

IES INDOOR REPORT**PHOTOMETRIC FILENAME : ALX16LX-65L35KEX-AL16-FGR.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TESTLAB] Photopia 2018.1.0 see: www.ltiopics.com/ies

[ISSUEDATE]

[TESTDATE] 7/27/2018

[UPDATE] 8/3/2018

[TEST] SP-00467_20_M-65L

[MANUFAC] Spectrum Lighting

[LUMCAT] ALX16LX-65L-35K-EX-AL16-FGR-xx

[LUMINAIRE] 16" Diam. Alum. Reflector LED Tech Pendant w/ Frosted Glass Ring

[OTHER] 22" outside diam. frosted, soda-lime glass ring, 16" diam. Open Center

[OTHER] Matte white, inside reflector finish

[OTHER] 73 Deg. Beam Angle

[OTHER] 98.5% Downlight, 1.5% Uplight

[LAMP] N/A

[LAMPCAT] N/A

[OTHER] Total Luminaire Watts is approximate

[OTHER] CCT Output Multipliers: 40K x 1.03, 30K x 0.979, 27K x 0.959

[OTHER] Adapted from Intertek LX-AL16 test luminaire ref. CRT1709151315-001-006

[OTHER] This report updated by Spectrum Lighting

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5480
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	56.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.08
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	1.33 ft (Diameter)
Luminous Width (90-270)	1.33 ft (Diameter)
Luminous Height	0.92 ft

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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3999	3941	3950
55	2914	2912	2945
65	2010	2019	1996
75	1070	1062	1059
85	262	269	271

