

**IES INDOOR REPORT**
**PHOTOMETRIC FILENAME : SP-00511\_7 ~ SW1509GV-27L35K-EX-TF1-MWI.IES**
**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] SP-00511\_7  
 [TESTLAB] Spectrum Photometric Lab VLS-245-981  
 [MANUFAC] Spectrum Lighting  
 [ISSUEDATE] 4/20/2018  
 [UPDATE] 4/26/2018  
 [LUMCAT] SW1509GV-27L-35K-EX-TF1-MWI  
 [LUMINAIRE] Nom. 15" diam x 9" H, Short Warehouse Shade  
 [OTHER] Regressed, 6" diam. low profile frosted glass diffuser  
 [OTHER] Reflector: Matte White interior finish  
 [OTHER] Beam Angle: 98 degrees  
 [LAMP] N/A, Gen3  
 [LAMPCAT] N/A  
 [OTHER] Total Luminaire Watts is approximate  
 [OTHER] CCT Multipliers: 27K x 0.971, 30K x 0.985, 40K x 1.03  
 [OTHER] This report generated by Spectrum Lighting  
 [\_CRI]85+

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2008
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	18
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.10
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Circular
Luminous Length (0-180)	1.21 ft (Diameter)
Luminous Width (90-270)	1.21 ft (Diameter)
Luminous Height	0.00 ft

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00511\_7 ~ SW1509GV-27L35K-EX-TF1-MWI.IES****LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6011	6158	6381
55	5311	5534	5833
65	4412	4730	5091
75	3819	4132	4445
85	3183	3327	3445

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
<b>0.0</b>	846.662	846.662	846.662	846.662	846.662	846.662	846.662	846.662	846.662	846.662
<b>2.5</b>	843.223	842.876	844.869	846.956	846.265	845.427	844.627	845.870	843.554	841.759
<b>5.0</b>	837.437	838.382	839.480	843.059	843.253	841.909	841.545	839.815	838.802	835.881
<b>7.5</b>	825.657	828.009	830.545	834.433	836.001	835.302	831.460	827.806	827.407	824.747
<b>10.0</b>	811.133	816.023	816.919	823.634	826.054	824.645	820.520	813.458	814.112	810.664
<b>12.5</b>	791.926	797.159	800.033	807.656	811.645	807.281	804.213	796.679	795.869	791.392
<b>15.0</b>	770.397	776.945	779.258	789.824	793.949	787.644	787.580	776.725	776.605	772.001
<b>17.5</b>	745.578	752.934	756.240	769.054	771.857	764.923	764.409	754.045	754.909	752.436
<b>20.0</b>	719.071	728.423	731.731	747.477	748.724	741.665	741.081	730.939	732.872	730.648
<b>22.5</b>	690.623	700.807	706.538	722.445	724.459	717.807	715.415	707.532	708.571	706.227
<b>25.0</b>	664.009	672.963	680.871	696.715	699.598	691.623	689.573	682.257	684.085	681.912
<b>27.5</b>	639.112	646.914	655.035	670.859	674.195	663.323	661.956	655.919	660.466	657.700
<b>30.0</b>	614.517	620.898	628.527	644.986	648.127	637.107	634.439	630.370	636.845	633.742
<b>32.5</b>	590.159	594.900	601.830	618.767	621.569	612.479	607.561	605.190	612.264	609.989
<b>35.0</b>	564.366	568.856	575.186	592.522	594.557	586.260	581.035	579.975	587.752	585.426
<b>37.5</b>	537.663	542.278	548.554	565.108	567.276	559.061	556.053	554.749	564.138	560.336
<b>40.0</b>	510.721	515.534	521.670	537.604	540.149	531.968	530.758	529.191	540.263	535.562
<b>42.5</b>	483.658	487.678	494.753	508.014	513.100	504.926	504.455	503.541	514.534	510.953
<b>45.0</b>	454.499	459.329	465.595	478.255	482.498	476.063	477.666	476.123	488.093	482.373
<b>47.5</b>	424.473	428.697	436.265	446.398	450.526	446.472	449.631	448.339	458.112	452.096
<b>50.0</b>	392.344	397.775	404.209	414.495	419.884	416.055	420.851	418.323	427.869	420.829
<b>52.5</b>	359.548	365.857	372.080	382.266	389.630	385.385	390.573	388.003	396.688	389.236
<b>55.0</b>	325.748	333.680	339.429	350.000	357.757	353.433	359.455	354.544	364.821	354.744
<b>57.5</b>	291.714	300.825	306.868	317.564	325.522	321.194	326.987	320.852	331.097	319.527
<b>60.0</b>	259.514	268.304	275.424	285.410	292.322	289.405	293.742	288.535	296.982	286.759
<b>62.5</b>	227.627	236.488	244.117	254.249	258.977	257.687	259.459	256.265	262.013	254.431
<b>65.0</b>	199.399	206.573	213.762	224.164	230.044	227.308	227.308	224.461	228.731	223.220
<b>67.5</b>	171.638	179.740	184.833	196.793	201.563	197.196	197.410	193.176	198.268	192.203
<b>70.0</b>	148.486	154.968	160.773	170.754	174.970	171.695	170.166	165.186	169.970	166.452
<b>72.5</b>	126.124	132.005	137.264	146.392	148.666	145.918	144.484	139.000	143.622	141.386
<b>75.0</b>	105.684	111.653	114.360	121.491	123.023	119.490	119.271	115.590	119.784	118.033
<b>77.5</b>	87.368	91.546	92.671	97.006	98.632	94.549	94.779	90.862	95.220	92.880
<b>80.0</b>	68.623	71.235	71.238	73.939	74.802	70.728	71.384	67.336	68.673	67.253
<b>82.5</b>	48.352	53.906	50.561	52.252	51.841	48.831	49.548	46.175	45.217	43.875
<b>85.0</b>	29.664	32.658	31.005	34.352	32.106	30.266	27.537	28.009	27.696	27.018
<b>87.5</b>	14.256	16.265	14.191	17.008	17.249	15.243	15.900	12.594	12.429	10.820
<b>90.0</b>	3.517	1.835	3.360	3.130	5.003	4.140	1.303	3.099	1.331	2.893
<b>92.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>95.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>97.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>100.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>102.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>105.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>107.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>110.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>112.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>115.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>117.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>120.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>122.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>125.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**CANDELA TABULATION - (Cont.)**

