



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AP-24-L30-840-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-L30-840-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.
 [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	3173
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	26.4
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	1554	1558	1573
55	1500	1509	1533
65	1415	1431	1456
75	1276	1285	1332
85	978	932	965

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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	1091.273	1091.273	1091.273	1091.273	1091.273
5	1088.405	1087.847	1086.870	1085.480	1083.638
10	1072.904	1072.703	1072.359	1071.495	1069.622
15	1048.159	1048.009	1048.059	1048.253	1046.787
20	1014.571	1014.696	1014.965	1016.243	1015.379
25	972.615	972.778	973.580	975.452	975.478
30	923.088	923.245	924.347	926.896	927.422
35	865.500	865.920	867.385	870.279	871.832
40	801.230	801.731	803.441	806.798	809.046
45	730.446	730.904	732.764	736.747	739.709
50	653.876	654.471	656.700	661.028	664.836
55	571.938	572.746	575.357	580.173	584.589
60	486.242	487.012	490.062	495.361	499.526
65	397.671	398.655	402.193	405.375	409.214
70	307.986	308.988	311.299	314.130	318.439
75	219.560	220.693	221.163	224.821	229.161
80	134.741	134.703	135.336	137.641	140.797
85	56.698	55.164	54.037	54.475	55.916
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	399.04	N.A.	12.60
0-30	847.97	N.A.	26.70
0-40	1391.02	N.A.	43.80
0-60	2472.33	N.A.	77.90
0-80	3106.32	N.A.	97.90
0-90	3173.37	N.A.	100.00
10-90	3070.12	N.A.	96.70
20-40	991.98	N.A.	31.30
20-50	1558.01	N.A.	49.10
40-70	1479.45	N.A.	46.60
60-80	633.99	N.A.	20.00
70-80	235.84	N.A.	7.40
80-90	67.05	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	3173.37	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	103.25
10-20	295.79
20-30	448.94
30-40	543.05
40-50	566.03
50-60	515.28
60-70	398.14
70-80	235.84
80-90	67.05
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	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	47	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	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

