



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AP-22-L50-830-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-L50-830-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	5014
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
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	5108	5182	5340
55	4885	4990	5210
65	4562	4705	4984
75	4022	4167	4617
85	2460	2717	3325

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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	1752.955	1752.955	1752.955	1752.955	1752.955
5	1742.531	1744.350	1743.788	1744.801	1744.630
10	1713.527	1714.907	1717.201	1721.645	1723.378
15	1669.424	1671.963	1675.491	1682.253	1685.940
20	1613.724	1614.456	1619.839	1629.324	1636.038
25	1541.947	1542.985	1551.078	1563.285	1570.597
30	1457.232	1461.431	1469.133	1483.269	1493.279
35	1362.372	1366.669	1375.714	1391.595	1402.948
40	1256.087	1260.530	1270.772	1288.264	1303.767
45	1140.866	1145.090	1157.443	1175.009	1192.697
50	1017.455	1021.886	1033.934	1054.246	1071.885
55	885.108	890.918	904.126	925.122	943.957
60	749.038	753.750	767.251	789.431	808.730
65	608.952	613.554	628.043	647.404	665.311
70	467.779	471.869	483.954	502.142	520.745
75	328.780	331.893	340.682	358.613	377.461
80	194.089	195.566	202.427	217.710	232.724
85	67.724	67.455	74.791	83.483	91.539
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	638.92	N.A.	12.70
0-30	1354.88	N.A.	27.00
0-40	2217.58	N.A.	44.20
0-60	3925.09	N.A.	78.30
0-80	4915.95	N.A.	98.00
0-90	5013.92	N.A.	100.00
10-90	4848.26	N.A.	96.70
20-40	1578.66	N.A.	31.50
20-50	2474.19	N.A.	49.30
40-70	2332.28	N.A.	46.50
60-80	990.86	N.A.	19.80
70-80	366.09	N.A.	7.30
80-90	97.97	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	5013.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	165.66
10-20	473.26
20-30	715.96
30-40	862.70
40-50	895.53
50-60	811.98
60-70	624.77
70-80	366.09
80-90	97.97
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	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

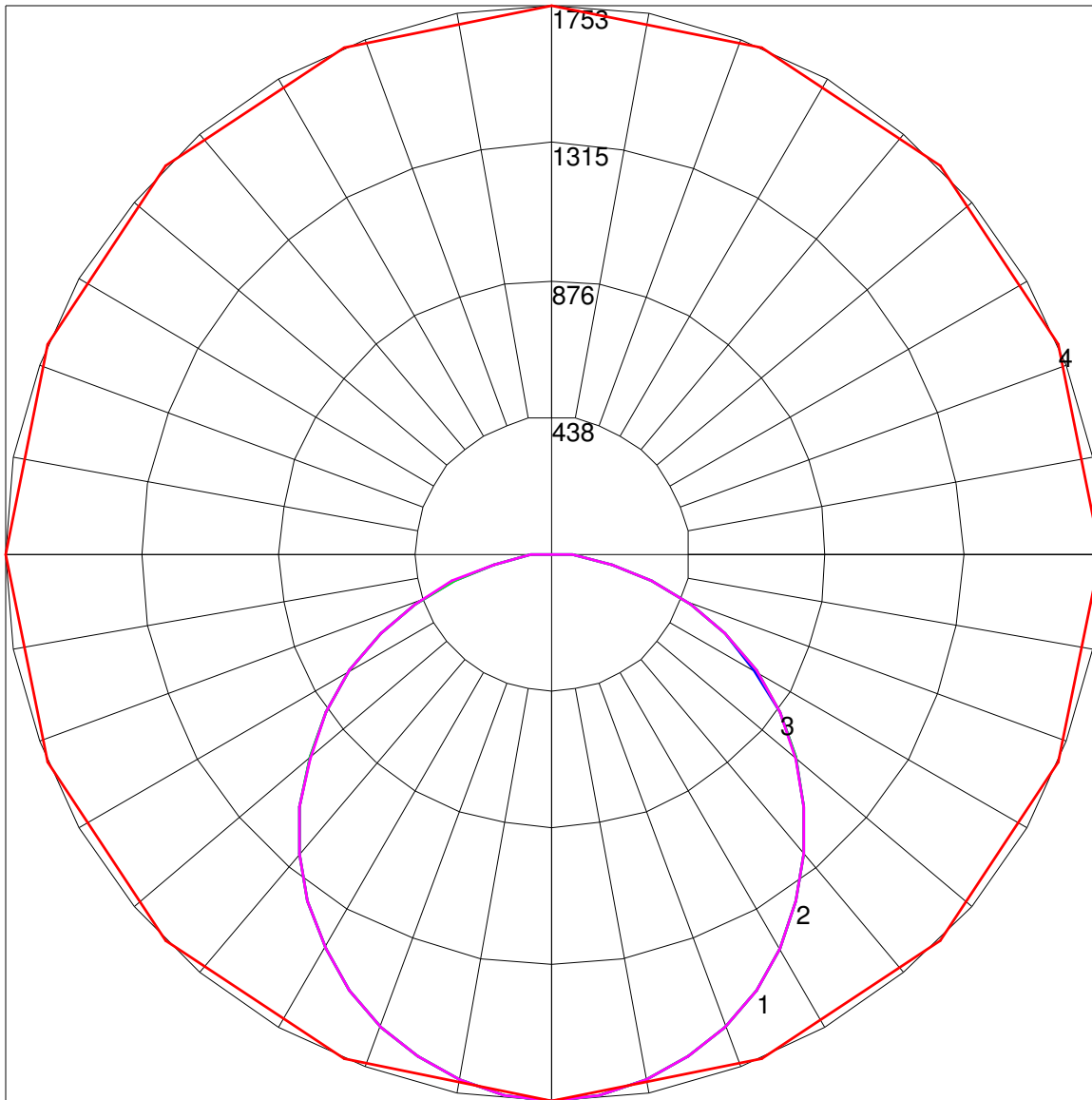
Reflectances

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 = 1752.955 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.)