127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Vert. Horizontal Angles**

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	846.662	846.662	846.662	846.662	846.662	846.662	846.662
2.5	842.862	841.245	841.726	843.540	842.222	843.014	843.223
5.0	835.259	833.349	833.806	837.341	836.214	835.132	837.437
7.5	824.452	822.750	822.185	824.891	823.667	823.463	825.657
10.0	811.097	808.436	809.440	810.578	809.210	809.812	811.133
12.5	793.518	789.794	791.113	792.359	789.193	790.495	791.926
15.0	773.222	769.418	771.517	773.292	768.128	768.841	770.397
17.5	751.144	747.352	747.816	749.676	744.654	746.120	745.578
20.0	728.133	724.588	723.481	725.378	720.396	723.055	719.071
22.5	704.870	701.272	699.292	700.803	694.693	696.698	690.623
25.0	681.500	676.500	675.117	676.203	668.816	669.537	664.009
27.5	657.039	650.794	649.911	651.131	642.683	642.508	639.112
30.0	632.223	625.733	624.638	625.998	615.880	615.500	614.517
32.5	608.193	601.015	597.475	598.109	588.247	590.952	590.159
35.0	584.356	575.578	570.316	570.152	561.082	566.679	564.366
37.5	557.221	549.839	543.238	541.219	534.388	539.410	537.663
40.0	529.510	522.907	515.953	512.597	506.833	511.981	510.721
42.5	501.877	495.590	486.972	486.365	478.574	482.975	483.658
45.0	474.253	465.017	457.738	459.241	448.739	453.913	454.499
47.5	443.570	433.631	427.172	427.432	417.827	423.715	424.473
50.0	412.715	401.409	396.042	395.157	385.346	393.066	392.344
52.5	380.437	369.041	362.715	361.144	352.003	358.260	359.548
55.0	348.118	336.017	329.437	327.327	319.455	323.737	325.748
57.5	315.073	302.922	296.305	294.059	287.253	290.838	291.714
60.0	282.209	270.368	263.741	261.914	256.138	258.305	259.514
62.5	251.094	237.845	232.461	232.302	225.403	227.299	227.627
65.0	220.369	207.050	202.603	203.176	197.391	197.371	199.399

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**CANDELA TABULATION - (Cont.)**

