



**KINO FLO® LIGHTING SYSTEMS**

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : L061702302 FREESTYLE 21 90.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] L061702302

[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)

[ISSUE DATE] 6/13/2017

[MANUFAC] Kino Flo Lighting Systems

[LUMCAT] CFX-F21 or CFX-F21T

[LUMINAIRE] FreeStyle 21, w 90 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 90 DEGREE LOUVER.

[INPUT] 120VAC, 1.09A, 130.24W, 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	1498
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	12
Total Luminaire Watts	130.24
Ballast Factor	1.00
CIE Type	Direct
Spacing Criteria (0-180)	0.66
Spacing Criteria (90-270)	0.66
Spacing Criteria (Diagonal)	0.70
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	779	779	769
55	262	274	274
65	162	162	162
75	238	238	238
85	628	628	628

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**CANDELA TABULATION**

	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
<b>0.0</b>	2618	2618	2618	2618	2618	2618	2618	2618	2618	2618
<b>1.0</b>	2601	2601	2601	2602	2603	2605	2606	2607	2606	2606
<b>3.0</b>	2537	2536	2537	2538	2540	2540	2540	2540	2542	2543
<b>5.0</b>	2437	2436	2436	2437	2437	2439	2441	2442	2444	2447
<b>7.0</b>	2314	2314	2315	2316	2317	2318	2320	2319	2321	2324
<b>9.0</b>	2178	2178	2179	2179	2180	2182	2183	2184	2186	2187
<b>11.0</b>	2031	2031	2031	2032	2033	2034	2036	2037	2039	2040
<b>13.0</b>	1882	1882	1883	1883	1884	1885	1886	1888	1889	1891
<b>15.0</b>	1733	1733	1733	1733	1734	1735	1736	1737	1739	1741
<b>17.0</b>	1584	1584	1584	1585	1586	1587	1588	1589	1590	1592
<b>19.5</b>	1397	1397	1398	1399	1401	1402	1403	1404	1405	1405
<b>22.5</b>	1172	1172	1173	1174	1176	1178	1179	1179	1180	1180
<b>25.5</b>	950	951	952	953	955	956	957	958	958	958
<b>29.0</b>	705	705	706	707	708	709	710	710	710	710
<b>33.0</b>	447	447	448	448	448	448	449	449	450	450
<b>37.5</b>	217	217	216	216	215	215	215	215	216	217
<b>42.5</b>	101	101	100	100	100	100	100	100	100	101
<b>47.5</b>	60	60	59	59	59	59	59	59	59	60
<b>55.0</b>	22	22	22	23	23	23	23	23	23	23
<b>65.0</b>	10	10	10	10	10	10	10	10	10	10
<b>75.0</b>	9	9	9	9	9	9	9	9	9	9
<b>85.0</b>	8	8	8	8	8	8	8	8	8	8
<b>90.0</b>	0	0	0	0	0	0	0	0	0	0

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

	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>
<b>0.0</b>	2618	2618	2618	2618	2618	2618	2618	2618	2618
<b>1.0</b>	2607	2609	2609	2609	2609	2610	2612	2614	2614
<b>3.0</b>	2546	2549	2549	2548	2548	2547	2548	2550	2552
<b>5.0</b>	2447	2449	2449	2449	2450	2451	2449	2448	2450
<b>7.0</b>	2324	2327	2326	2328	2331	2330	2328	2328	2329
<b>9.0</b>	2189	2191	2192	2193	2193	2194	2194	2194	2195
<b>11.0</b>	2042	2044	2045	2046	2047	2047	2047	2047	2048
<b>13.0</b>	1893	1895	1897	1897	1898	1898	1898	1898	1899
<b>15.0</b>	1743	1745	1746	1747	1747	1748	1748	1748	1749
<b>17.0</b>	1593	1595	1596	1597	1598	1599	1599	1600	1601
<b>19.5</b>	1407	1408	1409	1410	1411	1412	1414	1415	1416
<b>22.5</b>	1181	1181	1183	1184	1185	1187	1188	1190	1191
<b>25.5</b>	958	959	960	960	962	964	966	967	969
<b>29.0</b>	711	711	712	713	714	715	717	719	720
<b>33.0</b>	451	451	452	452	453	454	455	455	456
<b>37.5</b>	218	219	219	219	219	219	219	219	219
<b>42.5</b>	101	101	101	101	101	100	100	100	100
<b>47.5</b>	60	60	60	60	59	59	59	59	59
<b>55.0</b>	23	23	23	23	23	23	23	23	23
<b>65.0</b>	10	10	10	10	10	10	10	10	10
<b>75.0</b>	9	9	9	9	9	9	9	9	9
<b>85.0</b>	8	8	8	8	8	8	8	8	8
<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	1121.93	N.A.	74.90
0-40	1348.22	N.A.	90.00
0-60	1461.5	N.A.	97.50
0-90	1498.22	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	1498.22	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	183.82
10-20	495.86
20-30	442.25
30-40	226.29
40-50	86.93
50-60	26.35
60-70	15.58
70-80	9.78
80-90	11.36
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