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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>
0.0	3594.452	3594.452	3594.452	3594.452	3594.452	3594.452	3594.452	3594.452	3594.452	3594.452
2.5	3601.996	3588.671	3594.304	3587.485	3585.979	3587.485	3594.304	3588.671	3601.996	3588.671
5.0	3609.540	3582.890	3594.156	3580.518	3577.506	3580.518	3594.156	3582.890	3609.540	3582.890
7.5	3563.614	3535.228	3552.266	3553.708	3550.574	3553.708	3552.266	3535.228	3563.614	3535.228
10.0	3517.688	3487.565	3510.375	3526.898	3523.641	3526.898	3510.375	3487.565	3517.688	3487.565
12.5	3425.620	3427.126	3422.328	3437.668	3430.171	3437.668	3422.328	3427.126	3425.620	3427.126
15.0	3333.552	3366.687	3334.281	3348.437	3336.700	3348.437	3334.281	3366.687	3333.552	3366.687
17.5	3204.008	3232.258	3216.528	3223.773	3209.304	3223.773	3216.528	3232.258	3204.008	3232.258
20.0	3074.463	3097.828	3098.774	3099.108	3081.908	3099.108	3098.774	3097.828	3074.463	3097.828
22.5	2962.634	2972.482	2971.428	2988.298	2967.239	2988.298	2971.428	2972.482	2962.634	2972.482
25.0	2850.805	2847.135	2844.081	2877.488	2852.570	2877.488	2844.081	2847.135	2850.805	2847.135
27.5	2748.777	2745.163	2750.926	2762.620	2752.535	2762.620	2750.926	2745.163	2748.777	2745.163
30.0	2646.749	2643.191	2657.770	2647.751	2652.499	2647.751	2657.770	2643.191	2646.749	2643.191
32.5	2365.083	2365.697	2374.756	2370.965	2373.048	2370.965	2374.756	2365.697	2365.083	2365.697
35.0	2083.417	2088.203	2091.742	2094.179	2093.596	2094.179	2091.742	2088.203	2083.417	2088.203
37.5	1644.825	1657.256	1660.343	1663.771	1668.428	1663.771	1660.343	1657.256	1644.825	1657.256
40.0	1206.233	1226.308	1228.944	1233.363	1243.259	1233.363	1228.944	1226.308	1206.233	1226.308
42.5	946.619	951.024	952.994	958.439	960.942	958.439	952.994	951.024	946.619	951.024
45.0	687.005	675.739	677.043	683.514	678.624	683.514	677.043	675.739	687.005	675.739
47.5	628.463	624.493	623.727	624.771	623.933	624.771	623.727	624.493	628.463	624.493
50.0	569.920	573.247	570.410	566.028	569.242	566.028	570.410	573.247	569.920	573.247
52.5	528.717	529.390	528.821	524.136	530.999	524.136	528.821	529.390	528.717	529.390
55.0	487.513	485.532	487.231	482.243	492.756	482.243	487.231	485.532	487.513	485.532
57.5	441.465	444.027	444.251	439.973	448.329	439.973	444.251	444.027	441.465	444.027
60.0	395.417	402.523	401.271	397.704	403.902	397.704	401.271	402.523	395.417	402.523
62.5	356.188	359.795	359.861	356.499	359.355	356.499	359.861	359.795	356.188	359.795
65.0	316.959	317.067	318.450	315.293	314.808	315.293	318.450	317.067	316.959	317.067
67.5	275.099	274.901	276.494	272.200	274.301	272.200	276.494	274.901	275.099	274.901
70.0	233.239	232.735	234.538	229.107	233.794	229.107	234.538	232.735	233.239	232.735
72.5	193.283	192.934	193.408	190.342	192.819	190.342	193.408	192.934	193.283	192.934
75.0	153.326	153.133	152.277	151.576	151.844	151.576	152.277	153.133	153.326	153.133
77.5	118.893	119.130	118.262	117.168	119.029	117.168	118.262	119.130	118.893	119.130
80.0	84.459	85.127	84.247	82.760	86.214	82.760	84.247	85.127	84.459	85.127
82.5	58.553	58.971	58.865	57.595	59.974	57.595	58.865	58.971	58.553	58.971
85.0	32.646	32.815	33.483	32.429	33.733	32.429	33.483	32.815	32.646	32.815
87.5	17.446	17.525	17.761	17.074	17.975	17.074	17.761	17.525	17.446	17.525
90.0	2.245	2.235	2.038	1.718	2.217	1.718	2.038	2.235	2.245	2.235
92.5	3.438	3.650	3.226	3.262	3.808	3.262	3.226	3.650	3.438	3.650
95.0	4.631	5.064	4.414	4.805	5.398	4.805	4.414	5.064	4.631	5.064
97.5	8.506	9.215	8.567	8.824	9.121	8.824	8.567	9.215	8.506	9.215
100.0	12.381	13.365	12.720	12.843	12.843	12.843	12.720	13.365	12.381	13.365
102.5	15.120	15.264	15.330	15.114	15.236	15.114	15.330	15.264	15.120	15.264
105.0	17.859	17.163	17.939	17.384	17.629	17.384	17.939	17.163	17.859	17.163
107.5	16.753	16.864	17.504	16.660	17.222	16.660	17.504	16.864	16.753	16.864
110.0	15.647	16.565	17.069	15.935	16.815	15.935	17.069	16.565	15.647	16.565
112.5	15.676	16.328	16.008	15.909	16.300	15.909	16.008	16.328	15.676	16.328
115.0	15.704	16.090	14.946	15.883	15.784	15.883	14.946	16.090	15.704	16.090
117.5	14.751	14.763	13.911	14.977	14.523	14.977	13.911	14.763	14.751	14.763
120.0	13.798	13.436	12.876	14.071	13.262	14.071	12.876	13.436	13.798	13.436
122.5	13.229	12.716	12.528	13.532	12.773	13.532	12.528	12.716	13.229	12.716
125.0	12.659	11.996	12.179	12.993	12.283	12.993	12.179	11.996	12.659	11.996
127.5	11.323	11.420	11.177	11.885	12.043	11.885	11.177	11.420	11.323	11.420
130.0	9.986	10.843	10.174	10.777	11.803	10.777	10.174	10.843	9.986	10.843
132.5	11.040	10.662	10.334	11.107	11.351	11.107	10.334	10.662	11.040	10.662

