



IES INDOOR REPORT
PHOTOMETRIC FILENAME : A1-ZYZY-STN-35K-CL-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-CL-5W
[LUMINAIRE] A1-ZYZY-STN-35K-CL-5W
[LAMP CAT] A1-ZYZY-STN-35K-CL-5W
[LAMP] A1-ZYZY-STN-35K-CL-5W

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	708
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	142
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	8013	8771	13606
55	6441	7166	12478
65	4676	5286	10658
75	2586	3056	7531
85	39	139	2542

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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	243.873	243.873	243.873	243.873	243.873	243.873	243.873	243.873	243.873	243.873
3	244.243	243.178	243.326	243.272	243.492	243.705	243.407	243.461	243.455	243.557
6	243.203	242.228	242.082	242.184	242.833	242.643	242.200	242.241	242.438	242.506
9	241.743	240.521	240.586	240.274	240.982	240.919	240.676	240.692	240.702	240.551
12	239.275	238.038	238.161	237.811	238.228	238.516	238.195	238.217	238.189	238.530
15	235.908	234.888	234.821	234.754	235.101	235.311	234.907	235.065	235.154	235.197
18	232.219	230.976	230.952	230.796	231.358	231.324	231.439	231.137	231.376	231.381
21	227.267	226.329	226.195	226.316	227.029	226.662	226.827	226.556	226.878	226.853
24	221.947	220.895	220.916	221.089	221.550	221.569	221.681	221.391	221.652	221.615
27	216.454	215.119	215.101	215.198	215.758	215.811	215.829	215.610	215.768	215.774
30	209.915	208.255	208.516	208.678	209.234	209.164	209.132	209.173	209.326	209.322
33	202.583	201.415	201.386	201.457	202.106	202.148	202.102	201.952	202.137	202.228
36	194.562	193.604	193.757	193.836	194.409	194.220	194.417	194.289	194.606	194.601
39	186.236	185.394	185.415	185.538	186.139	185.920	186.237	186.106	186.317	186.241
42	177.807	176.486	176.685	176.724	177.262	177.210	177.423	177.244	177.538	177.436
45	168.137	166.962	167.343	167.352	168.032	167.875	168.046	167.996	168.053	168.153
48	158.101	157.039	157.389	157.342	158.024	157.790	158.137	157.924	157.999	158.057
51	147.583	146.241	146.995	146.692	147.486	147.171	147.592	147.170	147.610	147.388
54	136.672	135.330	135.906	135.625	136.415	136.043	136.564	136.044	136.552	136.227
57	124.646	123.885	124.170	124.047	124.848	124.453	124.974	124.506	125.048	124.558
60	112.689	111.499	112.158	111.860	112.644	112.192	112.643	112.231	112.614	112.263
63	99.957	99.015	99.506	99.530	99.991	99.578	99.873	99.474	99.853	99.583
66	87.385	86.080	86.735	86.514	87.005	86.542	87.114	86.616	86.920	86.586
69	74.002	72.924	73.640	73.367	73.885	73.426	73.908	73.241	73.641	73.236
72	60.652	59.755	60.528	59.943	60.663	59.968	60.616	59.939	60.378	59.801
75	46.496	46.139	47.081	46.961	47.536	47.028	47.499	46.744	46.938	46.667
78	33.928	32.029	33.620	33.515	34.356	34.547	34.921	34.378	34.408	34.074
81	1.359	3.779	9.571	12.650	20.102	22.022	23.196	22.479	22.689	22.089
84	0.782	0.628	1.066	1.007	1.325	3.643	10.481	12.356	12.659	11.939
87	0.283	0.258	0.381	0.492	0.526	0.605	0.826	2.309	4.392	4.143
90	0.109	0.130	0.091	0.040	0.099	0.100	0.137	0.082	0.159	0.276

