



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L43-927-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19562.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 2022-05-03

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 1-72 LED 22"ARRAY 2x2'RECESSED LUMINAIRE

[MORE] WHITE REFLECTOR w/CENTER FROSTED RIBBED ACRYLIC LENS

[MORE] ELECTRONIC 0-10V LED DRIVER

[LUMCAT] PTDC-22-L43-927-RA-DIM-UNV

[LAMPCAT] HLM 90 CRI 2700K CCT

[SEARCH_SOURCETYPE] LED

[SEARCH_APPLICATION] INDOOR

[SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3561
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	34.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.93 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3346	3470	3583
55	2829	3117	3326
65	2162	2705	3007
75	1503	2399	2965
85	856	1957	2446

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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	1360.985	1360.985	1360.985	1360.985	1360.985
5	1365.562	1357.324	1355.494	1350.917	1350.917
10	1347.256	1339.019	1338.104	1333.528	1332.612
15	1315.222	1306.070	1305.155	1303.324	1302.409
20	1269.460	1261.222	1260.307	1261.222	1261.222
25	1205.392	1197.154	1202.646	1206.307	1202.646
30	1126.680	1123.019	1128.510	1134.917	1130.341
35	1036.069	1035.154	1047.053	1051.629	1056.205
40	931.730	931.730	951.866	960.103	967.425
45	812.747	812.747	842.951	862.171	870.408
50	687.357	688.272	728.544	754.171	766.069
55	557.391	567.459	614.137	641.594	655.323
60	430.170	450.306	496.984	527.187	541.831
65	313.933	340.475	392.645	425.594	436.577
70	211.424	244.373	296.543	330.407	343.221
75	133.627	165.661	213.255	247.119	263.594
80	72.305	99.763	141.865	165.661	182.136
85	25.627	44.848	58.576	58.576	73.220
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	497.25	N.A.	14.00
0-30	1050.77	N.A.	29.50
0-40	1703.43	N.A.	47.80
0-60	2893.88	N.A.	81.30
0-80	3495.94	N.A.	98.20
0-90	3561.08	N.A.	100.00
10-90	3432.26	N.A.	96.40
20-40	1206.18	N.A.	33.90
20-50	1853.36	N.A.	52.00
40-70	1572.64	N.A.	44.20
60-80	602.06	N.A.	16.90
70-80	219.86	N.A.	6.20
80-90	65.14	N.A.	1.80
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	3561.08	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	128.82
10-20	368.44
20-30	553.51
30-40	652.67
40-50	647.18
50-60	543.27
60-70	382.19
70-80	219.86
80-90	65.14
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	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	100	91	85	79	97	90	83	78	86	81	76	83	79	75	80	76	73	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	62	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	28	38	32	27	26

