



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AP-24-L70-835-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM LLI-20113-2
 [TESTLAB] LightLab International (www.LightLabInt.com)
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] AP-24-L70-835-DIM-UNV_
 [LUMINAIRE] RECESSED 2 X 4 ARCHED CENTER LED LUMINAIRE
 [MORE] White steel fabricated housing with frosted white concave lens.
 [MORE] 360 LEDs with 180 mounted along each long side of clear plastic sheet.
 [ISSUEDATE] 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	7035
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	63.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.16 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	3444	3455	3488
55	3324	3344	3398
65	3137	3173	3228
75	2828	2849	2952
85	2169	2067	2139

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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	2419.183	2419.183	2419.183	2419.183	2419.183
5	2412.824	2411.588	2409.422	2406.340	2402.258
10	2378.461	2378.017	2377.253	2375.337	2371.186
15	2323.606	2323.272	2323.384	2323.814	2320.565
20	2249.146	2249.424	2250.021	2252.853	2250.937
25	2156.137	2156.498	2158.276	2162.427	2162.482
30	2046.343	2046.690	2049.134	2054.784	2055.951
35	1918.680	1919.610	1922.859	1929.273	1932.717
40	1776.203	1777.314	1781.104	1788.546	1793.530
45	1619.286	1620.300	1624.423	1633.254	1639.821
50	1449.541	1450.860	1455.803	1465.396	1473.838
55	1267.897	1269.688	1275.478	1286.155	1295.943
60	1077.923	1079.631	1086.392	1098.138	1107.371
65	881.576	883.756	891.600	898.653	907.164
70	682.758	684.979	690.102	696.378	705.930
75	486.730	489.243	490.284	498.393	508.014
80	298.700	298.616	300.018	305.128	312.125
85	125.691	122.290	119.791	120.763	123.956
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	884.60	N.A.	12.60
0-30	1879.83	N.A.	26.70
0-40	3083.68	N.A.	43.80
0-60	5480.78	N.A.	77.90
0-80	6886.23	N.A.	97.90
0-90	7034.88	N.A.	100.00
10-90	6805.99	N.A.	96.70
20-40	2199.08	N.A.	31.30
20-50	3453.87	N.A.	49.10
40-70	3279.72	N.A.	46.60
60-80	1405.45	N.A.	20.00
70-80	522.83	N.A.	7.40
80-90	148.65	N.A.	2.10
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	7034.88	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	228.89
10-20	655.71
20-30	995.22
30-40	1203.86
40-50	1254.79
50-60	1142.3
60-70	882.62
70-80	522.83
80-90	148.65
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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	85	79	75	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	46	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	29	55	42	34	28	41	33	28	40	33	28	39	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

