



IES INDOOR REPORT
PHOTOMETRIC FILENAME : A1-ZYZY-STN-35K-SF-4W.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 2021-0329
[TESTLAB] ALUZ
[ISSUEDATE] 2021-0329
[MANUFAC] ALUZ
[LUMCAT] A1-ZYZY-STN-35K-SF-4W
[LUMINAIRE] A1-ZYZY-STN-35K-SF-4W
[LAMP] A1-ZYZY-STN-35K-SF-4W

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	495
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
Total Luminaire Watts	4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.40
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.16 ft
Luminous Width (90-270)	1.00 ft
Luminous Height	0.16 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5609	6140	9525
55	4509	5016	8735
65	3273	3700	7460
75	1810	2139	5271
85	27	98	1780

CANDELA TABULATION

	0	10	20	30	40	50	60	70	80	90
0	170.712	170.712	170.712	170.712	170.712	170.712	170.712	170.712	170.712	170.712
3	170.970	170.224	170.328	170.291	170.445	170.594	170.385	170.423	170.419	170.489
6	170.243	169.559	169.458	169.529	169.983	169.850	169.540	169.569	169.707	169.754
9	169.220	168.364	168.410	168.193	168.688	168.643	168.473	168.485	168.492	168.386
12	167.493	166.626	166.713	166.468	166.759	166.961	166.737	166.752	166.732	166.971
15	165.135	164.421	164.375	164.328	164.571	164.718	164.435	164.546	164.608	164.638
18	162.553	161.883	161.667	161.557	161.950	161.927	162.007	161.796	161.963	161.967
21	159.087	158.430	158.337	158.421	158.920	158.664	158.779	158.589	158.815	158.798
24	155.362	154.627	154.641	154.762	155.085	155.098	155.177	154.973	155.157	155.131
27	151.518	150.583	150.570	150.638	151.030	151.068	151.080	150.927	151.038	151.042
30	146.941	145.779	145.961	146.074	146.464	146.415	146.393	146.421	146.528	146.526
33	141.808	140.991	140.970	141.019	141.474	141.503	141.471	141.367	141.495	141.559
36	136.194	135.523	135.629	135.685	136.086	135.954	136.091	136.002	136.224	136.221
39	130.365	129.776	129.791	129.876	130.297	130.144	130.365	130.274	130.421	130.369
42	124.465	123.540	123.680	123.707	124.083	124.047	124.196	124.071	124.277	124.205
45	117.696	116.874	117.140	117.147	117.623	117.513	117.632	117.597	117.637	117.708
48	110.670	109.927	110.172	110.139	110.617	110.453	110.696	110.548	110.599	110.640
51	103.308	102.368	102.897	102.685	103.240	103.020	103.314	103.019	103.327	103.171
54	95.671	94.731	95.134	94.938	95.491	95.231	95.595	95.231	95.586	95.359
57	87.252	86.720	86.919	86.832	87.393	87.118	87.482	87.154	87.534	87.190
60	78.882	78.049	78.510	78.302	78.851	78.535	78.850	78.562	78.830	78.584
63	69.970	69.311	69.654	69.671	69.994	69.704	69.911	69.632	69.897	69.708
66	61.170	60.256	60.715	60.560	60.904	60.579	60.980	60.631	60.844	60.610
69	51.802	51.047	51.548	51.356	51.720	51.398	51.735	51.269	51.549	51.265
72	42.457	41.829	42.369	41.960	42.464	41.977	42.431	41.957	42.265	41.861
75	32.547	32.298	32.956	32.873	33.275	32.919	33.249	32.721	32.856	32.666
78	23.749	22.421	23.534	23.461	24.049	24.183	24.445	24.064	24.085	23.852
81	0.951	2.645	6.700	8.855	14.071	15.416	16.237	15.735	15.882	15.462
84	0.548	0.439	0.746	0.705	0.928	2.550	7.337	8.649	8.861	8.358
87	0.198	0.181	0.267	0.345	0.368	0.424	0.578	1.617	3.074	2.900
90	0.076	0.091	0.064	0.028	0.069	0.070	0.095	0.057	0.111	0.193

