

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : SG(2)450.IES**

**DESCRIPTIVE INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] 07581  
[TESTLAB] LUMINAIRE TESTING LABORATORY, INC.  
[TESTDATE] 08-14-2003  
[ISSUE DATE] 10/14/03  
[MANUFAC] ENERGY PLUS LIGHTING  
[LUMCAT] SG-(2)450-480-DB  
[LUMINAIRE] FORMED ALUMINUM HOUSING, FORMED SEGMENTED SPECULAR  
[MORE] ALUMINUM REFLECTORS WITH SPECULAR HAMMERTONE SECTION  
[MORE] ABOVE LAMPS, CLEAR POLYCARBONATE ENCLOSURE.  
[LAMP CAT] VENTURE MS450/BU/PS LUMENS = 50,000/LAMP  
[LAMP] TWO CLEAR VBU M144 450 WATT ED37 PULSE START LAMPS  
[BALLAST]  
[LAMP POSITION] VERTICAL

**CHARACTERISTICS**

IES Classification	Type IV
Longitudinal Classification	Short
Cutoff Classification	Semi-Cutoff
Total Rated Lamp Lumens	100000 (2 lamps)
Maximum Candela	34623
Maximum Candela Angle	90H 65V
Maximum Candela At 90 Degrees Vertical	1262 (1.26% Lamp Lms)
Maximum Candela At 80 Degrees Vertical	15049 (15.05% Lamp Lms)
Downward Total Efficiency	85.0%

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**CANDELA TABULATION**

Vert. Angles	Horizontal Angles									
	<u>0</u>	<u>5</u>	<u>15</u>	<u>25</u>	<u>35</u>	<u>45</u>	<u>55</u>	<u>65</u>	<u>75</u>	<u>85</u>
<b>0</b>	12302	12302	12302	12302	12302	12302	12302	12302	12302	12302
<b>5</b>	14680	14465	14219	14003	13741	13588	13495	13326	13280	13449
<b>15</b>	14372	14757	14080	13541	13341	12757	12418	12541	12710	11695
<b>25</b>	12557	13418	14711	13495	13188	13480	12157	10802	10572	10202
<b>35</b>	11479	11326	12018	11910	12018	11649	11679	10756	8817	8417
<b>45</b>	13141	13357	10587	11541	15450	12880	12310	15111	10079	8171
<b>55</b>	16034	16465	15219	23067	23590	16434	20051	19543	14711	14634
<b>60</b>	18650	22405	13834	23759	30822	17111	20666	23067	15773	25282
<b>62.5</b>	23913	27498	14649	27191	32976	17681	22097	22590	13464	27144
<b>65</b>	24682	29206	14511	29730	28899	15480	26160	24113	12726	26683
<b>67.5</b>	21235	26514	13157	28006	27360	14557	24251	21866	15065	26175
<b>70</b>	16834	22897	11941	24313	25359	14249	17481	24282	17435	20620
<b>72.5</b>	17758	20651	12310	20666	24298	10895	16727	21512	15896	20635
<b>75</b>	13634	16234	11541	15265	22159	10279	15311	17404	11849	18373
<b>77.5</b>	11141	13480	10495	13895	19173	10187	12664	12018	8802	13772
<b>80</b>	8371	8956	7863	9741	11618	8925	9125	7832	6278	6909
<b>82.5</b>	4370	4201	4309	4940	5586	5417	5570	4509	3478	3416
<b>85</b>	1570	1508	1508	1816	2154	2324	2277	2000	1631	1616
<b>87.5</b>	1262	1200	1231	1416	1370	1446	1631	1462	1323	1231
<b>90</b>	923	939	908	1108	969	1077	1262	1185	1077	969
<b>95</b>	400	431	462	600	415	431	600	662	585	400
<b>105</b>	123	246	277	262	262	246	262	308	246	246
<b>115</b>	0	31	15	62	31	15	46	62	46	46
<b>125</b>	0	62	62	31	62	62	46	46	31	62
<b>135</b>	0	31	46	46	62	62	46	62	62	46
<b>145</b>	0	0	0	0	0	0	0	0	0	0
<b>155</b>	0	0	0	0	0	0	0	0	0	0
<b>165</b>	0	0	0	0	0	0	0	0	0	0
<b>175</b>	0	0	0	0	0	0	0	0	0	0
<b>180</b>	0	0	0	0	0	0	0	0	0	0

