



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AP-24-L50-835-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-L50-835-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	5060
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	45.3
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	2477	2485	2508
55	2391	2405	2444
65	2256	2282	2322
75	2034	2049	2123
85	1560	1487	1538

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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	1740.023	1740.023	1740.023	1740.023	1740.023
5	1735.449	1734.560	1733.003	1730.786	1727.850
10	1710.733	1710.414	1709.865	1708.486	1705.501
15	1671.278	1671.038	1671.118	1671.428	1669.091
20	1617.722	1617.922	1618.351	1620.388	1619.010
25	1550.825	1551.084	1552.362	1555.348	1555.388
30	1471.854	1472.103	1473.861	1477.925	1478.764
35	1380.031	1380.700	1383.037	1387.650	1390.127
40	1277.553	1278.351	1281.078	1286.430	1290.015
45	1164.689	1165.418	1168.384	1174.735	1179.458
50	1042.598	1043.546	1047.101	1054.002	1060.073
55	911.948	913.237	917.401	925.080	932.120
60	775.307	776.536	781.399	789.847	796.488
65	634.083	635.651	641.293	646.366	652.487
70	491.081	492.678	496.363	500.877	507.748
75	350.086	351.893	352.642	358.474	365.395
80	214.843	214.783	215.791	219.466	224.499
85	90.405	87.958	86.161	86.860	89.157
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	636.26	N.A.	12.60
0-30	1352.08	N.A.	26.70
0-40	2217.97	N.A.	43.80
0-60	3942.11	N.A.	77.90
0-80	4952.99	N.A.	97.90
0-90	5059.91	N.A.	100.00
10-90	4895.28	N.A.	96.70
20-40	1581.71	N.A.	31.30
20-50	2484.23	N.A.	49.10
40-70	2358.97	N.A.	46.60
60-80	1010.89	N.A.	20.00
70-80	376.05	N.A.	7.40
80-90	106.92	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	5059.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	164.63
10-20	471.63
20-30	715.82
30-40	865.89
40-50	902.52
50-60	821.61
60-70	634.83
70-80	376.05
80-90	106.92
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

