



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AP-24-L70-840-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-L70-840-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	7246
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
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	3547	3558	3592
55	3424	3445	3500
65	3231	3268	3325
75	2913	2934	3040
85	2234	2129	2203

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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	2491.757	2491.757	2491.757	2491.757	2491.757
5	2485.207	2483.934	2481.704	2478.529	2474.325
10	2449.814	2449.356	2448.569	2446.596	2442.320
15	2393.312	2392.969	2393.084	2393.527	2390.181
20	2316.619	2316.905	2317.520	2320.437	2318.464
25	2220.820	2221.192	2223.022	2227.298	2227.355
30	2107.732	2108.090	2110.606	2116.427	2117.628
35	1976.239	1977.197	1980.544	1987.150	1990.697
40	1829.488	1830.632	1834.536	1842.201	1847.335
45	1667.864	1668.908	1673.155	1682.250	1689.014
50	1493.026	1494.385	1499.476	1509.357	1518.052
55	1305.933	1307.778	1313.741	1324.738	1334.820
60	1110.260	1112.019	1118.983	1131.081	1140.591
65	908.023	910.268	918.348	925.612	934.378
70	703.240	705.528	710.805	717.269	727.107
75	501.332	503.920	504.993	513.344	523.254
80	307.660	307.575	309.019	314.281	321.489
85	129.462	125.959	123.384	124.385	127.675
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	911.14	N.A.	12.60
0-30	1936.22	N.A.	26.70
0-40	3176.19	N.A.	43.80
0-60	5645.2	N.A.	77.90
0-80	7092.81	N.A.	97.90
0-90	7245.92	N.A.	100.00
10-90	7010.16	N.A.	96.70
20-40	2265.05	N.A.	31.30
20-50	3557.48	N.A.	49.10
40-70	3378.11	N.A.	46.60
60-80	1447.61	N.A.	20.00
70-80	538.51	N.A.	7.40
80-90	153.11	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	7245.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	235.76
10-20	675.38
20-30	1025.08
30-40	1239.97
40-50	1292.44
50-60	1176.57
60-70	909.10
70-80	538.51
80-90	153.11
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	16.4	18.1	16.8	18.4	18.7	16.6	18.2	16.9	18.5	18.8
	3H	18.3	19.8	18.7	20.1	20.5	18.4	19.9	18.8	20.3	20.6
	4H	19.0	20.4	19.4	20.8	21.2	19.2	20.6	19.6	20.9	21.3
	6H	19.6	20.9	20.0	21.2	21.6	19.7	21.0	20.1	21.4	21.8
	8H	19.7	21.0	20.2	21.4	21.8	19.9	21.2	20.3	21.6	22.0
	12H	19.8	21.1	20.3	21.4	21.9	20.0	21.2	20.4	21.6	22.0

