



IES INDOOR REPORT
PHOTOMETRIC FILENAME : A1-ZYZY-STN-35K-CL-8W.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-CL-8W
[LUMINAIRE] A1-ZYZY-STN-35K-CL-8W
[LAMP CAT] A1-ZYZY-STN-35K-CL-8W
[LAMP] A1-ZYZY-STN-35K-CL-8W

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1132
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	142
Total Luminaire Watts	8
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	12821	14033	21770
55	10306	11465	19965
65	7482	8458	17052
75	4138	4889	12049
85	62	223	4067

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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	390.197	390.197	390.197	390.197	390.197	390.197	390.197	390.197	390.197	390.197
3	390.789	389.084	389.321	389.236	389.588	389.927	389.451	389.538	389.528	389.691
6	389.125	387.564	387.332	387.494	388.532	388.228	387.521	387.586	387.901	388.010
9	386.789	384.833	384.937	384.439	385.571	385.470	385.081	385.107	385.124	384.882
12	382.840	380.861	381.057	380.498	381.164	381.625	381.112	381.148	381.102	381.648
15	377.452	375.821	375.714	375.607	376.161	376.498	375.852	376.103	376.246	376.316
18	371.551	369.562	369.523	369.273	370.173	370.118	370.302	369.820	370.201	370.210
21	363.628	362.127	361.912	362.105	363.246	362.659	362.923	362.489	363.005	362.965
24	355.115	353.432	353.465	353.742	354.480	354.510	354.690	354.225	354.643	354.584
27	346.327	344.191	344.161	344.316	345.213	345.297	345.327	344.976	345.230	345.238
30	335.865	333.208	333.625	333.884	334.775	334.663	334.612	334.676	334.922	334.915
33	324.133	322.264	322.218	322.331	323.369	323.436	323.363	323.124	323.419	323.564
36	311.299	309.766	310.011	310.138	311.054	310.752	311.067	310.863	311.370	311.362
39	297.978	296.631	296.664	296.861	297.822	297.471	297.979	297.770	298.107	297.986
42	284.492	282.377	282.697	282.758	283.619	283.535	283.877	283.590	284.061	283.898
45	269.019	267.139	267.749	267.764	268.852	268.600	268.874	268.793	268.884	269.045
48	252.961	251.262	251.822	251.747	252.839	252.464	253.019	252.679	252.798	252.891
51	236.132	233.985	235.192	234.707	235.978	235.474	236.147	235.472	236.177	235.820
54	218.675	216.528	217.450	217.000	218.265	217.669	218.503	217.671	218.483	217.963
57	199.434	198.217	198.672	198.475	199.756	199.126	199.958	199.210	200.077	199.293
60	180.302	178.398	179.452	178.976	180.230	179.507	180.228	179.569	180.182	179.620
63	159.932	158.423	159.210	159.248	159.986	159.324	159.797	159.158	159.765	159.332
66	139.815	137.728	138.776	138.422	139.208	138.467	139.382	138.585	139.072	138.537
69	118.404	116.678	117.824	117.387	118.216	117.482	118.252	117.186	117.826	117.178
72	97.044	95.608	96.845	95.908	97.060	95.948	96.986	95.902	96.605	95.681
75	74.394	73.823	75.329	75.138	76.057	75.245	75.999	74.790	75.100	74.667
78	54.284	51.247	53.793	53.624	54.970	55.275	55.873	55.005	55.052	54.518
81	2.174	6.046	15.314	20.239	32.163	35.235	37.114	35.966	36.302	35.342
84	1.252	1.005	1.706	1.611	2.121	5.829	16.769	19.769	20.255	19.103
87	0.452	0.413	0.609	0.788	0.842	0.968	1.322	3.695	7.027	6.629
90	0.174	0.208	0.145	0.064	0.158	0.160	0.219	0.131	0.254	0.441

