



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L52-927-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] 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-L52-927-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	4270
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
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	4012	4161	4296
55	3392	3737	3988
65	2593	3243	3606
75	1802	2876	3555
85	1026	2346	2932

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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	1631.740	1631.740	1631.740	1631.740	1631.740
5	1637.227	1627.351	1625.156	1619.669	1619.669
10	1615.280	1605.404	1604.307	1598.820	1597.723
15	1576.873	1565.900	1564.803	1562.608	1561.511
20	1522.006	1512.130	1511.033	1512.130	1512.130
25	1445.193	1435.317	1441.901	1446.290	1441.901
30	1350.822	1346.433	1353.017	1360.698	1355.211
35	1242.185	1241.088	1255.354	1260.840	1266.327
40	1117.089	1117.089	1141.230	1151.107	1159.885
45	974.435	974.435	1010.647	1033.691	1043.567
50	824.100	825.197	873.480	904.206	918.471
55	668.278	680.349	736.313	769.233	785.693
60	515.748	539.890	595.854	632.066	649.624
65	376.387	408.209	470.758	510.262	523.430
70	253.485	292.989	355.537	396.139	411.501
75	160.211	198.618	255.680	296.281	316.033
80	86.690	119.610	170.087	198.618	218.370
85	30.725	53.770	70.230	70.230	87.787
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	596.18	N.A.	14.00
0-30	1259.8	N.A.	29.50
0-40	2042.31	N.A.	47.80
0-60	3469.59	N.A.	81.30
0-80	4191.42	N.A.	98.20
0-90	4269.52	N.A.	100.00
10-90	4115.08	N.A.	96.40
20-40	1446.13	N.A.	33.90
20-50	2222.07	N.A.	52.00
40-70	1885.5	N.A.	44.20
60-80	721.83	N.A.	16.90
70-80	263.60	N.A.	6.20
80-90	78.10	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	4269.52	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	154.44
10-20	441.74
20-30	663.63
30-40	782.51
40-50	775.93
50-60	651.34
60-70	458.22
70-80	263.60
80-90	78.10
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	15.8	17.4	16.1	17.7	18.0	16.8	18.4	17.2	18.7	19.0
	3H	17.1	18.5	17.4	18.8	19.2	18.6	20.1	19.0	20.4	20.8
	4H	17.5	18.8	17.9	19.2	19.6	19.4	20.8	19.8	21.1	21.5
	6H	17.7	19.0	18.2	19.4	19.8	20.1	21.4	20.5	21.7	22.1
	8H	17.8	19.0	18.2	19.4	19.8	20.3	21.5	20.8	21.9	22.3
	12H	17.8	19.0	18.3	19.4	19.8	20.5	21.6	20.9	22.0	22.5