Vert. Angles	Horizontal Angles									
	100	110	120	130	140	150	160	170	180	190
0	170.712	170.712	170.712	170.712	170.712	170.712	170.712	170.712	170.712	170.712
3	170.419	170.423	170.328	170.385	170.594	170.423	170.224	170.328	170.224	170.423
6	169.707	169.569	169.540	169.850	169.983	169.529	169.458	169.559	170.243	169.559
9	168.492	168.485	168.473	168.643	168.688	168.193	168.410	168.364	169.220	168.364
12	166.732	166.752	166.737	166.961	166.759	166.468	166.713	166.626	167.493	166.626
15	164.608	164.546	164.435	164.718	164.571	164.328	164.375	164.421	165.135	164.421
18	161.963	161.796	162.007	161.927	161.950	161.557	161.667	161.683	162.553	161.683
21	158.815	158.589	158.779	158.664	158.920	158.421	158.337	158.430	159.087	158.430
24	155.157	154.973	155.177	155.098	155.085	154.762	154.641	154.627	155.362	154.627
27	151.038	150.927	151.080	151.068	151.030	150.638	150.570	150.583	151.518	150.583
30	146.528	146.421	146.393	146.415	146.464	146.074	145.961	145.779	146.941	145.779
33	141.495	141.367	141.471	141.503	141.474	141.019	140.970	140.991	141.808	140.991
36	136.224	136.002	136.091	135.954	136.086	135.685	135.629	135.523	136.194	135.523
39	130.421	130.274	130.365	130.144	130.297	129.876	129.791	129.776	130.365	129.776
42	124.277	124.071	124.196	124.047	124.083	123.707	123.680	123.540	124.465	123.540
45	117.637	117.597	117.632	117.513	117.623	117.147	117.140	116.874	117.696	116.874
48	110.599	110.548	110.696	110.453	110.617	110.139	110.172	109.927	110.670	109.927
51	103.327	103.019	103.314	103.020	103.240	102.685	102.897	102.368	103.308	102.368
54	95.586	95.231	95.595	95.231	95.491	94.938	95.134	94.731	95.671	94.731
57	87.534	87.154	87.482	87.118	87.393	86.832	86.919	86.720	87.252	86.720
60	78.830	78.562	78.850	78.535	78.851	78.302	78.510	78.049	78.882	78.049
63	69.897	69.632	69.911	69.704	69.994	69.671	69.854	69.311	69.970	69.311
66	60.844	60.631	60.980	60.579	60.904	60.560	60.715	60.256	61.170	60.256
69	51.549	51.269	51.735	51.398	51.720	51.356	51.548	51.047	51.802	51.047
72	42.265	41.957	42.431	41.977	42.464	41.960	42.369	41.829	42.457	41.829
75	32.856	32.721	33.249	32.919	33.275	32.873	32.956	32.298	32.547	32.298
78	24.085	24.064	24.445	24.183	24.049	23.461	23.534	22.421	23.749	22.421
81	15.882	15.735	16.237	15.416	14.071	8.855	6.700	2.645	0.951	2.645
84	8.861	8.649	7.337	2.550	0.928	0.705	0.746	0.439	0.548	0.439
87	3.074	1.617	0.578	0.424	0.368	0.345	0.267	0.181	0.198	0.181
90	0.111	0.057	0.095	0.070	0.069	0.028	0.064	0.091	0.076	0.091

