



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AP-24-L70-850-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-L70-850-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	7457
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
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	3651	3662	3697
55	3524	3545	3602
65	3325	3363	3422
75	2998	3020	3129
85	2299	2191	2267

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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	2564.332	2564.332	2564.332	2564.332	2564.332
5	2557.592	2556.282	2553.986	2550.719	2546.392
10	2521.168	2520.697	2519.887	2517.856	2513.456
15	2463.021	2462.668	2462.785	2463.241	2459.798
20	2384.094	2384.388	2385.021	2388.023	2385.992
25	2285.504	2285.887	2287.771	2292.171	2292.230
30	2169.122	2169.490	2172.081	2178.070	2179.307
35	2033.800	2034.786	2038.230	2045.029	2048.679
40	1882.774	1883.951	1887.969	1895.857	1901.141
45	1716.443	1717.517	1721.888	1731.248	1738.209
50	1536.513	1537.911	1543.150	1553.319	1562.267
55	1343.970	1345.869	1352.006	1363.323	1373.699
60	1142.598	1144.408	1151.575	1164.026	1173.812
65	934.470	936.781	945.096	952.572	961.593
70	723.723	726.077	731.508	738.160	748.285
75	515.934	518.597	519.701	528.296	538.495
80	316.621	316.533	318.019	323.435	330.853
85	133.233	129.627	126.978	128.008	131.393
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	937.68	N.A.	12.60
0-30	1992.61	N.A.	26.70
0-40	3268.7	N.A.	43.80
0-60	5809.62	N.A.	77.90
0-80	7299.4	N.A.	97.90
0-90	7456.97	N.A.	100.00
10-90	7214.34	N.A.	96.70
20-40	2331.02	N.A.	31.30
20-50	3661.1	N.A.	49.10
40-70	3476.5	N.A.	46.60
60-80	1489.78	N.A.	20.00
70-80	554.20	N.A.	7.40
80-90	157.57	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	7456.97	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	242.63
10-20	695.05
20-30	1054.93
30-40	1276.09
40-50	1330.08
50-60	1210.84
60-70	935.58
70-80	554.20
80-90	157.57
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

X=2H	Y=2H	16.5	18.2	16.9	18.5	18.8	16.7	18.3	17.0	18.6	18.9
	3H	18.4	19.9	18.8	20.2	20.6	18.5	20.0	18.9	20.4	20.7
	4H	19.1	20.5	19.5	20.9	21.3	19.3	20.7	19.7	21.0	21.4
	6H	19.7	21.0	20.1	21.3	21.7	19.8	21.1	20.2	21.5	21.9
	8H	19.8	21.1	20.3	21.5	21.9	20.0	21.3	20.4	21.7	22.1
	12H	19.9	21.2	20.4	21.5	22.0	20.1	21.3	20.5	21.7	22.1

