



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AP-22-L30-850-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-L30-850-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	3212
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
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	3272	3320	3421
55	3130	3197	3338
65	2922	3014	3193
75	2576	2670	2958
85	1576	1740	2130

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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	1123.027	1123.027	1123.027	1123.027	1123.027
5	1116.349	1117.514	1117.154	1117.803	1117.694
10	1097.768	1098.651	1100.122	1102.968	1104.079
15	1069.513	1071.140	1073.400	1077.732	1080.094
20	1033.829	1034.298	1037.747	1043.823	1048.124
25	987.846	988.510	993.695	1001.515	1006.200
30	933.573	936.263	941.197	950.253	956.666
35	872.801	875.554	881.349	891.523	898.796
40	804.710	807.556	814.117	825.324	835.256
45	730.894	733.600	741.514	752.767	764.099
50	651.830	654.669	662.388	675.401	686.701
55	567.043	570.765	579.227	592.678	604.744
60	479.870	482.888	491.538	505.747	518.111
65	390.124	393.072	402.355	414.758	426.230
70	299.682	302.302	310.044	321.696	333.614
75	210.632	212.626	218.257	229.745	241.820
80	124.343	125.289	129.684	139.475	149.094
85	43.387	43.215	47.915	53.483	58.644
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	409.33	N.A.	12.70
0-30	868.00	N.A.	27.00
0-40	1420.69	N.A.	44.20
0-60	2514.6	N.A.	78.30
0-80	3149.39	N.A.	98.00
0-90	3212.16	N.A.	100.00
10-90	3106.03	N.A.	96.70
20-40	1011.36	N.A.	31.50
20-50	1585.08	N.A.	49.30
40-70	1494.17	N.A.	46.50
60-80	634.79	N.A.	19.80
70-80	234.54	N.A.	7.30
80-90	62.76	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	3212.16	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	106.13
10-20	303.20
20-30	458.68
30-40	552.69
40-50	573.72
50-60	520.19
60-70	400.26
70-80	234.54
80-90	62.76
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

