

Photometric Report - (ecs-vpr4-mn-532-unv-23n-p0w) - Page 1 of 4

Fri Apr 27 21:43:21 2012

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-vpr4-mn-532-unv-23n-p0w

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 500270 initial lamp rays.
 Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens(%)	Reflection
0(0.0%)	0
6152(42.4%)	1
2966(20.5%)	2
1130(7.8%)	3
811(5.6%)	4
420(2.9%)	5
11482(79.2%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
442(3.0%)	6748(46.5%)	LAMP-FO32311
26(0.2%)	406(2.8%)	LAMP-FO32312
529(3.7%)	9337(64.4%)	Refl-Poly1
37(0.3%)	378(2.6%)	Refl-Poly2
500(3.4%)	6470(44.6%)	Tran-Lens1
7(0.1%)	8055(55.6%)	Tran-Lens2
1544(10.7%)	31397(216.5%)	Total

Absorbed(%)	Incident(%)	Material Name
468(3.2%)	7155(49.3%)	PHOSGLAS
529(3.7%)	9337(64.4%)	ALMIRO04
37(0.3%)	378(2.6%)	PAINT006
500(3.4%)	6470(44.6%)	PRISM001
7(0.1%)	8055(55.6%)	POLYCRB1
1544(10.7%)	31397(216.5%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 1473.52 (10.2%)
 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: 5 Lumens per Lamp: 2900
 Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00
 Luminaire Width: 1.4662 Length: 4.0000 Height: 0.4150
 Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	3234	3234	3234	3234	3234
5.00	3082	3264	3301	3291	3388
10.00	3079	3310	3176	3098	3344
15.00	3172	3215	3164	3114	3150
20.00	2929	3163	3055	2935	2987
25.00	2851	2942	2917	2808	2791
30.00	2701	2807	2653	2627	2613
35.00	2585	2541	2491	2315	2303
40.00	2302	2246	2235	2070	2058
45.00	2014	2052	1941	1819	1928
50.00	1820	1803	1665	1877	1937
55.00	1482	1482	1482	1737	1804
60.00	1162	1178	1374	1612	1661
65.00	912	909	1184	1335	1362
70.00	630	703	926	1073	1087
75.00	396	459	661	804	860
80.00	206	261	420	591	661
85.00	59.7	127	263	422	477
90.00	11.4	65.7	192	334	419
95.00	15.0	70.8	190	331	381
100.00	47.4	89.8	207	325	387
105.00	79.7	102	231	346	389
110.00	109	141	266	382	439
115.00	155	192	317	441	499
120.00	208	248	351	455	501
125.00	291	297	391	491	565
130.00	330	354	401	490	502
135.00	401	410	426	512	532
140.00	491	471	478	523	567
145.00	521	541	520	507	578
150.00	621	579	560	530	551
155.00	642	605	606	597	588
160.00	709	702	654	659	677
165.00	700	724	683	675	700
170.00	763	747	665	776	744
175.00	717	736	799	680	674
180.00	808	808	808	808	808

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Zonal Lumens		
Cone	Between	Lumens
0.0	0.0- 2.5	19.34
5.0	2.5- 7.5	156.34
10.0	7.5- 12.5	304.51
15.0	12.5- 17.5	448.77
20.0	17.5- 22.5	567.60
25.0	22.5- 27.5	665.26
30.0	27.5- 32.5	736.22
35.0	32.5- 37.5	769.57
40.0	37.5- 42.5	769.01
45.0	42.5- 47.5	754.15
50.0	47.5- 52.5	758.39
55.0	52.5- 57.5	712.02
60.0	57.5- 62.5	661.60
65.0	62.5- 67.5	566.84
70.0	67.5- 72.5	458.41
75.0	72.5- 77.5	337.91
80.0	77.5- 82.5	230.16
85.0	82.5- 87.5	147.58
90.0	87.5- 92.5	110.64
95.0	92.5- 97.5	107.84
100.0	97.5-102.5	113.24
105.0	102.5-107.5	120.92
110.0	107.5-112.5	136.83
115.0	112.5-117.5	158.67
120.0	117.5-122.5	167.07
125.0	122.5-127.5	180.42
130.0	127.5-132.5	174.46
135.0	132.5-137.5	175.81
140.0	137.5-142.5	176.22
145.0	142.5-147.5	166.39
150.0	147.5-152.5	154.53
155.0	152.5-157.5	140.29
160.0	157.5-162.5	126.89
165.0	162.5-167.5	98.67
170.0	167.5-172.5	69.98
175.0	172.5-177.5	34.76
180.0	177.5-180.0	4.83

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	2516	17.4	21.9
0- 40	4042	27.9	35.2
0- 60	6988	48.2	60.9
0- 90	9119	62.9	79.4
90-120	777	5.4	6.8
90-130	1129	7.8	9.8
90-150	1813	12.5	15.8
90-180	2363	16.3	20.6
0-180	11482	79.2	100.0

Total Luminaire Optical Efficiency = 79.2%

Luminaire Spacing Criterion:

0 deg	90 deg
1.25	1.19

Average Luminaire Luminance (cd/m²):

	0	45	90
0	5935.07	5935.07	5935.07
45	4735.67	3956.06	3899.40
50	4625.12	3586.16	4136.35
55	4129.28	3409.92	4111.40
60	3614.19	3422.40	4091.70
65	3239.55	3241.53	3679.67
70	2628.96	2835.85	3282.30
75	2022.72	2321.02	2967.34
80	1373.45	1740.67	2681.72
85	574.88	1344.34	2373.62

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	.5	.3	.1	0	
RCR																						
0	90	90	90	90	86	86	86	86	78	78	78	72	72	72	65	65	65	62				
1	82	78	74	71	78	74	71	69	68	66	63	62	60	59	57	55	54	51				
2	74	68	62	58	70	65	60	56	59	55	52	54	51	48	50	47	45	42				
3	67	59	53	48	64	57	51	46	52	47	44	48	44	41	44	41	38	36				
4	62	52	46	40	59	50	44	39	46	41	37	42	38	35	39	36	33	30				
5	57	47	40	35	54	45	38	34	41	36	32	38	34	30	35	31	28	26				
6	52	42	35	30	50	40	34	29	37	32	28	34	30	26	32	28	25	23				
7	48	38	31	26	46	37	30	26	34	28	25	31	27	23	29	25	22	20				
8	45	35	28	24	43	33	27	23	31	26	22	29	24	21	27	23	20	18				
9	42	32	25	21	40	31	25	21	28	23	20	26	22	19	25	21	18	16				
10	39	29	23	19	37	28	22	19	26	21	18	24	20	17	23	19	16	15				