



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AP-22-L30-830-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-L30-830-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	3000
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	118
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	3056	3101	3195
55	2923	2986	3117
65	2729	2815	2982
75	2406	2493	2763
85	1472	1626	1989

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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	1048.865	1048.865	1048.865	1048.865	1048.865
5	1042.628	1043.716	1043.380	1043.986	1043.884
10	1025.274	1026.099	1027.472	1030.131	1031.168
15	998.885	1000.404	1002.515	1006.561	1008.767
20	965.557	965.996	969.217	974.892	978.909
25	922.611	923.231	928.074	935.378	939.753
30	871.922	874.434	879.043	887.501	893.490
35	815.163	817.734	823.146	832.649	839.441
40	751.568	754.227	760.355	770.821	780.097
45	682.627	685.154	692.546	703.056	713.639
50	608.785	611.436	618.645	630.799	641.353
55	529.596	533.073	540.976	553.539	564.808
60	448.180	450.999	459.078	472.349	483.896
65	364.361	367.115	375.784	387.368	398.083
70	279.892	282.338	289.569	300.452	311.583
75	196.722	198.585	203.844	214.573	225.850
80	116.132	117.015	121.120	130.265	139.248
85	40.522	40.361	44.751	49.951	54.772
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	382.29	N.A.	12.70
0-30	810.68	N.A.	27.00
0-40	1326.87	N.A.	44.20
0-60	2348.54	N.A.	78.30
0-80	2941.42	N.A.	98.00
0-90	3000.03	N.A.	100.00
10-90	2900.91	N.A.	96.70
20-40	944.57	N.A.	31.50
20-50	1480.41	N.A.	49.30
40-70	1395.5	N.A.	46.50
60-80	592.87	N.A.	19.80
70-80	219.05	N.A.	7.30
80-90	58.62	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	3000.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	99.12
10-20	283.17
20-30	428.39
30-40	516.19
40-50	535.83
50-60	485.84
60-70	373.82
70-80	219.05
80-90	58.62
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

X=2H	Y=2H	15.8	17.5	16.2	17.8	18.1	16.1	17.8	16.5	18.1	18.4
	3H	17.6	19.1	18.0	19.4	19.8	18.1	19.5	18.4	19.9	20.2
	4H	18.3	19.7	18.7	20.1	20.4	18.8	20.2	19.2	20.6	20.9
	6H	18.8	20.1	19.2	20.5	20.9	19.4	20.7	19.8	21.0	21.4
	8H	18.9	20.2	19.4	20.6	21.0	19.6	20.8	20.0	21.2	21.6
	12H	19.0	20.2	19.5	20.6	21.0	19.7	20.9	20.1	21.2	21.7

