

Photometric Report - (ecs-exw4-mn-532-unv-23n-a0w) - Page 1 of 4

Sat Jul 18 18:22:53 2009

IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-exw4-mn-532-unv-23n-a0w

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
5005(34.5%)	1
5296(36.5%)	2
1361(9.4%)	3
679(4.7%)	4
350(2.4%)	5
12693(87.5%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
227(1.6%)	3466(23.9%)	LAMP-F032311
18(0.1%)	287(2.0%)	LAMP-F032312
632(4.4%)	11115(76.7%)	Refl-Poly1
62(0.4%)	629(4.3%)	Refl-Poly2
14(0.1%)	14736(101.6%)	Tran-Lens1
956(6.6%)	30235(208.5%)	Total

Absorbed(%)	Incident(%)	Material Name
246(1.7%)	3753(25.9%)	PHOSGLAS
632(4.4%)	11115(76.7%)	ALMIRO04
62(0.4%)	629(4.3%)	PAINT006
14(0.1%)	14736(101.6%)	ACRYLIC1
956(6.6%)	30235(208.5%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 850.82 (5.9%)
 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: 5 Lumens per Lamp: 2900
Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00
Luminaire Width: 1.8791 Length: 4.0000 Height: 0.2634
Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	5194	5194	5194	5194	5194
5.00	5168	5201	5293	5332	5295
10.00	5128	5242	5253	5234	5245
15.00	5201	5043	5121	5059	4915
20.00	4892	4967	4757	4617	4401
25.00	4662	4713	4436	4098	3957
30.00	4459	4449	3953	3504	3529
35.00	4133	4045	3454	3193	3124
40.00	3805	3579	3063	2814	2739
45.00	3479	3129	2639	2596	2761
50.00	2994	2658	2297	2683	2817
55.00	2532	2130	2100	2451	2396
60.00	2045	1631	1930	1990	1979
65.00	1548	1290	1549	1571	1570
70.00	969	936	1075	1122	1133
75.00	573	603	674	696	720
80.00	251	275	314	299	272
85.00	58.1	64.1	42.8	32.0	27.5
90.00	1.39	1.73	0.370	0.350	0.000

Zonal Lumens		
Cone	Between	Lumens
0.0	0.0- 2.5	31.06
5.0	2.5- 7.5	251.50
10.0	7.5- 12.5	497.70
15.0	12.5- 17.5	719.27
20.0	17.5- 22.5	889.96
25.0	22.5- 27.5	1016.77
30.0	27.5- 32.5	1089.41
35.0	32.5- 37.5	1125.62
40.0	37.5- 42.5	1121.11
45.0	42.5- 47.5	1112.71
50.0	47.5- 52.5	1106.88
55.0	52.5- 57.5	1026.53
60.0	57.5- 62.5	897.54
65.0	62.5- 67.5	741.22
70.0	67.5- 72.5	538.80
75.0	72.5- 77.5	346.79
80.0	77.5- 82.5	155.12
85.0	82.5- 87.5	24.82
90.0	87.5- 92.5	0.43

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0- 30	3930	27.1	31.0
0- 40	6167	42.5	48.6
0- 60	10432	71.9	82.2
0- 90	12693	87.5	100.0
90-120	0	0.0	0.0
90-130	0	0.0	0.0
90-150	0	0.0	0.0
90-180	0	0.0	0.0
0-180	12693	87.5	100.0

Total Luminaire Optical Efficiency = 87.5%

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Luminaire Spacing Criterion:

0 deg	90 deg
1.26	1.05

Average Luminaire Luminance (cd/m²):

	0	45	90
0	7438.99	7438.99	7438.99
45	6611.47	4664.96	4904.30
50	6185.69	4360.59	5377.21
55	5778.42	4340.56	4985.16
60	5258.11	4414.07	4560.40
65	4595.99	3999.06	4089.45
70	3434.15	3215.86	3426.29
75	2546.20	2415.51	2617.28
80	1506.99	1419.88	1250.40
85	545.01	264.15	173.47

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	104	104	104	104	101	101	101	101	97	97	97
1	96	92	88	85	93	90	87	84	86	84	81
2	87	81	75	70	85	79	74	69	76	72	68
3	80	71	64	59	78	70	63	58	67	62	57
4	73	63	56	50	71	62	55	50	60	54	49
5	68	57	49	43	66	56	48	43	54	47	43
6	62	51	43	38	61	50	43	38	49	42	38
7	58	46	39	34	56	46	39	34	44	38	33
8	54	42	35	30	53	42	35	30	41	34	30
9	51	39	32	27	49	39	32	27	38	31	27
10	47	36	29	25	46	36	29	25	35	29	25

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	93	93	93	89	89	89	87
1	83	81	79	80	78	76	75
2	73	69	66	70	67	65	63
3	65	60	56	63	59	55	53
4	58	53	48	56	51	48	46
5	52	47	42	50	46	42	40
6	47	42	37	46	41	37	35
7	43	37	33	42	37	33	31
8	40	34	30	39	33	30	28
9	37	31	27	36	31	27	25
10	34	28	24	33	28	24	23