UGR Viewed Endwise

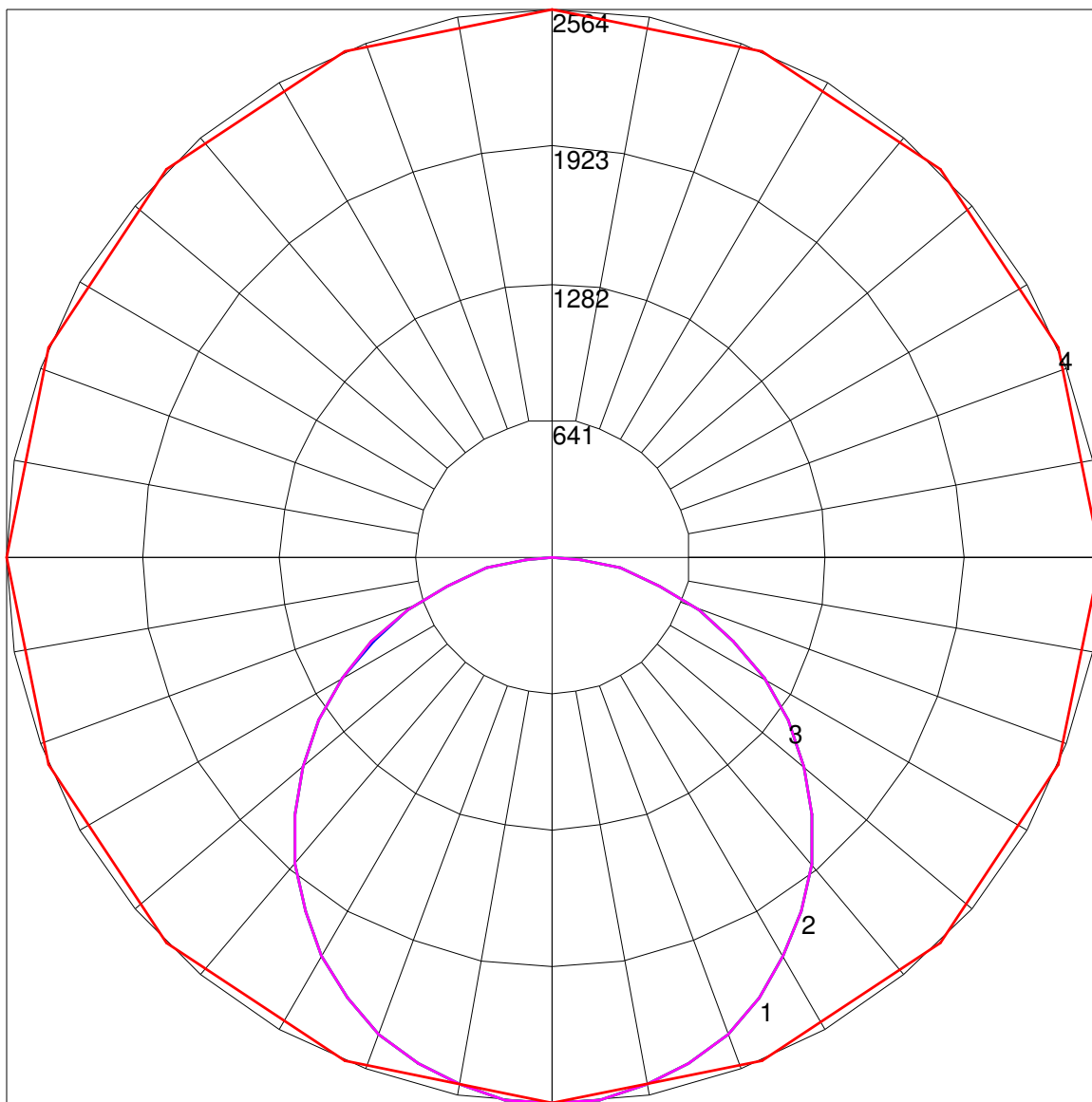
4H	2H	17.2	18.6	17.6	19.0	19.3	17.3	18.7	17.7	19.1	19.4
	3H	19.3	20.5	19.7	20.9	21.3	19.4	20.6	19.8	21.0	21.4
	4H	20.1	21.2	20.6	21.6	22.1	20.3	21.3	20.7	21.8	22.2
	6H	20.8	21.8	21.3	22.2	22.6	21.0	21.9	21.4	22.3	22.8
	8H	21.1	21.9	21.5	22.4	22.8	21.2	22.1	21.7	22.5	23.0
	12H	21.2	22.0	21.7	22.5	22.9	21.4	22.1	21.8	22.6	23.1

8H	4H	20.5	21.4	21.0	21.8	22.3	20.6	21.5	21.1	21.9	22.4
	6H	21.3	22.0	21.8	22.5	23.0	21.4	22.1	21.9	22.6	23.1
	8H	21.6	22.2	22.1	22.7	23.2	21.7	22.4	22.2	22.9	23.4
	12H	21.8	22.4	22.3	22.9	23.4	21.9	22.5	22.4	23.0	23.6

12H	4H	20.5	21.3	21.0	21.8	22.3	20.6	21.4	21.1	21.9	22.4
	6H	21.4	22.0	21.9	22.5	23.0	21.5	22.2	22.0	22.6	23.1
	8H	21.7	22.3	22.2	22.8	23.3	21.8	22.4	22.3	22.9	23.5

Maximum UGR = 23.6

POLAR GRAPH



Maximum Candela = 2564.332 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.)