

Photometric Report - (ecs-ill4-wn-332-unv-13n) - Page 1 of 4

Fri Jul 17 12:32:11 2009

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-ill4-wn-332-unv-13n

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 499884 initial lamp rays.
Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens(%)	Reflection
4109(47.2%)	0
2378(27.3%)	1
575(6.6%)	2
410(4.7%)	3
173(2.0%)	4
111(1.3%)	5
7759(89.2%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
139(1.6%)	2136(24.6%)	LAMP-F032311
6(0.1%)	106(1.2%)	LAMP-F032312
542(6.2%)	6245(71.8%)	Refl-Poly1
688(7.9%)	8488(97.6%)	Total

Absorbed(%)	Incident(%)	Material Name
146(1.7%)	2242(25.8%)	PHOSGLAS
542(6.2%)	6245(71.8%)	ANOWHT01
688(7.9%)	8488(97.6%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 251.79 (2.9%)
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: 3 Lumens per Lamp: 2900
 Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00
 Luminaire Width: 1.2075 Length: 4.0000 Height: 0.2952
 Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	1971	1971	1971	1971	1971
5.00	1857	2015	2027	2157	1982
10.00	2017	2069	2029	2070	2031
15.00	2008	1990	1970	1989	1974
20.00	1887	1969	1977	1939	1962
25.00	1936	1909	1877	1874	1880
30.00	1861	1838	1830	1862	1843
35.00	1726	1721	1763	1777	1807
40.00	1640	1655	1662	1724	1707
45.00	1547	1539	1573	1602	1653
50.00	1504	1443	1450	1526	1520
55.00	1355	1315	1325	1412	1480
60.00	1233	1190	1214	1316	1329
65.00	1068	1009	1106	1125	1126
70.00	883	842	920	935	938
75.00	636	676	699	796	833
80.00	389	475	595	722	766
85.00	186	309	492	608	666
90.00	65.8	172	320	449	493
95.00	24.1	70.7	193	321	368
100.00	16.8	25.5	41.3	110	154
105.00	8.90	14.2	11.3	4.56	2.37
110.00	8.56	8.98	8.23	1.57	0.000
115.00	7.25	5.37	2.89	0.400	0.000
120.00	4.31	5.57	2.17	0.120	0.000
125.00	2.19	2.29	0.670	0.000	0.000
130.00	1.17	1.30	0.650	0.000	0.000
135.00	0.360	0.540	0.000	0.000	0.000
140.00	0.690	0.000	0.000	0.000	0.000
145.00	0.000	0.160	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

Zonal Lumens		
Cone	Between	Lumens
0.0	0.0- 2.5	11.78
5.0	2.5- 7.5	96.95
10.0	7.5- 12.5	194.93
15.0	12.5- 17.5	281.64
20.0	17.5- 22.5	366.00
25.0	22.5- 27.5	438.32
30.0	27.5- 32.5	505.71
35.0	32.5- 37.5	552.34
40.0	37.5- 42.5	591.38
45.0	42.5- 47.5	611.79
50.0	47.5- 52.5	622.65
55.0	52.5- 57.5	614.04
60.0	57.5- 62.5	593.45
65.0	62.5- 67.5	538.70
70.0	67.5- 72.5	464.61
75.0	72.5- 77.5	384.59
80.0	77.5- 82.5	319.77
85.0	82.5- 87.5	250.35
90.0	87.5- 92.5	167.14
95.0	92.5- 97.5	106.65
100.0	97.5-102.5	35.35
105.0	102.5-107.5	4.73
110.0	107.5-112.5	2.97
115.0	112.5-117.5	1.53
120.0	117.5-122.5	1.19
125.0	122.5-127.5	0.46
130.0	127.5-132.5	0.27
135.0	132.5-137.5	0.07
140.0	137.5-142.5	0.03
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	1633	18.8	21.0
0- 40	2736	31.4	35.3
0- 60	5181	59.5	66.8
0- 90	7523	86.5	96.9
90-120	235	2.7	3.0
90-130	237	2.7	3.0
90-150	237	2.7	3.1
90-180	237	2.7	3.1
0-180	7759	89.2	100.0

Total Luminaire Optical Efficiency = 89.2%

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Luminaire Spacing Criterion:

0 deg	90 deg
1.36	1.41

Average Luminaire Luminance (cd/m²):

	0	45	90
0	4391.66	4391.66	4391.66
45	4542.00	4045.88	4187.21
50	4792.10	3964.58	4081.77
55	4764.31	3894.77	4262.71
60	4870.91	3893.57	4162.16
65	4863.71	3932.73	3895.83
70	4785.85	3705.76	3655.90
75	4293.97	3270.16	3751.32
80	3515.71	3354.50	4118.82
85	2576.01	3520.18	4487.72

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	97	97	97
1	94	88	84	79	91	86	82	78	82	78	75
2	84	75	68	63	81	74	67	62	70	64	60
3	76	65	57	51	73	64	56	50	61	54	49
4	69	57	49	42	67	56	48	42	53	46	41
5	63	51	42	36	61	50	41	35	47	40	35
6	58	45	37	31	56	44	36	31	42	35	30
7	54	41	33	27	52	40	32	27	38	31	26
8	50	37	29	24	48	36	29	24	35	28	23
9	47	34	26	21	45	33	26	21	32	25	21
10	44	31	24	19	42	31	24	19	30	23	19

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	92	92	92	88	88	88	86
1	78	75	72	74	71	69	67
2	66	62	58	63	59	56	54
3	58	52	48	55	50	46	44
4	51	45	40	49	43	39	37
5	45	39	34	43	38	33	31
6	41	34	29	39	33	29	27
7	37	31	26	35	30	25	24
8	34	27	23	32	27	23	21
9	31	25	20	30	24	20	18
10	29	23	18	28	22	18	17