Vert. Angles	Horizontal Angles									
	200	210	220	230	240	250	260	270	280	290
0	170.712	170.712	170.712	170.712	170.712	170.712	170.712	170.712	170.712	170.712
3	170.328	170.291	170.445	170.594	170.385	170.423	170.419	170.489	170.419	170.423
6	169.458	169.529	169.983	169.850	169.540	169.569	169.707	169.754	169.707	169.569
9	168.410	168.193	168.688	168.643	168.473	168.485	168.492	168.386	168.492	168.485
12	166.713	166.468	166.759	166.961	166.737	166.752	166.732	166.971	166.732	166.752
15	164.375	164.328	164.571	164.718	164.435	164.546	164.608	164.638	164.546	164.608
18	161.667	161.557	161.950	161.927	162.007	161.796	161.963	161.967	161.963	161.796
21	158.337	158.421	158.920	158.664	158.779	158.589	158.815	158.798	158.815	158.589
24	154.641	154.762	155.085	155.098	155.177	154.973	155.157	155.131	155.157	154.973
27	150.570	150.638	151.030	151.068	151.080	150.927	151.038	151.042	151.038	150.927
30	145.961	146.074	146.464	146.415	146.393	146.421	146.528	146.526	146.528	146.421
33	140.970	141.019	141.474	141.503	141.471	141.367	141.495	141.559	141.495	141.367
36	135.629	135.685	136.086	135.954	136.091	136.002	136.224	136.221	136.224	136.002
39	129.791	129.876	130.297	130.144	130.365	130.274	130.421	130.369	130.421	130.274
42	123.680	123.707	124.083	124.047	124.196	124.071	124.277	124.205	124.277	124.071
45	117.140	117.147	117.623	117.513	117.632	117.597	117.637	117.708	117.637	117.597
48	110.172	110.139	110.617	110.453	110.696	110.548	110.599	110.640	110.599	110.548
51	102.897	102.685	103.240	103.020	103.314	103.019	103.327	103.171	103.327	103.019
54	95.134	94.938	95.491	95.231	95.595	95.231	95.586	95.359	95.586	95.231
57	86.919	86.832	87.393	87.118	87.482	87.154	87.534	87.190	87.534	87.154
60	78.510	78.302	78.851	78.535	78.850	78.562	78.830	78.584	78.830	78.562
63	69.654	69.671	69.994	69.704	69.911	69.632	69.897	69.708	69.897	69.632
66	60.715	60.560	60.904	60.579	60.980	60.631	60.844	60.610	60.844	60.631
69	51.548	51.356	51.720	51.398	51.735	51.269	51.549	51.265	51.549	51.269
72	42.369	41.960	42.464	41.977	42.431	41.957	42.265	41.861	42.265	41.957
75	32.856	32.873	33.275	32.919	33.249	32.721	32.856	32.666	32.856	32.721
78	23.534	23.461	24.049	24.183	24.445	24.064	24.085	23.852	24.085	24.064
81	6.700	8.855	14.071	15.416	16.237	15.735	15.882	15.462	15.882	15.735
84	0.746	0.705	0.928	2.550	7.337	8.649	8.861	8.358	8.861	8.649
87	0.267	0.345	0.368	0.424	0.578	1.617	3.074	2.900	3.074	1.617
90	0.064	0.028	0.069	0.070	0.095	0.057	0.111	0.193	0.111	0.057

CANDELA TABULATION - (Cont.)

57	87.482	87.118	87.393	86.832	86.919	86.720	87.252
60	78.850	78.535	78.851	78.302	78.510	78.049	78.882
63	69.911	69.704	69.994	69.671	69.654	69.311	69.970
66	60.980	60.579	60.904	60.560	60.715	60.256	61.170
69	51.735	51.398	51.720	51.356	51.548	51.047	51.802
72	42.431	41.977	42.464	41.960	42.369	41.829	42.457
75	33.249	32.919	33.275	32.873	32.956	32.298	32.547
78	24.445	24.183	24.049	23.461	23.534	22.421	23.749
81	16.237	15.416	14.071	8.855	6.700	2.645	0.951
84	7.337	2.550	0.928	0.705	0.746	0.439	0.548
87	0.578	0.424	0.368	0.345	0.267	0.181	0.198
90	0.095	0.070	0.069	0.028	0.064	0.091	0.076

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	51.14	N.A.	10.30
0-30	133.46	N.A.	26.90
0-40	210.65	N.A.	42.50
0-60	392.85	N.A.	79.30
0-80	486.10	N.A.	98.10
0-90	495.27	N.A.	100.00
10-90	482.15	N.A.	97.40
20-40	159.51	N.A.	32.20
20-50	241.18	N.A.	48.70
40-70	240.05	N.A.	48.50
60-80	93.25	N.A.	18.80
70-80	35.40	N.A.	7.10
80-90	9.17	N.A.	1.90
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	495.27	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

