



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : GA22-LED-HO-CW-P12.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]LED-4156A  
[TESTLAB]LSI INDUSTRIES, INC  
[ISSUEDATE]03/2/16  
[TESTDATE]06/12/13  
[MANUFAC]LSI INDUSTRIES, INC  
[ \_ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.  
[OTHER]SCALED FROM ORIGINAL TEST DATA  
[OTHER]TEST PROCEDURE: IESNA LM-79-08  
[ \_SEARCH\_SOURCE] LED  
[ \_SEARCH\_APPLICATION] Indoor  
[LUMCAT]GA22-LED-HO-CW-P12

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4012
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	118
Total Luminaire Watts	34
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	2.00 ft
Luminous Width (90-270)	2.00 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3740	3722	3705
55	2920	2822	2577
65	2177	1889	1874
75	1735	1458	1868
85	2362	2290	2970

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	1702.88	1702.88	1702.88	1702.88	1702.88
2.5	1698.24	1697.08	1702.88	1707.52	1707.52
5.0	1694.76	1693.60	1700.56	1704.04	1705.20
7.5	1685.48	1685.48	1693.60	1697.08	1699.40
10.0	1670.40	1673.88	1682.00	1686.64	1687.80
12.5	1651.84	1655.32	1665.76	1672.72	1671.56
15.0	1628.64	1634.44	1644.88	1653.00	1651.84
17.5	1601.96	1610.08	1619.36	1630.96	1635.60
20.0	1574.12	1578.76	1589.20	1605.44	1610.08
22.5	1540.48	1545.12	1556.72	1572.96	1578.76
25.0	1502.20	1506.84	1520.76	1533.52	1539.32
27.5	1459.28	1462.76	1476.68	1490.60	1498.72
30.0	1410.56	1412.88	1425.64	1441.88	1452.32
32.5	1356.04	1357.20	1368.80	1386.20	1398.96
35.0	1293.40	1295.72	1305.00	1323.56	1337.48
37.5	1226.12	1228.44	1235.40	1250.48	1260.92
40.0	1150.72	1151.88	1155.36	1165.80	1172.76
42.5	1069.52	1069.52	1068.36	1070.68	1076.48
45.0	983.68	982.52	979.04	974.40	974.40
47.5	892.04	892.04	886.24	871.16	864.20
50.0	800.40	800.40	793.44	759.80	749.36
52.5	709.92	708.76	697.16	654.24	641.48
55.0	622.92	619.44	602.04	559.12	549.84
57.5	541.72	533.60	510.40	476.76	468.64
60.0	467.48	451.24	428.04	406.00	399.04
62.5	397.88	382.80	360.76	350.32	344.52
65.0	342.20	320.16	296.96	299.28	294.64
67.5	287.68	266.80	243.60	257.52	255.20
70.0	242.44	222.72	199.52	225.04	225.04
72.5	201.84	186.76	165.88	198.36	199.52
75.0	167.04	157.76	140.36	175.16	179.80
77.5	138.04	132.24	122.96	151.96	162.40
80.0	119.48	114.84	114.84	129.92	141.52
82.5	102.08	96.28	97.44	114.84	120.64
85.0	76.56	73.08	74.24	92.80	96.28
87.5	47.56	46.40	46.40	59.16	56.84
90.0	17.40	16.24	13.92	15.08	12.76
92.5	2.32	2.32	2.32	2.32	2.32
95.0	2.32	2.32	2.32	2.32	2.32
97.5	2.32	2.32	2.32	2.32	2.32
100.0	2.32	2.32	2.32	2.32	2.32
102.5	2.32	2.32	2.32	2.32	1.16
105.0	2.32	2.32	2.32	2.32	2.32
107.5	2.32	2.32	2.32	2.32	2.32
110.0	2.32	2.32	2.32	2.32	2.32
112.5	2.32	2.32	2.32	2.32	2.32
115.0	2.32	2.32	2.32	2.32	2.32
117.5	2.32	2.32	2.32	2.32	2.32
120.0	2.32	2.32	2.32	2.32	2.32
122.5	2.32	2.32	2.32	2.32	2.32
125.0	2.32	2.32	2.32	2.32	2.32
127.5	2.32	2.32	2.32	2.32	2.32
130.0	2.32	2.32	2.32	2.32	2.32
132.5	3.48	2.32	2.32	2.32	2.32

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	3.48	3.48	3.48	3.48	2.32
<b>137.5</b>	3.48	3.48	3.48	2.32	3.48
<b>140.0</b>	3.48	3.48	3.48	2.32	3.48
<b>142.5</b>	3.48	3.48	3.48	3.48	3.48
<b>145.0</b>	3.48	3.48	3.48	3.48	3.48
<b>147.5</b>	3.48	3.48	3.48	3.48	3.48
<b>150.0</b>	3.48	3.48	3.48	3.48	3.48
<b>152.5</b>	3.48	3.48	3.48	3.48	3.48
<b>155.0</b>	3.48	3.48	3.48	3.48	3.48
<b>157.5</b>	3.48	3.48	3.48	3.48	3.48
<b>160.0</b>	3.48	3.48	3.48	3.48	3.48
<b>162.5</b>	4.64	3.48	3.48	3.48	3.48
<b>165.0</b>	3.48	3.48	3.48	3.48	4.64
<b>167.5</b>	3.48	4.64	4.64	3.48	4.64
<b>170.0</b>	3.48	3.48	3.48	3.48	4.64
<b>172.5</b>	3.48	3.48	3.48	3.48	3.48
<b>175.0</b>	3.48	3.48	3.48	3.48	3.48
<b>177.5</b>	3.48	3.48	3.48	3.48	3.48
<b>180.0</b>	3.48	3.48	3.48	3.48	3.48

