



**KINO FLO® LIGHTING SYSTEMS**

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : L061702305 FREESTYLE 31 90.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] L061702305

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

[ISSUEDATE] 6/13/2017

[MANUFAC] Kino Flo Lighting Systems

[LUMCAT] CFX-F31 or CFX-F31T

[LUMINAIRE] FreeStyle 31, 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 WITH 90 DEGREE LOUVER.

[INPUT] 120VAC, 1.04A, 124.09W, 0.99PF, 8%ATHD

[TEST PROCEDURE] IESNA:LM-79-08

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1423
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	11
Total Luminaire Watts	124.09
Ballast Factor	1.00
CIE Type	Direct
Spacing Criteria (0-180)	0.66
Spacing Criteria (90-270)	0.68
Spacing Criteria (Diagonal)	0.72
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.67 ft
Luminous Width (90-270)	3.00 ft
Luminous Height	0.00 ft



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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	579	594	617
55	196	205	215
65	127	127	127
75	165	165	165
85	430	430	491

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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>	2431	2431	2431	2431	2431	2431	2431	2431	2431	2431
<b>1.0</b>	2405	2405	2406	2408	2409	2410	2411	2411	2411	2411
<b>3.0</b>	2349	2349	2349	2351	2353	2355	2356	2358	2359	2361
<b>5.0</b>	2267	2266	2267	2269	2271	2274	2276	2279	2282	2285
<b>7.0</b>	2152	2151	2152	2154	2156	2160	2162	2166	2170	2173
<b>9.0</b>	2024	2024	2025	2027	2030	2033	2037	2041	2045	2048
<b>11.0</b>	1890	1890	1891	1893	1896	1899	1903	1907	1911	1914
<b>13.0</b>	1750	1751	1752	1754	1757	1761	1764	1768	1772	1776
<b>15.0</b>	1608	1609	1610	1613	1616	1620	1623	1627	1631	1635
<b>17.0</b>	1467	1468	1470	1473	1476	1480	1484	1488	1492	1495
<b>19.5</b>	1291	1292	1294	1297	1301	1306	1310	1314	1318	1321
<b>22.5</b>	1081	1082	1084	1088	1092	1097	1101	1105	1109	1111
<b>25.5</b>	877	878	880	884	888	892	896	900	903	905
<b>29.0</b>	651	652	654	657	660	664	668	672	675	677
<b>33.0</b>	420	420	421	423	425	428	431	434	437	440
<b>37.5</b>	214	214	214	215	216	217	218	221	223	226
<b>42.5</b>	96	96	96	96	96	96	96	97	98	100
<b>47.5</b>	57	57	57	57	57	57	57	57	57	57
<b>55.0</b>	21	21	21	22	22	22	22	22	22	22
<b>65.0</b>	10	10	10	10	10	10	10	10	10	10
<b>75.0</b>	8	8	8	8	8	8	8	8	8	8
<b>85.0</b>	7	7	7	7	7	7	7	7	7	7
<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>	2431	2431	2431	2431	2431	2431	2431	2431	2431
<b>1.0</b>	2411	2412	2412	2414	2414	2414	2414	2415	2415
<b>3.0</b>	2362	2363	2363	2365	2366	2366	2367	2367	2367
<b>5.0</b>	2287	2288	2289	2291	2292	2292	2293	2293	2293
<b>7.0</b>	2175	2177	2178	2181	2182	2182	2184	2184	2184
<b>9.0</b>	2050	2052	2055	2058	2059	2060	2061	2062	2062
<b>11.0</b>	1918	1920	1923	1926	1928	1930	1931	1932	1932
<b>13.0</b>	1780	1783	1786	1789	1791	1794	1795	1797	1797
<b>15.0</b>	1639	1643	1646	1649	1652	1655	1657	1659	1660
<b>17.0</b>	1499	1503	1506	1510	1513	1517	1519	1522	1523
<b>19.5</b>	1324	1327	1331	1335	1339	1343	1347	1350	1351
<b>22.5</b>	1114	1117	1121	1125	1129	1134	1139	1142	1144
<b>25.5</b>	908	911	914	919	923	928	933	936	938
<b>29.0</b>	679	681	684	688	692	697	702	705	707
<b>33.0</b>	442	444	446	450	453	456	459	461	462
<b>37.5</b>	230	232	234	236	238	238	239	239	240
<b>42.5</b>	101	104	105	105	105	105	105	105	105
<b>47.5</b>	57	58	58	58	58	58	58	58	58
<b>55.0</b>	22	22	22	22	22	23	23	23	23
<b>65.0</b>	10	10	10	10	10	10	10	10	10
<b>75.0</b>	8	8	8	8	8	8	8	8	8
<b>85.0</b>	7	7	7	7	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	1054.06	N.A.	74.10
0-40	1274.97	N.A.	89.60
0-60	1388.6	N.A.	97.60
0-90	1423.27	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	1423.27	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	171.42
10-20	465.29
20-30	417.34
30-40	220.91
40-50	88.16
50-60	25.47
60-70	15.20
70-80	9.26
80-90	10.21
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