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UGR TABLE - CORRECTED

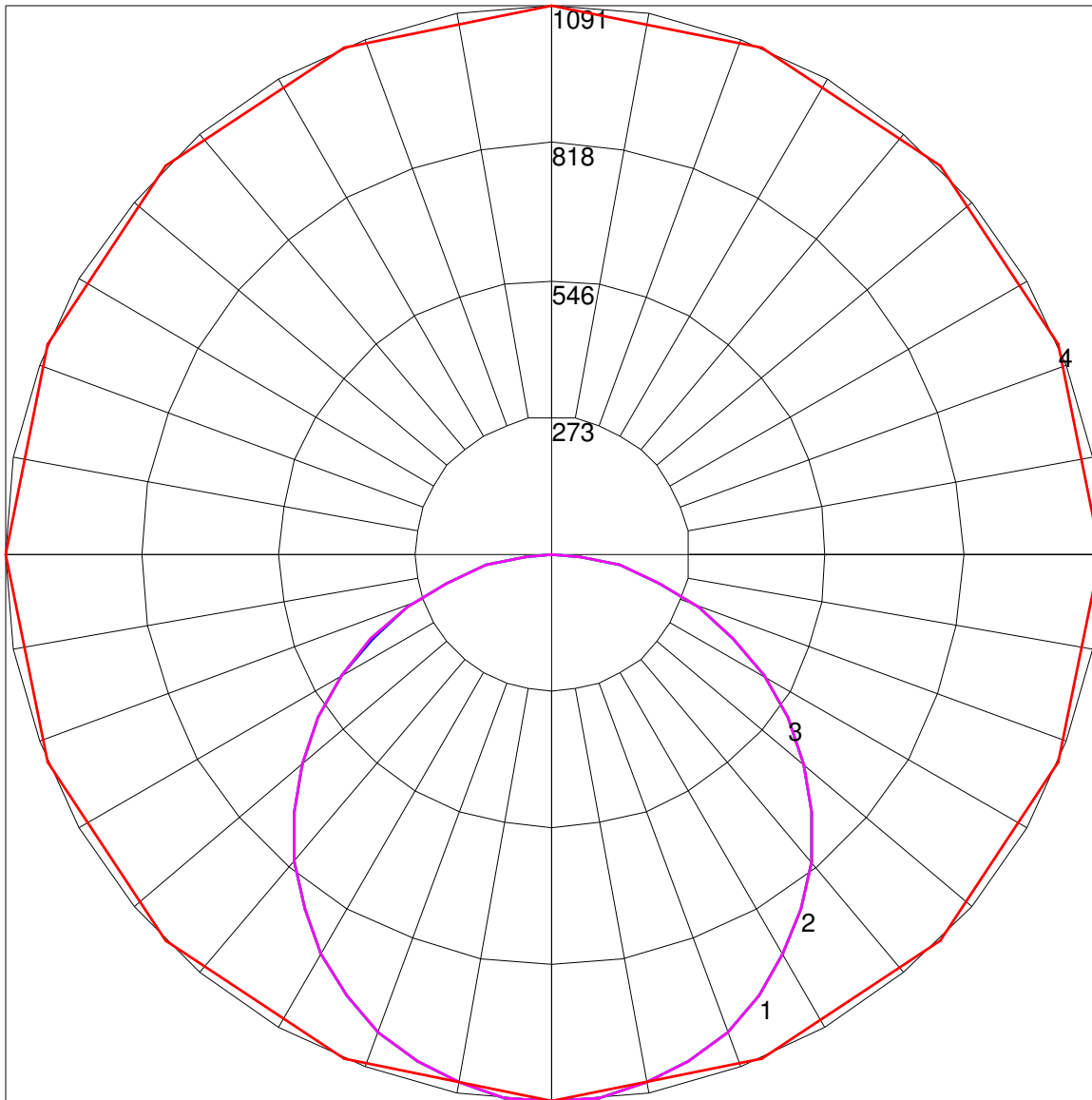
Reflectances

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	13.5	15.2	13.9	15.5	15.8	13.7	15.3	14.0	15.6	15.9
	3H	15.4	16.9	15.8	17.2	17.6	15.5	17.0	15.9	17.4	17.7
	4H	16.1	17.5	16.5	17.9	18.3	16.3	17.7	16.7	18.0	18.4
	6H	16.7	18.0	17.1	18.3	18.7	16.8	18.1	17.2	18.5	18.9
	8H	16.8	18.1	17.3	18.5	18.9	17.0	18.3	17.4	18.7	19.1
	12H	16.9	18.2	17.4	18.5	19.0	17.1	18.3	17.5	18.7	19.1
4H	2H	14.2	15.6	14.6	16.0	16.3	14.3	15.7	14.7	16.1	16.4
	3H	16.3	17.5	16.7	17.9	18.3	16.4	17.6	16.8	18.0	18.4
	4H	17.1	18.2	17.6	18.6	19.1	17.3	18.3	17.7	18.8	19.2
	6H	17.8	18.8	18.3	19.2	19.6	18.0	18.9	18.4	19.3	19.8
	8H	18.1	18.9	18.5	19.4	19.8	18.2	19.1	18.7	19.5	20.0
	12H	18.2	19.0	18.7	19.5	19.9	18.4	19.1	18.8	19.6	20.1
8H	4H	17.5	18.4	18.0	18.8	19.3	17.6	18.5	18.1	18.9	19.4
	6H	18.3	19.0	18.8	19.5	20.0	18.4	19.1	18.9	19.6	20.1
	8H	18.6	19.2	19.1	19.7	20.2	18.7	19.4	19.2	19.9	20.4
	12H	18.8	19.4	19.3	19.9	20.4	18.9	19.5	19.4	20.0	20.6
12H	4H	17.5	18.3	18.0	18.8	19.3	17.6	18.4	18.1	18.9	19.4
	6H	18.4	19.0	18.9	19.5	20.0	18.5	19.2	19.0	19.6	20.1
	8H	18.7	19.3	19.2	19.8	20.3	18.8	19.4	19.3	19.9	20.5

Maximum UGR = 20.6

POLAR GRAPH



Maximum Candela = 1091.273 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.)