



IES INDOOR REPORT
PHOTOMETRIC FILENAME : A1-ZYZY-STN-35K-F-12W.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-12W
[LUMINAIRE] A1-ZYZY-STN-35K-F-12W
[LAMP CAT] A1-ZYZY-STN-35K-F-12W
[LAMP] A1-ZYZY-STN-35K-F-12W

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1274
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	12
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	14424	15787	24492
55	11594	12898	22460
65	8417	9516	19184
75	4656	5500	13556
85	70	251	4576

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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	438.972	438.972	438.972	438.972	438.972	438.972	438.972	438.972	438.972	438.972
3	439.637	437.720	437.986	437.891	438.287	438.668	438.133	438.231	438.218	438.402
6	437.766	436.010	435.748	435.931	437.099	436.757	435.961	436.034	436.389	436.511
9	435.137	432.937	433.055	432.494	433.768	433.654	433.217	433.246	433.265	432.992
12	430.695	428.468	428.690	428.060	428.810	429.329	428.752	428.791	428.741	429.353
15	424.634	422.798	422.678	422.558	423.182	423.560	422.834	423.116	423.278	423.356
18	417.995	415.757	415.714	415.433	416.444	416.382	416.589	416.048	416.477	416.486
21	409.081	407.393	407.152	407.368	408.652	407.992	408.289	407.801	408.381	408.336
24	399.504	397.611	397.648	397.961	398.790	398.824	399.026	398.503	398.974	398.907
27	389.618	387.215	387.181	387.356	388.364	388.460	388.493	388.098	388.383	388.393
30	377.848	374.859	375.329	375.620	376.622	376.496	376.439	376.511	376.787	376.780
33	364.649	362.547	362.495	362.622	363.791	363.866	363.783	363.514	363.846	364.010
36	350.212	348.488	348.762	348.905	349.936	349.597	349.950	349.721	350.291	350.282
39	335.225	333.710	333.747	333.968	335.049	334.655	335.226	334.991	335.370	335.235
42	320.054	317.675	318.034	318.102	319.071	318.977	319.361	319.039	319.569	319.385
45	302.647	300.532	301.217	301.235	302.459	302.175	302.483	302.393	302.495	302.676
48	284.581	282.669	283.300	283.215	284.444	284.022	284.647	284.264	284.398	284.503
51	265.649	263.233	264.592	264.046	265.475	264.908	265.665	264.906	265.699	265.298
54	246.010	243.593	244.631	244.125	245.548	244.878	245.816	244.880	245.793	245.209
57	224.363	222.994	223.507	223.284	224.726	224.016	224.954	224.111	225.087	224.204
60	202.840	200.698	201.884	201.347	202.759	201.946	202.757	202.016	202.705	202.073
63	179.924	178.226	179.111	179.154	179.985	179.240	179.771	179.052	179.735	179.249
66	157.292	154.944	156.123	155.725	156.610	155.775	156.805	155.909	156.456	155.854
69	133.204	131.264	132.552	132.060	132.993	132.167	133.034	131.834	132.554	131.825
72	109.174	107.559	108.950	107.897	109.193	107.942	109.109	107.890	108.681	107.642
75	83.693	83.051	84.745	84.530	85.564	84.650	85.499	84.139	84.488	84.000
78	61.070	57.653	60.517	60.327	61.841	62.185	62.858	61.880	61.934	61.333
81	2.446	6.802	17.228	22.769	36.183	39.640	41.753	40.463	40.841	39.761
84	1.409	1.130	1.919	1.813	2.386	6.557	18.866	22.241	22.787	21.491
87	0.509	0.465	0.686	0.887	0.947	1.088	1.487	4.157	7.905	7.457
90	0.196	0.234	0.164	0.071	0.178	0.180	0.246	0.147	0.286	0.497