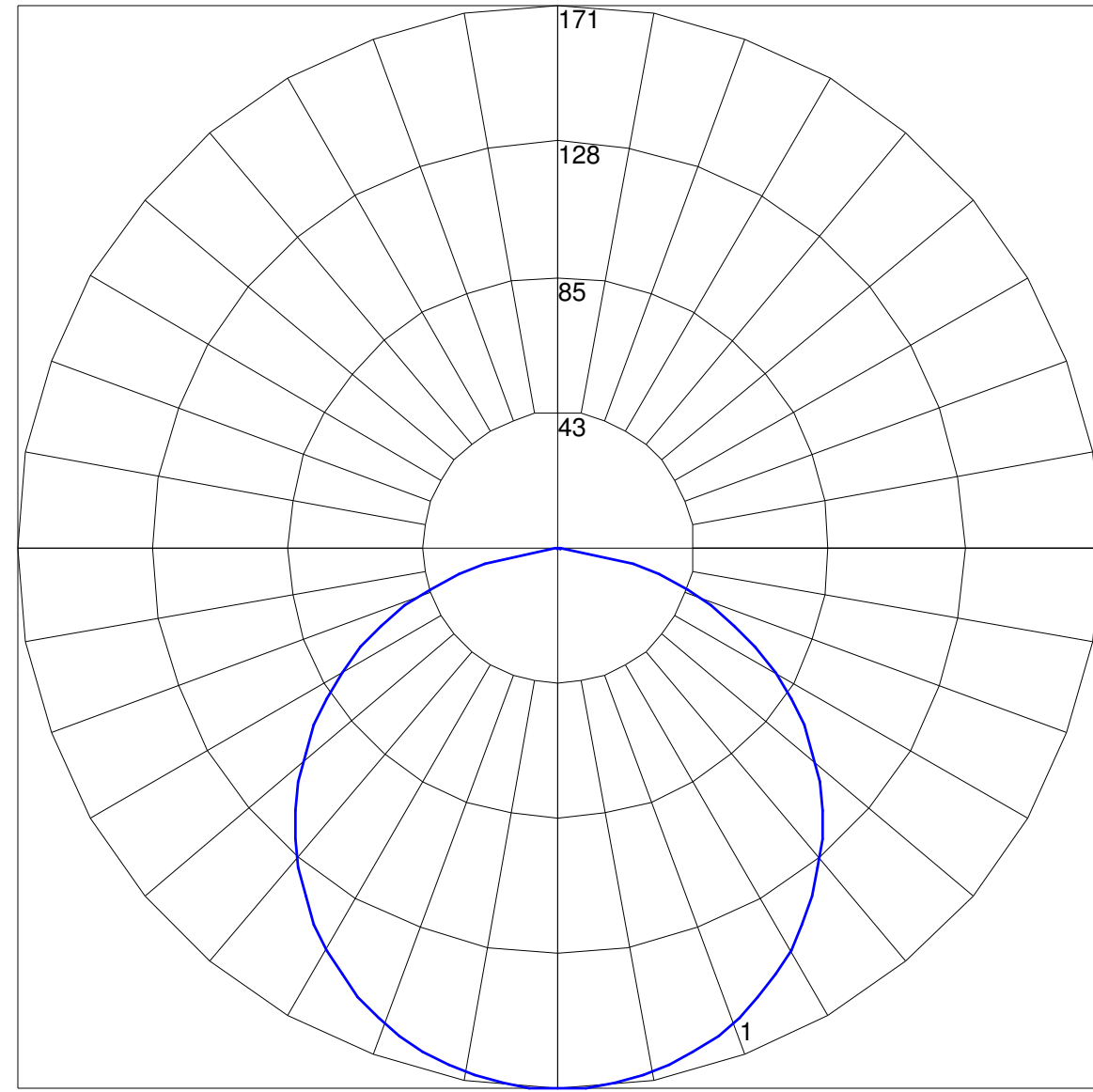
Zone	Lumens
0-10	13.12
10-20	38.02
20-30	82.32
30-40	77.19
40-50	81.66
50-60	100.54
60-70	57.85
70-80	35.40
80-90	9.17
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42
6	69	55	46	40	67	54	46	39	53	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	32	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

POLAR GRAPH



Maximum Candela = 170.97 Located At Horizontal Angle = 0, Vertical Angle = 3
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)