



IES INDOOR REPORT
PHOTOMETRIC FILENAME : A1-ZYZY-STN-35K-F-5W.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 2021-0329
[TESTLAB] ALUZ
[ISSUE DATE] 2021-0329
[MANUFAC] ALUZ
[LUMCAT] A1-ZYZY-STN-35K-F-5W
[LUMINAIRE] A1-ZYZY-STN-35K-F-5W
[LAMP CAT] A1-ZYZY-STN-35K-F-5W
[LAMP] A1-ZYZY-STN-35K-F-5W

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	531
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	5
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	6010	6578	10205
55	4831	5374	9358
65	3507	3965	7993
75	1940	2292	5648
85	29	104	1906

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CANDELA TABULATION

	<u>0</u>	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>50</u>	<u>60</u>	<u>70</u>	<u>80</u>	<u>90</u>
0	182.905	182.905	182.905	182.905	182.905	182.905	182.905	182.905	182.905	182.905
3	183.182	182.384	182.495	182.454	182.619	182.779	182.555	182.596	182.591	182.668
6	182.402	181.671	181.562	181.638	182.125	181.982	181.650	181.681	181.829	181.880
9	181.307	180.391	180.440	180.206	180.737	180.689	180.507	180.519	180.527	180.413
12	179.456	178.529	178.621	178.358	178.671	178.887	178.646	178.663	178.642	178.898
15	176.931	176.166	176.116	176.066	176.326	176.483	176.180	176.299	176.366	176.398
18	174.164	173.232	173.214	173.097	173.519	173.493	173.579	173.353	173.532	173.536
21	170.450	169.747	169.646	169.737	170.272	169.997	170.120	169.917	170.159	170.140
24	166.460	165.671	165.687	165.817	166.163	166.177	166.261	166.043	166.239	166.211
27	162.341	161.339	161.326	161.399	161.819	161.858	161.872	161.708	161.826	161.831
30	157.436	156.191	156.387	156.509	156.926	156.873	156.849	156.880	156.995	156.992
33	151.937	151.061	151.040	151.093	151.580	151.611	151.577	151.464	151.603	151.671
36	145.922	145.203	145.318	145.377	145.807	145.665	145.813	145.717	145.955	145.951
39	139.677	139.046	139.061	139.154	139.604	139.440	139.678	139.580	139.738	139.681
42	133.355	132.365	132.514	132.543	132.947	132.908	133.067	132.933	133.154	133.077
45	126.103	125.222	125.507	125.514	126.024	125.906	126.035	125.997	126.040	126.115
48	118.576	117.779	118.042	118.007	118.518	118.343	118.603	118.443	118.499	118.543
51	110.687	109.681	110.246	110.019	110.615	110.378	110.694	110.378	110.708	110.541
54	102.504	101.498	101.930	101.719	102.311	102.032	102.423	102.033	102.414	102.170
57	93.485	92.914	93.128	93.035	93.636	93.340	93.731	93.380	93.786	93.419
60	84.517	83.624	84.119	83.895	84.483	84.144	84.482	84.173	84.461	84.197
63	74.968	74.261	74.630	74.648	74.993	74.684	74.905	74.606	74.890	74.687
66	65.539	64.560	65.051	64.886	65.254	64.907	65.336	64.962	65.190	64.940
69	55.502	54.693	55.230	55.025	55.414	55.070	55.431	54.931	55.231	54.927
72	45.489	44.816	45.396	44.957	45.497	44.976	45.462	44.954	45.284	44.851
75	34.872	34.604	35.311	35.221	35.652	35.271	35.624	35.058	35.204	35.000
78	25.446	24.022	25.215	25.136	25.767	25.910	26.191	25.784	25.806	25.556
81	1.019	2.834	7.178	9.488	15.077	16.517	17.397	16.859	17.017	16.567
84	0.587	0.471	0.800	0.755	0.994	2.732	7.861	9.267	9.494	8.954
87	0.212	0.194	0.286	0.369	0.395	0.454	0.620	1.732	3.294	3.107
90	0.082	0.098	0.068	0.030	0.074	0.075	0.103	0.062	0.119	0.207