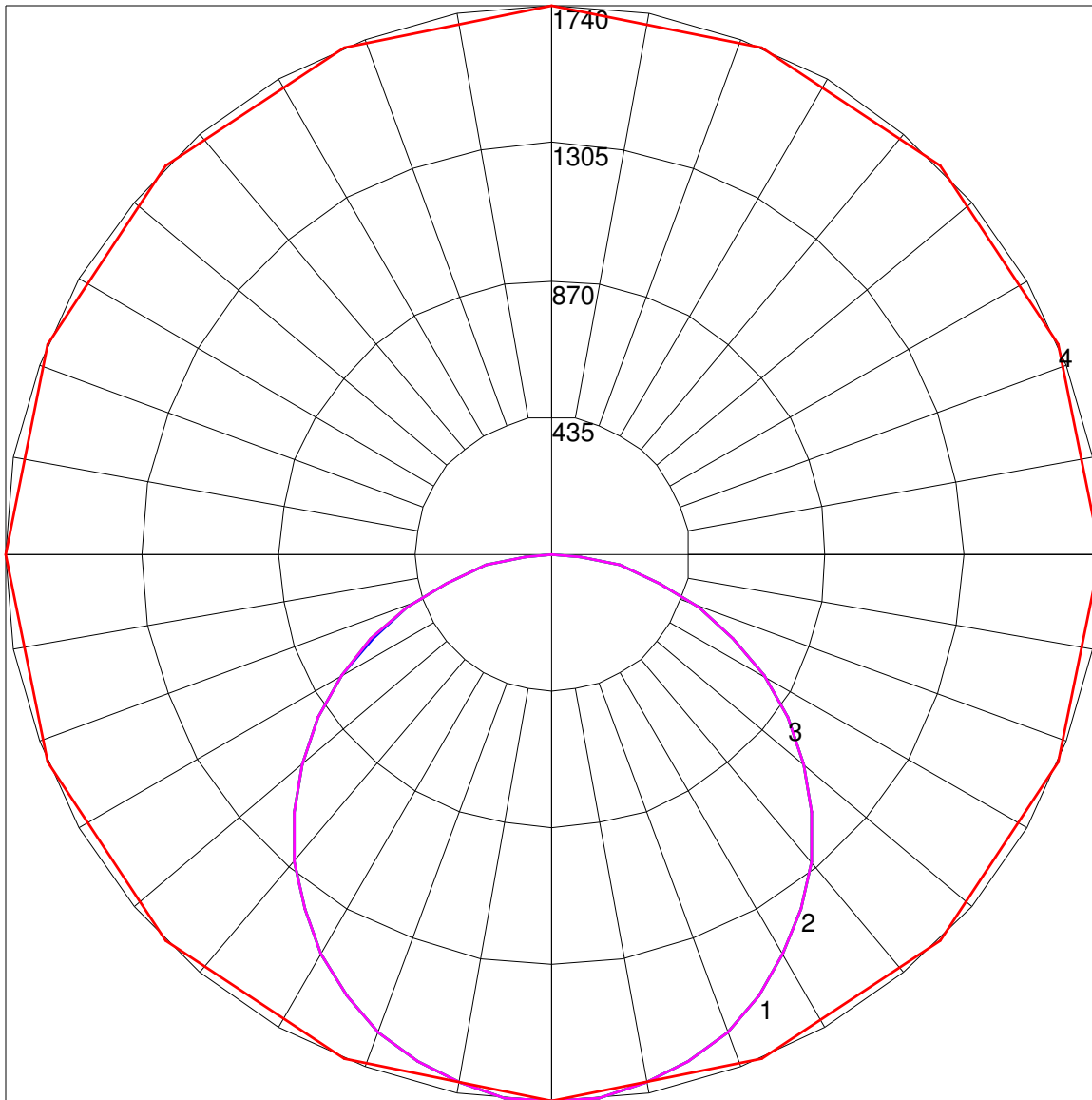
Reflectances

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	15.1	16.8	15.5	17.1	17.4	15.3	16.9	15.6	17.2	17.5
	3H	17.0	18.5	17.4	18.8	19.2	17.1	18.6	17.5	19.0	19.3
	4H	17.7	19.1	18.1	19.5	19.9	17.9	19.3	18.3	19.6	20.0
	6H	18.3	19.6	18.7	19.9	20.3	18.4	19.7	18.8	20.1	20.5
	8H	18.4	19.7	18.9	20.1	20.5	18.6	19.9	19.0	20.3	20.7
	12H	18.5	19.8	19.0	20.1	20.6	18.7	19.9	19.1	20.3	20.7
4H	2H	15.8	17.2	16.2	17.6	17.9	15.9	17.3	16.3	17.7	18.0
	3H	17.9	19.1	18.3	19.5	19.9	18.0	19.2	18.4	19.6	20.0
	4H	18.7	19.8	19.2	20.2	20.7	18.9	19.9	19.3	20.4	20.8
	6H	19.4	20.4	19.9	20.8	21.2	19.6	20.5	20.0	20.9	21.4
	8H	19.7	20.5	20.1	21.0	21.4	19.8	20.7	20.3	21.1	21.6
	12H	19.8	20.6	20.3	21.1	21.5	20.0	20.7	20.4	21.2	21.7
8H	4H	19.1	20.0	19.6	20.4	20.9	19.2	20.1	19.7	20.5	21.0
	6H	19.9	20.6	20.4	21.1	21.6	20.0	20.7	20.5	21.2	21.7
	8H	20.2	20.8	20.7	21.3	21.8	20.3	21.0	20.8	21.5	22.0
	12H	20.4	21.0	20.9	21.5	22.0	20.5	21.1	21.0	21.6	22.2
12H	4H	19.1	19.9	19.6	20.4	20.9	19.2	20.0	19.7	20.5	21.0
	6H	20.0	20.6	20.5	21.1	21.6	20.1	20.8	20.6	21.2	21.7
	8H	20.3	20.9	20.8	21.4	21.9	20.4	21.0	20.9	21.5	22.1

Maximum UGR = 22.2

POLAR GRAPH



Maximum Candela = 1740.023 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.)