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	390.197	390.197	390.197	390.197	390.197	390.197	390.197	390.197	390.197	390.197
3	389.528	389.538	389.451	389.927	389.588	389.236	389.321	389.084	390.789	389.084
6	387.901	387.586	387.521	388.228	388.532	387.494	387.332	387.564	389.125	387.564
9	385.124	385.107	385.081	385.470	385.571	384.439	384.937	384.833	386.789	384.833
12	381.102	381.148	381.112	381.625	381.164	380.498	381.057	380.861	382.840	380.861
15	376.246	376.103	375.852	376.498	376.161	375.607	375.714	375.821	377.452	375.821
18	370.201	369.820	370.302	370.118	370.173	369.273	369.523	369.562	371.551	369.562
21	363.005	362.489	362.923	362.659	363.246	362.105	361.912	362.127	363.628	362.127
24	354.643	354.225	354.690	354.510	354.480	353.742	353.465	353.432	355.115	353.432
27	345.230	344.976	345.327	345.297	345.213	344.316	344.161	344.191	346.327	344.191
30	334.922	334.676	334.612	334.663	334.775	333.884	333.625	333.208	335.865	333.208
33	323.419	323.124	323.363	323.436	323.369	322.331	322.218	322.264	324.133	322.264
36	311.370	310.863	311.067	310.752	311.054	310.138	310.011	309.766	311.299	309.766
39	298.107	297.770	297.979	297.471	297.822	296.861	296.664	296.631	297.978	296.631
42	284.061	283.590	283.877	283.535	283.619	282.758	282.697	282.377	284.492	282.377
45	268.884	268.793	268.874	268.600	268.852	267.764	267.749	267.139	269.019	267.139
48	252.798	252.679	253.019	252.464	252.839	251.747	251.822	251.262	252.961	251.262
51	236.177	235.472	236.147	235.474	235.978	234.707	235.192	233.985	236.132	233.985
54	218.483	217.671	218.503	217.669	218.265	217.000	217.450	216.528	218.675	216.528

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57	200.077	199.210	199.958	199.126	199.756	198.475	198.672	198.217	199.434	198.217
60	180.182	179.569	180.228	179.507	180.230	178.976	179.452	178.398	180.302	178.398
63	159.765	159.158	159.797	159.324	159.986	159.248	159.210	158.423	159.932	158.423
66	139.072	138.585	139.382	138.467	139.208	138.422	138.776	137.728	139.815	137.728
69	117.826	117.186	118.252	117.482	118.216	117.387	117.824	116.678	118.404	116.678
72	96.605	95.902	96.986	95.948	97.060	95.908	96.845	95.608	97.044	95.608
75	75.100	74.790	75.999	75.245	76.057	75.138	75.329	73.823	74.394	73.823
78	55.052	55.005	55.873	55.275	54.970	53.624	53.793	51.247	54.284	51.247
81	36.302	35.966	37.114	35.235	32.163	20.239	15.314	6.046	2.174	6.046
84	20.255	19.769	16.769	5.829	2.121	1.611	1.706	1.005	1.252	1.005
87	7.027	3.695	1.322	0.968	0.842	0.788	0.609	0.413	0.452	0.413
90	0.254	0.131	0.219	0.160	0.158	0.064	0.145	0.208	0.174	0.208

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	390.197	390.197	390.197	390.197	390.197	390.197	390.197	390.197	390.197	390.197
3	389.321	389.236	389.588	389.927	389.451	389.538	389.528	389.691	389.528	389.538
6	387.332	387.494	388.532	388.228	387.521	387.586	387.901	388.010	387.901	387.586
9	384.937	384.439	385.571	385.470	385.081	385.107	385.124	384.882	385.124	385.107
12	381.057	380.498	381.164	381.625	381.112	381.148	381.102	381.648	381.102	381.148
15	375.714	375.607	376.161	376.498	375.852	376.103	376.246	376.316	376.246	376.103
18	369.523	369.273	370.173	370.118	370.302	369.820	370.201	370.210	370.201	369.820
21	361.912	362.105	363.246	362.659	362.923	362.489	363.005	362.965	363.005	362.489
24	353.465	353.742	354.480	354.510	354.690	354.225	354.643	354.584	354.643	354.225
27	344.161	344.316	345.213	345.297	345.327	344.976	345.230	345.238	345.230	344.976
30	333.625	333.884	334.775	334.663	334.612	334.676	334.922	334.915	334.922	334.676
33	322.218	322.331	323.369	323.436	323.363	323.124	323.419	323.564	323.419	323.124
36	310.011	310.138	311.054	310.752	311.067	310.863	311.370	311.362	311.370	310.863
39	296.664	296.861	297.822	297.471	297.979	297.770	298.107	297.986	298.107	297.770
42	282.697	282.758	283.619	283.535	283.877	283.590	284.061	283.898	284.061	283.590
45	267.749	267.764	268.852	268.600	268.874	268.793	268.884	269.045	268.884	268.793
48	251.822	251.747	252.839	252.464	253.019	252.679	252.798	252.891	252.798	252.679
51	235.192	234.707	235.978	235.474	236.147	235.472	236.177	235.820	236.177	235.472
54	217.450	217.000	218.265	217.669	218.503	217.671	218.483	217.963	218.483	217.671
57	198.672	198.475	199.756	199.126	199.958	199.210	200.077	199.293	200.077	199.210
60	179.452	178.976	180.230	179.507	180.228	179.569	180.182	179.620	180.182	179.569
63	159.210	159.248	159.986	159.324	159.797	159.158	159.765	159.332	159.765	159.158
66	138.776	138.422	139.208	138.467	139.382	138.585	139.072	138.537	139.072	138.585
69	117.824	117.387	118.216	117.482	118.252	117.186	117.826	117.178	117.826	117.186
72	96.845	95.908	97.060	95.948	96.986	95.902	96.605	95.681	96.605	95.902
75	75.329	75.138	76.057	75.245	75.999	74.790	75.100	74.667	75.100	74.790
78	53.793	53.624	54.970	55.275	55.873	55.005	55.052	54.518	55.052	55.005
81	15.314	20.239	32.163	35.235	37.114	35.966	36.302	35.342	36.302	35.966
84	1.706	1.611	2.121	5.829	16.769	19.769	20.255	19.103	20.255	19.769
87	0.609	0.788	0.842	0.968	1.322	3.695	7.027	6.629	7.027	3.695
90	0.145	0.064	0.158	0.160	0.219	0.131	0.254	0.441	0.254	0.131

