



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AP-24-L50-840-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-L50-840-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.
 [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	5212
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
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	2551	2559	2584
55	2463	2478	2517
65	2324	2350	2392
75	2095	2111	2187
85	1607	1531	1585

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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	1792.223	1792.223	1792.223	1792.223	1792.223
5	1787.512	1786.597	1784.992	1782.709	1779.685
10	1762.055	1761.726	1761.160	1759.741	1756.665
15	1721.416	1721.169	1721.252	1721.570	1719.164
20	1666.254	1666.459	1666.902	1669.000	1667.580
25	1597.349	1597.617	1598.933	1602.009	1602.050
30	1516.009	1516.266	1518.077	1522.263	1523.127
35	1421.432	1422.121	1424.528	1429.280	1431.831
40	1315.879	1316.702	1319.510	1325.023	1328.716
45	1199.629	1200.380	1203.435	1209.977	1214.842
50	1073.875	1074.853	1078.514	1085.622	1091.876
55	939.307	940.634	944.923	952.833	960.084
60	798.567	799.832	804.841	813.543	820.383
65	653.105	654.720	660.532	665.757	672.062
70	505.813	507.459	511.254	515.903	522.980
75	360.588	362.450	363.221	369.228	376.356
80	221.288	221.226	222.265	226.050	231.234
85	93.117	90.597	88.746	89.466	91.831
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	655.35	N.A.	12.60
0-30	1392.65	N.A.	26.70
0-40	2284.51	N.A.	43.80
0-60	4060.37	N.A.	77.90
0-80	5101.58	N.A.	97.90
0-90	5211.71	N.A.	100.00
10-90	5042.13	N.A.	96.70
20-40	1629.16	N.A.	31.30
20-50	2558.76	N.A.	49.10
40-70	2429.74	N.A.	46.60
60-80	1041.21	N.A.	20.00
70-80	387.33	N.A.	7.40
80-90	110.13	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	5211.71	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	169.57
10-20	485.78
20-30	737.30
30-40	891.86
40-50	929.60
50-60	846.26
60-70	653.88
70-80	387.33
80-90	110.13
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	89	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	15.2	16.9	15.6	17.2	17.5	UGR Viewed Endwise			
	3H	17.1	18.6	17.5	18.9	19.3	15.4	17.0	15.7	17.3
	4H	17.8	19.2	18.2	19.6	20.0	17.2	18.7	17.6	19.1
	6H	18.4	19.7	18.8	20.0	20.4	18.0	19.4	18.4	19.7
	8H	18.5	19.8	19.0	20.2	20.6	18.5	19.8	18.9	20.2
	12H	18.6	19.9	19.1	20.2	20.7	18.7	20.0	19.1	20.4
							18.8	20.0	19.2	20.4

