



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

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1486
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
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	16828	18419	28574
55	13527	15048	26204
65	9820	11101	22381
75	5431	6417	15815
85	82	293	5338

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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	512.134	512.134	512.134	512.134	512.134	512.134	512.134	512.134	512.134	512.134
3	512.910	510.673	510.983	510.872	511.334	511.780	511.155	511.270	511.255	511.469
6	510.727	508.678	508.372	508.586	509.949	509.549	508.621	508.707	509.121	509.263
9	507.660	505.093	505.230	504.577	506.062	505.929	505.419	505.453	505.475	505.158
12	502.478	499.880	500.138	499.404	500.278	500.883	500.210	500.256	500.197	500.912
15	495.406	493.265	493.125	492.984	493.712	494.154	493.306	493.636	493.824	493.915
18	487.660	485.049	484.999	484.671	485.852	485.779	486.021	485.389	485.889	485.900
21	477.261	475.291	475.010	475.262	476.760	475.990	476.337	475.767	476.445	476.392
24	466.088	463.880	463.922	464.287	465.255	465.294	465.531	464.920	465.469	465.392
27	454.554	451.750	451.711	451.916	453.092	453.203	453.241	452.781	453.114	453.125
30	440.822	437.336	437.883	438.223	439.392	439.245	439.178	439.262	439.585	439.576
33	425.424	422.972	422.911	423.059	424.422	424.511	424.414	424.099	424.487	424.678
36	408.580	406.569	406.889	407.056	408.258	407.863	408.275	408.007	408.673	408.663
39	391.096	389.328	389.372	389.630	390.891	390.431	391.097	390.823	391.265	391.108
42	373.396	370.620	371.039	371.119	372.250	372.140	372.588	372.212	372.831	372.616
45	353.088	350.620	351.420	351.440	352.868	352.538	352.896	352.791	352.911	353.122
48	332.011	329.781	330.516	330.418	331.851	331.359	332.088	331.642	331.797	331.920
51	309.924	307.105	308.690	308.053	309.721	309.060	309.943	309.057	309.982	309.515
54	287.011	284.192	285.403	284.813	286.472	285.691	286.785	285.693	286.759	286.077
57	261.757	260.159	260.758	260.498	262.180	261.352	262.446	261.463	262.602	261.572
60	236.646	234.147	235.531	234.905	236.552	235.603	236.549	235.685	236.489	235.752
63	209.911	207.931	208.963	209.013	209.983	209.113	209.733	208.894	209.691	209.124
66	183.508	180.768	182.144	181.679	182.711	181.738	182.939	181.893	182.532	181.829
69	155.404	153.141	154.644	154.070	155.159	154.195	155.206	153.807	154.647	153.796
72	127.369	125.486	127.109	125.879	127.392	125.932	127.294	125.871	126.795	125.582
75	97.642	96.893	98.869	98.619	99.824	98.759	99.748	98.162	98.569	98.000
78	71.248	67.262	70.603	70.382	72.148	72.549	73.334	72.194	72.256	71.555
81	2.853	7.935	20.100	26.564	42.214	46.246	48.712	47.206	47.647	46.387
84	1.643	1.319	2.239	2.115	2.783	7.650	22.010	25.947	26.584	25.073
87	0.594	0.543	0.800	1.034	1.105	1.270	1.735	4.850	9.223	8.700
90	0.228	0.273	0.191	0.083	0.207	0.210	0.287	0.172	0.333	0.579

