



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L43-930-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-L43-930-RA-DIM-UNV

[LAMPCAT] HLM 90 CRI 3000K 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	3605
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
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	3387	3513	3627
55	2863	3155	3367
65	2189	2738	3044
75	1521	2428	3001
85	866	1980	2475

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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	1377.583	1377.583	1377.583	1377.583	1377.583
5	1382.215	1373.877	1372.024	1367.392	1367.392
10	1363.686	1355.349	1354.422	1349.790	1348.864
15	1331.262	1321.998	1321.071	1319.218	1318.292
20	1284.941	1276.603	1275.677	1276.603	1276.603
25	1220.092	1211.754	1217.312	1221.018	1217.312
30	1140.420	1136.714	1142.273	1148.758	1144.126
35	1048.705	1047.778	1059.822	1064.454	1069.086
40	943.093	943.093	963.474	971.812	979.223
45	822.659	822.659	853.230	872.685	881.023
50	695.739	696.666	737.428	763.368	775.411
55	564.188	574.379	621.626	649.419	663.315
60	435.416	455.797	503.045	533.616	548.439
65	317.761	344.627	397.433	430.784	441.901
70	214.002	247.353	300.159	334.437	347.407
75	135.257	167.682	215.855	250.133	266.808
80	73.187	100.979	143.595	167.682	184.357
85	25.940	45.394	59.291	59.291	74.113
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	503.32	N.A.	14.00
0-30	1063.58	N.A.	29.50
0-40	1724.21	N.A.	47.80
0-60	2929.17	N.A.	81.30
0-80	3538.57	N.A.	98.20
0-90	3604.51	N.A.	100.00
10-90	3474.12	N.A.	96.40
20-40	1220.89	N.A.	33.90
20-50	1875.96	N.A.	52.00
40-70	1591.82	N.A.	44.20
60-80	609.40	N.A.	16.90
70-80	222.55	N.A.	6.20
80-90	65.94	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	3604.51	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	130.39
10-20	372.93
20-30	560.26
30-40	660.63
40-50	655.08
50-60	549.89
60-70	386.85
70-80	222.55
80-90	65.94
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	99	91	85	79	97	90	83	78	86	81	76	83	78	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

X=2H	Y=2H	15.3	16.9	15.6	17.2	17.5	UGR Viewed Endwise			
	3H	16.6	18.0	16.9	18.3	18.7	16.3	17.9	16.7	18.2
	4H	17.0	18.3	17.4	18.7	19.1	18.1	19.6	18.5	19.9
	6H	17.2	18.5	17.7	18.9	19.3	18.9	20.3	19.3	20.6
	8H	17.3	18.5	17.7	18.9	19.3	19.6	20.9	20.0	21.2
	12H	17.3	18.5	17.8	18.9	19.3	19.8	21.0	20.3	21.4