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	438.972	438.972	438.972	438.972	438.972	438.972	438.972	438.972	438.972	438.972
3	438.218	438.231	438.133	438.668	438.287	437.891	437.986	437.720	439.637	437.720
6	436.389	436.034	435.961	436.757	437.099	435.931	435.748	436.010	437.766	436.010
9	433.265	433.246	433.217	433.654	433.768	432.494	433.055	432.937	435.137	432.937
12	428.741	428.791	428.752	429.329	428.810	428.060	428.690	428.468	430.695	428.468
15	423.278	423.116	422.834	423.560	423.182	422.558	422.678	422.798	424.634	422.798
18	416.477	416.048	416.589	416.382	416.444	415.433	415.714	415.757	417.995	415.757
21	408.381	407.801	408.289	407.992	408.652	407.368	407.152	407.393	409.081	407.393
24	398.974	398.503	399.026	398.824	398.790	397.961	397.648	397.611	399.504	397.611
27	388.383	388.098	388.493	388.460	388.364	387.356	387.181	387.215	389.618	387.215
30	376.787	376.511	376.439	376.496	376.622	375.620	375.329	374.859	377.848	374.859
33	363.846	363.514	363.783	363.866	363.791	362.622	362.495	362.547	364.649	362.547
36	350.291	349.721	349.950	349.597	349.936	348.905	348.762	348.488	350.212	348.488
39	335.370	334.991	335.226	334.655	335.049	333.968	333.747	333.710	335.225	333.710
42	319.569	319.039	319.361	318.977	319.071	318.102	318.034	317.675	320.054	317.675
45	302.495	302.393	302.483	302.175	302.459	301.235	301.217	300.532	302.647	300.532
48	284.398	284.264	284.647	284.022	284.444	283.215	283.300	282.669	284.581	282.669
51	265.699	264.906	265.665	264.908	265.475	264.046	264.592	263.233	265.649	263.233
54	245.793	244.880	245.816	244.878	245.548	244.125	244.631	243.593	246.010	243.593

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CANDELA TABULATION - (Cont.)

57	225.087	224.111	224.954	224.016	224.726	223.284	223.507	222.994	224.363	222.994
60	202.705	202.016	202.757	201.946	202.759	201.347	201.884	200.698	202.840	200.698
63	179.735	179.052	179.771	179.240	179.985	179.154	179.111	178.226	179.924	178.226
66	156.456	155.909	156.805	155.775	156.610	155.725	156.123	154.944	157.292	154.944
69	132.554	131.834	133.034	132.167	132.993	132.060	132.552	131.264	133.204	131.264
72	108.681	107.890	109.109	107.942	109.193	107.897	108.950	107.559	109.174	107.559
75	84.488	84.139	85.499	84.650	85.564	84.530	84.745	83.051	83.693	83.051
78	61.934	61.880	62.858	62.185	61.841	60.327	60.517	57.653	61.070	57.653
81	40.841	40.463	41.753	39.640	36.183	22.769	17.228	6.802	2.446	6.802
84	22.787	22.241	18.866	6.557	2.386	1.813	1.919	1.130	1.409	1.130
87	7.905	4.157	1.487	1.088	0.947	0.887	0.686	0.465	0.509	0.465
90	0.286	0.147	0.246	0.180	0.178	0.071	0.164	0.234	0.196	0.234

Vert. Angles **Horizontal 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	438.972	438.972	438.972	438.972	438.972	438.972	438.972	438.972	438.972	438.972
3	437.986	437.891	438.287	438.668	438.133	438.231	438.218	438.402	438.218	438.231
6	435.748	435.931	437.099	436.757	435.961	436.034	436.389	436.511	436.389	436.034
9	433.055	432.494	433.768	433.654	433.217	433.246	433.265	432.992	433.265	433.246
12	428.690	428.060	428.810	429.329	428.752	428.791	428.741	429.353	428.741	428.791
15	422.678	422.558	423.182	423.560	422.834	423.116	423.278	423.356	423.278	423.116
18	415.714	415.433	416.444	416.382	416.589	416.048	416.477	416.486	416.477	416.048
21	407.152	407.368	408.652	407.992	408.289	407.801	408.381	408.336	408.381	407.801
24	397.648	397.961	398.790	398.824	399.026	398.503	398.974	398.907	398.974	398.503
27	387.181	387.356	388.364	388.460	388.493	388.098	388.383	388.393	388.383	388.098
30	375.329	375.620	376.622	376.496	376.439	376.511	376.787	376.780	376.787	376.511
33	362.495	362.622	363.791	363.866	363.783	363.514	363.846	364.010	363.846	363.514
36	348.762	348.905	349.936	349.597	349.950	349.721	350.291	350.282	350.291	349.721
39	333.747	333.968	335.049	334.655	335.226	334.991	335.370	335.235	335.370	334.991
42	318.034	318.102	319.071	318.977	319.361	319.039	319.569	319.385	319.569	319.039
45	301.217	301.235	302.459	302.175	302.483	302.393	302.495	302.676	302.495	302.393
48	283.300	283.215	284.444	284.022	284.647	284.264	284.398	284.503	284.398	284.264
51	264.592	264.046	265.475	264.908	265.665	264.906	265.699	265.298	265.699	264.906
54	244.631	244.125	245.548	244.878	245.816	244.880	245.793	245.209	245.793	244.880
57	223.507	223.284	224.726	224.016	224.954	224.111	225.087	224.204	225.087	224.111
60	201.884	201.347	202.759	201.946	202.757	202.016	202.705	202.073	202.705	202.016
63	179.111	179.154	179.985	179.240	179.771	179.052	179.735	179.249	179.735	179.052
66	156.123	155.725	156.610	155.775	156.805	155.909	156.456	155.854	156.456	155.909
69	132.552	132.060	132.993	132.167	133.034	131.834	132.554	131.825	132.554	131.834
72	108.950	107.897	109.193	107.942	109.109	107.890	108.681	107.642	108.681	107.890
75	84.745	84.530	85.564	84.650	85.499	84.139	84.488	84.000	84.488	84.139
78	60.517	60.327	61.841	62.185	62.858	61.880	61.934	61.333	61.934	61.880
81	17.228	22.769	36.183	39.640	41.753	40.463	40.841	39.761	40.841	40.463
84	1.919	1.813	2.386	6.557	18.866	22.241	22.787	21.491	22.787	22.241
87	0.686	0.887	0.947	1.088	1.487	4.157	7.905	7.457	7.905	4.157
90	0.164	0.071	0.178	0.180	0.246	0.147	0.286	0.497	0.286	0.147