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135.0	12.094	10.480	10.494	11.436	10.899	11.436	10.494	10.480	12.094	10.480
137.5	13.414	12.029	12.424	11.998	12.252	11.998	12.424	12.029	13.414	12.029
140.0	14.734	13.577	14.353	12.560	13.605	12.560	14.353	13.577	14.734	13.577
142.5	14.476	14.918	14.382	14.398	14.994	14.398	14.382	14.918	14.476	14.918
145.0	14.217	16.259	14.410	16.236	16.382	16.236	14.410	16.259	14.217	16.259
147.5	14.342	15.855	14.212	15.453	15.137	15.453	14.212	15.855	14.342	15.855
150.0	14.466	15.450	14.014	14.669	13.892	14.669	14.014	15.450	14.466	15.450
152.5	14.812	15.808	14.144	14.373	13.951	14.373	14.144	15.808	14.812	15.808
155.0	15.158	16.165	14.273	14.076	14.010	14.076	14.273	16.165	15.158	16.165
157.5	14.356	14.996	14.805	13.820	14.888	13.820	14.805	14.996	14.356	14.996
160.0	13.553	13.826	15.337	13.563	15.765	13.563	15.337	13.826	13.553	13.826
162.5	14.558	13.593	14.949	13.723	14.699	13.723	14.949	13.593	14.558	13.593
165.0	15.563	13.360	14.560	13.883	13.633	13.883	14.560	13.360	15.563	13.360
167.5	15.031	11.704	13.504	12.916	13.177	12.916	13.504	11.704	15.031	11.704
170.0	14.499	10.047	12.447	11.949	12.720	11.949	12.447	10.047	14.499	10.047
172.5	11.365	10.000	11.217	10.956	12.793	10.956	11.217	10.000	11.365	10.000
175.0	8.231	9.953	9.986	9.963	12.866	9.963	9.986	9.953	8.231	9.953
177.5	9.801	10.662	10.678	10.667	12.118	10.667	10.678	10.662	9.801	10.662
180.0	11.000	11.000	11.000	11.000	11.000	11.000	11.000	11.000	11.000	11.000

Vert. Angles **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	3594.452	3594.452	3594.452	3594.452	3594.452	3594.452	3594.452
2.5	3594.304	3587.485	3585.979	3587.485	3594.304	3588.671	3601.996
5.0	3594.156	3580.518	3577.506	3580.518	3594.156	3582.890	3609.540
7.5	3552.266	3553.708	3550.574	3553.708	3552.266	3535.228	3563.614
10.0	3510.375	3526.898	3523.641	3526.898	3510.375	3487.565	3517.688
12.5	3422.328	3437.668	3430.171	3437.668	3422.328	3427.126	3425.620
15.0	3334.281	3348.437	3336.700	3348.437	3334.281	3366.687	3333.552
17.5	3216.528	3223.773	3209.304	3223.773	3216.528	3232.258	3204.008
20.0	3098.774	3099.108	3081.908	3099.108	3098.774	3097.828	3074.463
22.5	2971.428	2988.298	2967.239	2988.298	2971.428	2972.482	2962.634
25.0	2844.081	2877.488	2852.570	2877.488	2844.081	2847.135	2850.805
27.5	2750.926	2762.620	2752.535	2762.620	2750.926	2745.163	2748.777
30.0	2657.770	2647.751	2652.499	2647.751	2657.770	2643.191	2646.749
32.5	2374.756	2370.965	2373.048	2370.965	2374.756	2365.697	2365.083
35.0	2091.742	2094.179	2093.596	2094.179	2091.742	2088.203	2083.417
37.5	1660.343	1663.771	1668.428	1663.771	1660.343	1657.256	1644.825
40.0	1228.944	1233.363	1243.259	1233.363	1228.944	1226.308	1206.233
42.5	952.994	958.439	960.942	958.439	952.994	951.024	946.619
45.0	677.043	683.514	678.624	683.514	677.043	675.739	687.005
47.5	623.727	624.771	623.933	624.771	623.727	624.493	628.463
50.0	570.410	566.028	569.242	566.028	570.410	573.247	569.920
52.5	528.821	524.136	530.999	524.136	528.821	529.390	528.717
55.0	487.231	482.243	492.756	482.243	487.231	485.532	487.513
57.5	444.251	439.973	448.329	439.973	444.251	444.027	441.465
60.0	401.271	397.704	403.902	397.704	401.271	402.523	395.417
62.5	359.861	356.499	359.355	356.499	359.861	359.795	356.188
65.0	318.450	315.293	314.808	315.293	318.450	317.067	316.959
67.5	276.494	272.200	274.301	272.200	276.494	274.901	275.099
70.0	234.538	229.107	233.794	229.107	234.538	232.735	233.239
72.5	193.408	190.342	192.819	190.342	193.408	192.934	193.283
75.0	152.277	151.576	151.844	151.576	152.277	153.133	153.326
77.5	118.262	117.168	119.029	117.168	118.262	119.130	118.893
80.0	84.247	82.760	86.214	82.760	84.247	85.127	84.459

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CANDELA TABULATION - (Cont.)