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	390.197	390.197	390.197	390.197	390.197	390.197	390.197
3	389.451	389.927	389.588	389.236	389.321	389.084	390.789
6	387.521	388.228	388.532	387.494	387.332	387.564	389.125
9	385.081	385.470	385.571	384.439	384.937	384.833	386.789
12	381.112	381.625	381.164	380.498	381.057	380.861	382.840

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15	375.852	376.498	376.161	375.607	375.714	375.821	377.452
18	370.302	370.118	370.173	369.273	369.523	369.562	371.551
21	362.923	362.659	363.246	362.105	361.912	362.127	363.628
24	354.690	354.510	354.480	353.742	353.465	353.432	355.115
27	345.327	345.297	345.213	344.316	344.161	344.191	346.327
30	334.612	334.663	334.775	333.884	333.625	333.208	335.865
33	323.363	323.436	323.369	322.331	322.218	322.264	324.133
36	311.067	310.752	311.054	310.138	310.011	309.766	311.299
39	297.979	297.471	297.822	296.861	296.664	296.631	297.978
42	283.877	283.535	283.619	282.758	282.697	282.377	284.492
45	268.874	268.600	268.852	267.764	267.749	267.139	269.019
48	253.019	252.464	252.839	251.747	251.822	251.262	252.961
51	236.147	235.474	235.978	234.707	235.192	233.985	236.132
54	218.503	217.669	218.265	217.000	217.450	216.528	218.675
57	199.958	199.126	199.756	198.475	198.672	198.217	199.434
60	180.228	179.507	180.230	178.976	179.452	178.398	180.302
63	159.797	159.324	159.986	159.248	159.210	158.423	159.932
66	139.382	138.467	139.208	138.422	138.776	137.728	139.815
69	118.252	117.482	118.216	117.387	117.824	116.678	118.404
72	96.986	95.948	97.060	95.908	96.845	95.608	97.044
75	75.999	75.245	76.057	75.138	75.329	73.823	74.394
78	55.873	55.275	54.970	53.624	53.793	51.247	54.284
81	37.114	35.235	32.163	20.239	15.314	6.046	2.174
84	16.769	5.829	2.121	1.611	1.706	1.005	1.252
87	1.322	0.968	0.842	0.788	0.609	0.413	0.452
90	0.219	0.160	0.158	0.064	0.145	0.208	0.174

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	116.88	N.A.	10.30
0-30	305.05	N.A.	26.90
0-40	481.49	N.A.	42.50
0-60	897.94	N.A.	79.30
0-80	1111.09	N.A.	98.10
0-90	1132.05	N.A.	100.00
10-90	1102.06	N.A.	97.40
20-40	364.60	N.A.	32.20
20-50	551.26	N.A.	48.70
40-70	548.68	N.A.	48.50
60-80	213.15	N.A.	18.80
70-80	80.92	N.A.	7.10
80-90	20.96	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	1132.05	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	29.98
10-20	86.90
20-30	188.17
30-40	176.43
40-50	186.66
50-60	229.80
60-70	132.22
70-80	80.92
80-90	20.96
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