Vert. Angles **Horizontal Angles**

	<u>300</u>	<u>310</u>	<u>320</u>	<u>330</u>	<u>340</u>	<u>350</u>	<u>360</u>
0	438.972	438.972	438.972	438.972	438.972	438.972	438.972
3	438.133	438.668	438.287	437.891	437.986	437.720	439.637
6	435.961	436.757	437.099	435.931	435.748	436.010	437.766
9	433.217	433.654	433.768	432.494	433.055	432.937	435.137
12	428.752	429.329	428.810	428.060	428.690	428.468	430.695

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15	422.834	423.560	423.182	422.558	422.678	422.798	424.634
18	416.589	416.382	416.444	415.433	415.714	415.757	417.995
21	408.289	407.992	408.652	407.368	407.152	407.393	409.081
24	399.026	398.824	398.790	397.961	397.648	397.611	399.504
27	388.493	388.460	388.364	387.356	387.181	387.215	389.618
30	376.439	376.496	376.622	375.620	375.329	374.859	377.848
33	363.783	363.866	363.791	362.622	362.495	362.547	364.649
36	349.950	349.597	349.936	348.905	348.762	348.488	350.212
39	335.226	334.655	335.049	333.968	333.747	333.710	335.225
42	319.361	318.977	319.071	318.102	318.034	317.675	320.054
45	302.483	302.175	302.459	301.235	301.217	300.532	302.647
48	284.647	284.022	284.444	283.215	283.300	282.669	284.581
51	265.665	264.908	265.475	264.046	264.592	263.233	265.649
54	245.816	244.878	245.548	244.125	244.631	243.593	246.010
57	224.954	224.016	224.726	223.284	223.507	222.994	224.363
60	202.757	201.946	202.759	201.347	201.884	200.698	202.840
63	179.771	179.240	179.985	179.154	179.111	178.226	179.924
66	156.805	155.775	156.610	155.725	156.123	154.944	157.292
69	133.034	132.167	132.993	132.060	132.552	131.264	133.204
72	109.109	107.942	109.193	107.897	108.950	107.559	109.174
75	85.499	84.650	85.564	84.530	84.745	83.051	83.693
78	62.858	62.185	61.841	60.327	60.517	57.653	61.070
81	41.753	39.640	36.183	22.769	17.228	6.802	2.446
84	18.866	6.557	2.386	1.813	1.919	1.130	1.409
87	1.487	1.088	0.947	0.887	0.686	0.465	0.509
90	0.246	0.180	0.178	0.071	0.164	0.234	0.196

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	131.49	N.A.	10.30
0-30	343.18	N.A.	26.90
0-40	541.67	N.A.	42.50
0-60	1010.19	N.A.	79.30
0-80	1249.97	N.A.	98.10
0-90	1273.55	N.A.	100.00
10-90	1239.82	N.A.	97.40
20-40	410.18	N.A.	32.20
20-50	620.17	N.A.	48.70
40-70	617.26	N.A.	48.50
60-80	239.79	N.A.	18.80
70-80	91.04	N.A.	7.10
80-90	23.58	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	1273.55	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	33.73
10-20	97.76
20-30	211.69
30-40	198.49
40-50	209.99
50-60	258.52
60-70	148.75
70-80	91.04
80-90	23.58
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

