

Photometric Report - (ecs-mci4-mn-232-unv-12n-0ww) - Page 1 of 4

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IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-mci4-mn-232-unv-12n-0ww

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
2297(39.6%)	0
2477(42.7%)	1
561(9.7%)	2
116(2.0%)	3
36(0.6%)	4
12(0.2%)	5
5502(94.9%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
29(0.5%)	449(7.8%)	LAMP-F032311
1(0.0%)	28(0.5%)	LAMP-F032312
237(4.1%)	4195(72.3%)	Refl-Poly1
268(4.6%)	4673(80.6%)	Total

Absorbed(%)	Incident(%)	Material Name
31(0.5%)	478(8.2%)	PHOSGLAS
237(4.1%)	4195(72.3%)	ALMIRO04
268(4.6%)	4673(80.6%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 29.29 (0.5%)
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: 0.9067 Length: 4.0000 Height: 0.1980
Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	1818	1818	1818	1818	1818
5.00	1724	1702	1677	1627	1658
10.00	1708	1646	1631	1624	1524
15.00	1678	1614	1569	1520	1635
20.00	1586	1531	1496	1561	1523
25.00	1529	1455	1475	1520	1555
30.00	1419	1366	1452	1640	1704
35.00	1339	1309	1448	1685	1688
40.00	1238	1218	1480	1642	1652
45.00	1099	1138	1446	1444	1460
50.00	951	1086	1318	1299	1293
55.00	855	1004	1140	1090	1044
60.00	694	884	929	930	965
65.00	573	745	744	794	780
70.00	426	560	611	602	599
75.00	327	398	434	442	443
80.00	216	246	273	315	320
85.00	95.0	110	125	107	105
90.00	14.8	11.2	0.940	0.000	0.000

Zonal Lumens

Cone	Between	Lumens
0.0	0.0- 2.5	10.87
5.0	2.5- 7.5	79.99
10.0	7.5- 12.5	155.08
15.0	12.5- 17.5	225.54
20.0	17.5- 22.5	287.90
25.0	22.5- 27.5	347.05
30.0	27.5- 32.5	412.46
35.0	32.5- 37.5	468.08
40.0	37.5- 42.5	509.54
45.0	42.5- 47.5	514.32
50.0	47.5- 52.5	506.49
55.0	52.5- 57.5	469.70
60.0	57.5- 62.5	423.90
65.0	62.5- 67.5	367.50
70.0	67.5- 72.5	294.20
75.0	72.5- 77.5	219.62
80.0	77.5- 82.5	148.66
85.0	82.5- 87.5	60.36
90.0	87.5- 92.5	2.69

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	1305	22.5	23.7
0- 40	2235	38.5	40.6
0- 60	4196	72.3	76.2
0- 90	5503	94.9	100.0
90-120	1	0.0	0.0
90-130	1	0.0	0.0
90-150	1	0.0	0.0
90-180	1	0.0	0.0
0-180	5504	94.9	100.0

Total Luminaire Optical Efficiency = 94.9%

Luminaire Spacing Criterion:

0 deg	90 deg
1.17	1.43

Average Luminaire Luminance (cd/m²):

	0	45	90
0	5394.44	5394.44	5394.44
45	4394.38	5104.50	5031.05
50	4144.95	4964.72	4739.15
55	4134.00	4643.28	4118.31
60	3794.71	4151.82	4157.09
65	3636.85	3717.48	3728.63
70	3251.28	3485.98	3246.36
75	3168.24	2916.27	2797.92
80	2887.43	2248.04	2441.26
85	2066.28	1347.14	1018.71

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	110	110	110	110	105	105	105
1	102	97	93	89	99	95	91	88	91	88	85
2	92	84	77	72	90	82	76	71	79	74	69
3	84	73	65	59	81	72	64	58	69	62	57
4	76	64	56	49	74	63	55	49	61	54	48
5	70	57	48	42	68	56	48	42	54	47	41
6	64	51	42	36	62	50	42	36	49	41	36
7	59	46	38	32	58	45	37	32	44	37	31
8	55	42	34	28	54	41	33	28	40	33	28
9	51	38	30	25	50	38	30	25	37	30	25
10	48	35	28	22	47	35	27	22	34	27	22

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	100	100	100	96	96	96	94
1	87	85	82	84	82	80	78
2	76	71	67	73	69	66	64
3	66	61	56	64	59	55	53
4	59	52	47	56	51	47	45
5	52	46	41	50	45	40	38
6	47	40	35	45	40	35	33
7	43	36	31	41	35	31	29
8	39	32	28	38	32	27	25
9	36	29	25	35	29	24	23
10	33	27	22	32	26	22	20