

Photometric Report - (ecs-ill4-wn-232-unv-12n) - Page 1 of 4

Fri Jul 17 12:26:36 2009

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-ill4-wn-232-unv-12n

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 500092 initial lamp rays.
Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens(%)	Reflection
2646(45.6%)	0
1551(26.8%)	1
420(7.3%)	2
290(5.0%)	3
134(2.3%)	4
81(1.4%)	5
5124(88.4%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
80(1.4%)	1230(21.2%)	LAMP-F032311
4(0.1%)	62(1.1%)	LAMP-F032312
410(7.1%)	4701(81.1%)	Refl-Poly1
494(8.5%)	5995(103.4%)	Total

Absorbed(%)	Incident(%)	Material Name
84(1.5%)	1293(22.3%)	PHOSGLAS
410(7.1%)	4701(81.1%)	ANOWHT01
494(8.5%)	5995(103.4%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 180.54 (3.1%)
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): 0.00 (0.0%)

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Number of Lamps: 2 Lumens per Lamp: 2900
 Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00
 Luminaire Width: 1.2075 Length: 4.0000 Height: 0.2090
 Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	1556	1556	1556	1556	1556
5.00	1477	1484	1414	1439	1427
10.00	1412	1433	1456	1399	1423
15.00	1410	1439	1391	1414	1442
20.00	1427	1412	1399	1388	1385
25.00	1353	1353	1363	1329	1376
30.00	1301	1298	1281	1275	1270
35.00	1255	1254	1214	1234	1214
40.00	1171	1160	1145	1153	1150
45.00	1143	1101	1075	1079	1080
50.00	1052	1030	990	977	1001
55.00	1019	919	883	929	937
60.00	913	798	794	854	870
65.00	800	688	694	768	780
70.00	646	550	599	660	669
75.00	472	427	490	534	560
80.00	269	305	361	412	435
85.00	119	176	223	260	276
90.00	37.6	64.2	93.2	125	142
95.00	17.7	23.2	17.0	27.1	36.7
100.00	11.5	15.8	6.45	0.850	0.160
105.00	7.63	10.5	5.38	0.630	0.000
110.00	6.21	7.34	3.15	0.330	0.000
115.00	7.14	4.26	2.02	0.000	0.000
120.00	3.63	3.96	1.95	0.000	0.000
125.00	3.35	2.56	0.770	0.000	0.000
130.00	1.60	1.49	0.310	0.000	0.000
135.00	0.960	0.700	0.100	0.000	0.000
140.00	0.000	0.000	0.100	0.000	0.000
145.00	0.220	0.000	0.000	0.000	0.000
150.00	0.000	0.000	0.000	0.000	0.000
155.00	0.000	0.000	0.000	0.000	0.000
160.00	0.000	0.000	0.000	0.000	0.000
165.00	0.000	0.000	0.000	0.000	0.000
170.00	0.000	0.000	0.000	0.000	0.000
175.00	0.000	0.000	0.000	0.000	0.000
180.00	0.000	0.000	0.000	0.000	0.000

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Zonal Lumens		
Cone	Between	Lumens
0.0	0.0- 2.5	9.30
5.0	2.5- 7.5	69.14
10.0	7.5- 12.5	135.78
15.0	12.5- 17.5	201.13
20.0	17.5- 22.5	262.70
25.0	22.5- 27.5	313.24
30.0	27.5- 32.5	352.11
35.0	32.5- 37.5	388.05
40.0	37.5- 42.5	406.83
45.0	42.5- 47.5	423.08
50.0	47.5- 52.5	422.39
55.0	52.5- 57.5	416.31
60.0	57.5- 62.5	396.11
65.0	62.5- 67.5	365.05
70.0	67.5- 72.5	317.53
75.0	72.5- 77.5	260.46
80.0	77.5- 82.5	193.01
85.0	82.5- 87.5	116.90
90.0	87.5- 92.5	51.01
95.0	92.5- 97.5	12.90
100.0	97.5-102.5	3.91
105.0	102.5-107.5	2.69
110.0	107.5-112.5	1.79
115.0	112.5-117.5	1.22
120.0	117.5-122.5	0.92
125.0	122.5-127.5	0.56
130.0	127.5-132.5	0.27
135.0	132.5-137.5	0.12
140.0	137.5-142.5	0.01
145.0	142.5-147.5	0.01
150.0	147.5-152.5	0.00
155.0	152.5-157.5	0.00
160.0	157.5-162.5	0.00
165.0	162.5-167.5	0.00
170.0	167.5-172.5	0.00
175.0	172.5-177.5	0.00
180.0	177.5-180.0	0.00

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	1161	20.0	22.6
0- 40	1930	33.3	37.7
0- 60	3596	62.0	70.2
0- 90	5075	87.5	99.0
90-120	48	0.8	0.9
90-130	50	0.9	1.0
90-150	50	0.9	1.0
90-180	50	0.9	1.0
0-180	5125	88.4	100.0

Total Luminaire Optical Efficiency = 88.4%

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Luminaire Spacing Criterion:

0 deg	90 deg
1.25	1.22

Average Luminaire Luminance (cd/m²):

	0	45	90
0	3466.70	3466.70	3466.70
45	3422.62	2923.81	2900.75
50	3434.14	2885.24	2877.18
55	3685.78	2794.02	2919.17
60	3731.00	2774.49	2983.44
65	3792.43	2727.47	2998.85
70	3680.21	2713.51	2954.47
75	3404.07	2648.73	2927.47
80	2663.74	2432.24	2819.02
85	1900.00	2025.45	2372.29

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	105	105	105	105	102	102	102	102	98	98	98
1	94	89	85	81	91	87	83	79	83	80	77
2	85	76	70	64	82	75	68	63	71	66	61
3	76	66	58	52	74	65	57	51	62	56	50
4	70	58	50	43	67	57	49	43	54	48	42
5	64	52	43	37	62	50	42	36	48	41	36
6	59	46	38	32	57	45	37	32	44	36	31
7	54	42	33	28	53	41	33	28	39	32	27
8	50	38	30	25	49	37	30	24	36	29	24
9	47	35	27	22	46	34	27	22	33	26	22
10	44	32	25	20	43	31	24	20	30	24	20

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	93	93	93	89	89	89	87
1	79	77	74	76	74	72	70
2	68	64	60	65	62	58	56
3	59	54	49	57	52	48	46
4	52	46	42	50	45	41	39
5	47	40	36	45	39	35	33
6	42	36	31	40	35	30	29
7	38	32	27	37	31	27	25
8	35	29	24	34	28	24	22
9	32	26	21	31	25	21	20
10	30	24	19	29	23	19	18