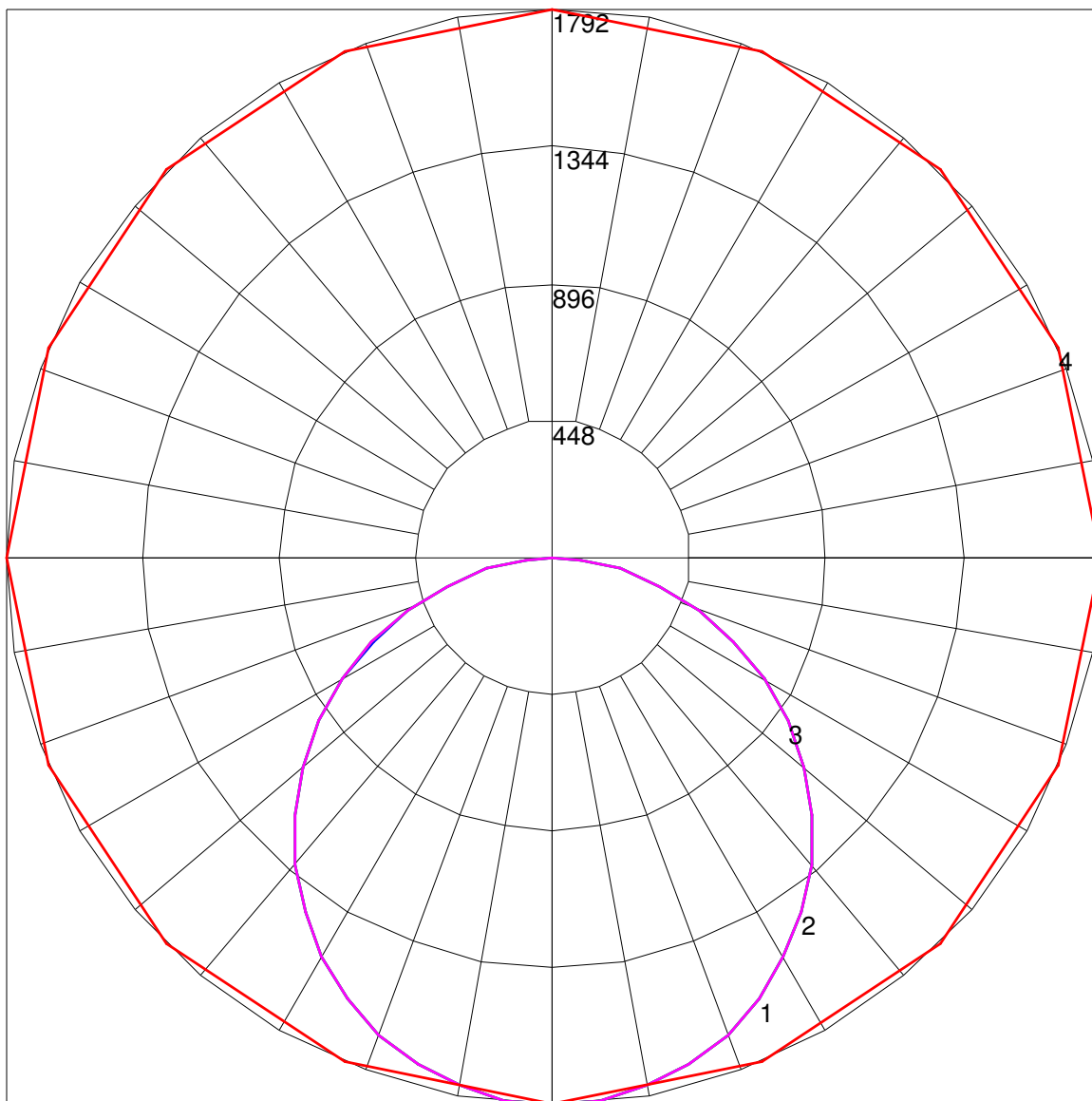
4H	2H	15.9	17.3	16.3	17.7	18.0	15.4	17.0	15.7	17.3
	3H	18.0	19.2	18.4	19.6	20.0	17.2	18.7	17.6	19.1
	4H	18.8	19.9	19.3	20.3	20.8	18.0	19.4	18.4	19.7
	6H	19.5	20.5	20.0	20.9	21.3	18.5	19.8	18.9	20.2
	8H	19.7	20.6	20.2	21.1	21.5	18.7	20.0	19.1	20.4
	12H	19.9	20.7	20.4	21.2	21.6	18.8	20.0	19.2	20.4

8H	4H	19.2	20.1	19.7	20.5	21.0	18.5	19.8	18.9	20.2
	6H	20.0	20.7	20.5	21.2	21.7	18.7	20.0	19.1	20.4
	8H	20.3	20.9	20.8	21.4	21.9	18.8	20.0	19.2	20.4
	12H	20.5	21.1	21.0	21.6	22.1	18.8	20.0	19.2	20.4

12H	4H	19.2	20.0	19.7	20.5	21.0	18.5	19.8	18.9	20.2
	6H	20.1	20.7	20.6	21.2	21.7	18.7	20.0	19.1	20.4
	8H	20.4	21.0	20.9	21.5	22.0	18.8	20.0	19.2	20.4

Maximum UGR = 22.3

POLAR GRAPH



Maximum Candela = 1792.223 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.)