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	512.134	512.134	512.134	512.134	512.134	512.134	512.134	512.134	512.134	512.134
3	511.255	511.270	511.155	511.780	511.334	510.872	510.983	510.673	512.910	510.673
6	509.121	508.707	508.621	509.549	509.949	508.586	508.372	508.678	510.727	508.678
9	505.475	505.453	505.419	505.929	506.062	504.577	505.230	505.093	507.660	505.093
12	500.197	500.256	500.210	500.883	500.278	499.404	500.138	499.880	502.478	499.880
15	493.824	493.636	493.306	494.154	493.712	492.984	493.125	493.265	495.406	493.265
18	485.889	485.389	486.021	485.779	485.852	484.671	484.999	485.049	487.660	485.049
21	476.445	475.767	476.337	475.990	476.760	475.262	475.010	475.291	477.261	475.291
24	465.469	464.920	465.531	465.294	465.255	464.287	463.922	463.880	466.088	463.880
27	453.114	452.781	453.241	453.203	453.092	451.916	451.711	451.750	454.554	451.750
30	439.585	439.262	439.178	439.245	439.392	438.223	437.883	437.336	440.822	437.336
33	424.487	424.099	424.414	424.511	424.422	423.059	422.911	422.972	425.424	422.972
36	408.673	408.007	408.275	407.863	408.258	407.056	406.889	406.569	408.580	406.569
39	391.265	390.823	391.097	390.431	390.891	389.630	389.372	389.328	391.096	389.328
42	372.831	372.212	372.588	372.140	372.250	371.119	371.039	370.620	373.396	370.620
45	352.911	352.791	352.896	352.538	352.868	351.440	351.420	350.620	353.088	350.620
48	331.797	331.642	332.088	331.359	331.851	330.418	330.516	329.781	332.011	329.781
51	309.982	309.057	309.943	309.060	309.721	308.053	308.690	307.105	309.924	307.105
54	286.759	285.693	286.785	285.691	286.472	284.813	285.403	284.192	287.011	284.192

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CANDELA TABULATION - (Cont.)

57	262.602	261.463	262.446	261.352	262.180	260.498	260.758	260.159	261.757	260.159
60	236.489	235.685	236.549	235.603	236.552	234.905	235.531	234.147	236.646	234.147
63	209.691	208.894	209.733	209.113	209.983	209.013	208.963	207.931	209.911	207.931
66	182.532	181.893	182.939	181.738	182.711	181.679	182.144	180.768	183.508	180.768
69	154.647	153.807	155.206	154.195	155.159	154.070	154.644	153.141	155.404	153.141
72	126.795	125.871	127.294	125.932	127.392	125.879	127.109	125.486	127.369	125.486
75	98.569	98.162	99.748	98.759	99.824	98.619	98.869	96.893	97.642	96.893
78	72.256	72.194	73.334	72.549	72.148	70.382	70.603	67.262	71.248	67.262
81	47.647	47.206	48.712	46.246	42.214	26.564	20.100	7.935	2.853	7.935
84	26.584	25.947	22.010	7.650	2.783	2.115	2.239	1.319	1.643	1.319
87	9.223	4.850	1.735	1.270	1.105	1.034	0.800	0.543	0.594	0.543
90	0.333	0.172	0.287	0.210	0.207	0.083	0.191	0.273	0.228	0.273

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	512.134	512.134	512.134	512.134	512.134	512.134	512.134	512.134	512.134	512.134
3	510.983	510.872	511.334	511.780	511.155	511.270	511.255	511.469	511.255	511.270
6	508.372	508.586	509.949	509.549	508.621	508.707	509.121	509.263	509.121	508.707
9	505.230	504.577	506.062	505.929	505.419	505.453	505.475	505.158	505.475	505.453
12	500.138	499.404	500.278	500.883	500.210	500.256	500.197	500.912	500.197	500.256
15	493.125	492.984	493.712	494.154	493.306	493.636	493.824	493.915	493.824	493.636
18	484.999	484.671	485.852	485.779	486.021	485.389	485.889	485.900	485.889	485.389
21	475.010	475.262	476.760	475.990	476.337	475.767	476.445	476.392	476.445	475.767
24	463.922	464.287	465.255	465.294	465.531	464.920	465.469	465.392	465.469	464.920
27	451.711	451.916	453.092	453.203	453.241	452.781	453.114	453.125	453.114	452.781
30	437.883	438.223	439.392	439.245	439.178	439.262	439.585	439.576	439.585	439.262
33	422.911	423.059	424.422	424.511	424.414	424.099	424.487	424.678	424.487	424.099
36	406.889	407.056	408.258	407.863	408.275	408.007	408.673	408.663	408.673	408.007
39	389.372	389.630	390.891	390.431	391.097	390.823	391.265	391.108	391.265	390.823
42	371.039	371.119	372.250	372.140	372.588	372.212	372.831	372.616	372.831	372.212
45	351.420	351.440	352.868	352.538	352.896	352.791	352.911	353.122	352.911	352.791
48	330.516	330.418	331.851	331.359	332.088	331.642	331.797	331.920	331.797	331.642
51	308.690	308.053	309.721	309.060	309.943	309.057	309.982	309.515	309.982	309.057
54	285.403	284.813	286.472	285.691	286.785	285.693	286.759	286.077	286.759	285.693
57	260.758	260.498	262.180	261.352	262.446	261.463	262.602	261.572	262.602	261.463
60	235.531	234.905	236.552	235.603	236.549	235.685	236.489	235.752	236.489	235.685
63	208.963	209.013	209.983	209.113	209.733	208.894	209.691	209.124	209.691	208.894
66	182.144	181.679	182.711	181.738	182.939	181.893	182.532	181.829	182.532	181.893
69	154.644	154.070	155.159	154.195	155.206	153.807	154.647	153.796	154.647	153.807
72	127.109	125.879	127.392	125.932	127.294	125.871	126.795	125.582	126.795	125.871
75	98.869	98.619	99.824	98.759	99.748	98.162	98.569	98.000	98.569	98.162
78	70.603	70.382	72.148	72.549	73.334	72.194	72.256	71.555	72.256	72.194
81	20.100	26.564	42.214	46.246	48.712	47.206	47.647	46.387	47.647	47.206
84	2.239	2.115	2.783	7.650	22.010	25.947	26.584	25.073	26.584	25.947
87	0.800	1.034	1.105	1.270	1.735	4.850	9.223	8.700	9.223	4.850
90	0.191	0.083	0.207	0.210	0.287	0.172	0.333	0.579	0.333	0.172

