



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L43-940-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
 [ISSUE DATE] 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-L43-940-RA-DIM-UNV
 [LAMPCAT] HLM 90 CRI 4000K 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	3735
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
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	3509	3640	3758
55	2967	3269	3488
65	2268	2837	3154
75	1576	2516	3109
85	898	2052	2565

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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	1427.375	1427.375	1427.375	1427.375	1427.375
5	1432.174	1423.535	1421.615	1416.816	1416.816
10	1412.976	1404.337	1403.377	1398.578	1397.618
15	1379.380	1369.781	1368.821	1366.901	1365.941
20	1331.384	1322.745	1321.785	1322.745	1322.745
25	1264.191	1255.552	1261.312	1265.151	1261.312
30	1181.640	1177.800	1183.560	1190.279	1185.479
35	1086.609	1085.649	1098.128	1102.928	1107.727
40	977.181	977.181	998.298	1006.937	1014.617
45	852.393	852.393	884.070	904.228	912.867
50	720.887	721.847	764.082	790.959	803.438
55	584.580	595.139	644.094	672.892	687.290
60	451.154	472.272	521.227	552.904	568.262
65	329.246	357.084	411.798	446.355	457.873
70	221.737	256.294	311.008	346.525	359.963
75	140.146	173.742	223.657	259.174	276.452
80	75.832	104.629	148.785	173.742	191.021
85	26.877	47.035	61.434	61.434	76.792
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	521.51	N.A.	14.00
0-30	1102.02	N.A.	29.50
0-40	1786.53	N.A.	47.80
0-60	3035.05	N.A.	81.30
0-80	3666.47	N.A.	98.20
0-90	3734.79	N.A.	100.00
10-90	3599.69	N.A.	96.40
20-40	1265.01	N.A.	33.90
20-50	1943.77	N.A.	52.00
40-70	1649.35	N.A.	44.20
60-80	631.42	N.A.	16.90
70-80	230.59	N.A.	6.20
80-90	68.32	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	3734.79	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	135.10
10-20	386.41
20-30	580.51
30-40	684.50
40-50	678.75
50-60	569.77
60-70	400.83
70-80	230.59
80-90	68.32
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

X=2H	Y=2H	15.4	17.0	15.7	17.3	17.6	UGR Viewed Endwise			
	3H	16.7	18.1	17.0	18.4	18.8	16.4	18.0	16.8	18.3
	4H	17.1	18.4	17.5	18.8	19.2	18.2	19.7	18.6	20.0
	6H	17.3	18.6	17.8	19.0	19.4	19.0	20.4	19.4	20.7
	8H	17.4	18.6	17.8	19.0	19.4	19.7	21.0	20.1	21.3
	12H	17.4	18.6	17.9	19.0	19.4	19.9	21.1	20.4	21.5