UGR Viewed Endwise

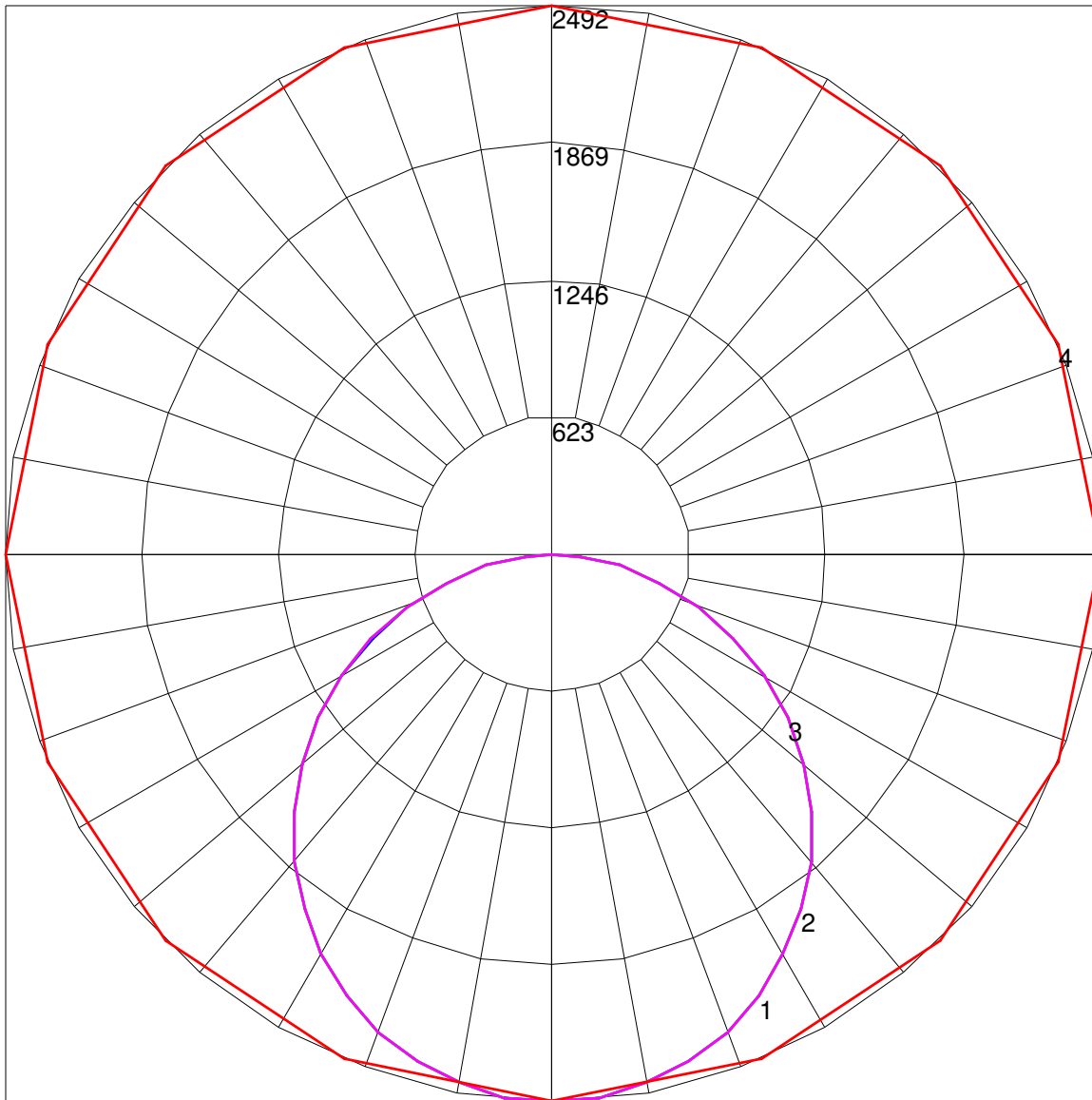
4H	2H	17.1	18.5	17.5	18.9	19.2	17.2	18.6	17.6	19.0	19.3
	3H	19.2	20.4	19.6	20.8	21.2	19.3	20.5	19.7	20.9	21.3
	4H	20.0	21.1	20.5	21.5	22.0	20.2	21.2	20.6	21.7	22.1
	6H	20.7	21.7	21.2	22.1	22.5	20.9	21.8	21.3	22.2	22.7
	8H	21.0	21.8	21.4	22.3	22.7	21.1	22.0	21.6	22.4	22.9
	12H	21.1	21.9	21.6	22.4	22.8	21.3	22.0	21.7	22.5	23.0

8H	4H	20.4	21.3	20.9	21.7	22.2	20.5	21.4	21.0	21.8	22.3
	6H	21.2	21.9	21.7	22.4	22.9	21.3	22.0	21.8	22.5	23.0
	8H	21.5	22.1	22.0	22.6	23.1	21.6	22.3	22.1	22.8	23.3
	12H	21.7	22.3	22.2	22.8	23.3	21.8	22.4	22.3	22.9	23.5

12H	4H	20.4	21.2	20.9	21.7	22.2	20.5	21.3	21.0	21.8	22.3
	6H	21.3	21.9	21.8	22.4	22.9	21.4	22.1	21.9	22.5	23.0
	8H	21.6	22.2	22.1	22.7	23.2	21.7	22.3	22.2	22.8	23.4

Maximum UGR = 23.5

POLAR GRAPH



Maximum Candela = 2491.757 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.)