Vert. Angles	Horizontal Angles									
	<u>90</u>	<u>95</u>	<u>105</u>	<u>115</u>	<u>125</u>	<u>135</u>	<u>145</u>	<u>155</u>	<u>165</u>	<u>175</u>
<b>0</b>	12302	12302	12302	12302	12302	12302	12302	12302	12302	12302
<b>5</b>	13372	13464	13603	13511	13895	14219	14665	14742	15203	15249
<b>15</b>	11541	11495	12387	12803	12834	13480	13357	13203	13741	14203
<b>25</b>	10079	9741	10572	10941	13188	13818	13418	13818	13603	12664
<b>35</b>	8233	9233	9187	10664	11433	11772	12095	12126	11787	10879
<b>45</b>	9602	8079	9771	13988	10418	12033	11833	12757	10433	10618
<b>55</b>	22913	14219	15480	22728	22882	13172	19697	18619	12033	16942
<b>60</b>	29683	23544	16404	25113	24128	15157	25098	20543	12803	23590
<b>62.5</b>	33453	24313	14619	27714	21435	14896	28606	24605	15480	26021
<b>65</b>	34623	26852	13680	22990	21774	13018	29053	26652	15988	26006
<b>67.5</b>	28745	25575	14973	21359	25821	12695	26683	25082	17850	24221
<b>70</b>	24452	23251	18373	22574	21359	12110	24498	21666	16419	22528
<b>72.5</b>	25098	21620	15203	19358	18127	11664	19774	20666	16296	19404
<b>75</b>	24682	19527	13372	15650	15619	11264	18850	14803	15911	14803
<b>77.5</b>	21251	15019	9602	11849	13649	10695	18496	13541	15450	12064
<b>80</b>	15049	8817	7848	8833	9479	9110	11279	10433	11064	9017
<b>82.5</b>	3939	3462	3662	4586	4801	4970	5201	4693	4432	4463
<b>85</b>	1954	1693	1631	1847	1877	1893	1785	1554	1431	1385
<b>87.5</b>	1262	1185	1246	1477	1508	1385	1431	1277	1216	1139