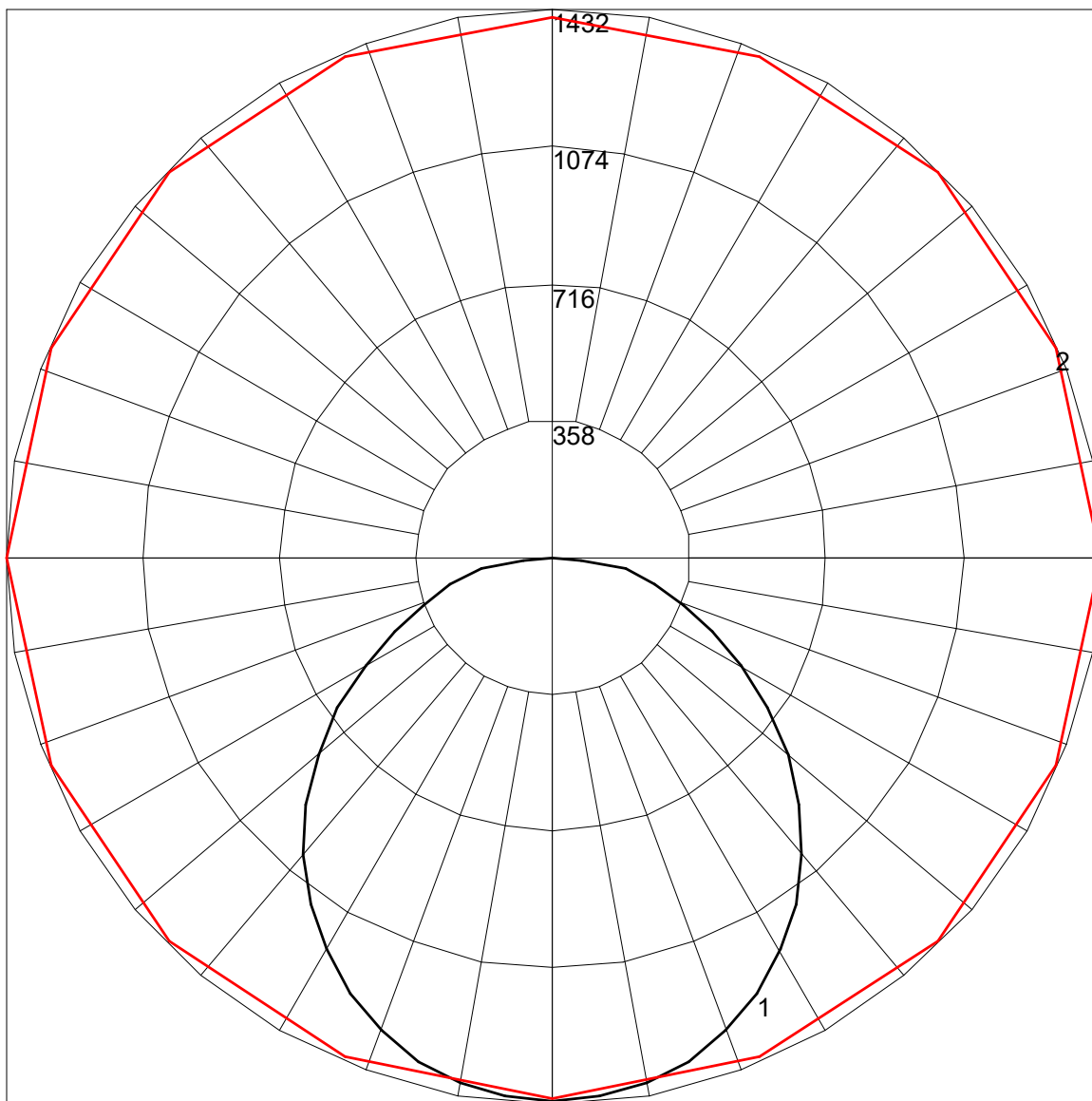
4H	2H	16.1	17.4	16.5	17.8	18.2	20.1	21.2	20.5	21.6
	3H	17.6	18.7	18.0	19.1	19.5	16.9	18.3	17.3	18.6
	4H	18.2	19.2	18.6	19.6	20.0	19.0	20.1	19.4	20.5
	6H	18.5	19.4	19.0	19.9	20.3	19.9	20.9	20.3	21.3
	8H	18.6	19.5	19.1	19.9	20.4	20.8	21.7	21.2	22.1
	12H	18.7	19.5	19.2	19.9	20.4	21.1	21.9	21.5	22.3

8H	4H	18.6	19.4	19.1	19.9	20.3	21.3	22.0	21.7	22.5
	6H	19.1	19.8	19.6	20.3	20.8	20.2	21.0	20.6	21.4
	8H	19.3	19.9	19.8	20.5	20.9	21.1	21.8	21.6	22.3
	12H	19.4	20.0	19.9	20.5	21.0	21.5	22.2	22.1	22.7

12H	4H	18.7	19.4	19.2	19.9	20.4	21.8	22.4	22.3	22.8
	6H	19.3	19.9	19.8	20.4	20.9	20.2	20.9	20.6	21.4
	8H	19.5	20.1	20.0	20.6	21.1	21.2	21.8	21.7	22.3

Maximum UGR = 23.4

POLAR GRAPH



Maximum Candela = 1432.174 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.)