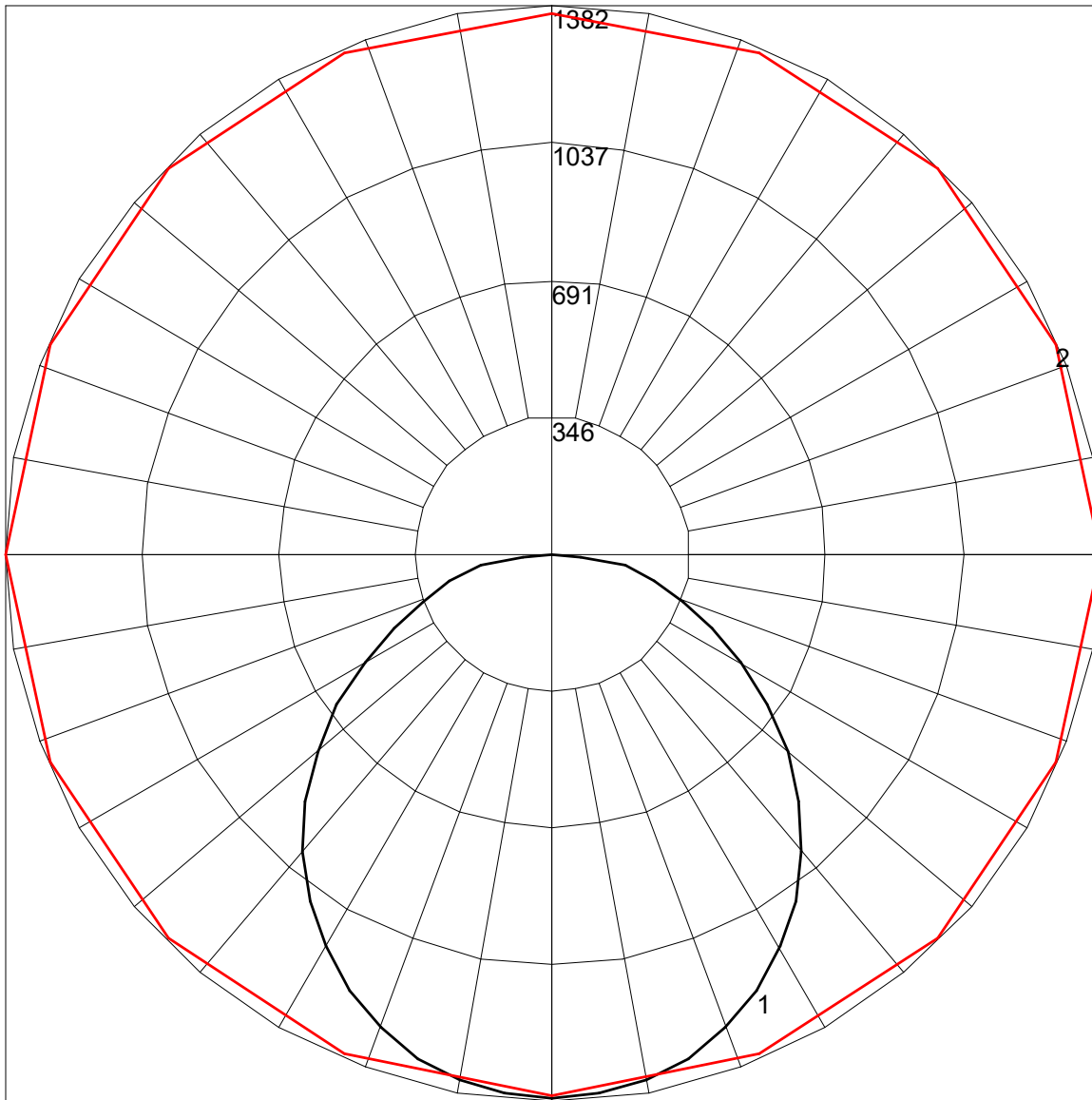
							20.0	21.1	20.4	21.5	22.0
4H	2H	16.0	17.3	16.4	17.7	18.1	16.8	18.2	17.2	18.5	18.9
	3H	17.5	18.6	17.9	19.0	19.4	18.9	20.0	19.3	20.4	20.8
	4H	18.1	19.1	18.5	19.5	19.9	19.8	20.8	20.2	21.2	21.7
	6H	18.4	19.3	18.9	19.8	20.2	20.7	21.6	21.1	22.0	22.5
	8H	18.5	19.4	19.0	19.8	20.3	21.0	21.8	21.4	22.2	22.7
	12H	18.6	19.4	19.1	19.8	20.3	21.2	21.9	21.7	22.4	22.9

8H	4H	18.5	19.3	19.0	19.8	20.3	20.1	20.9	20.5	21.3	21.8
	6H	19.0	19.7	19.5	20.2	20.7	21.0	21.7	21.5	22.2	22.7
	8H	19.2	19.8	19.7	20.4	20.8	21.4	22.1	22.0	22.6	23.1
	12H	19.3	19.9	19.8	20.4	20.9	21.7	22.3	22.2	22.7	23.3

12H	4H	18.6	19.3	19.1	19.8	20.3	20.1	20.8	20.5	21.3	21.8
	6H	19.2	19.8	19.7	20.3	20.8	21.1	21.7	21.6	22.2	22.7
	8H	19.4	20.0	19.9	20.5	21.0	21.5	22.1	22.0	22.6	23.1

Maximum UGR = 23.3

POLAR GRAPH



Maximum Candela = 1382.215 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.)