3321.93
40.0	37.5- 42.5	3511.82
45.0	42.5- 47.5	3602.46
50.0	47.5- 52.5	3763.27
55.0	52.5- 57.5	3679.24
60.0	57.5- 62.5	3410.66
65.0	62.5- 67.5	3142.71
70.0	67.5- 72.5	2629.65
75.0	72.5- 77.5	1900.29
80.0	77.5- 82.5	1047.94
85.0	82.5- 87.5	288.52
90.0	87.5- 92.5	29.96

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	10024	20.0	23.9
0- 40	16598	33.2	39.6
0- 60	31129	62.3	74.3
0- 90	41880	83.8	100.0
90-120	15	0.0	0.0
90-130	15	0.0	0.0
90-150	15	0.0	0.0
90-180	15	0.0	0.0
0-180	41895	83.8	100.0

Total Luminaire Optical Efficiency = 83.8%

Luminaire Spacing Criterion:

0 deg	90 deg
1.29	1.42

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

	0	45	90
0	17269.34	17269.34	17269.34
45	16891.16	16629.00	17831.46
50	15917.16	16565.40	20331.17
55	15733.13	16858.63	19435.88
60	15090.45	17921.13	18511.21
65	14020.50	17025.31	19765.85
70	13024.13	16686.96	17199.12
75	11694.83	14526.55	13386.41
80	9221.28	9364.28	8074.48
85	5788.96	3223.36	2272.88

Coefficients of Utilization - Zonal Cavity Method:

pfc = 0.20

pcc	.8			.7			.5			.3			.1			0		
pw	.7	.5	.3	.1	.7	.5	.3	.1	.5	.3	.1	.5	.3	.1	.5	.3	.1	0
RCR																		
0	99	99	99	99	97	97	97	97	93	93	93	89	89	89	85	85	85	83
1	90	86	82	79	88	84	81	77	80	78	75	77	75	73	74	72	70	69
2	81	74	68	63	79	72	67	62	69	65	61	67	63	59	64	61	58	56
3	74	64	57	51	71	63	56	51	60	55	50	58	53	49	56	52	48	46
4	67	56	49	43	65	55	48	42	53	47	42	51	46	41	49	45	41	39
5	61	50	42	36	60	49	42	36	47	41	36	46	40	35	44	39	35	33
6	56	45	37	31	55	44	37	31	42	36	31	41	35	31	40	34	30	29
7	52	40	33	27	51	40	32	27	38	32	27	37	31	27	36	31	27	25
8	48	37	29	24	47	36	29	24	35	29	24	34	28	24	33	28	24	22
9	45	34	26	22	44	33	26	22	32	26	21	31	25	21	30	25	21	20
10	42	31	24	20	41	30	24	19	30	24	19	29	23	19	28	23	19	18