Vert. Angles **Horizontal Angles**

	<u>100</u>	<u>110</u>	<u>120</u>	<u>130</u>	<u>140</u>	<u>150</u>	<u>160</u>	<u>170</u>	<u>180</u>	<u>190</u>
0	182.905	182.905	182.905	182.905	182.905	182.905	182.905	182.905	182.905	182.905
3	182.591	182.596	182.555	182.779	182.619	182.454	182.495	182.384	183.182	182.384
6	181.829	181.681	181.650	181.982	182.125	181.638	181.562	181.671	182.402	181.671
9	180.527	180.519	180.507	180.689	180.737	180.206	180.440	180.391	181.307	180.391
12	178.642	178.663	178.646	178.887	178.671	178.358	178.621	178.529	179.456	178.529
15	176.366	176.299	176.180	176.483	176.326	176.066	176.116	176.166	176.931	176.166
18	173.532	173.353	173.579	173.493	173.519	173.097	173.214	173.232	174.164	173.232
21	170.159	169.917	170.120	169.997	170.272	169.737	169.646	169.747	170.450	169.747
24	166.239	166.043	166.261	166.177	166.163	165.817	165.687	165.671	166.460	165.671
27	161.826	161.708	161.872	161.858	161.819	161.399	161.326	161.339	162.341	161.339
30	156.995	156.880	156.849	156.873	156.926	156.509	156.387	156.191	157.436	156.191
33	151.603	151.464	151.577	151.611	151.580	151.093	151.040	151.061	151.937	151.061
36	145.955	145.717	145.813	145.665	145.807	145.377	145.318	145.203	145.922	145.203
39	139.738	139.580	139.678	139.440	139.604	139.154	139.061	139.046	139.677	139.046
42	133.154	132.933	133.067	132.908	132.947	132.543	132.514	132.365	133.355	132.365
45	126.040	125.997	126.035	125.906	126.024	125.514	125.507	125.222	126.103	125.222
48	118.499	118.443	118.603	118.343	118.518	118.007	118.042	117.779	118.576	117.779
51	110.708	110.378	110.694	110.378	110.615	110.019	110.246	109.681	110.687	109.681
54	102.414	102.033	102.423	102.032	102.311	101.719	101.930	101.498	102.504	101.498

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CANDELA TABULATION - (Cont.)

57	93.786	93.380	93.731	93.340	93.636	93.035	93.128	92.914	93.485	92.914
60	84.461	84.173	84.482	84.144	84.483	83.895	84.119	83.624	84.517	83.624
63	74.890	74.606	74.905	74.684	74.993	74.648	74.630	74.261	74.968	74.261
66	65.190	64.962	65.336	64.907	65.254	64.886	65.051	64.560	65.539	64.560
69	55.231	54.931	55.431	55.070	55.414	55.025	55.230	54.693	55.502	54.693
72	45.284	44.954	45.462	44.976	45.497	44.957	45.396	44.816	45.489	44.816
75	35.204	35.058	35.624	35.271	35.652	35.221	35.311	34.604	34.872	34.604
78	25.806	25.784	26.191	25.910	25.767	25.136	25.215	24.022	25.446	24.022
81	17.017	16.859	17.397	16.517	15.077	9.488	7.178	2.834	1.019	2.834
84	9.494	9.267	7.861	2.732	0.994	0.755	0.800	0.471	0.587	0.471
87	3.294	1.732	0.620	0.454	0.395	0.369	0.286	0.194	0.212	0.194
90	0.119	0.062	0.103	0.075	0.074	0.030	0.068	0.098	0.082	0.098