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	243.873	243.873	243.873	243.873	243.873	243.873	243.873	243.873	243.873	243.873
3	243.455	243.461	243.407	243.705	243.492	243.272	243.326	243.178	244.243	243.178
6	242.438	242.241	242.200	242.643	242.833	242.184	242.082	242.228	243.203	242.228
9	240.702	240.692	240.676	240.919	240.982	240.274	240.586	240.521	241.743	240.521
12	238.189	238.217	238.195	238.516	238.228	237.811	238.161	238.038	239.275	238.038
15	235.154	235.065	234.907	235.311	235.101	234.754	234.821	234.888	235.908	234.888
18	231.376	231.137	231.439	231.324	231.358	230.796	230.952	230.976	232.219	230.976
21	226.878	226.556	226.827	226.662	227.029	226.316	226.195	226.329	227.267	226.329
24	221.652	221.391	221.681	221.569	221.550	221.089	220.916	220.895	221.947	220.895
27	215.768	215.610	215.829	215.811	215.758	215.198	215.101	215.119	216.454	215.119
30	209.326	209.173	209.132	209.164	209.234	208.678	208.516	208.255	209.915	208.255
33	202.137	201.952	202.102	202.148	202.106	201.457	201.386	201.415	202.583	201.415
36	194.606	194.289	194.417	194.220	194.409	193.836	193.757	193.604	194.562	193.604
39	186.317	186.106	186.237	185.920	186.139	185.538	185.415	185.394	186.236	185.394
42	177.538	177.244	177.423	177.210	177.262	176.724	176.685	176.486	177.807	176.486
45	168.053	167.996	168.046	167.875	168.032	167.352	167.343	166.962	168.137	166.962
48	157.999	157.924	158.137	157.790	158.024	157.342	157.389	157.039	158.101	157.039
51	147.610	147.170	147.592	147.171	147.486	146.692	146.995	146.241	147.583	146.241
54	136.552	136.044	136.564	136.043	136.415	135.625	135.906	135.330	136.672	135.330

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CANDELA TABULATION - (Cont.)

57	125.048	124.506	124.974	124.453	124.848	124.047	124.170	123.885	124.646	123.885
60	112.614	112.231	112.643	112.192	112.644	111.860	112.158	111.499	112.689	111.499
63	99.853	99.474	99.873	99.578	99.991	99.530	99.506	99.015	99.957	99.015
66	86.920	86.616	87.114	86.542	87.005	86.514	86.735	86.080	87.385	86.080
69	73.641	73.241	73.908	73.426	73.885	73.367	73.640	72.924	74.002	72.924
72	60.378	59.939	60.616	59.968	60.663	59.943	60.528	59.755	60.652	59.755
75	46.938	46.744	47.499	47.028	47.536	46.961	47.081	46.139	46.496	46.139
78	34.408	34.378	34.921	34.547	34.356	33.515	33.620	32.029	33.928	32.029
81	22.689	22.479	23.196	22.022	20.102	12.650	9.571	3.779	1.359	3.779
84	12.659	12.356	10.481	3.643	1.325	1.007	1.066	0.628	0.782	0.628
87	4.392	2.309	0.826	0.605	0.526	0.492	0.381	0.258	0.283	0.258
90	0.159	0.082	0.137	0.100	0.099	0.040	0.091	0.130	0.109	0.130

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	243.873	243.873	243.873	243.873	243.873	243.873	243.873	243.873	243.873	243.873
3	243.326	243.272	243.492	243.705	243.407	243.461	243.455	243.557	243.455	243.461
6	242.082	242.184	242.833	242.643	242.200	242.241	242.438	242.506	242.438	242.241
9	240.586	240.274	240.982	240.919	240.676	240.692	240.702	240.551	240.702	240.692
12	238.161	237.811	238.228	238.516	238.195	238.217	238.189	238.530	238.189	238.217
15	234.821	234.754	235.101	235.311	234.907	235.065	235.154	235.197	235.154	235.065
18	230.952	230.796	231.358	231.324	231.439	231.137	231.376	231.381	231.376	231.137
21	226.195	226.316	227.029	226.662	226.827	226.556	226.878	226.853	226.878	226.556
24	220.916	221.089	221.550	221.569	221.681	221.391	221.652	221.615	221.652	221.391
27	215.101	215.198	215.758	215.811	215.829	215.610	215.768	215.774	215.768	215.610
30	208.516	208.678	209.234	209.164	209.132	209.173	209.326	209.322	209.326	209.173
33	201.386	201.457	202.106	202.148	202.102	201.952	202.137	202.228	202.137	201.952
36	193.757	193.836	194.409	194.220	194.417	194.289	194.606	194.601	194.606	194.289
39	185.415	185.538	186.139	185.920	186.237	186.106	186.317	186.241	186.317	186.106
42	176.685	176.724	177.262	177.210	177.423	177.244	177.538	177.436	177.538	177.244
45	167.343	167.352	168.032	167.875	168.046	167.996	168.053	168.153	168.053	167.996
48	157.389	157.342	158.024	157.790	158.137	157.924	157.999	158.057	157.999	157.924
51	146.995	146.692	147.486	147.171	147.592	147.170	147.610	147.388	147.610	147.170
54	135.906	135.625	136.415	136.043	136.564	136.044	136.552	136.227	136.552	136.044
57	124.170	124.047	124.848	124.453	124.974	124.506	125.048	124.558	125.048	124.506
60	112.158	111.860	112.644	112.192	112.643	112.231	112.614	112.263	112.614	112.231
63	99.506	99.530	99.991	99.578	99.873	99.474	99.853	99.583	99.853	99.474
66	86.735	86.514	87.005	86.542	87.114	86.616	86.920	86.586	86.920	86.616
69	73.640	73.367	73.885	73.426	73.908	73.241	73.641	73.236	73.641	73.241
72	60.528	59.943	60.663	59.968	60.616	59.939	60.378	59.801	60.378	59.939
75	47.081	46.961	47.536	47.028	47.499	46.744	46.938	46.667	46.938	46.744
78	33.620	33.515	34.356	34.547	34.921	34.378	34.408	34.074	34.408	34.378
81	9.571	12.650	20.102	22.022	23.196	22.479	22.689	22.089	22.689	22.479
84	1.066	1.007	1.325	3.643	10.481	12.356	12.659	11.939	12.659	12.356
87	0.381	0.492	0.526	0.605	0.826	2.309	4.392	4.143	4.392	2.309
90	0.091	0.040	0.099	0.100	0.137	0.082	0.159	0.276	0.159	0.082