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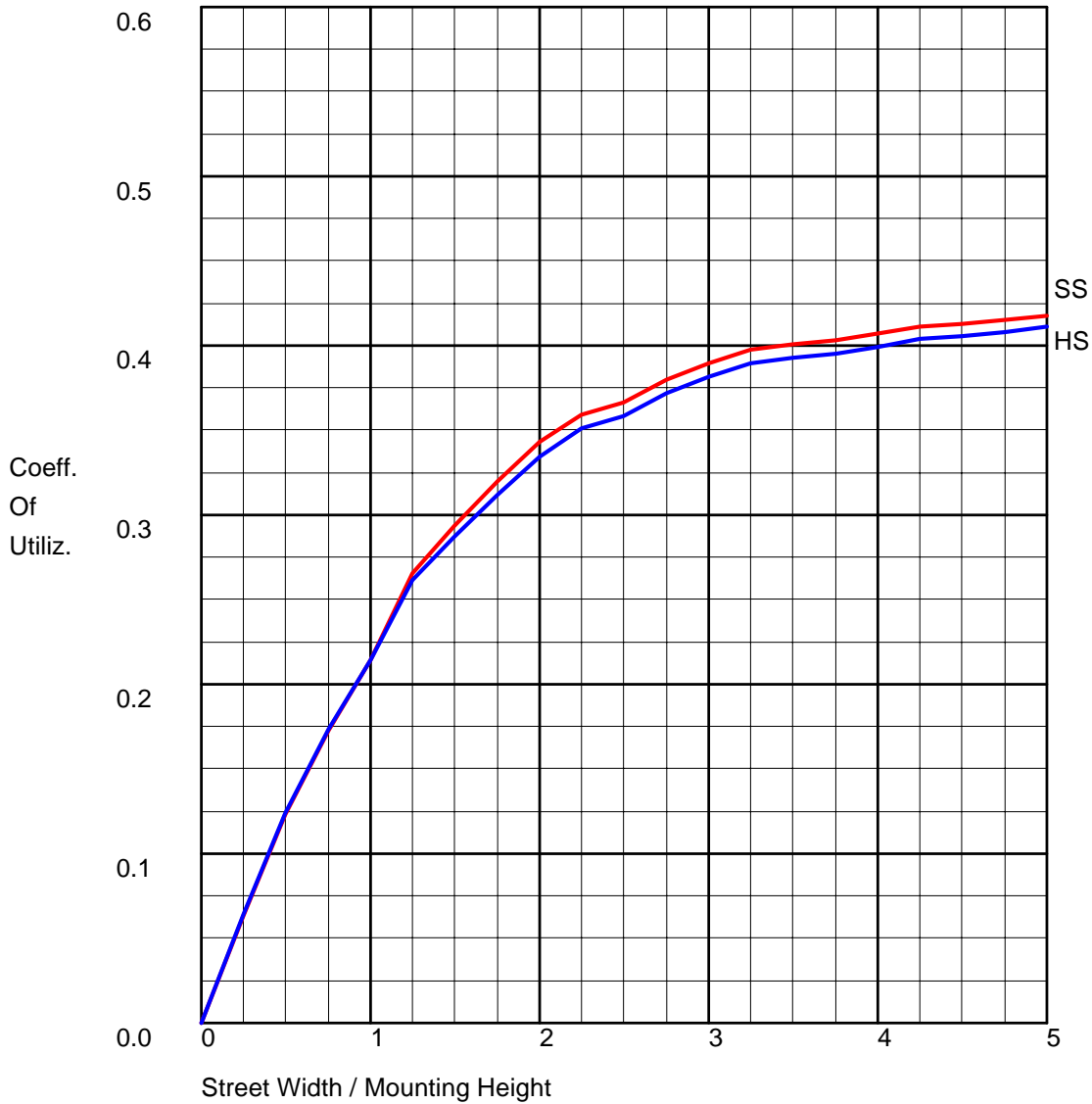
**CANDELA TABULATION - (Cont.)**

<b>90</b>	1000	985	1046	1169	1246	1046	1046	1062	923	862
<b>95</b>	354	431	539	631	569	431	431	569	431	400
<b>105</b>	231	231	246	292	277	262	277	262	292	200
<b>115</b>	15	15	46	77	31	31	62	77	62	15
<b>125</b>	46	62	62	62	62	92	77	62	31	62
<b>135</b>	62	31	62	31	31	62	62	46	46	31
<b>145</b>	0	0	0	0	0	0	0	0	0	0
<b>155</b>	0	0	0	0	0	0	0	0	0	0
<b>165</b>	0	0	0	0	0	0	0	0	0	0
<b>175</b>	0	0	0	0	0	0	0	0	0	0
<b>180</b>	0	0	0	0	0	0	0	0	0	0

**Vert. Horizontal Angles**

	<b>180</b>
<b>0</b>	12302
<b>5</b>	15142
<b>15</b>	14249
<b>25</b>	12834
<b>35</b>	11356
<b>45</b>	11264
<b>55</b>	17235
<b>60</b>	23544
<b>62.5</b>	28098
<b>65</b>	30745
<b>67.5</b>	25821
<b>70</b>	22774
<b>72.5</b>	20528
<b>75</b>	14003
<b>77.5</b>	10802
<b>80</b>	8156
<b>82.5</b>	4093
<b>85</b>	1416
<b>87.5</b>	1200
<b>90</b>	708
<b>95</b>	400
<b>105</b>	92
<b>115</b>	62
<b>125</b>	62
<b>135</b>	31
<b>145</b>	0
<b>155</b>	0
<b>165</b>	0
<b>175</b>	0
<b>180</b>	0