67.5	191.701	177.033	175.268	174.886	170.082	170.570	171.638
70.0	163.889	153.540	149.955	149.463	145.402	146.028	148.486
72.5	137.834	130.705	126.560	126.690	122.236	124.645	126.124
75.0	114.086	108.994	105.283	107.320	104.243	105.376	105.684
77.5	91.162	84.605	84.201	87.990	86.577	86.827	87.368
80.0	66.942	61.484	62.818	67.465	67.920	68.307	68.623
82.5	44.369	41.486	43.654	45.444	46.826	48.998	48.352
85.0	24.936	24.218	26.548	26.533	27.003	30.583	29.664
87.5	11.113	9.763	10.794	12.550	13.156	13.847	14.256
90.0	1.513	2.353	1.979	1.313	3.490	1.763	3.517
92.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	297.82	N.A.	14.80
0-30	611.43	N.A.	30.50
0-40	972.88	N.A.	48.50
0-60	1639.67	N.A.	81.70
0-80	1973.15	N.A.	98.30
0-90	2007.32	N.A.	100.00
10-90	1928.08	N.A.	96.00
20-40	675.05	N.A.	33.60
20-50	1035.94	N.A.	51.60
40-70	880.37	N.A.	43.90
60-80	333.48	N.A.	16.60
70-80	119.90	N.A.	6.00
80-90	34.17	N.A.	1.70
90-110	0.36	N.A.	0.00
90-120	0.36	N.A.	0.00
90-130	0.36	N.A.	0.00
90-150	0.36	N.A.	0.00
90-180	0.36	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2007.68	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	79.24
10-20	218.59
20-30	313.60
30-40	361.45
40-50	360.89
50-60	305.90
60-70	213.58
70-80	119.90
80-90	34.17
90-100	0.36
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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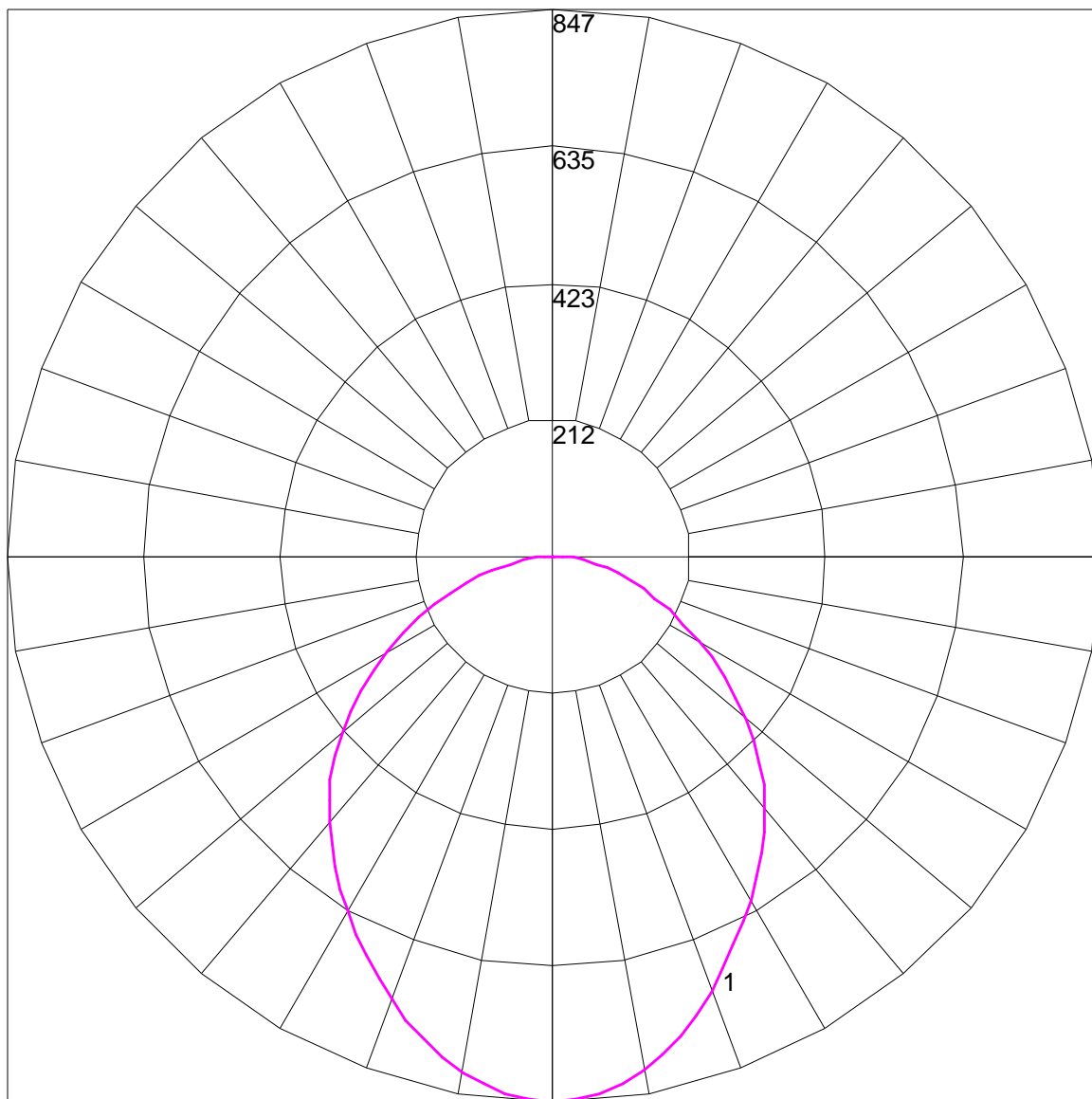
## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	84	72	64	57	82	71	63	57	68	61	56	66	60	55	64	59	54	52
5	77	65	56	50	75	64	55	49	61	54	49	60	53	48	58	52	48	46
6	71	58	50	43	70	58	49	43	56	48	43	54	48	43	52	47	42	40
7	66	53	45	39	65	52	44	38	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	35	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	57	44	36	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : SP-00511\_7 ~ SW1509GV-27L35K-EX-TF1-MWI.IES

POLAR GRAPH



Maximum Candela = 846.956 Located At Horizontal Angle = 67.5, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)