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	512.134	512.134	512.134	512.134	512.134	512.134	512.134
3	511.155	511.780	511.334	510.872	510.983	510.673	512.910
6	508.621	509.549	509.949	508.586	508.372	508.678	510.727
9	505.419	505.929	506.062	504.577	505.230	505.093	507.660
12	500.210	500.883	500.278	499.404	500.138	499.880	502.478

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CANDELA TABULATION - (Cont.)

15	493.306	494.154	493.712	492.984	493.125	493.265	495.406
18	486.021	485.779	485.852	484.671	484.999	485.049	487.660
21	476.337	475.990	476.760	475.262	475.010	475.291	477.261
24	465.531	465.294	465.255	464.287	463.922	463.880	466.088
27	453.241	453.203	453.092	451.916	451.711	451.750	454.554
30	439.178	439.245	439.392	438.223	437.883	437.336	440.822
33	424.414	424.511	424.422	423.059	422.911	422.972	425.424
36	408.275	407.863	408.258	407.056	406.889	406.569	408.580
39	391.097	390.431	390.891	389.630	389.372	389.328	391.096
42	372.588	372.140	372.250	371.119	371.039	370.620	373.396
45	352.896	352.538	352.868	351.440	351.420	350.620	353.088
48	332.088	331.359	331.851	330.418	330.516	329.781	332.011
51	309.943	309.060	309.721	308.053	308.690	307.105	309.924
54	286.785	285.691	286.472	284.813	285.403	284.192	287.011
57	262.446	261.352	262.180	260.498	260.758	260.159	261.757
60	236.549	235.603	236.552	234.905	235.531	234.147	236.646
63	209.733	209.113	209.983	209.013	208.963	207.931	209.911
66	182.939	181.738	182.711	181.679	182.144	180.768	183.508
69	155.206	154.195	155.159	154.070	154.644	153.141	155.404
72	127.294	125.932	127.392	125.879	127.109	125.486	127.369
75	99.748	98.759	99.824	98.619	98.869	96.893	97.642
78	73.334	72.549	72.148	70.382	70.603	67.262	71.248
81	48.712	46.246	42.214	26.564	20.100	7.935	2.853
84	22.010	7.650	2.783	2.115	2.239	1.319	1.643
87	1.735	1.270	1.105	1.034	0.800	0.543	0.594
90	0.287	0.210	0.207	0.083	0.191	0.273	0.228

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	153.41	N.A.	10.30
0-30	400.38	N.A.	26.90
0-40	631.95	N.A.	42.50
0-60	1178.55	N.A.	79.30
0-80	1458.3	N.A.	98.10
0-90	1485.81	N.A.	100.00
10-90	1446.46	N.A.	97.40
20-40	478.54	N.A.	32.20
20-50	723.53	N.A.	48.70
40-70	720.14	N.A.	48.50
60-80	279.75	N.A.	18.80
70-80	106.21	N.A.	7.10
80-90	27.51	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	1485.81	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	39.35
10-20	114.06
20-30	246.97
30-40	231.57
40-50	244.99
50-60	301.61
60-70	173.54
70-80	106.21
80-90	27.51
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