UGR Viewed Endwise

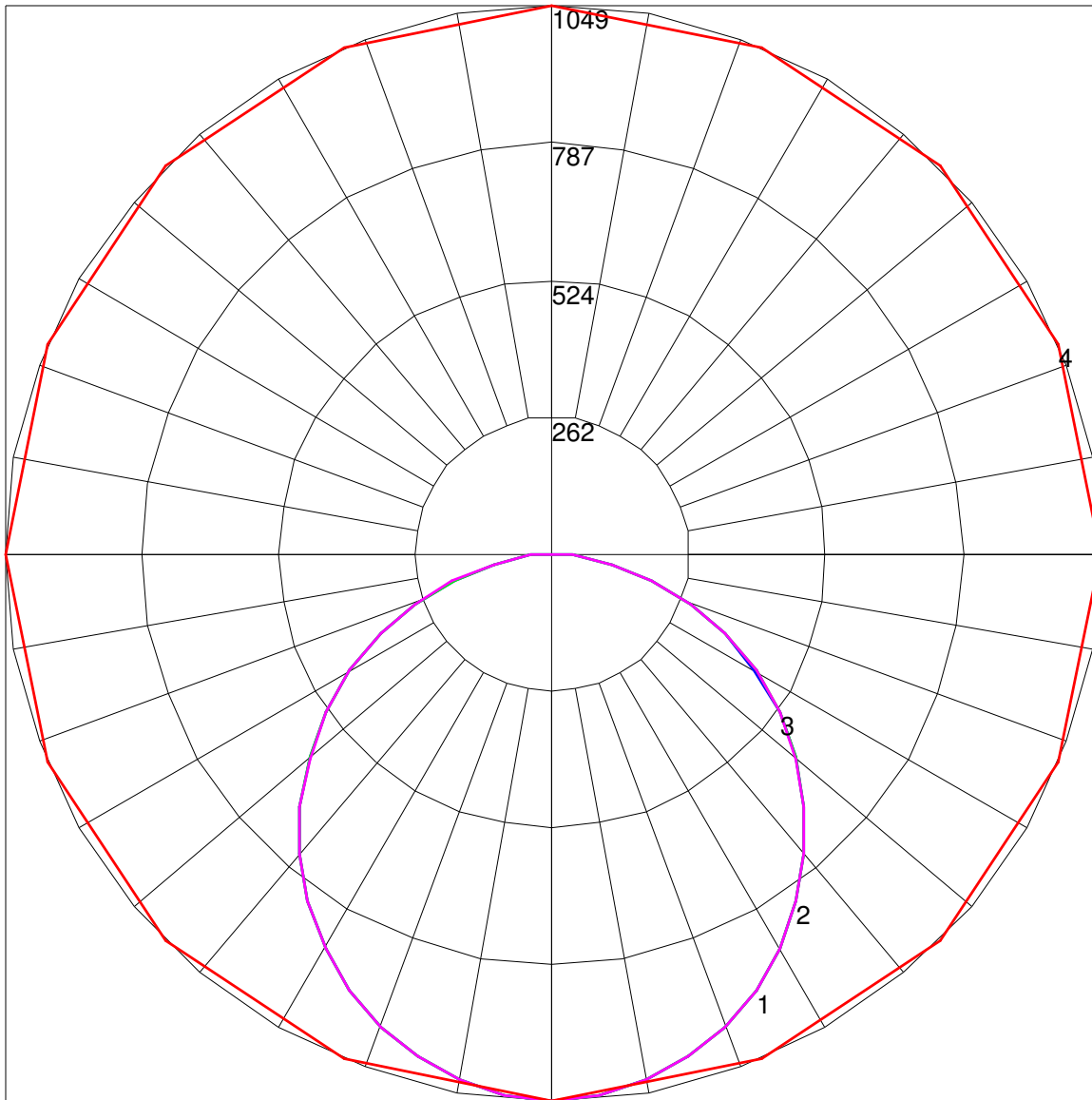
4H	2H	16.5	17.9	16.9	18.2	18.6	16.7	18.1	17.1	18.5	18.9
	3H	18.5	19.7	18.9	20.1	20.5	18.9	20.1	19.3	20.5	20.9
	4H	19.3	20.4	19.7	20.8	21.2	19.8	20.8	20.2	21.2	21.7
	6H	19.9	20.9	20.4	21.3	21.8	20.5	21.4	20.9	21.8	22.3
	8H	20.1	21.0	20.6	21.4	21.9	20.7	21.6	21.2	22.0	22.5
	12H	20.2	21.0	20.7	21.5	22.0	20.9	21.6	21.3	22.1	22.6

8H	4H	19.7	20.5	20.1	21.0	21.5	20.1	20.9	20.5	21.4	21.8
	6H	20.4	21.1	20.9	21.6	22.1	20.9	21.6	21.4	22.1	22.6
	8H	20.6	21.3	21.1	21.8	22.3	21.2	21.8	21.7	22.3	22.8
	12H	20.8	21.4	21.3	21.9	22.4	21.4	22.0	21.9	22.5	23.0

12H	4H	19.7	20.5	20.2	21.0	21.4	20.1	20.9	20.6	21.3	21.8
	6H	20.5	21.1	21.0	21.6	22.1	20.9	21.6	21.4	22.0	22.6
	8H	20.8	21.3	21.3	21.8	22.4	21.3	21.9	21.8	22.3	22.9

Maximum UGR = 23.0

POLAR GRAPH



Maximum Candela = 1048.865 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.)