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	243.873	243.873	243.873	243.873	243.873	243.873	243.873
3	243.407	243.705	243.492	243.272	243.326	243.178	244.243
6	242.200	242.643	242.833	242.184	242.082	242.228	243.203
9	240.676	240.919	240.982	240.274	240.586	240.521	241.743
12	238.195	238.516	238.228	237.811	238.161	238.038	239.275

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CANDELA TABULATION - (Cont.)

15	234.907	235.311	235.101	234.754	234.821	234.888	235.908
18	231.439	231.324	231.358	230.796	230.952	230.976	232.219
21	226.827	226.662	227.029	226.316	226.195	226.329	227.267
24	221.681	221.569	221.550	221.089	220.916	220.895	221.947
27	215.829	215.811	215.758	215.198	215.101	215.119	216.454
30	209.132	209.164	209.234	208.678	208.516	208.255	209.915
33	202.102	202.148	202.106	201.457	201.386	201.415	202.583
36	194.417	194.220	194.409	193.836	193.757	193.604	194.562
39	186.237	185.920	186.139	185.538	185.415	185.394	186.236
42	177.423	177.210	177.262	176.724	176.685	176.486	177.807
45	168.046	167.875	168.032	167.352	167.343	166.962	168.137
48	158.137	157.790	158.024	157.342	157.389	157.039	158.101
51	147.592	147.171	147.486	146.692	146.995	146.241	147.583
54	136.564	136.043	136.415	135.625	135.906	135.330	136.672
57	124.974	124.453	124.848	124.047	124.170	123.885	124.646
60	112.643	112.192	112.644	111.860	112.158	111.499	112.689
63	99.873	99.578	99.991	99.530	99.506	99.015	99.957
66	87.114	86.542	87.005	86.514	86.735	86.080	87.385
69	73.908	73.426	73.885	73.367	73.640	72.924	74.002
72	60.616	59.968	60.663	59.943	60.528	59.755	60.652
75	47.499	47.028	47.536	46.961	47.081	46.139	46.496
78	34.921	34.547	34.356	33.515	33.620	32.029	33.928
81	23.196	22.022	20.102	12.650	9.571	3.779	1.359
84	10.481	3.643	1.325	1.007	1.066	0.628	0.782
87	0.826	0.605	0.526	0.492	0.381	0.258	0.283
90	0.137	0.100	0.099	0.040	0.091	0.130	0.109

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	73.05	N.A.	10.30
0-30	190.66	N.A.	26.90
0-40	300.93	N.A.	42.50
0-60	561.21	N.A.	79.30
0-80	694.43	N.A.	98.10
0-90	707.53	N.A.	100.00
10-90	688.79	N.A.	97.40
20-40	227.88	N.A.	32.20
20-50	344.54	N.A.	48.70
40-70	342.92	N.A.	48.50
60-80	133.22	N.A.	18.80
70-80	50.58	N.A.	7.10
80-90	13.10	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	707.53	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	18.74
10-20	54.31
20-30	117.60
30-40	110.27
40-50	116.66
50-60	143.62
60-70	82.64
70-80	50.58
80-90	13.10
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

