



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : L061702303 FREESTYLE 21 60.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] L061702303  
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)  
[ISSUEDATE] 6/13/2017  
[MANUFAC] Kino Flo Lighting Systems  
[LUMCAT] CFX-F21 or CFX-F21T  
[LUMINAIRE] FreeStyle 21, w 60 Louver  
[BALLASTCAT] KINO FLO LED-150X or LED-151X  
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
[TEST CONDITION] BRIGHTNESS IS SET TO 100%. COLOR TEMPERATURE IS SET TO 6500K.  
[MORE] TEST IS PERFORMED WITH 60 DEGREE LOUVER.  
[INPUT] 120VAC, 1.09A, 130.17W, 0.99PF, 7% ATHD  
[TEST PROCEDURE] IESNA:LM-79-08

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	967
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	7
Total Luminaire Watts	130.17
Ballast Factor	1.00
CIE Type	Direct
Spacing Criteria (0-180)	0.56
Spacing Criteria (90-270)	0.52
Spacing Criteria (Diagonal)	0.56
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.85 ft
Luminous Width (90-270)	1.85 ft
Luminous Height	0.00 ft

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	135	266	232
55	95	119	107
65	113	113	113
75	159	159	159
85	471	471	471

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**CANDELA TABULATION**

	<b>0</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>	<b>45</b>
<b>0.0</b>	2651	2651	2651	2651	2651	2651	2651	2651	2651	2651
<b>1.0</b>	2623	2623	2624	2626	2627	2628	2629	2629	2629	2629
<b>3.0</b>	2532	2531	2530	2530	2532	2533	2534	2535	2536	2535
<b>5.0</b>	2398	2399	2399	2400	2401	2402	2403	2404	2405	2404
<b>7.0</b>	2247	2246	2247	2248	2248	2248	2248	2249	2250	2249
<b>9.0</b>	2081	2080	2081	2080	2080	2080	2080	2080	2080	2078
<b>11.0</b>	1900	1900	1900	1900	1899	1899	1898	1897	1896	1893
<b>13.0</b>	1711	1711	1711	1712	1712	1712	1710	1707	1704	1698
<b>15.0</b>	1512	1512	1515	1517	1518	1518	1515	1510	1503	1494
<b>17.0</b>	1311	1311	1315	1319	1322	1322	1318	1310	1300	1286
<b>19.5</b>	1063	1064	1068	1073	1077	1077	1071	1060	1043	1023
<b>22.5</b>	785	784	785	786	787	786	777	760	737	713
<b>25.5</b>	540	538	533	526	519	512	499	481	461	446
<b>29.0</b>	308	303	291	272	252	235	223	219	218	221
<b>33.0</b>	123	113	104	95	94	98	104	112	119	125
<b>37.5</b>	39	40	44	48	53	57	62	66	70	73
<b>42.5</b>	17	19	20	25	29	30	33	34	35	36
<b>47.5</b>	11	12	12	13	15	16	17	18	19	19
<b>55.0</b>	8	8	8	9	9	9	10	10	10	10
<b>65.0</b>	7	7	7	7	7	7	7	7	7	7
<b>75.0</b>	6	6	6	6	6	6	6	6	6	6
<b>85.0</b>	6	6	6	6	6	6	6	6	6	6
<b>90.0</b>	0	0	0	0	0	0	0	0	0	0

**Vert. Angles**      **Horizontal Angles**

	<b>50</b>	<b>55</b>	<b>60</b>	<b>65</b>	<b>70</b>	<b>75</b>	<b>80</b>	<b>85</b>	<b>90</b>
<b>0.0</b>	2651	2651	2651	2651	2651	2651	2651	2651	2651
<b>1.0</b>	2629	2630	2630	2632	2632	2633	2633	2634	2634
<b>3.0</b>	2534	2532	2529	2526	2525	2522	2520	2519	2519
<b>5.0</b>	2401	2395	2391	2383	2377	2372	2369	2366	2365
<b>7.0</b>	2243	2238	2228	2218	2210	2202	2198	2194	2194
<b>9.0</b>	2072	2063	2050	2038	2027	2019	2013	2010	2009
<b>11.0</b>	1885	1872	1857	1843	1832	1824	1818	1815	1814
<b>13.0</b>	1688	1674	1657	1643	1632	1624	1619	1616	1616
<b>15.0</b>	1482	1465	1449	1436	1426	1420	1417	1415	1415
<b>17.0</b>	1271	1254	1239	1228	1221	1218	1216	1217	1217
<b>19.5</b>	1003	986	974	968	967	968	971	974	975
<b>22.5</b>	694	680	672	669	672	679	687	694	696
<b>25.5</b>	436	430	425	422	422	425	431	437	440
<b>29.0</b>	225	229	231	229	224	218	214	213	213
<b>33.0</b>	129	132	133	132	130	126	123	120	119
<b>37.5</b>	76	77	78	77	75	72	68	64	63
<b>42.5</b>	37	38	37	37	35	33	32	32	32
<b>47.5</b>	19	19	18	17	16	16	16	16	16
<b>55.0</b>	10	10	10	10	9	9	9	9	9
<b>65.0</b>	7	7	7	7	7	7	7	7	7
<b>75.0</b>	6	6	6	6	6	6	6	6	6
<b>85.0</b>	6	6	6	6	6	6	6	6	6
<b>90.0</b>	0	0	0	0	0	0	0	0	0