UGR Viewed Endwise

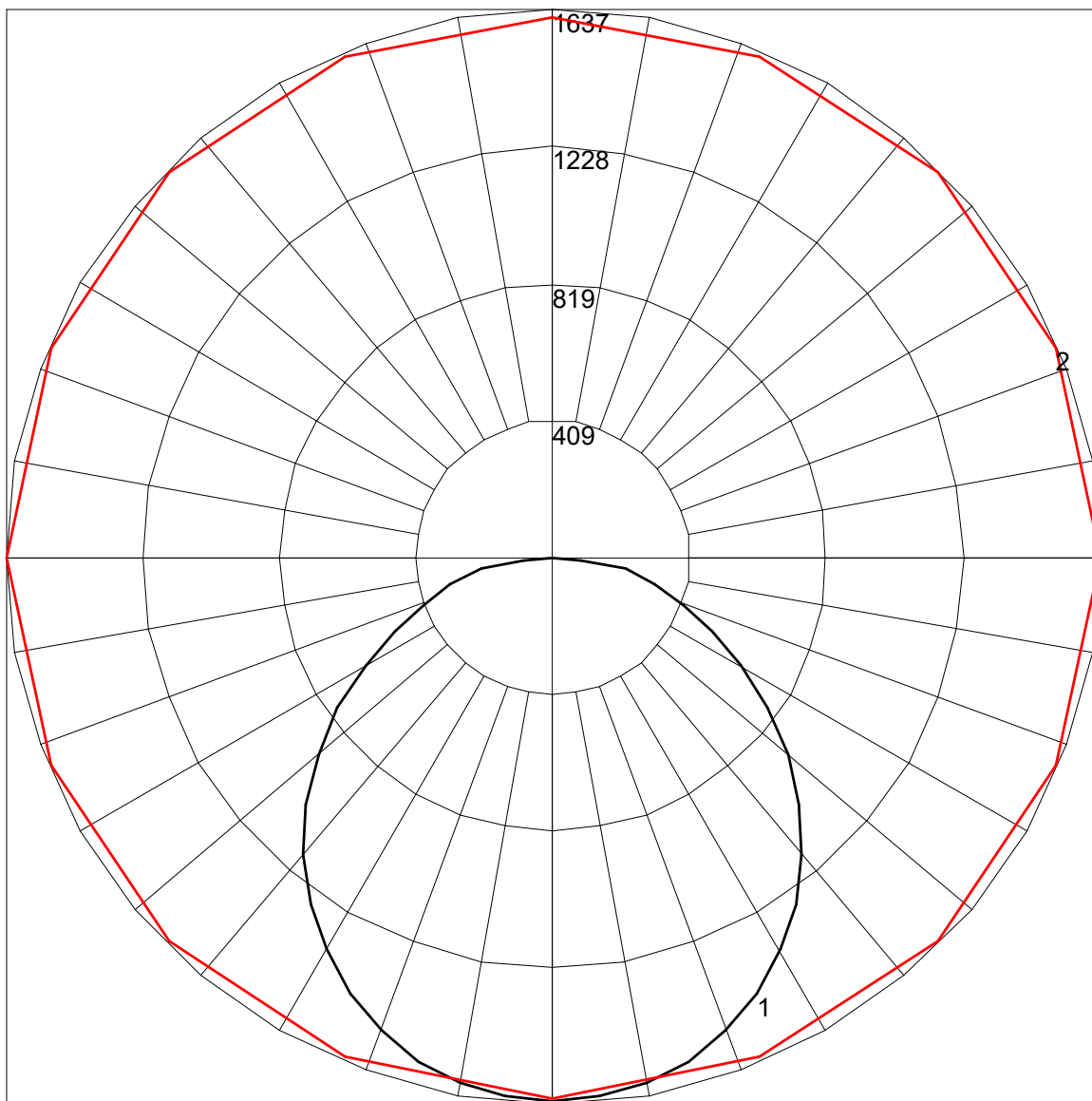
4H	2H	16.5	17.8	16.9	18.2	18.6	17.3	18.7	17.7	19.0	19.4
	3H	18.0	19.1	18.4	19.5	19.9	19.4	20.5	19.8	20.9	21.3
	4H	18.6	19.6	19.0	20.0	20.4	20.3	21.3	20.7	21.7	22.2
	6H	18.9	19.8	19.4	20.3	20.7	21.2	22.1	21.6	22.5	23.0
	8H	19.0	19.9	19.5	20.3	20.8	21.5	22.3	21.9	22.7	23.2
	12H	19.1	19.9	19.6	20.3	20.8	21.7	22.4	22.2	22.9	23.4

8H	4H	19.0	19.8	19.5	20.3	20.8	20.6	21.4	21.0	21.8	22.3
	6H	19.5	20.2	20.0	20.7	21.2	21.5	22.2	22.0	22.7	23.2
	8H	19.7	20.3	20.2	20.9	21.3	21.9	22.6	22.5	23.1	23.6
	12H	19.8	20.4	20.3	20.9	21.4	22.2	22.8	22.7	23.2	23.8

12H	4H	19.1	19.8	19.6	20.3	20.8	20.6	21.3	21.0	21.8	22.3
	6H	19.7	20.3	20.2	20.8	21.3	21.6	22.2	22.1	22.7	23.2
	8H	19.9	20.5	20.4	21.0	21.5	22.0	22.6	22.5	23.1	23.6

Maximum UGR = 23.8

POLAR GRAPH



Maximum Candela = 1637.227 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.)