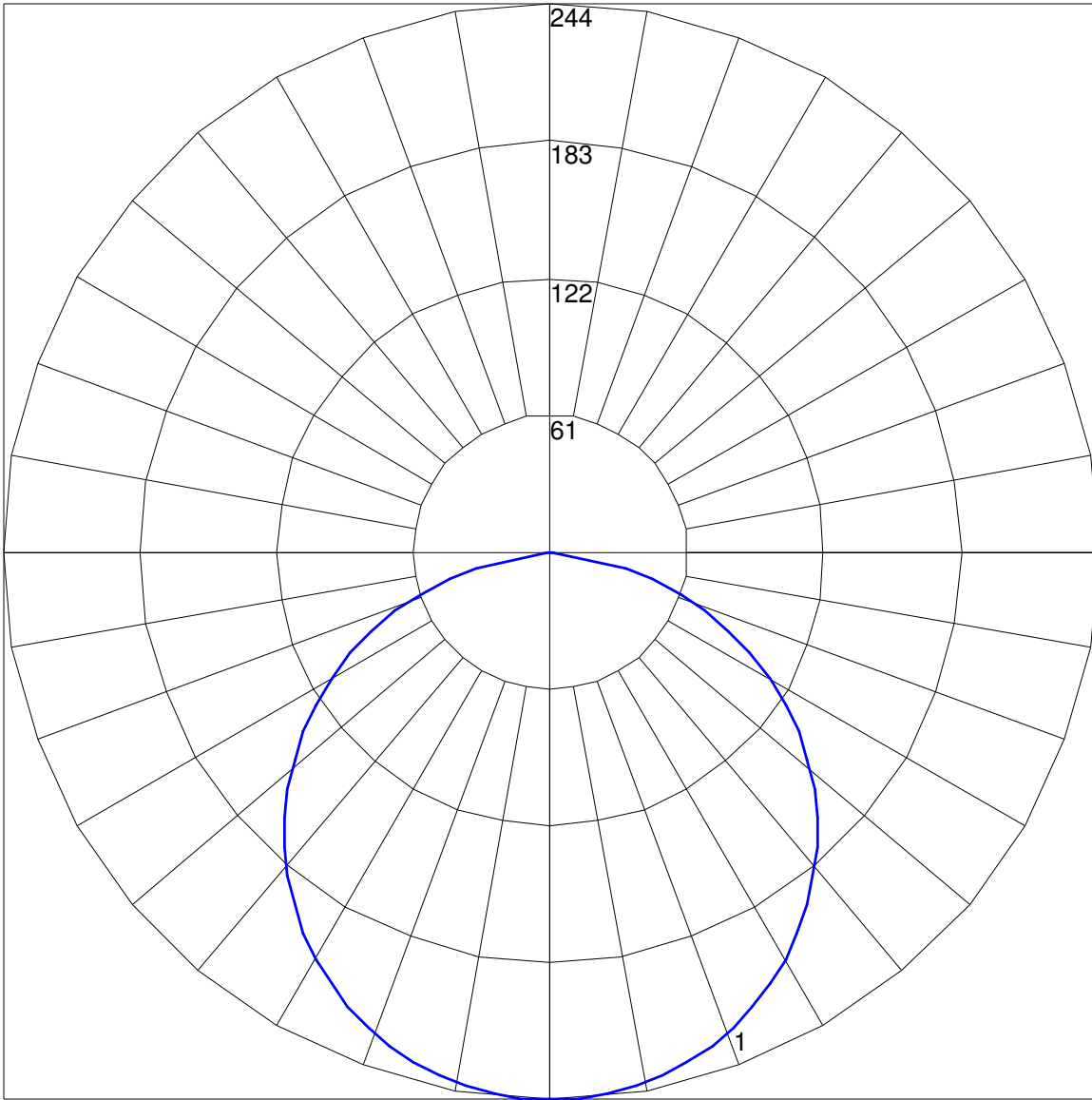
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	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 = 244.243 Located At Horizontal Angle = 0, Vertical Angle = 3
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)