Vert. Horizontal Angles
Angles

	<u>200</u>	<u>210</u>	<u>220</u>	<u>230</u>	<u>240</u>	<u>250</u>	<u>260</u>	<u>270</u>	<u>280</u>	<u>290</u>
0	182.905	182.905	182.905	182.905	182.905	182.905	182.905	182.905	182.905	182.905
3	182.495	182.454	182.619	182.779	182.555	182.596	182.591	182.668	182.591	182.596
6	181.562	181.638	182.125	181.982	181.650	181.681	181.829	181.880	181.829	181.681
9	180.440	180.206	180.737	180.689	180.507	180.519	180.527	180.413	180.527	180.519
12	178.621	178.358	178.671	178.887	178.646	178.663	178.642	178.898	178.642	178.663
15	176.116	176.066	176.326	176.483	176.180	176.299	176.366	176.398	176.366	176.299
18	173.214	173.097	173.519	173.493	173.579	173.353	173.532	173.536	173.532	173.353
21	169.646	169.737	170.272	169.997	170.120	169.917	170.159	170.140	170.159	169.917
24	165.687	165.817	166.163	166.177	166.261	166.043	166.239	166.211	166.239	166.043
27	161.326	161.399	161.819	161.858	161.872	161.708	161.826	161.831	161.826	161.708
30	156.387	156.509	156.926	156.873	156.849	156.880	156.995	156.992	156.995	156.880
33	151.040	151.093	151.580	151.611	151.577	151.464	151.603	151.671	151.603	151.464
36	145.318	145.377	145.807	145.665	145.813	145.717	145.955	145.951	145.955	145.717
39	139.061	139.154	139.604	139.440	139.678	139.580	139.738	139.681	139.738	139.580
42	132.514	132.543	132.947	132.908	133.067	132.933	133.154	133.077	133.154	132.933
45	125.507	125.514	126.024	125.906	126.035	125.997	126.040	126.115	126.040	125.997
48	118.042	118.007	118.518	118.343	118.603	118.443	118.499	118.543	118.499	118.443
51	110.246	110.019	110.615	110.378	110.694	110.378	110.708	110.541	110.708	110.378
54	101.930	101.719	102.311	102.032	102.423	102.033	102.414	102.170	102.414	102.033
57	93.128	93.035	93.636	93.340	93.731	93.380	93.786	93.419	93.786	93.380
60	84.119	83.895	84.483	84.144	84.482	84.173	84.461	84.197	84.461	84.173
63	74.630	74.648	74.993	74.684	74.905	74.606	74.890	74.687	74.890	74.606
66	65.051	64.886	65.254	64.907	65.336	64.962	65.190	64.940	65.190	64.962
69	55.230	55.025	55.414	55.070	55.431	54.931	55.231	54.927	55.231	54.931
72	45.396	44.957	45.497	44.976	45.462	44.954	45.284	44.851	45.284	44.954
75	35.311	35.221	35.652	35.271	35.624	35.058	35.204	35.000	35.204	35.058
78	25.215	25.136	25.767	25.910	26.191	25.784	25.806	25.556	25.806	25.784
81	7.178	9.488	15.077	16.517	17.397	16.859	17.017	16.567	17.017	16.859
84	0.800	0.755	0.994	2.732	7.861	9.267	9.494	8.954	9.494	9.267
87	0.286	0.369	0.395	0.454	0.620	1.732	3.294	3.107	3.294	1.732
90	0.068	0.030	0.074	0.075	0.103	0.062	0.119	0.207	0.119	0.062

Vert. Horizontal Angles
Angles

	<u>300</u>	<u>310</u>	<u>320</u>	<u>330</u>	<u>340</u>	<u>350</u>	<u>360</u>
0	182.905	182.905	182.905	182.905	182.905	182.905	182.905
3	182.555	182.779	182.619	182.454	182.495	182.384	183.182
6	181.650	181.982	182.125	181.638	181.562	181.671	182.402
9	180.507	180.689	180.737	180.206	180.440	180.391	181.307
12	178.646	178.887	178.671	178.358	178.621	178.529	179.456

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CANDELA TABULATION - (Cont.)

15	176.180	176.483	176.326	176.066	176.116	176.166	176.931
18	173.579	173.493	173.519	173.097	173.214	173.232	174.164
21	170.120	169.997	170.272	169.737	169.646	169.747	170.450
24	166.261	166.177	166.163	165.817	165.687	165.671	166.460
27	161.872	161.858	161.819	161.399	161.326	161.339	162.341
30	156.849	156.873	156.926	156.509	156.387	156.191	157.436
33	151.577	151.611	151.580	151.093	151.040	151.061	151.937
36	145.813	145.665	145.807	145.377	145.318	145.203	145.922
39	139.678	139.440	139.604	139.154	139.061	139.046	139.677
42	133.067	132.908	132.947	132.543	132.514	132.365	133.355
45	126.035	125.906	126.024	125.514	125.507	125.222	126.103
48	118.603	118.343	118.518	118.007	118.042	117.779	118.576
51	110.694	110.378	110.615	110.019	110.246	109.681	110.687
54	102.423	102.032	102.311	101.719	101.930	101.498	102.504
57	93.731	93.340	93.636	93.035	93.128	92.914	93.485
60	84.482	84.144	84.483	83.895	84.119	83.624	84.517
63	74.905	74.684	74.993	74.648	74.630	74.261	74.968
66	65.336	64.907	65.254	64.886	65.051	64.560	65.539
69	55.431	55.070	55.414	55.025	55.230	54.693	55.502
72	45.462	44.976	45.497	44.957	45.396	44.816	45.489
75	35.624	35.271	35.652	35.221	35.311	34.604	34.872
78	26.191	25.910	25.767	25.136	25.215	24.022	25.446
81	17.397	16.517	15.077	9.488	7.178	2.834	1.019
84	7.861	2.732	0.994	0.755	0.800	0.471	0.587
87	0.620	0.454	0.395	0.369	0.286	0.194	0.212
90	0.103	0.075	0.074	0.030	0.068	0.098	0.082

