



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AP-24-L50-850-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-L50-850-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	5364
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	118
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	2626	2634	2659
55	2535	2550	2591
65	2392	2419	2461
75	2156	2172	2251
85	1654	1576	1631

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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	1844.425	1844.425	1844.425	1844.425	1844.425
5	1839.577	1838.635	1836.983	1834.634	1831.521
10	1813.378	1813.039	1812.457	1810.996	1807.831
15	1771.555	1771.301	1771.386	1771.714	1769.237
20	1714.786	1714.998	1715.453	1717.612	1716.152
25	1643.875	1644.150	1645.505	1648.670	1648.712
30	1560.166	1560.430	1562.293	1566.602	1567.491
35	1462.833	1463.543	1466.020	1470.910	1473.535
40	1354.206	1355.053	1357.943	1363.617	1367.417
45	1234.571	1235.343	1238.487	1245.219	1250.226
50	1105.154	1106.160	1109.928	1117.242	1123.678
55	966.666	968.031	972.445	980.585	988.048
60	821.826	823.128	828.283	837.239	844.278
65	672.128	673.790	679.771	685.148	691.637
70	520.546	522.239	526.145	530.930	538.213
75	371.091	373.007	373.801	379.983	387.318
80	227.733	227.670	228.739	232.634	237.969
85	95.829	93.236	91.330	92.071	94.506
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	674.44	N.A.	12.60
0-30	1433.21	N.A.	26.70
0-40	2351.05	N.A.	43.80
0-60	4178.64	N.A.	77.90
0-80	5250.17	N.A.	97.90
0-90	5363.51	N.A.	100.00
10-90	5189.00	N.A.	96.70
20-40	1676.61	N.A.	31.30
20-50	2633.29	N.A.	49.10
40-70	2500.51	N.A.	46.60
60-80	1071.54	N.A.	20.00
70-80	398.61	N.A.	7.40
80-90	113.33	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	5363.51	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	174.51
10-20	499.92
20-30	758.77
30-40	917.84
40-50	956.68
50-60	870.91
60-70	672.92
70-80	398.61
80-90	113.33
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	74	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