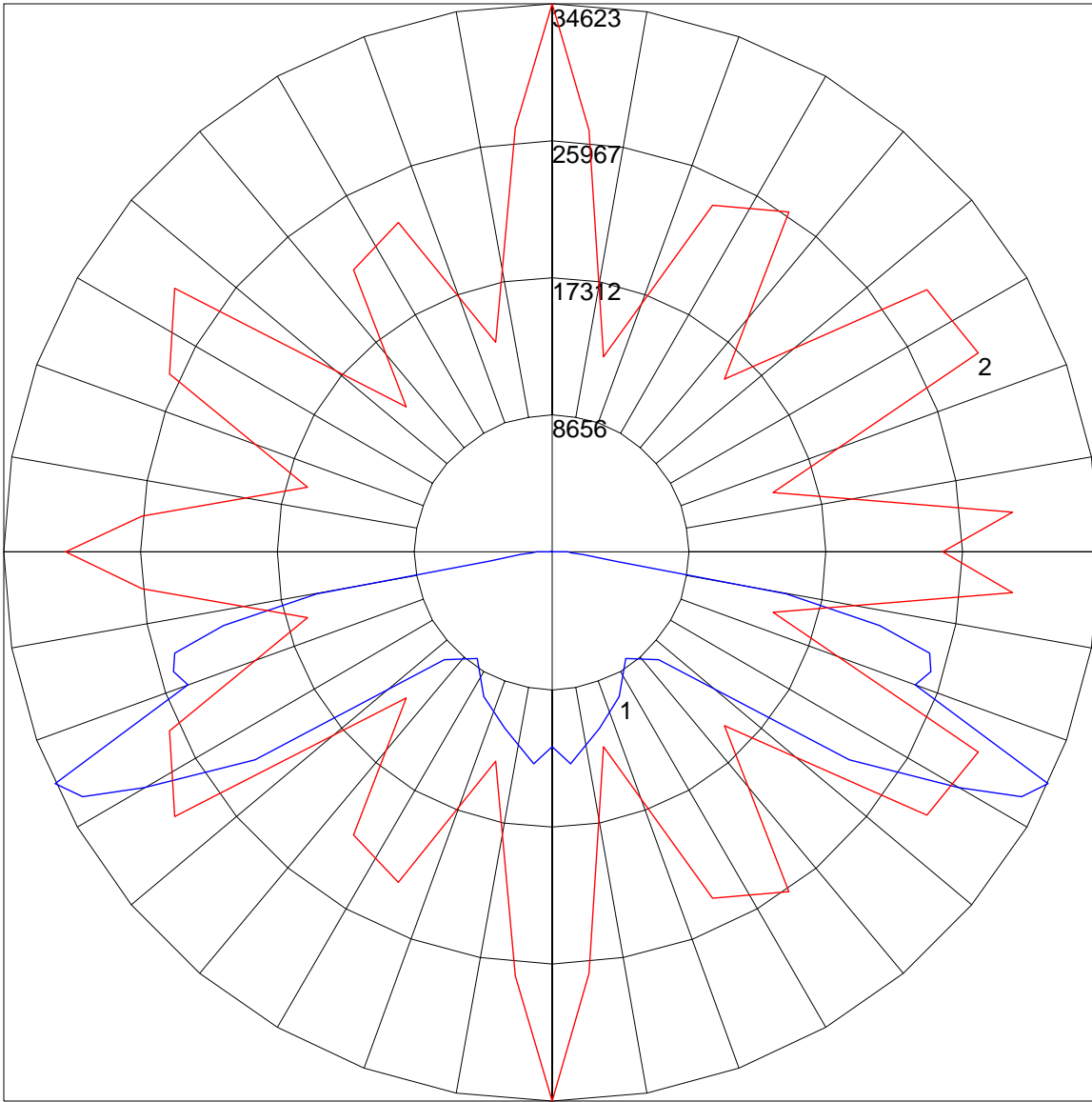
**COEFFICIENTS OF UTILIZATION**



**FLUX DISTRIBUTION**

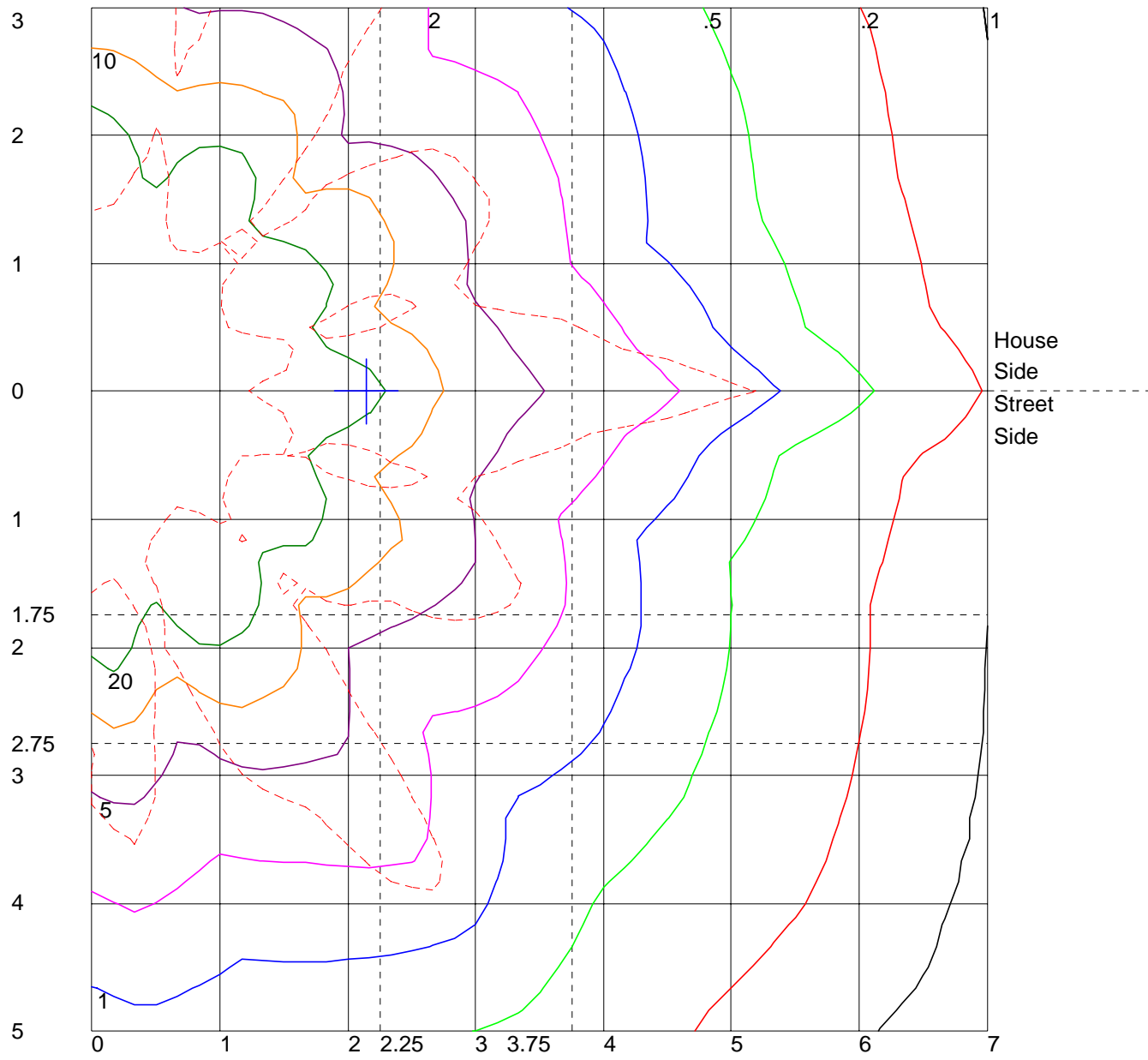
	Lumens	Percent Of Lamp
Downward Street Side	42853.0	42.9
Downward House Side	42151.6	42.2
Downward Total	85004.6	85.0
Upward Street Side	547.0	0.5
Upward House Side	546.2	0.5
Upward Total	1093.2	1.1
<b>Total Flux</b>	<b>86097.8</b>	<b>86.1</b>

POLAR GRAPH



Maximum Candela = 34623 Located At Horizontal Angle = 90, Vertical Angle = 65  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



Distance In Units Of Mounting Height  
Values Based On 10 Foot Mounting Height  
1/2 Maximum Candela Trace Shown As Dashed Curve  
(+) = Maximum Candela Point