82.5	58.865	57.595	59.974	57.595	58.865	58.971	58.553
85.0	33.483	32.429	33.733	32.429	33.483	32.815	32.646
87.5	17.761	17.074	17.975	17.074	17.761	17.525	17.446
90.0	2.038	1.718	2.217	1.718	2.038	2.235	2.245
92.5	3.226	3.262	3.808	3.262	3.226	3.650	3.438
95.0	4.414	4.805	5.398	4.805	4.414	5.064	4.631
97.5	8.567	8.824	9.121	8.824	8.567	9.215	8.506
100.0	12.720	12.843	12.843	12.843	12.720	13.365	12.381
102.5	15.330	15.114	15.236	15.114	15.330	15.264	15.120
105.0	17.939	17.384	17.629	17.384	17.939	17.163	17.859
107.5	17.504	16.660	17.222	16.660	17.504	16.864	16.753
110.0	17.069	15.935	16.815	15.935	17.069	16.565	15.647
112.5	16.008	15.909	16.300	15.909	16.008	16.328	15.676
115.0	14.946	15.883	15.784	15.883	14.946	16.090	15.704
117.5	13.911	14.977	14.523	14.977	13.911	14.763	14.751
120.0	12.876	14.071	13.262	14.071	12.876	13.436	13.798
122.5	12.528	13.532	12.773	13.532	12.528	12.716	13.229
125.0	12.179	12.993	12.283	12.993	12.179	11.996	12.659
127.5	11.177	11.885	12.043	11.885	11.177	11.420	11.323
130.0	10.174	10.777	11.803	10.777	10.174	10.843	9.986
132.5	10.334	11.107	11.351	11.107	10.334	10.662	11.040
135.0	10.494	11.436	10.899	11.436	10.494	10.480	12.094
137.5	12.424	11.998	12.252	11.998	12.424	12.029	13.414
140.0	14.353	12.560	13.605	12.560	14.353	13.577	14.734
142.5	14.382	14.398	14.994	14.398	14.382	14.918	14.476
145.0	14.410	16.236	16.382	16.236	14.410	16.259	14.217
147.5	14.212	15.453	15.137	15.453	14.212	15.855	14.342
150.0	14.014	14.669	13.892	14.669	14.014	15.450	14.466
152.5	14.144	14.373	13.951	14.373	14.144	15.808	14.812
155.0	14.273	14.076	14.010	14.076	14.273	16.165	15.158
157.5	14.805	13.820	14.888	13.820	14.805	14.996	14.356
160.0	15.337	13.563	15.765	13.563	15.337	13.826	13.553
162.5	14.949	13.723	14.699	13.723	14.949	13.593	14.558
165.0	14.560	13.883	13.633	13.883	14.560	13.360	15.563
167.5	13.504	12.916	13.177	12.916	13.504	11.704	15.031
170.0	12.447	11.949	12.720	11.949	12.447	10.047	14.499
172.5	11.217	10.956	12.793	10.956	11.217	10.000	11.365
175.0	9.986	9.963	12.866	9.963	9.986	9.953	8.231
177.5	10.678	10.667	12.118	10.667	10.678	10.662	9.801
180.0	11.000	11.000	11.000	11.000	11.000	11.000	11.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1275.87	N.A.	23.30
0-30	2595.18	N.A.	47.40
0-40	3843.51	N.A.	70.10
0-60	4882.15	N.A.	89.10
0-80	5359.11	N.A.	97.80
0-90	5400.57	N.A.	98.50
10-90	5060.99	N.A.	92.30
20-40	2567.64	N.A.	46.90
20-50	3172.01	N.A.	57.90
40-70	1351.77	N.A.	24.70
60-80	476.96	N.A.	8.70
70-80	163.83	N.A.	3.00
80-90	41.45	N.A.	0.80
90-110	23.73	N.A.	0.40
90-120	38.95	N.A.	0.70
90-130	49.95	N.A.	0.90
90-150	68.19	N.A.	1.20
90-180	79.91	N.A.	1.50
110-180	56.19	N.A.	1.00
0-180	5480.48	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	339.57
10-20	936.29
20-30	1319.31
30-40	1248.33
40-50	604.37
50-60	434.27
60-70	313.13
70-80	163.83
80-90	41.45
90-100	6.69
100-110	17.03
110-120	15.22
120-130	11.01
130-140	8.93
140-150	9.31
150-160	6.77
160-170	3.90
170-180	1.05