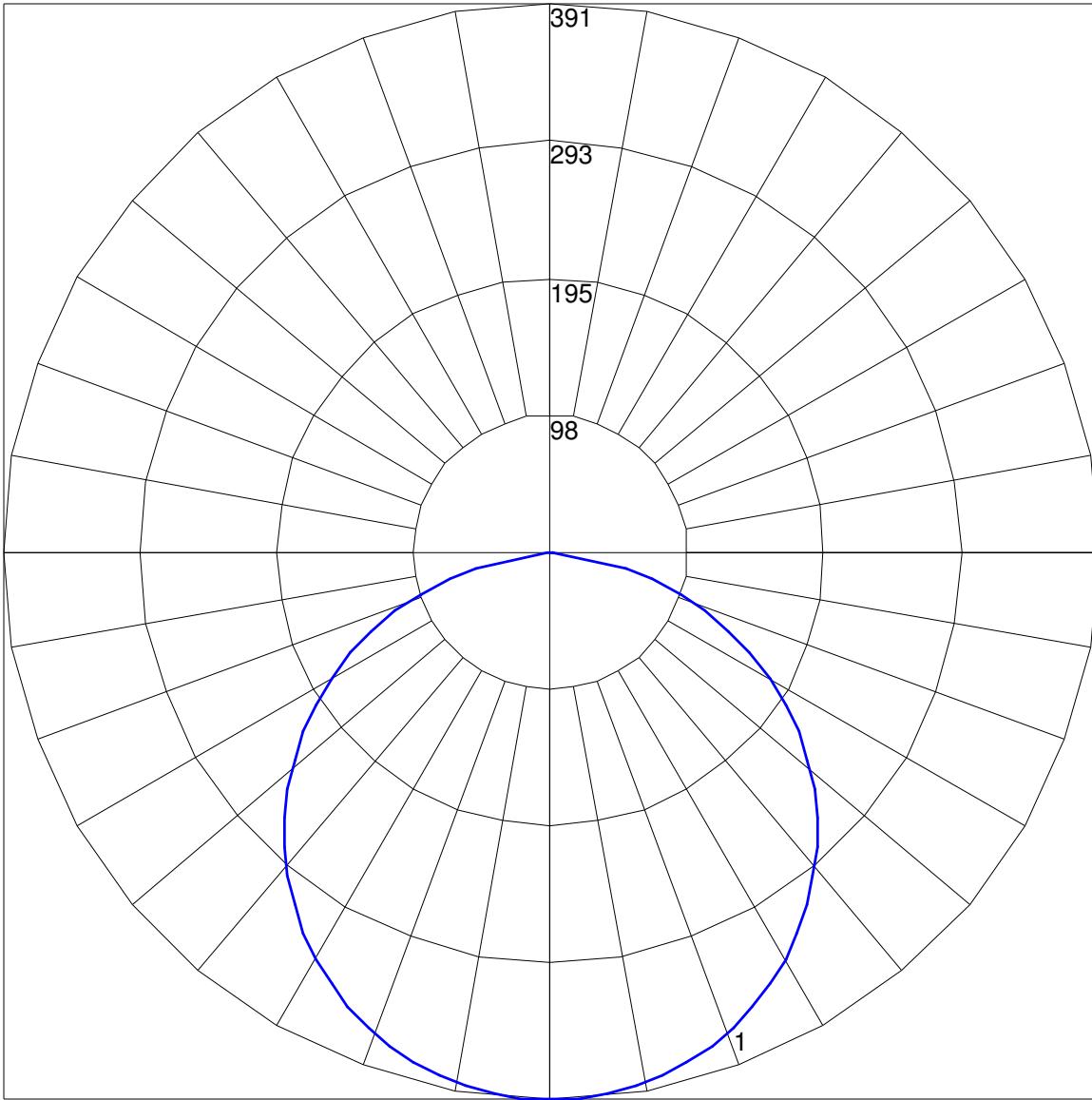
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	91	88	90	87	85	83
2	98	90	83	77	77	96	88	82	76	85	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	58
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	53	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 = 390.789 Located At Horizontal Angle = 0, Vertical Angle = 3
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)