

Photometric Report - (ecs-smv4-ms-132-unv-11n-cal) - Page 1 of 4

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IESNA:LM-63-1995

Photopia 2.0.0.17 PHOTOMETRIC REPORT

PROJECT: ecs-smv4-ms-132-unv-11n-cal

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 500066 initial lamp rays.
Photometric test distance of 20.00 feet.

LUMENS EXITING SYSTEM:

Lumens(%)	Reflection
0(0.0%)	0
1010(34.8%)	1
1077(37.1%)	2
92(3.2%)	3
222(7.7%)	4
76(2.6%)	5
2479(85.5%)	Total

LUMEN INTERACTION WITH SYSTEM:

Absorbed(%)	Incident(%)	Layer Name
62(2.1%)	942(32.5%)	LAMP-F032311
3(0.1%)	49(1.7%)	LAMP-F032312
132(4.6%)	2422(83.5%)	Refl-Poly1
2(0.1%)	2810(96.9%)	Tran-Lens1
200(6.9%)	6225(214.7%)	Total

Absorbed(%)	Incident(%)	Material Name
65(2.3%)	992(34.2%)	PHOSGLAS
132(4.6%)	2422(83.5%)	ALMIRO04
2(0.1%)	2810(96.9%)	ACRYLIC1
200(6.9%)	6225(214.7%)	Total

UNACCOUNTED LUMENS:

reached interreflection limit: 220.08 (7.6%)
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: 1 Lumens per Lamp: 2900
 Ballast Factor: 1.00 Ballast-Lamp Photometric Factor: 1.00
 Luminaire Width: 0.3080 Length: 4.0000 Height: 0.1906
 Photometry Type: C Units: feet

Candela Distribution:

	0.00	22.50	45.00	67.50	90.00
0.00	769	769	769	769	769
5.00	779	753	771	745	730
10.00	746	740	775	776	755
15.00	727	729	764	742	740
20.00	699	728	713	741	736
25.00	663	693	718	738	784
30.00	656	661	701	806	852
35.00	590	636	720	827	836
40.00	565	590	735	752	723
45.00	518	553	673	675	688
50.00	444	530	591	634	663
55.00	385	477	521	568	588
60.00	320	404	470	455	411
65.00	264	329	360	269	237
70.00	200	253	215	165	166
75.00	136	155	118	101	94.4
80.00	84.3	82.5	55.5	38.5	29.6
85.00	40.2	25.6	10.4	4.30	2.26
90.00	13.5	7.64	3.29	1.37	0.830
95.00	17.3	7.01	1.88	0.500	0.160
100.00	15.9	6.65	1.67	0.280	0.000
105.00	12.6	5.87	1.73	0.770	0.080
110.00	9.62	6.49	2.40	0.250	0.080
115.00	4.27	4.39	1.76	1.33	0.700
120.00	4.11	3.67	1.15	1.42	1.59
125.00	2.59	2.74	0.770	0.450	0.600
130.00	1.35	1.63	0.840	0.100	0.000
135.00	1.89	0.810	0.570	0.170	0.000
140.00	0.470	0.720	0.380	0.000	0.000
145.00	0.830	0.640	0.270	0.000	0.000
150.00	0.320	0.400	0.160	0.000	0.000
155.00	0.190	0.370	0.090	0.000	0.000
160.00	0.230	0.120	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	4.60
5.0	2.5- 7.5	36.11
10.0	7.5- 12.5	72.37
15.0	12.5- 17.5	105.30
20.0	17.5- 22.5	135.85
25.0	22.5- 27.5	166.37
30.0	27.5- 32.5	200.19
35.0	32.5- 37.5	227.66
40.0	37.5- 42.5	239.72
45.0	42.5- 47.5	242.58
50.0	47.5- 52.5	242.28
55.0	52.5- 57.5	230.39
60.0	57.5- 62.5	200.97
65.0	62.5- 67.5	150.06
70.0	67.5- 72.5	105.13
75.0	72.5- 77.5	64.75
80.0	77.5- 82.5	31.52
85.0	82.5- 87.5	8.40
90.0	87.5- 92.5	2.67
95.0	92.5- 97.5	2.47
100.0	97.5-102.5	2.24
105.0	102.5-107.5	1.95
110.0	107.5-112.5	1.80
115.0	112.5-117.5	1.24
120.0	117.5-122.5	1.08
125.0	122.5-127.5	0.62
130.0	127.5-132.5	0.34
135.0	132.5-137.5	0.24
140.0	137.5-142.5	0.12
145.0	142.5-147.5	0.10
150.0	147.5-152.5	0.05
155.0	152.5-157.5	0.03
160.0	157.5-162.5	0.01
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	617	21.3	24.9
0- 40	1065	36.7	43.0
0- 60	2003	69.1	80.8
0- 90	2466	85.0	99.5
90-120	12	0.4	0.5
90-130	13	0.4	0.5
90-150	14	0.5	0.5
90-180	14	0.5	0.5
0-180	2479	85.5	100.0

Total Luminaire Optical Efficiency = 85.5%

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Luminaire Spacing Criterion:

0 deg	90 deg
1.24	1.54

Average Luminaire Luminance (cd/m²):

	0	45	90
0	6716.02	6716.02	6716.02
45	6107.40	5652.30	5248.22
50	5709.02	5142.52	5189.50
55	5495.92	4744.95	4754.11
60	5164.46	4516.92	3469.20
65	4957.43	3703.39	2107.51
70	4521.87	2397.53	1573.28
75	3883.07	1445.21	962.91
80	3338.01	760.61	330.71
85	2608.71	163.09	28.06

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	101	101	101	101	99	99	99	99	94	94	94	
1	93	89	85	82	90	87	84	81	83	81	78	
2	84	77	72	67	82	76	70	66	73	68	64	
3	77	68	61	55	74	66	60	55	64	58	54	
4	70	60	52	46	68	59	52	46	56	50	45	
5	64	53	45	40	62	52	45	39	50	44	39	
6	59	47	40	34	57	47	39	34	45	39	34	
7	54	43	35	30	53	42	35	30	41	34	30	
8	51	39	32	26	49	38	31	26	37	31	26	
9	47	35	28	24	46	35	28	24	34	28	23	
10	44	33	26	21	43	32	26	21	31	25	21	

pcc	.3			.1			0
pw	.5	.3	.1	.5	.3	.1	0
RCR							
0	90	90	90	86	86	86	84
1	80	78	76	77	75	73	72
2	70	66	63	67	64	61	60
3	61	57	53	59	55	52	50
4	54	49	45	52	48	44	42
5	48	43	38	47	42	38	36
6	44	38	33	42	37	33	31
7	39	34	29	38	33	29	27
8	36	30	26	35	30	26	24
9	33	27	23	32	27	23	21
10	30	25	21	30	24	21	19