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UGR TABLE - CORRECTED

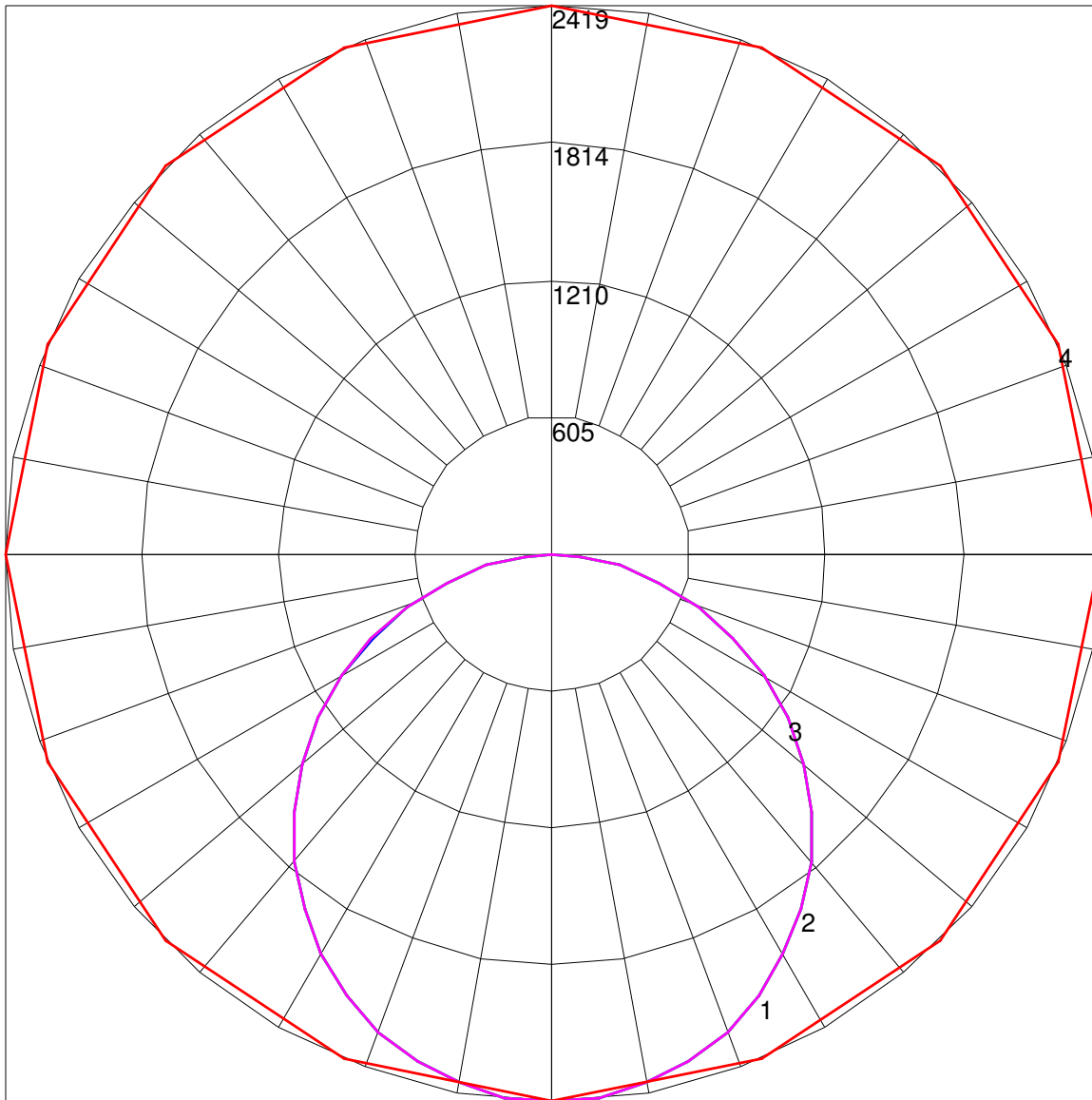
Reflectances

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	16.3	18.0	16.7	18.3	18.6	16.5	18.1	16.8	18.4	18.7
	3H	18.2	19.7	18.6	20.0	20.4	18.3	19.8	18.7	20.2	20.5
	4H	18.9	20.3	19.3	20.7	21.1	19.1	20.5	19.5	20.8	21.2
	6H	19.5	20.8	19.9	21.1	21.5	19.6	20.9	20.0	21.3	21.7
	8H	19.6	20.9	20.1	21.3	21.7	19.8	21.1	20.2	21.5	21.9
	12H	19.7	21.0	20.2	21.3	21.8	19.9	21.1	20.3	21.5	21.9
4H	2H	17.0	18.4	17.4	18.8	19.1	17.1	18.5	17.5	18.9	19.2
	3H	19.1	20.3	19.5	20.7	21.1	19.2	20.4	19.6	20.8	21.2
	4H	19.9	21.0	20.4	21.4	21.9	20.1	21.1	20.5	21.6	22.0
	6H	20.6	21.6	21.1	22.0	22.4	20.8	21.7	21.2	22.1	22.6
	8H	20.9	21.7	21.3	22.2	22.6	21.0	21.9	21.5	22.3	22.8
	12H	21.0	21.8	21.5	22.3	22.7	21.2	21.9	21.6	22.4	22.9
8H	4H	20.3	21.2	20.8	21.6	22.1	20.4	21.3	20.9	21.7	22.2
	6H	21.1	21.8	21.6	22.3	22.8	21.2	21.9	21.7	22.4	22.9
	8H	21.4	22.0	21.9	22.5	23.0	21.5	22.2	22.0	22.7	23.2
	12H	21.6	22.2	22.1	22.7	23.2	21.7	22.3	22.2	22.8	23.4
12H	4H	20.3	21.1	20.8	21.6	22.1	20.4	21.2	20.9	21.7	22.2
	6H	21.2	21.8	21.7	22.3	22.8	21.3	22.0	21.8	22.4	22.9
	8H	21.5	22.1	22.0	22.6	23.1	21.6	22.2	22.1	22.7	23.3

Maximum UGR = 23.4

POLAR GRAPH



Maximum Candela = 2419.183 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.)