



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AP-22-L50-835-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM LLI-20113-1  
 [TESTLAB] LightLab International (www.LightLabInt.com)  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] AP-22-L50-835-DIM-UNV  
 [LUMINAIRE] RECESSED 2 X 2 ARCHED CENTER LED LUMINAIRE  
 [MORE] White steel fabricated housing with frosted white concave lens.  
 [MORE] 180 LEDs with 90 mounted along each long side of clear plastic sheet.  
 [ISSUE DATE] 2023-10-24  
 [SEARCH\_SOURCETYPE] LED  
 [SEARCH\_APPLICATION] Indoor, Architectural, Direct-Indirect  
 [SEARCH\_MOUNTING] Recessed  
 [CONVERT] Photometric web converted from original test data

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5065
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	45.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.55 m
Luminous Width (90-270)	0.57 m
Luminous Height	0.00 m

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5159	5234	5394
55	4935	5041	5263
65	4608	4752	5034
75	4062	4209	4664
85	2485	2744	3359

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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>
<b>0</b>	1770.662	1770.662	1770.662	1770.662	1770.662
<b>5</b>	1760.132	1761.969	1761.402	1762.425	1762.253
<b>10</b>	1730.835	1732.229	1734.547	1739.035	1740.786
<b>15</b>	1686.286	1688.851	1692.414	1699.245	1702.969
<b>20</b>	1630.024	1630.764	1636.201	1645.782	1652.563
<b>25</b>	1557.522	1558.570	1566.745	1579.076	1586.461
<b>30</b>	1471.951	1476.193	1483.973	1498.251	1508.362
<b>35</b>	1376.133	1380.473	1389.610	1405.652	1417.119
<b>40</b>	1268.774	1273.263	1283.608	1301.277	1316.936
<b>45</b>	1152.390	1156.656	1169.134	1186.877	1204.744
<b>50</b>	1027.732	1032.208	1044.378	1064.895	1082.712
<b>55</b>	894.048	899.917	913.259	934.467	953.492
<b>60</b>	756.604	761.363	775.000	797.404	816.898
<b>65</b>	615.103	619.751	634.387	653.943	672.031
<b>70</b>	472.504	476.635	488.842	507.214	526.005
<b>75</b>	332.101	335.245	344.123	362.236	381.274
<b>80</b>	196.050	197.542	204.471	219.909	235.075
<b>85</b>	68.408	68.137	75.547	84.326	92.464
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	645.38	N.A.	12.70
0-30	1368.57	N.A.	27.00
0-40	2239.98	N.A.	44.20
0-60	3964.74	N.A.	78.30
0-80	4965.61	N.A.	98.00
0-90	5064.56	N.A.	100.00
10-90	4897.23	N.A.	96.70
20-40	1594.6	N.A.	31.50
20-50	2499.18	N.A.	49.30
40-70	2355.84	N.A.	46.50
60-80	1000.87	N.A.	19.80
70-80	369.79	N.A.	7.30
80-90	98.96	N.A.	2.00
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	5064.56	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	167.33
10-20	478.05
20-30	723.19
30-40	871.41
40-50	904.58
50-60	820.18
60-70	631.08
70-80	369.79
80-90	98.96
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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	46	38	32	59	46	38	32	44	37	32	43	36	32	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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**UGR TABLE - CORRECTED**