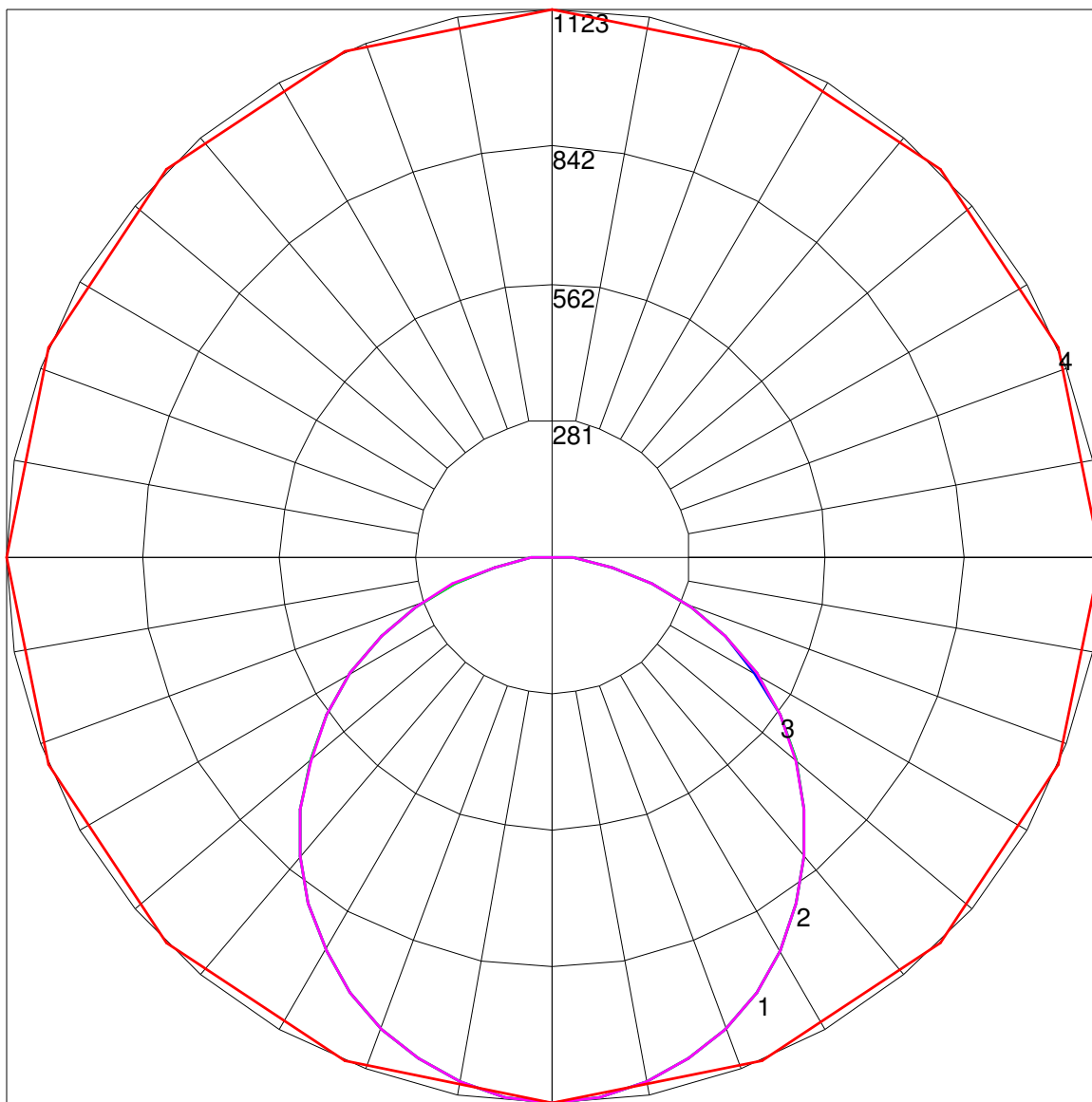
Reflectances

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	16.1	17.8	16.5	18.1	18.4	16.4	18.1	16.8	18.4	18.7
	3H	17.9	19.4	18.3	19.7	20.1	18.4	19.8	18.7	20.2	20.5
	4H	18.6	20.0	19.0	20.4	20.7	19.1	20.5	19.5	20.9	21.2
	6H	19.1	20.4	19.5	20.8	21.2	19.7	21.0	20.1	21.3	21.7
	8H	19.2	20.5	19.7	20.9	21.3	19.9	21.1	20.3	21.5	21.9
	12H	19.3	20.5	19.8	20.9	21.3	20.0	21.2	20.4	21.5	22.0
4H	2H	16.8	18.2	17.2	18.5	18.9	17.0	18.4	17.4	18.8	19.2
	3H	18.8	20.0	19.2	20.4	20.8	19.2	20.4	19.6	20.8	21.2
	4H	19.6	20.7	20.0	21.1	21.5	20.1	21.1	20.5	21.5	22.0
	6H	20.2	21.2	20.7	21.6	22.1	20.8	21.7	21.2	22.1	22.6
	8H	20.4	21.3	20.9	21.7	22.2	21.0	21.9	21.5	22.3	22.8
	12H	20.5	21.3	21.0	21.8	22.3	21.2	21.9	21.6	22.4	22.9
8H	4H	20.0	20.8	20.4	21.3	21.8	20.4	21.2	20.8	21.7	22.1
	6H	20.7	21.4	21.2	21.9	22.4	21.2	21.9	21.7	22.4	22.9
	8H	20.9	21.6	21.4	22.1	22.6	21.5	22.1	22.0	22.6	23.1
	12H	21.1	21.7	21.6	22.2	22.7	21.7	22.3	22.2	22.8	23.3
12H	4H	20.0	20.8	20.5	21.3	21.7	20.4	21.2	20.9	21.6	22.1
	6H	20.8	21.4	21.3	21.9	22.4	21.2	21.9	21.7	22.3	22.9
	8H	21.1	21.6	21.6	22.1	22.7	21.6	22.2	22.1	22.6	23.2

Maximum UGR = 23.3

POLAR GRAPH



Maximum Candela = 1123.027 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.)