



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AP-22-L30-840-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-L30-840-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	3121
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	25.4
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	3180	3226	3324
55	3041	3106	3243
65	2840	2929	3102
75	2503	2594	2874
85	1531	1691	2070

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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>	1091.244	1091.244	1091.244	1091.244	1091.244
<b>5</b>	1084.754	1085.886	1085.537	1086.167	1086.061
<b>10</b>	1066.699	1067.557	1068.986	1071.752	1072.831
<b>15</b>	1039.244	1040.824	1043.020	1047.230	1049.525
<b>20</b>	1004.570	1005.026	1008.377	1014.281	1018.461
<b>25</b>	959.888	960.534	965.572	973.171	977.722
<b>30</b>	907.151	909.765	914.560	923.359	929.590
<b>35</b>	848.099	850.774	856.405	866.291	873.358
<b>40</b>	781.935	784.701	791.076	801.966	811.616
<b>45</b>	710.208	712.837	720.527	731.462	742.473
<b>50</b>	633.382	636.141	643.641	656.286	667.266
<b>55</b>	550.994	554.611	562.833	575.904	587.629
<b>60</b>	466.288	469.222	477.626	491.433	503.447
<b>65</b>	379.083	381.947	390.967	403.019	414.167
<b>70</b>	291.200	293.746	301.269	312.592	324.172
<b>75</b>	204.671	206.609	212.080	223.243	234.976
<b>80</b>	120.824	121.743	126.014	135.528	144.874
<b>85</b>	42.159	41.992	46.559	51.969	56.985
<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	397.74	N.A.	12.70
0-30	843.44	N.A.	27.00
0-40	1380.48	N.A.	44.20
0-60	2443.43	N.A.	78.30
0-80	3060.26	N.A.	98.00
0-90	3121.25	N.A.	100.00
10-90	3018.12	N.A.	96.70
20-40	982.74	N.A.	31.50
20-50	1540.22	N.A.	49.30
40-70	1451.88	N.A.	46.50
60-80	616.83	N.A.	19.80
70-80	227.90	N.A.	7.30
80-90	60.99	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	3121.25	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	103.13
10-20	294.62
20-30	445.69
30-40	537.04
40-50	557.48
50-60	505.47
60-70	388.93
70-80	227.90
80-90	60.99
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**