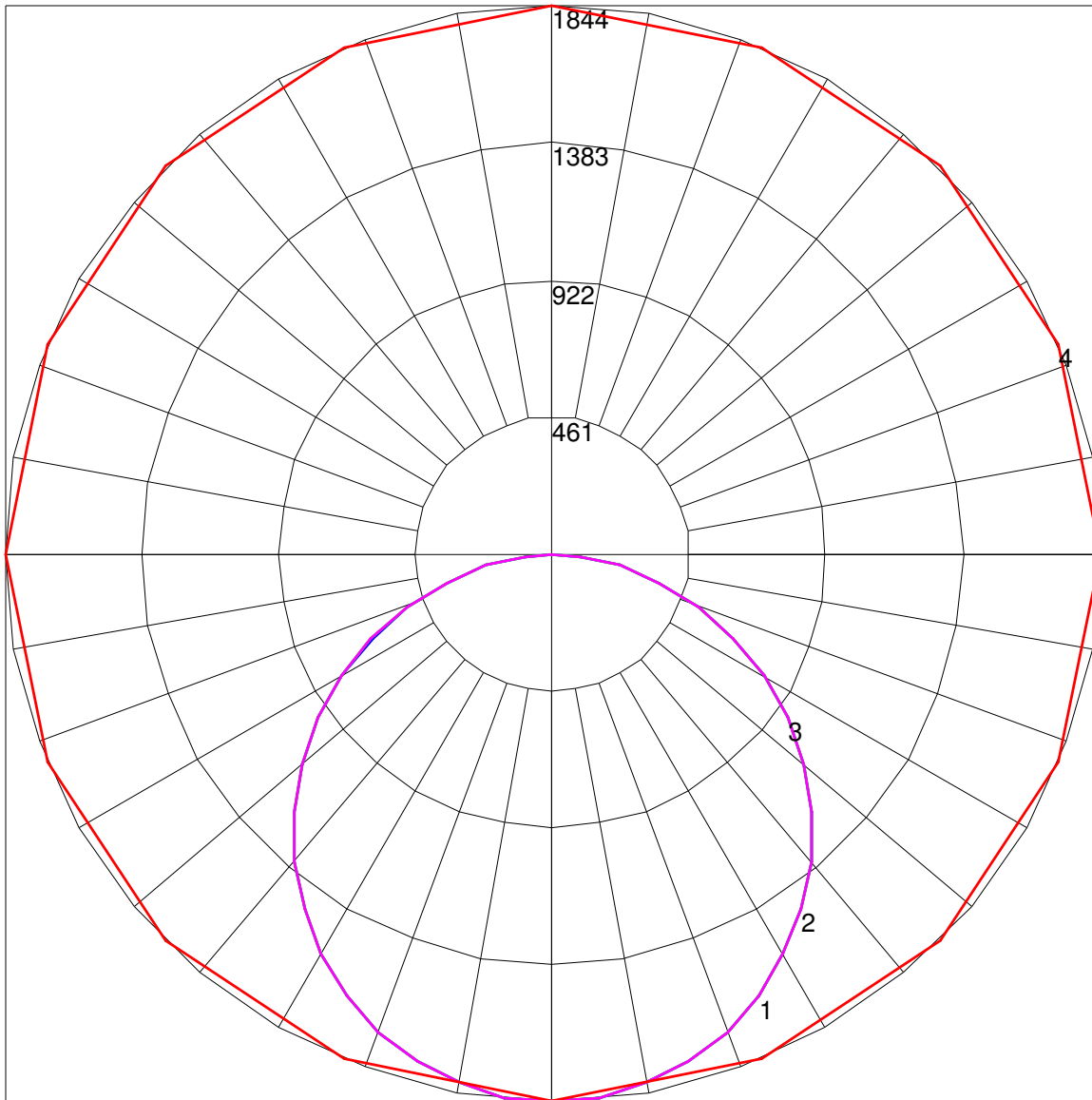
Reflectances

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	15.3	17.0	15.7	17.3	17.6	15.5	17.1	15.8	17.4	17.7
	3H	17.2	18.7	17.6	19.0	19.4	17.3	18.8	17.7	19.2	19.5
	4H	17.9	19.3	18.3	19.7	20.1	18.1	19.5	18.5	19.8	20.2
	6H	18.5	19.8	18.9	20.1	20.5	18.6	19.9	19.0	20.3	20.7
	8H	18.6	19.9	19.1	20.3	20.7	18.8	20.1	19.2	20.5	20.9
	12H	18.7	20.0	19.2	20.3	20.8	18.9	20.1	19.3	20.5	20.9
4H	2H	16.0	17.4	16.4	17.8	18.1	16.1	17.5	16.5	17.9	18.2
	3H	18.1	19.3	18.5	19.7	20.1	18.2	19.4	18.6	19.8	20.2
	4H	18.9	20.0	19.4	20.4	20.9	19.1	20.1	19.5	20.6	21.0
	6H	19.6	20.6	20.1	21.0	21.4	19.8	20.7	20.2	21.1	21.6
	8H	19.8	20.7	20.3	21.2	21.6	20.0	20.9	20.5	21.3	21.8
	12H	20.0	20.8	20.5	21.3	21.7	20.1	20.9	20.6	21.4	21.9
8H	4H	19.3	20.2	19.8	20.6	21.1	19.4	20.3	19.9	20.7	21.2
	6H	20.1	20.8	20.6	21.3	21.8	20.2	20.9	20.7	21.4	21.9
	8H	20.4	21.0	20.9	21.5	22.0	20.5	21.2	21.0	21.7	22.2
	12H	20.6	21.2	21.1	21.7	22.2	20.7	21.3	21.2	21.8	22.4
12H	4H	19.3	20.1	19.8	20.6	21.1	19.4	20.2	19.9	20.7	21.2
	6H	20.2	20.8	20.7	21.3	21.8	20.3	20.9	20.8	21.4	21.9
	8H	20.5	21.1	21.0	21.6	22.1	20.6	21.2	21.1	21.7	22.3

Maximum UGR = 22.4

POLAR GRAPH



Maximum Candela = 1844.425 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.)