



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AP-22-L50-850-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-L50-850-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	5368
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
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	5469	5548	5717
55	5231	5343	5578
65	4884	5037	5336
75	4306	4462	4943
85	2634	2909	3560

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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>	1876.901	1876.901	1876.901	1876.901	1876.901
<b>5</b>	1865.740	1867.687	1867.086	1868.171	1867.988
<b>10</b>	1834.685	1836.162	1838.619	1843.377	1845.233
<b>15</b>	1787.464	1790.182	1793.959	1801.200	1805.147
<b>20</b>	1727.825	1728.609	1734.373	1744.529	1751.717
<b>25</b>	1650.974	1652.085	1660.750	1673.820	1681.649
<b>30</b>	1560.268	1564.764	1573.011	1588.146	1598.864
<b>35</b>	1458.701	1463.302	1472.987	1489.991	1502.146
<b>40</b>	1344.901	1349.658	1360.624	1379.353	1395.952
<b>45</b>	1221.533	1226.056	1239.282	1258.090	1277.029
<b>50</b>	1089.396	1094.140	1107.040	1128.789	1147.675
<b>55</b>	947.691	953.913	968.054	990.535	1010.702
<b>60</b>	802.000	807.045	821.501	845.249	865.912
<b>65</b>	652.009	656.936	672.450	693.179	712.353
<b>70</b>	500.855	505.233	518.172	537.647	557.565
<b>75</b>	352.027	355.360	364.770	383.970	404.150
<b>80</b>	207.813	209.394	216.739	233.103	249.179
<b>85</b>	72.512	72.225	80.080	89.386	98.012
<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	684.10	N.A.	12.70
0-30	1450.68	N.A.	27.00
0-40	2374.38	N.A.	44.20
0-60	4202.62	N.A.	78.30
0-80	5263.54	N.A.	98.00
0-90	5368.44	N.A.	100.00
10-90	5191.06	N.A.	96.70
20-40	1690.28	N.A.	31.50
20-50	2649.13	N.A.	49.30
40-70	2497.19	N.A.	46.50
60-80	1060.92	N.A.	19.80
70-80	391.98	N.A.	7.30
80-90	104.90	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	5368.44	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	177.37
10-20	506.73
20-30	766.58
30-40	923.70
40-50	958.85
50-60	869.39
60-70	668.94
70-80	391.98
80-90	104.90
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	98	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	78	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	76	63	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**