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	625.41	N.A.	15.60
0-30	1325.14	N.A.	33.00
0-40	2140.9	N.A.	53.40
0-60	3424.87	N.A.	85.40
0-80	3910.42	N.A.	97.50
0-90	3993.87	N.A.	99.50
10-90	3832.26	N.A.	95.50
20-40	1515.49	N.A.	37.80
20-50	2266.87	N.A.	56.50
40-70	1595.25	N.A.	39.80
60-80	485.54	N.A.	12.10
70-80	174.26	N.A.	4.30
80-90	83.45	N.A.	2.10
90-110	6.70	N.A.	0.20
90-120	9.00	N.A.	0.20
90-130	11.08	N.A.	0.30
90-150	15.50	N.A.	0.40
90-180	18.50	N.A.	0.50
110-180	11.81	N.A.	0.30
0-180	4012.38	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	161.61
10-20	463.80
20-30	699.73
30-40	815.76
40-50	751.38
50-60	532.59
60-70	311.28
70-80	174.26
80-90	83.45
90-100	4.28
100-110	2.42
110-120	2.30
120-130	2.08
130-140	2.26
140-150	2.16
150-160	1.61
160-170	1.06
170-180	0.34

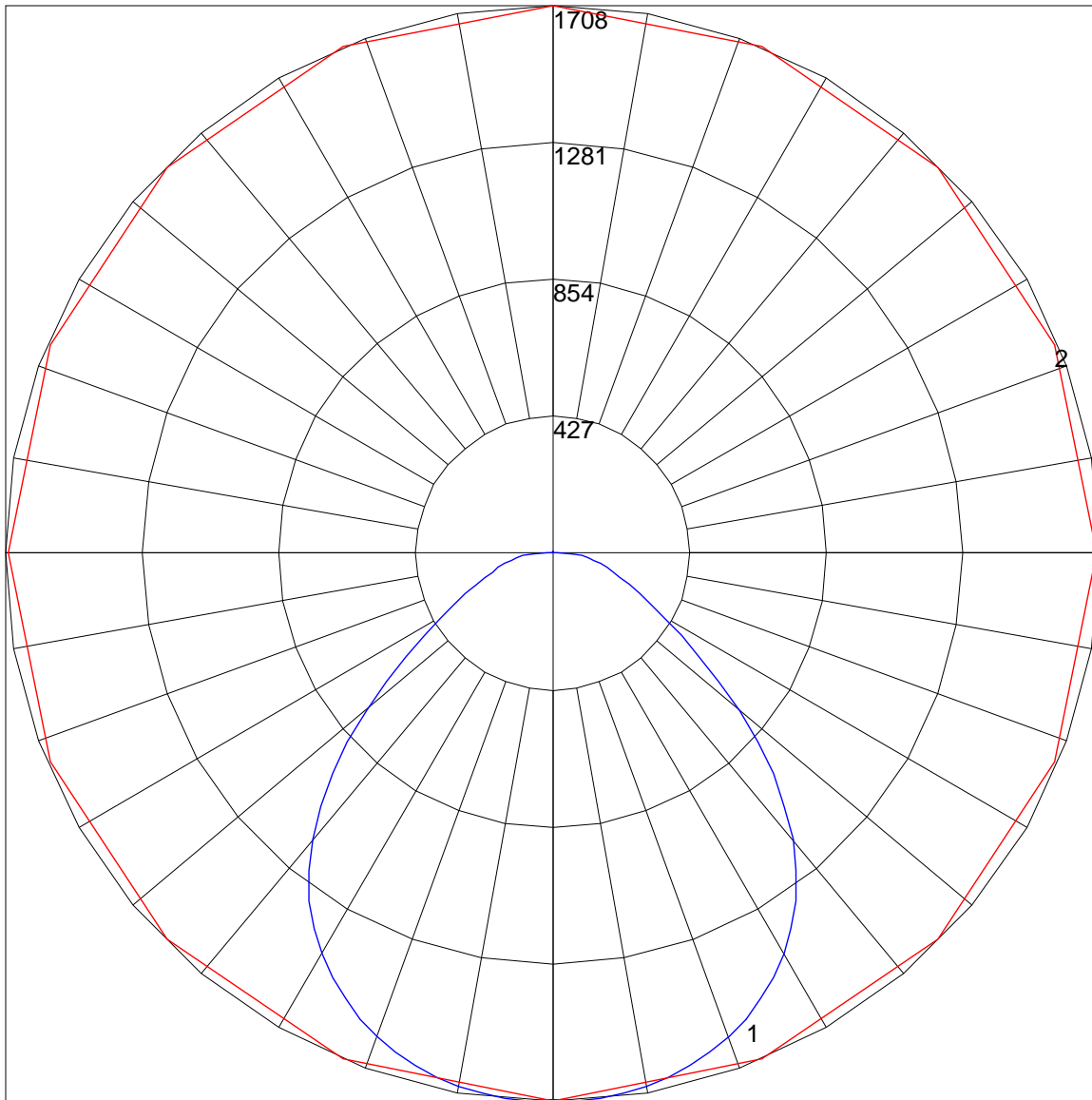
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	101	93	87	82	98	91	86	81	88	83	79	84	80	77	81	78	75	73
3	93	83	75	69	90	81	74	69	78	72	68	76	71	66	73	69	65	63
4	85	74	66	60	83	73	65	59	70	64	59	68	62	58	66	61	57	55
5	79	67	59	52	77	66	58	52	64	57	51	62	56	51	60	55	50	48
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	55	49	45	43
7	68	55	47	41	66	55	47	41	53	46	41	52	45	40	50	44	40	38
8	64	51	43	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	60	47	39	34	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

POLAR GRAPH



Maximum Candela = 1707.52 Located At Horizontal Angle = 67.5, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (67.5 - 247.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)