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	54.79	N.A.	10.30
0-30	142.99	N.A.	26.90
0-40	225.70	N.A.	42.50
0-60	420.91	N.A.	79.30
0-80	520.82	N.A.	98.10
0-90	530.65	N.A.	100.00
10-90	516.59	N.A.	97.40
20-40	170.91	N.A.	32.20
20-50	258.40	N.A.	48.70
40-70	257.19	N.A.	48.50
60-80	99.91	N.A.	18.80
70-80	37.93	N.A.	7.10
80-90	9.82	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	530.65	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	14.06
10-20	40.73
20-30	88.20
30-40	82.70
40-50	87.50
50-60	107.72
60-70	61.98
70-80	37.93
80-90	9.82
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

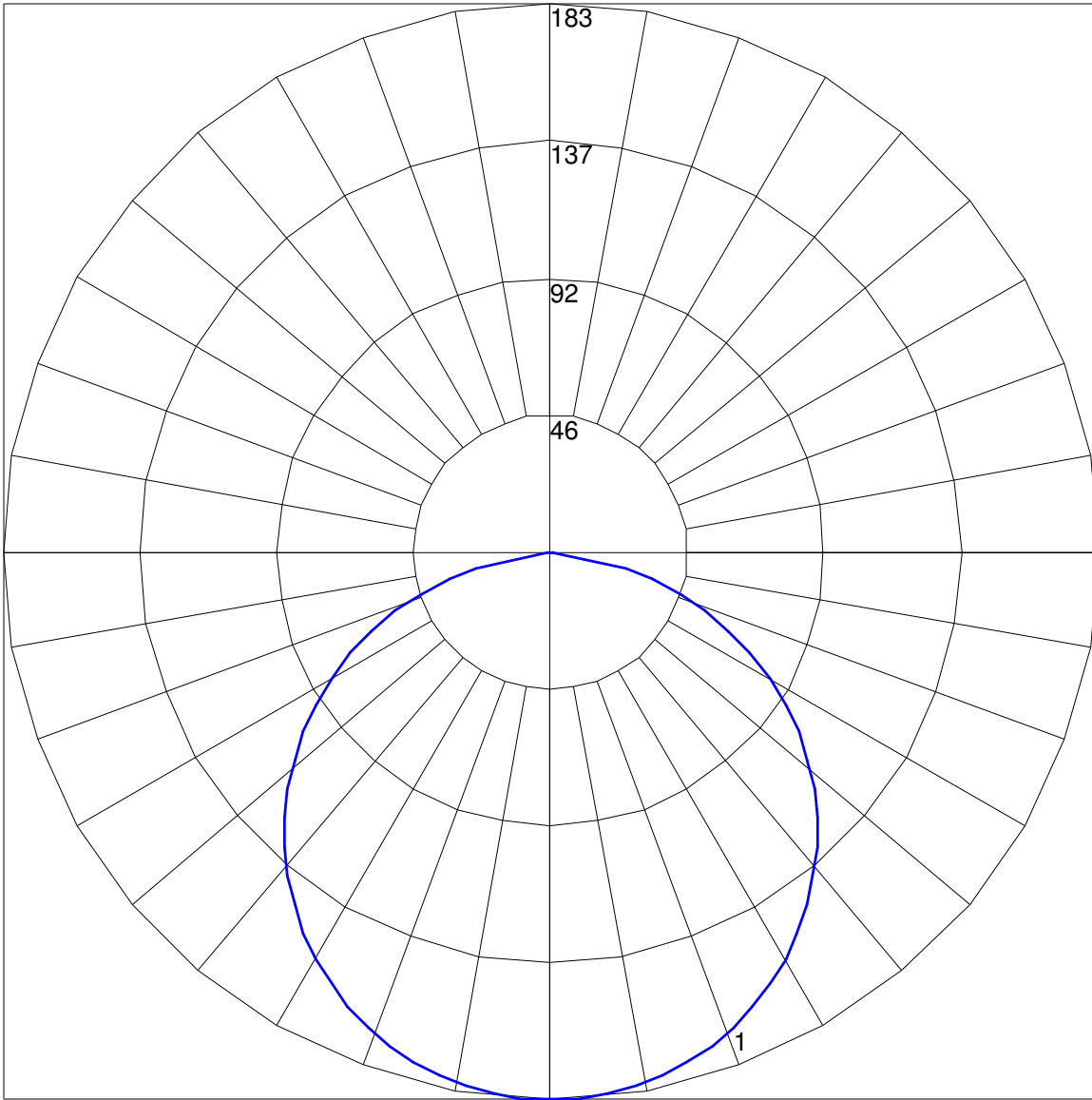
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	57
4	82	69	60	53	79	68	60	53	65	58	52	63	57	52	61	55	51	49
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	54	49	44	42
6	69	55	46	40	67	54	46	39	52	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	38	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	31	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 = 183.182 Located At Horizontal Angle = 0, Vertical Angle = 3
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)