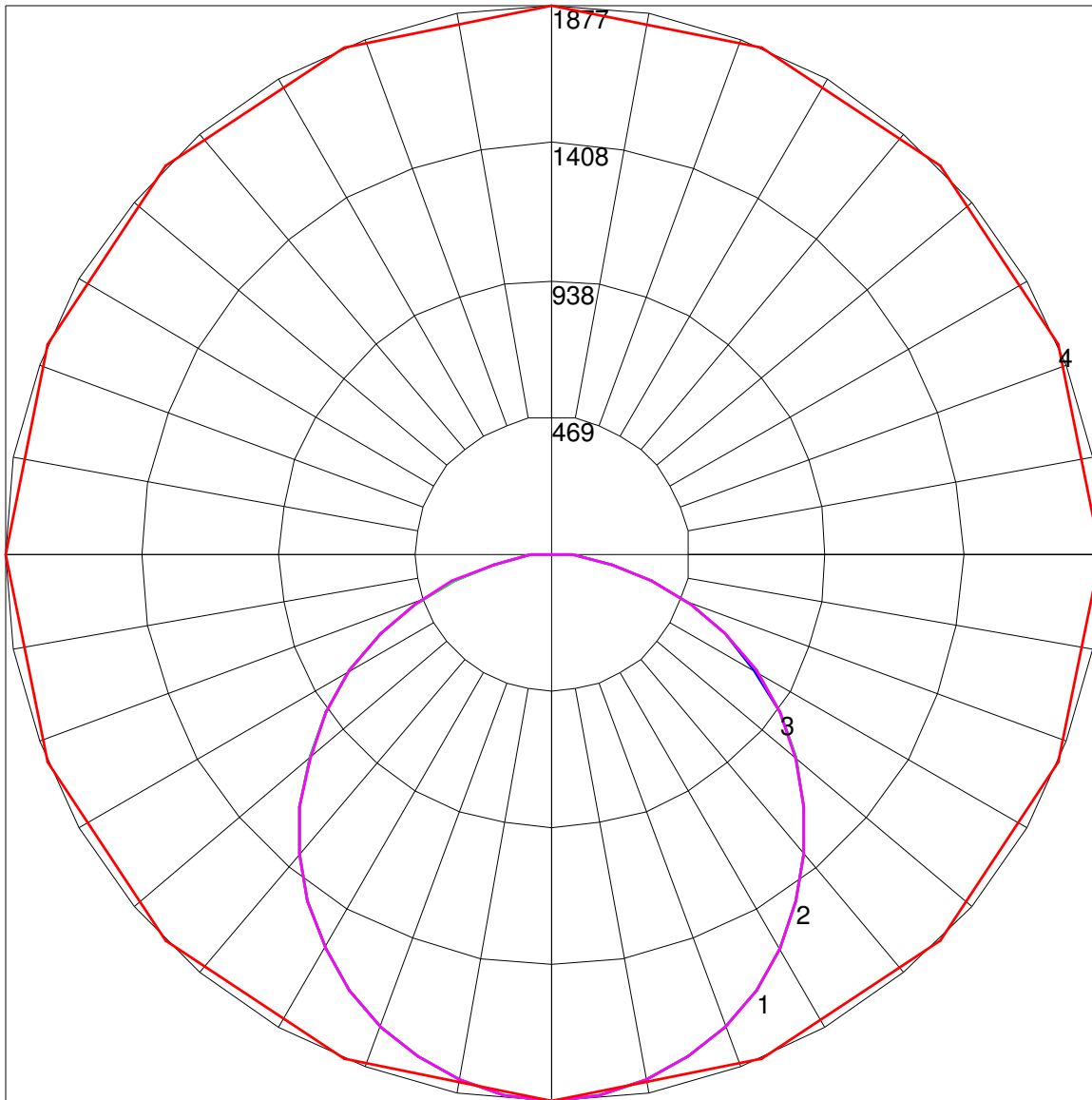
Reflectances

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	17.8	19.5	18.2	19.8	20.1	18.1	19.8	18.5	20.1	20.4
	3H	19.6	21.1	20.0	21.4	21.8	20.1	21.5	20.4	21.9	22.2
	4H	20.3	21.7	20.7	22.1	22.4	20.8	22.2	21.2	22.6	22.9
	6H	20.8	22.1	21.2	22.5	22.9	21.4	22.7	21.8	23.0	23.4
	8H	20.9	22.2	21.4	22.6	23.0	21.6	22.8	22.0	23.2	23.6
	12H	21.0	22.2	21.5	22.6	23.0	21.7	22.9	22.1	23.2	23.7
4H	2H	18.5	19.9	18.9	20.2	20.6	18.7	20.1	19.1	20.5	20.9
	3H	20.5	21.7	20.9	22.1	22.5	20.9	22.1	21.3	22.5	22.9
	4H	21.3	22.4	21.7	22.8	23.2	21.7	22.8	22.2	23.2	23.7
	6H	21.9	22.9	22.4	23.3	23.8	22.5	23.4	22.9	23.8	24.3
	8H	22.1	23.0	22.6	23.4	23.9	22.7	23.6	23.2	24.0	24.5
	12H	22.2	23.0	22.7	23.5	24.0	22.9	23.6	23.3	24.1	24.6
8H	4H	21.7	22.5	22.1	23.0	23.5	22.1	22.9	22.5	23.4	23.8
	6H	22.4	23.1	22.9	23.6	24.1	22.9	23.6	23.4	24.1	24.6
	8H	22.6	23.3	23.1	23.8	24.3	23.2	23.8	23.7	24.3	24.8
	12H	22.8	23.4	23.3	23.9	24.4	23.4	24.0	23.9	24.5	25.0
12H	4H	21.7	22.5	22.2	23.0	23.4	22.1	22.9	22.6	23.3	23.8
	6H	22.5	23.1	23.0	23.6	24.1	22.9	23.6	23.4	24.0	24.6
	8H	22.8	23.3	23.3	23.8	24.4	23.3	23.9	23.8	24.3	24.9

Maximum UGR = 25.0

POLAR GRAPH



Maximum Candela = 1876.901 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.)