

Photometric Report - (ecs-rby4-mn-454-unv-22h) - Page 1 of 4

Fri Apr 27 15:25:27 2012

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-rby4-mn-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
9461(47.3%)	0
7887(39.4%)	1
508(2.5%)	2
715(3.6%)	3
101(0.5%)	4
120(0.6%)	5
18795(94.0%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
224(1.1%)	3471(17.4%)	LAMP-F54T5H01
8(0.0%)	138(0.7%)	LAMP-F54T5H02
582(2.9%)	10727(53.6%)	Refl-Poly1
15(0.1%)	113(0.6%)	Refl-Poly2
832(4.2%)	14451(72.3%)	Total

Absorbed(%)	Incident(%)	Material Name
233(1.2%)	3609(18.0%)	PHOSGLAS
582(2.9%)	10727(53.6%)	ALMIRO04
15(0.1%)	113(0.6%)	PAINT001
832(4.2%)	14451(72.3%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 222.46 (1.1%)
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): 149.11 (0.7%)

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Number of Lamps: 4 Lumens per Lamp: 5000
Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00
Luminaire Width: 0.9898 Length: 4.0000 Height: 0.1368
Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	7532	7532	7532	7532	7532
5.00	7293	7272	7617	7512	7118
10.00	7853	7756	7292	7748	7316
15.00	7631	7389	7410	7311	6880
20.00	7288	7063	7084	6983	7002
25.00	6847	6769	6709	6411	6223
30.00	6515	6543	6090	5281	5001
35.00	6169	6051	5317	4173	3839
40.00	5728	5446	4260	3237	3135
45.00	5100	4833	3241	2784	2676
50.00	4618	3974	2579	2322	2320
55.00	3985	3134	2104	2168	2300
60.00	3255	2347	1760	2123	2247
65.00	2606	1675	1691	2143	2255
70.00	1886	1196	1622	2140	2356
75.00	1253	897	1586	2111	2344
80.00	636	787	1481	1845	1887
85.00	263	582	949	1147	1214
90.00	75.4	215	402	548	513

Zonal Lumens

Cone	Between	Lumens
0.0	0.0- 2.5	45.04
5.0	2.5- 7.5	353.60
10.0	7.5- 12.5	722.92
15.0	12.5- 17.5	1041.47
20.0	17.5- 22.5	1325.22
25.0	22.5- 27.5	1530.31
30.0	27.5- 32.5	1621.91
35.0	32.5- 37.5	1614.87
40.0	37.5- 42.5	1530.46
45.0	42.5- 47.5	1428.80
50.0	47.5- 52.5	1295.84
55.0	52.5- 57.5	1184.15
60.0	57.5- 62.5	1065.89
65.0	62.5- 67.5	986.03
70.0	67.5- 72.5	911.57
75.0	72.5- 77.5	846.16
80.0	77.5- 82.5	725.24
85.0	82.5- 87.5	466.27
90.0	87.5- 92.5	199.91

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	5799	29.0	30.7
0- 40	9001	45.0	47.6
0- 60	14221	71.1	75.3
0- 90	18796	94.0	99.5
90-120	100	0.5	0.5
90-130	100	0.5	0.5
90-150	100	0.5	0.5
90-180	100	0.5	0.5
0-180	18896	94.5	100.0

Total Luminaire Optical Efficiency = 94.5%

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Luminaire Spacing Criterion:

0 deg	90 deg
1.28	1.06

Average Luminaire Luminance (cd/m²):

	0	45	90
0	20476.27	20476.27	20476.27
45	18960.27	11106.79	9038.65
50	18764.85	9524.62	8424.70
55	18009.89	8491.94	9105.33
60	16708.97	7900.41	9857.45
65	15618.14	8621.17	11186.46
70	13701.59	9659.20	13570.58
75	11670.25	11450.44	16242.28
80	8333.92	13704.47	16558.47
85	5901.53	12359.95	14676.98

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	101	96	92	88	98	94	90	86	90	87	83	
2	92	84	77	71	89	82	76	70	79	73	69	
3	84	74	66	60	82	72	65	59	69	63	58	
4	77	66	57	51	75	64	57	51	62	55	50	
5	71	59	51	44	69	58	50	44	56	49	44	
6	66	54	45	39	64	53	45	39	51	44	39	
7	61	49	41	35	60	48	40	35	47	40	34	
8	57	45	37	31	56	44	36	31	43	36	31	
9	54	41	34	28	52	41	33	28	40	33	28	
10	50	38	31	26	49	38	31	26	37	30	26	

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	100	100	100	96	96	96	94
1	86	83	81	83	80	78	76
2	75	71	67	73	69	66	64
3	67	61	57	64	60	56	54
4	60	54	49	58	53	49	46
5	54	48	43	52	47	43	41
6	49	43	38	48	42	38	36
7	45	39	34	44	38	34	32
8	42	35	31	41	35	31	29
9	39	32	28	38	32	28	26
10	36	30	26	35	29	25	24