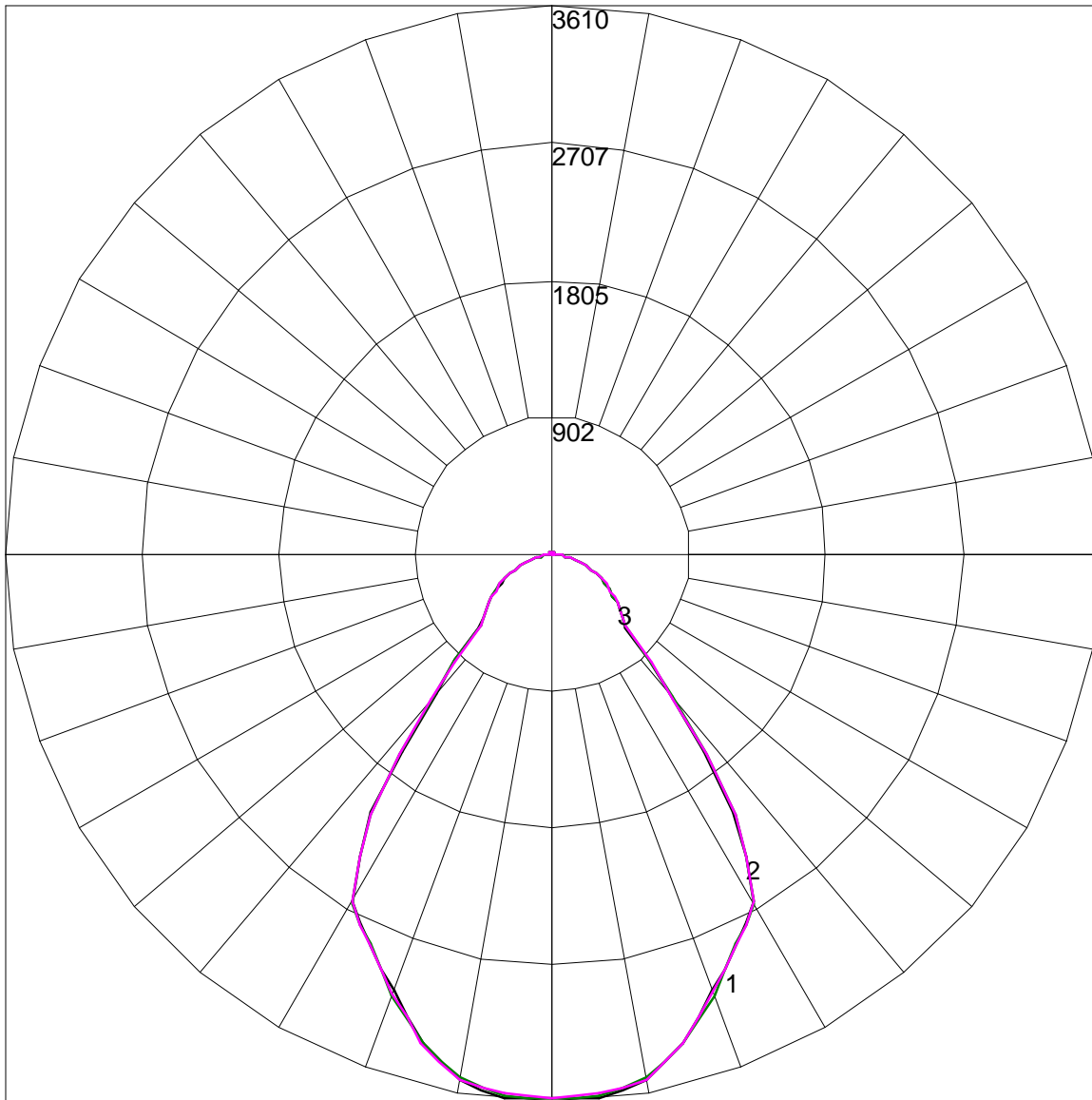
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	110	110	110	105	105	105	101	101	101	99
1	111	107	104	101	108	105	102	99	100	98	96	96	94	93	93	91	90	88
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	82	80	78
3	96	88	81	76	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	67	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	66	62	58	56
6	79	67	60	55	77	67	60	54	65	59	54	63	58	53	61	57	53	51
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	57	52	48	47
8	69	58	51	46	68	57	50	45	56	50	45	55	49	45	53	48	45	43
9	65	54	47	42	64	53	47	42	52	46	42	51	45	41	50	45	41	40
10	62	50	43	39	61	50	43	39	49	43	39	48	42	38	47	42	38	37

POLAR GRAPH



Maximum Candela = 3609.54 Located At Horizontal Angle = 0, Vertical Angle = 5

- # 1 - Vertical Plane Through Horizontal Angles (0 - 180)
- # 2 - Vertical Plane Through Horizontal Angles (45 - 225)
- # 3 - Vertical Plane Through Horizontal Angles (90 - 270)