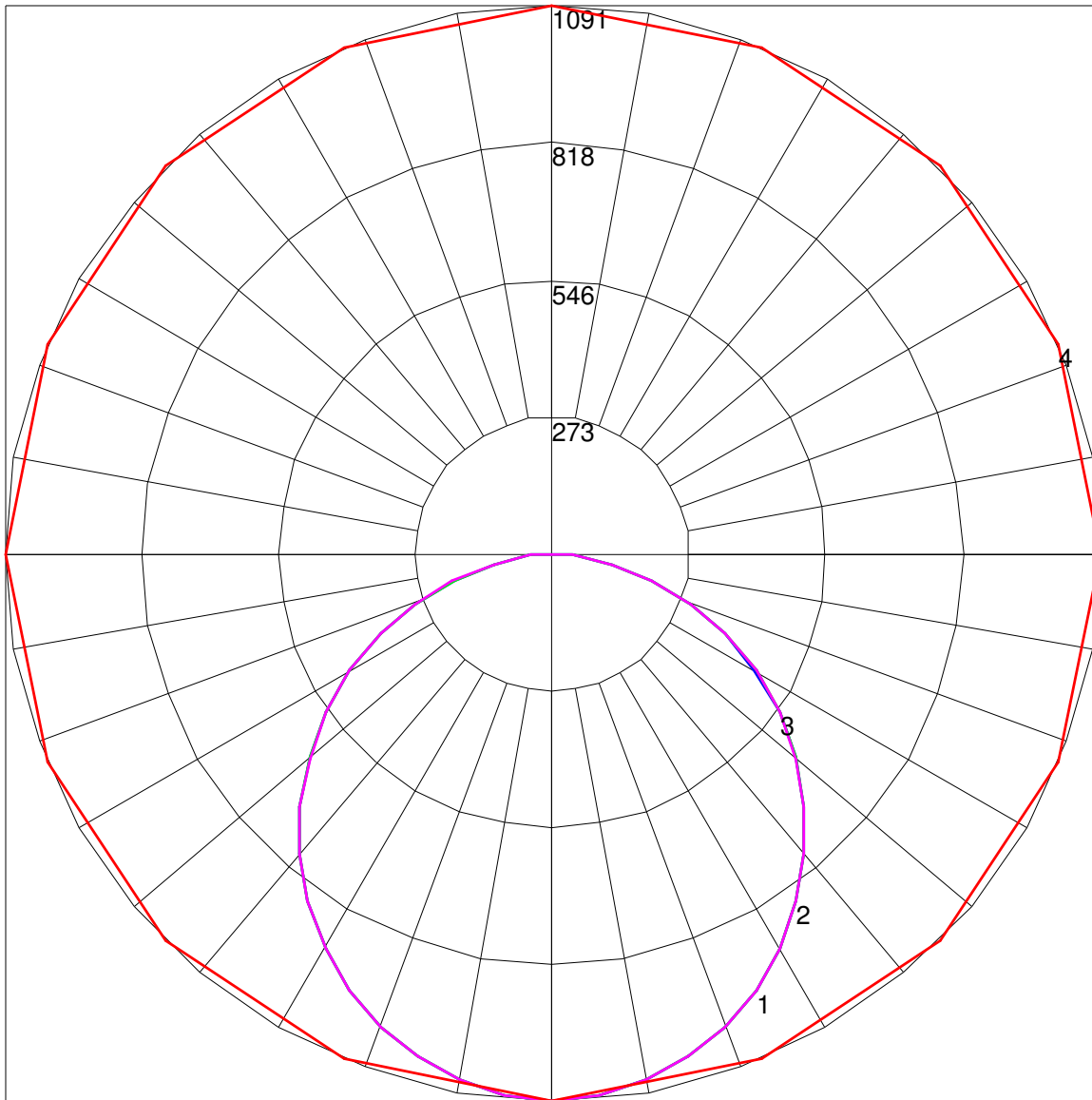
Reflectances

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	16.0	17.7	16.4	18.0	18.3	16.3	18.0	16.7	18.3	18.6
	3H	17.8	19.3	18.2	19.6	20.0	18.3	19.7	18.6	20.1	20.4
	4H	18.5	19.9	18.9	20.3	20.6	19.0	20.4	19.4	20.8	21.1
	6H	19.0	20.3	19.4	20.7	21.1	19.6	20.9	20.0	21.2	21.6
	8H	19.1	20.4	19.6	20.8	21.2	19.8	21.0	20.2	21.4	21.8
	12H	19.2	20.4	19.7	20.8	21.2	19.9	21.1	20.3	21.4	21.9
4H	2H	16.7	18.1	17.1	18.4	18.8	16.9	18.3	17.3	18.7	19.1
	3H	18.7	19.9	19.1	20.3	20.7	19.1	20.3	19.5	20.7	21.1
	4H	19.5	20.6	19.9	21.0	21.4	19.9	21.0	20.4	21.4	21.9
	6H	20.1	21.1	20.6	21.5	22.0	20.7	21.6	21.1	22.0	22.5
	8H	20.3	21.2	20.8	21.6	22.1	20.9	21.8	21.4	22.2	22.7
	12H	20.4	21.2	20.9	21.7	22.2	21.1	21.8	21.5	22.3	22.8
8H	4H	19.9	20.7	20.3	21.2	21.7	20.3	21.1	20.7	21.6	22.0
	6H	20.6	21.3	21.1	21.8	22.3	21.1	21.8	21.6	22.3	22.8
	8H	20.8	21.5	21.3	22.0	22.5	21.4	22.0	21.9	22.5	23.0
	12H	21.0	21.6	21.5	22.1	22.6	21.6	22.2	22.1	22.7	23.2
12H	4H	19.9	20.7	20.4	21.2	21.6	20.3	21.1	20.8	21.5	22.0
	6H	20.7	21.3	21.2	21.8	22.3	21.1	21.8	21.6	22.2	22.8
	8H	21.0	21.5	21.5	22.0	22.6	21.5	22.1	22.0	22.5	23.1

Maximum UGR = 23.2

POLAR GRAPH



Maximum Candela = 1091.244 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.)