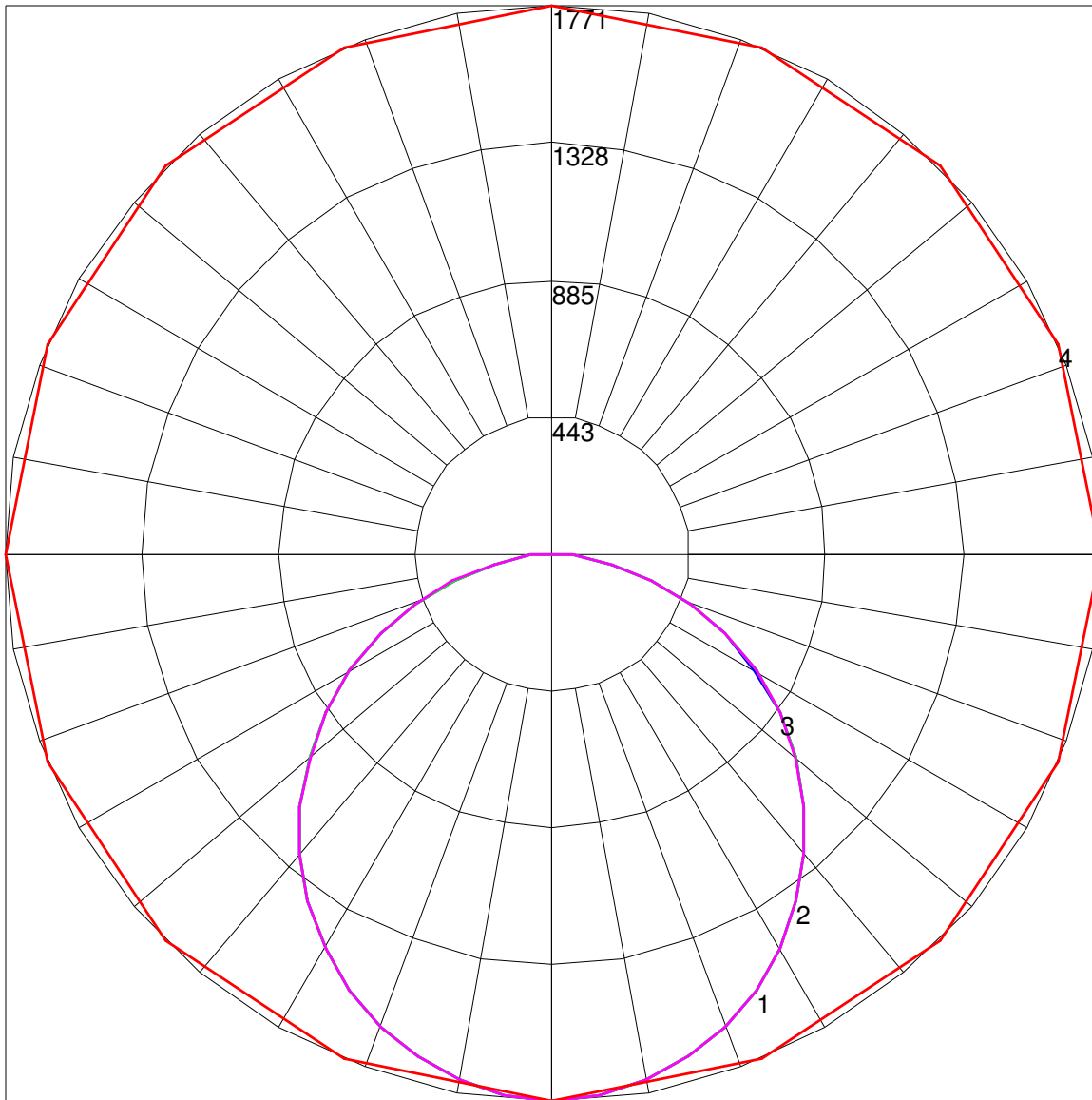
Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	17.6	19.3	18.0	19.6	19.9	17.9	19.6	18.3	19.9	20.2
	3H	19.4	20.9	19.8	21.2	21.6	19.9	21.3	20.2	21.7	22.0
	4H	20.1	21.5	20.5	21.9	22.2	20.6	22.0	21.0	22.4	22.7
	6H	20.6	21.9	21.0	22.3	22.7	21.2	22.5	21.6	22.8	23.2
	8H	20.7	22.0	21.2	22.4	22.8	21.4	22.6	21.8	23.0	23.4
	12H	20.8	22.0	21.3	22.4	22.8	21.5	22.7	21.9	23.0	23.5
4H	2H	18.3	19.7	18.7	20.0	20.4	18.5	19.9	18.9	20.3	20.7
	3H	20.3	21.5	20.7	21.9	22.3	20.7	21.9	21.1	22.3	22.7
	4H	21.1	22.2	21.5	22.6	23.0	21.6	22.6	22.0	23.0	23.5
	6H	21.7	22.7	22.2	23.1	23.6	22.3	23.2	22.7	23.6	24.1
	8H	21.9	22.8	22.4	23.2	23.7	22.5	23.4	23.0	23.8	24.3
	12H	22.0	22.8	22.5	23.3	23.8	22.7	23.4	23.1	23.9	24.4
8H	4H	21.5	22.3	21.9	22.8	23.3	21.9	22.7	22.3	23.2	23.6
	6H	22.2	22.9	22.7	23.4	23.9	22.7	23.4	23.2	23.9	24.4
	8H	22.4	23.1	22.9	23.6	24.1	23.0	23.6	23.5	24.1	24.6
	12H	22.6	23.2	23.1	23.7	24.2	23.2	23.8	23.7	24.3	24.8
12H	4H	21.5	22.3	22.0	22.8	23.2	21.9	22.7	22.4	23.1	23.6
	6H	22.3	22.9	22.8	23.4	23.9	22.7	23.4	23.2	23.8	24.4
	8H	22.6	23.1	23.1	23.6	24.2	23.1	23.7	23.6	24.1	24.7

Maximum UGR = 24.8

POLAR GRAPH



Maximum Candela = 1770.662 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 (5 - 185)

# 3 - Vertical Plane Through Horizontal Angles (10 - 190)

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