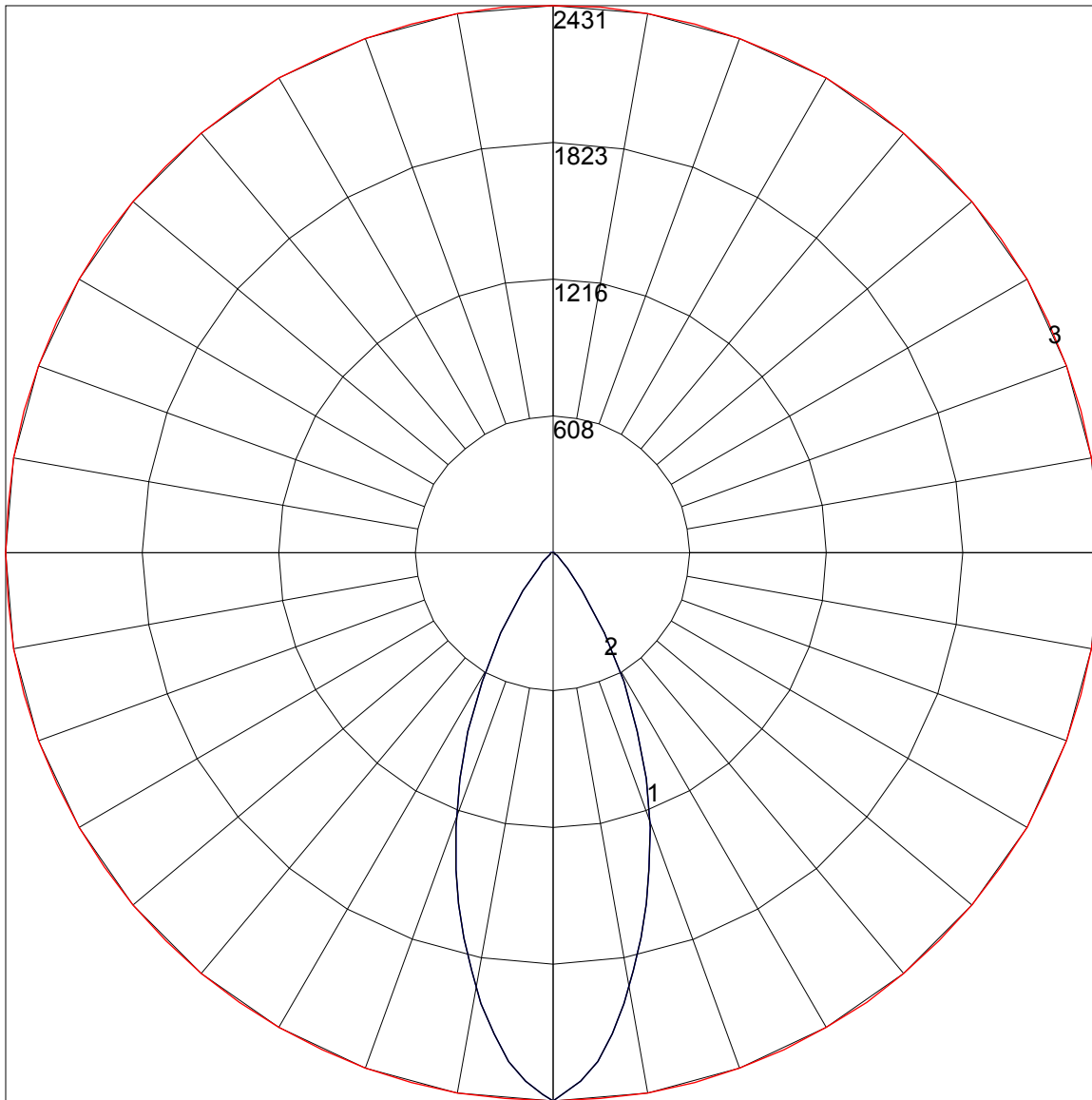
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	86
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	81
4	97	90	84	80	95	89	84	80	86	82	79	84	81	78	83	79	77	75
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	78	75	72	71
6	88	79	73	69	87	79	73	69	77	72	69	76	71	68	74	71	68	66
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62
8	80	71	65	61	79	70	65	61	69	64	61	68	64	60	67	63	60	59
9	77	67	61	58	76	67	61	57	66	61	57	65	60	57	64	60	57	56
10	73	64	58	54	72	63	58	54	63	58	54	62	57	54	61	57	54	53

POLAR GRAPH



Maximum Candela = 2431 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.)