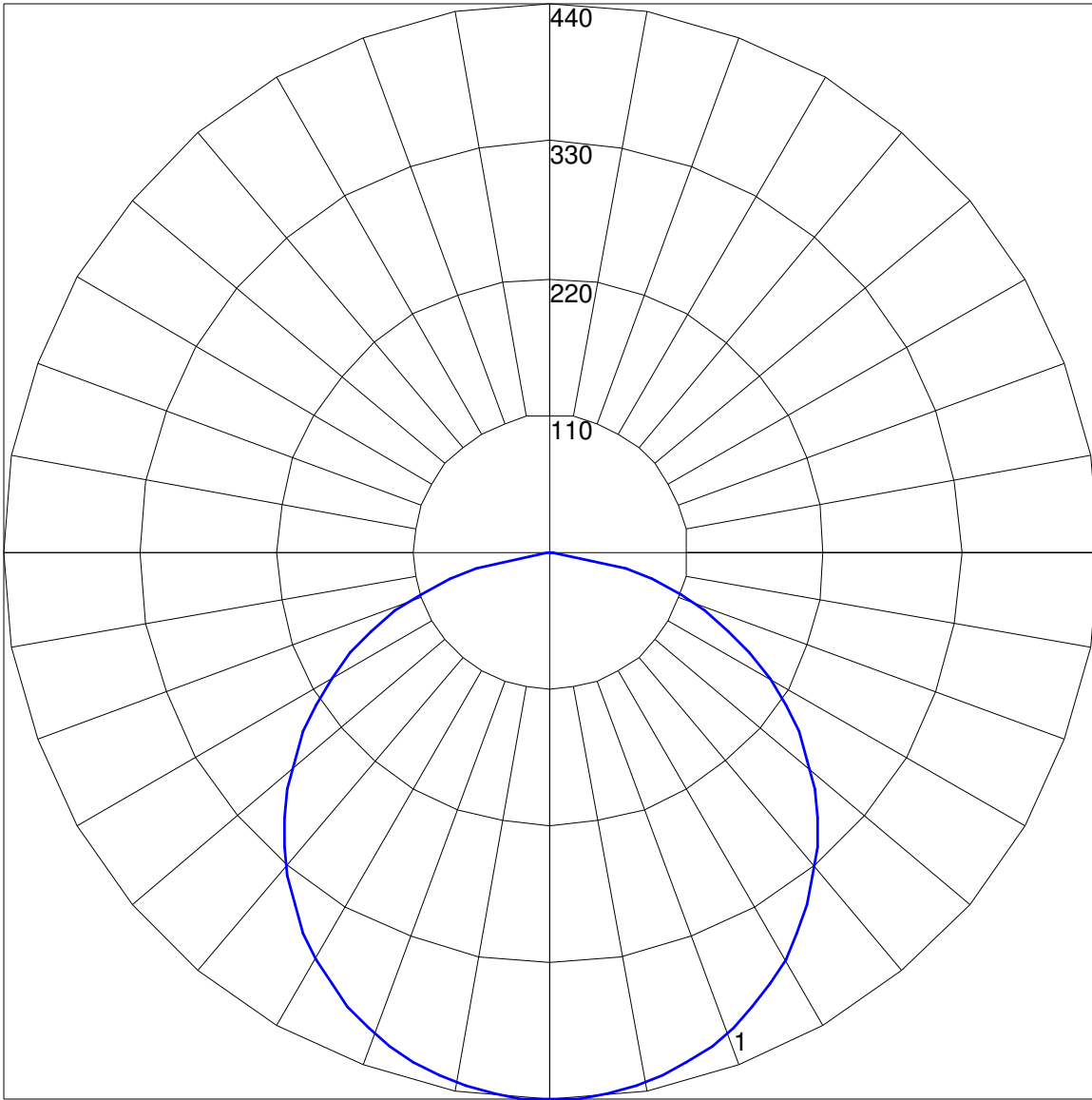
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	99	95	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	64	87	77	69	63	74	67	62	71	66	61	69	64	60	57
4	82	69	60	53	53	79	68	60	53	65	58	52	63	57	52	61	55	51	49
5	75	62	52	46	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42
6	69	55	46	40	40	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	45	37	31	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	28	54	41	33	27	40	32	27	39	32	27	38	32	27	25
10	52	38	30	25	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

POLAR GRAPH



Maximum Candela = 439.637 Located At Horizontal Angle = 0, Vertical Angle = 3
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)