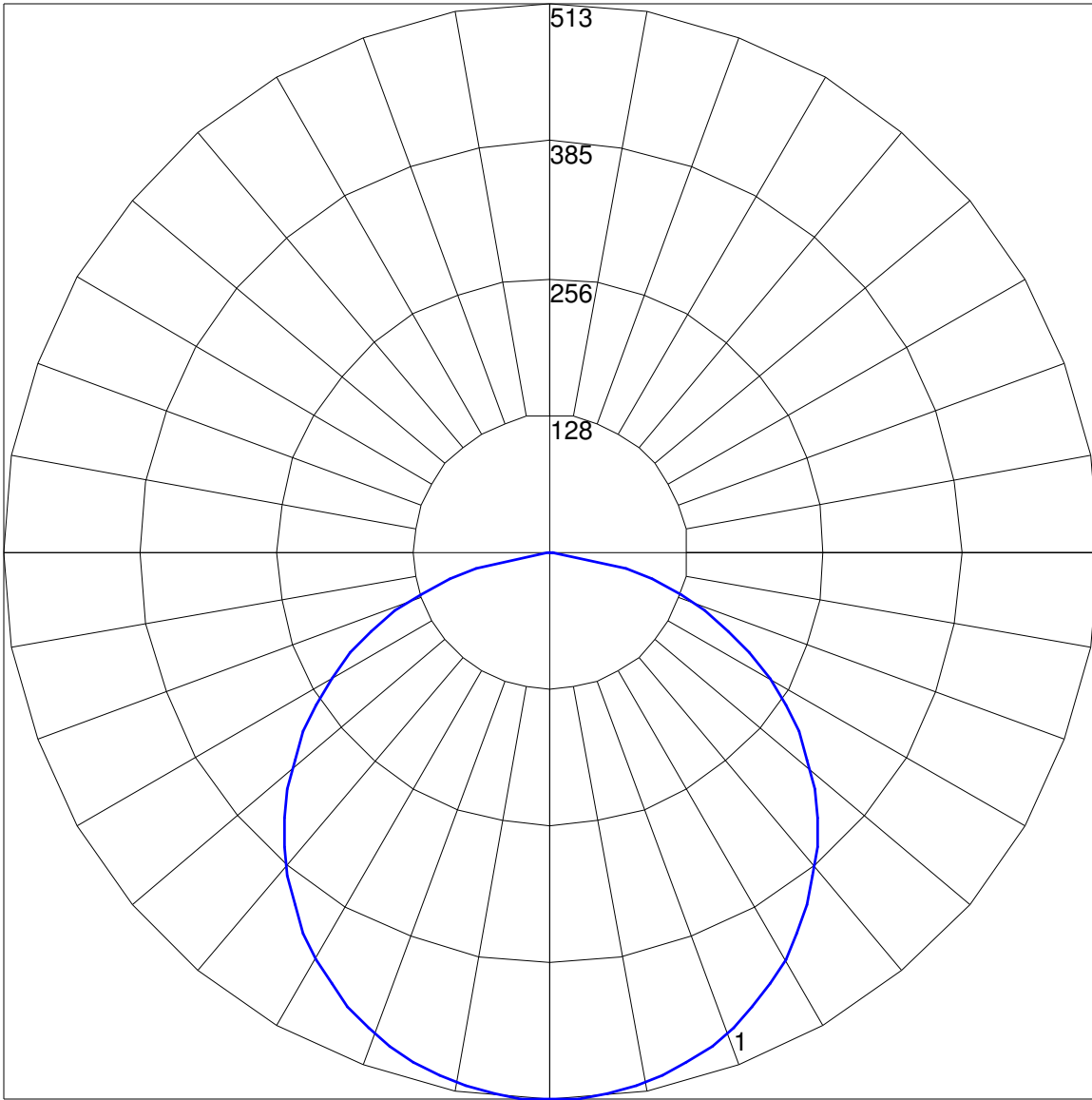
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	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	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 = 512.91 Located At Horizontal Angle = 0, Vertical Angle = 3
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)