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-30	844.66	N.A.	87.30
0-40	910.53	N.A.	94.10
0-60	944.75	N.A.	97.70
0-90	967.29	N.A.	100.00
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
0-180	967.29	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	178.40
10-20	421.07
20-30	245.19
30-40	65.87
40-50	26.05
50-60	8.17
60-70	7.73
70-80	6.69
80-90	8.11
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

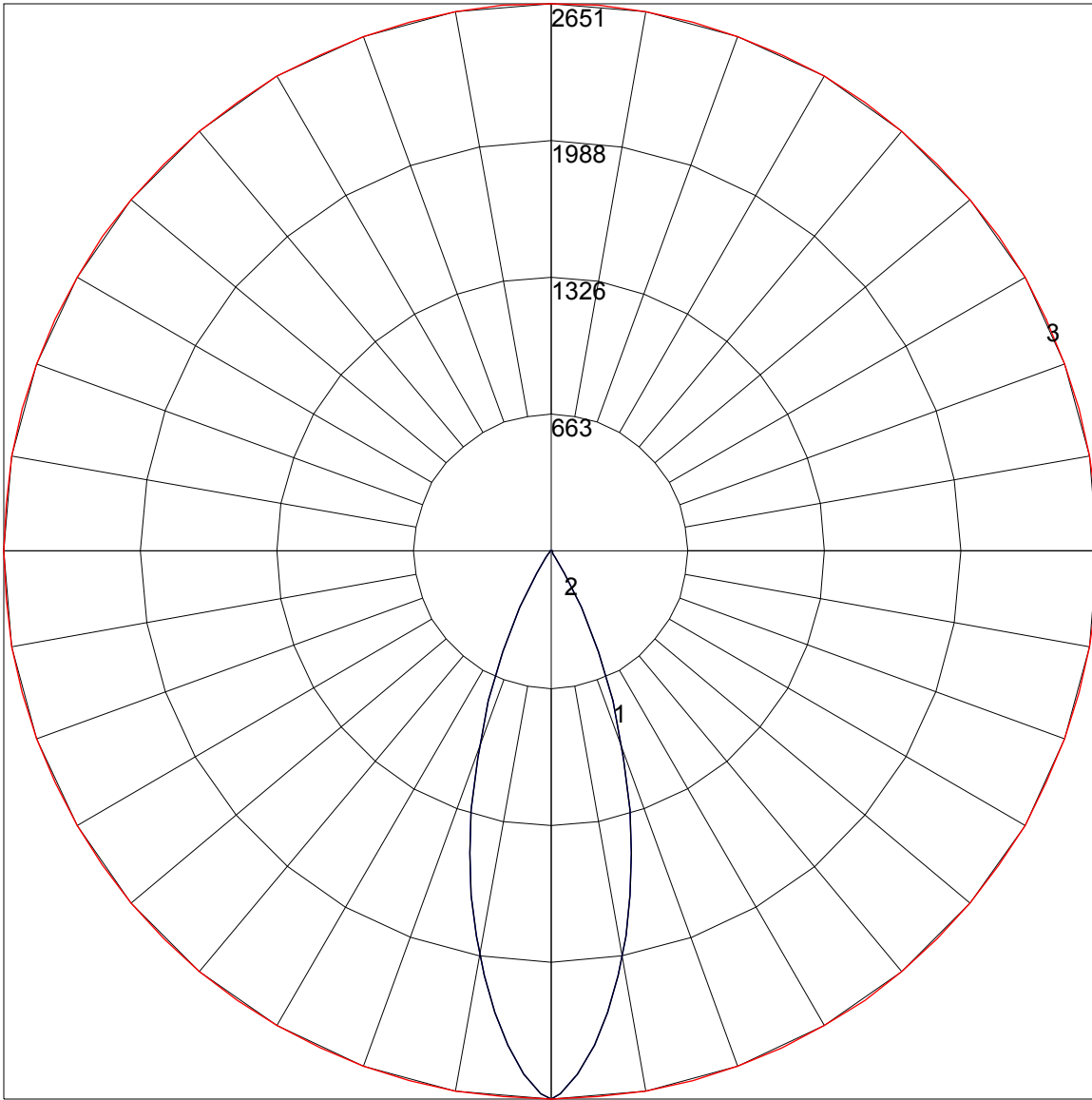
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	0
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94	0
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89	0
3	105	99	94	91	103	97	93	90	95	92	89	93	90	87	90	88	86	85	0
4	100	94	89	85	99	93	88	85	91	87	84	89	85	83	87	84	82	80	0
5	96	89	84	80	95	88	83	80	87	82	79	85	81	79	83	80	78	77	0
6	93	85	80	76	91	84	79	76	83	79	75	81	78	75	80	77	74	73	0
7	89	81	76	72	88	81	76	72	79	75	72	78	74	72	77	74	71	70	0
8	86	78	73	69	85	77	72	69	76	72	69	75	71	68	74	71	68	67	0
9	83	75	69	66	82	74	69	66	73	69	66	72	68	66	72	68	65	64	0
10	80	72	67	63	79	71	66	63	70	66	63	70	66	63	69	65	63	62	0

POLAR GRAPH



Maximum Candela = 2651 Located At Horizontal Angle = 0, Vertical Angle = 0

# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

# 2 - Vertical Plane Through Horizontal Angles (0 - 180)

# 3 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)