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UGR TABLE - CORRECTED

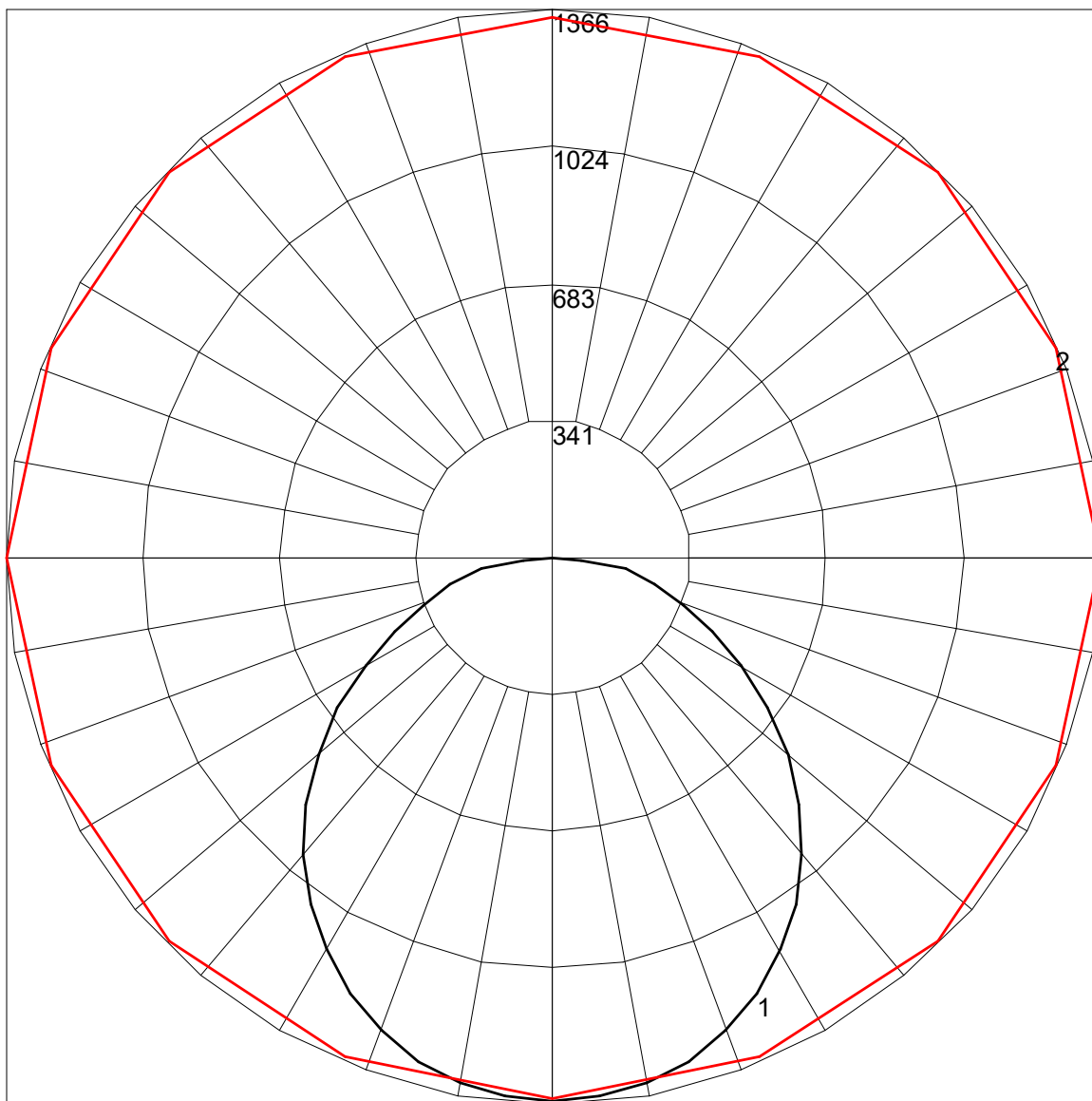
Reflectances

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	15.2	16.8	15.5	17.1	17.4	16.2	17.8	16.6	18.1	18.4
	3H	16.5	17.9	16.8	18.2	18.6	18.0	19.5	18.4	19.8	20.2
	4H	16.9	18.2	17.3	18.6	19.0	18.8	20.2	19.2	20.5	20.9
	6H	17.1	18.4	17.6	18.8	19.2	19.5	20.8	19.9	21.1	21.5
	8H	17.2	18.4	17.6	18.8	19.2	19.7	20.9	20.2	21.3	21.7
	12H	17.2	18.4	17.7	18.8	19.2	19.9	21.0	20.3	21.4	21.9
4H	2H	15.9	17.2	16.3	17.6	18.0	16.7	18.1	17.1	18.4	18.8
	3H	17.4	18.5	17.8	18.9	19.3	18.8	19.9	19.2	20.3	20.7
	4H	18.0	19.0	18.4	19.4	19.8	19.7	20.7	20.1	21.1	21.6
	6H	18.3	19.2	18.8	19.7	20.1	20.6	21.5	21.0	21.9	22.4
	8H	18.4	19.3	18.9	19.7	20.2	20.9	21.7	21.3	22.1	22.6
	12H	18.5	19.3	19.0	19.7	20.2	21.1	21.8	21.5	22.3	22.8
8H	4H	18.4	19.2	18.9	19.7	20.1	20.0	20.8	20.4	21.2	21.7
	6H	18.9	19.6	19.4	20.1	20.6	20.9	21.6	21.4	22.1	22.6
	8H	19.1	19.7	19.6	20.3	20.7	21.3	22.0	21.9	22.5	23.0
	12H	19.2	19.8	19.7	20.3	20.8	21.6	22.2	22.1	22.6	23.2
12H	4H	18.5	19.2	19.0	19.7	20.2	20.0	20.7	20.4	21.2	21.7
	6H	19.1	19.7	19.6	20.2	20.7	21.0	21.6	21.5	22.1	22.6
	8H	19.3	19.9	19.8	20.4	20.9	21.4	22.0	21.9	22.5	23.0

Maximum UGR = 23.2

POLAR GRAPH



Maximum Candela = 1365.562 Located At Horizontal Angle = 0, Vertical Angle = 5

1 - Vertical Plane Through Horizontal Angles (90 - 270)

2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)