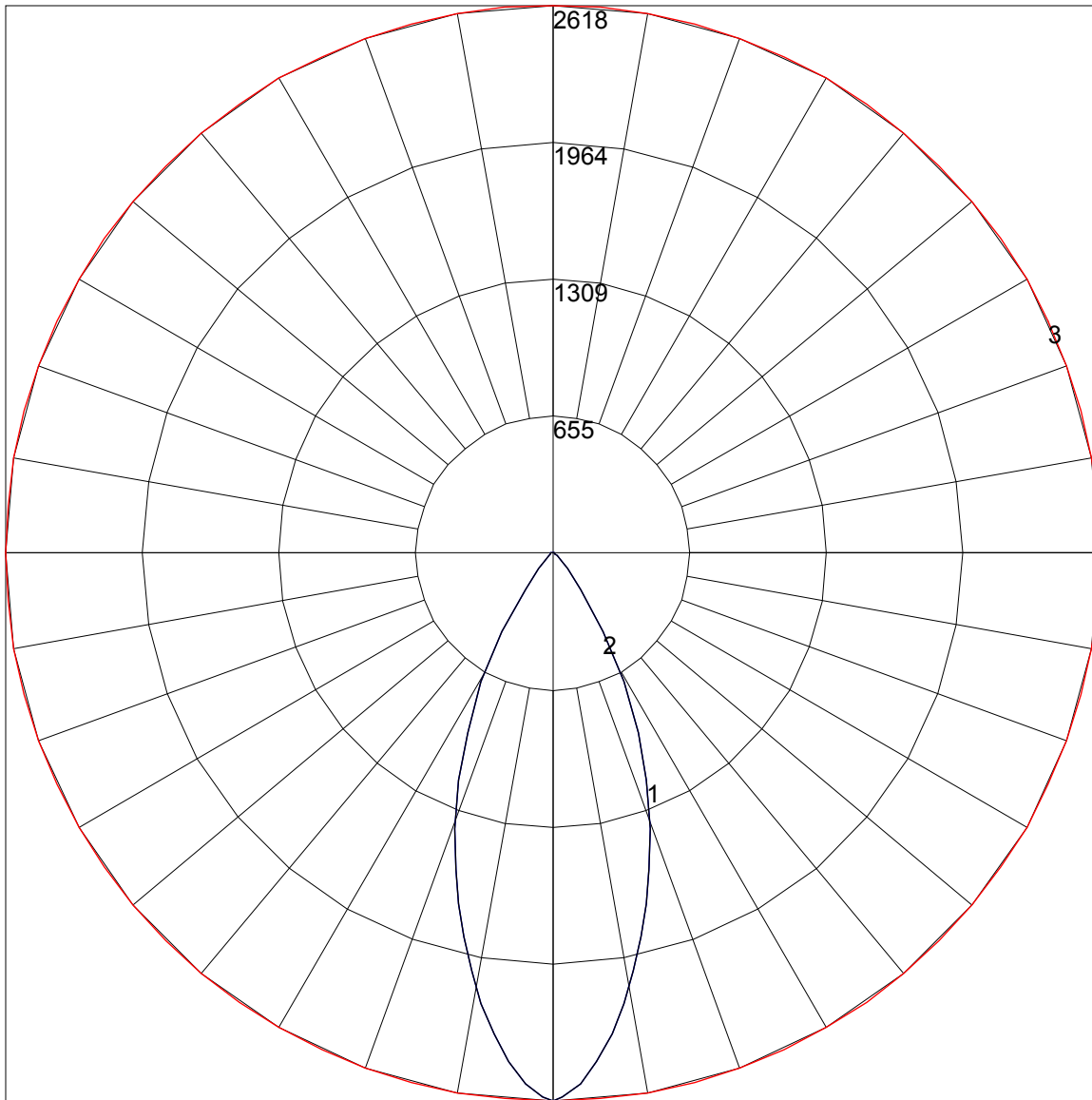
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87
3	102	96	91	87	100	95	90	86	92	88	85	90	86	84	87	85	82	81
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	67
7	84	75	69	65	83	75	69	65	73	68	65	72	68	64	71	67	64	63
8	80	71	65	61	79	71	65	61	70	65	61	69	64	61	68	64	60	59
9	77	68	62	58	76	67	62	58	66	61	58	65	61	57	64	60	57	56
10	74	64	59	55	73	64	58	55	63	58	55	62	58	54	61	57	54	53

POLAR GRAPH



Maximum Candela = 2618 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.)