



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L52-827-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
 [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-L52-827-RA-DIM-UNV
 [LAMPCAT] HLM 80 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	5051
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	146
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	4746	4922	5082
55	4012	4421	4717
65	3067	3836	4265
75	2132	3402	4205
85	1214	2775	3469

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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	1930.230	1930.230	1930.230	1930.230	1930.230
5	1936.720	1925.038	1922.442	1915.951	1915.951
10	1910.759	1899.076	1897.778	1891.288	1889.990
15	1865.327	1852.346	1851.048	1848.452	1847.154
20	1800.423	1788.740	1787.442	1788.740	1788.740
25	1709.558	1697.875	1705.664	1710.856	1705.664
30	1597.924	1592.732	1600.520	1609.607	1603.116
35	1469.415	1468.117	1484.992	1491.482	1497.973
40	1321.435	1321.435	1349.993	1361.675	1372.060
45	1152.686	1152.686	1195.522	1222.782	1234.465
50	974.851	976.149	1033.264	1069.610	1086.485
55	790.525	804.803	871.005	909.947	929.418
60	610.093	638.650	704.852	747.688	768.457
65	445.238	482.882	556.872	603.603	619.179
70	299.854	346.585	420.575	468.603	486.776
75	189.518	234.951	302.450	350.479	373.844
80	102.548	141.490	201.201	234.951	258.316
85	36.346	63.605	83.076	83.076	103.846
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	705.24	N.A.	14.00
0-30	1490.26	N.A.	29.50
0-40	2415.91	N.A.	47.80
0-60	4104.27	N.A.	81.30
0-80	4958.14	N.A.	98.20
0-90	5050.53	N.A.	100.00
10-90	4867.84	N.A.	96.40
20-40	1710.67	N.A.	33.90
20-50	2628.55	N.A.	52.00
40-70	2230.41	N.A.	44.20
60-80	853.87	N.A.	16.90
70-80	311.83	N.A.	6.20
80-90	92.39	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	5050.53	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	182.70
10-20	522.54
20-30	785.02
30-40	925.65
40-50	917.87
50-60	770.49
60-70	542.05
70-80	311.83
80-90	92.39
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

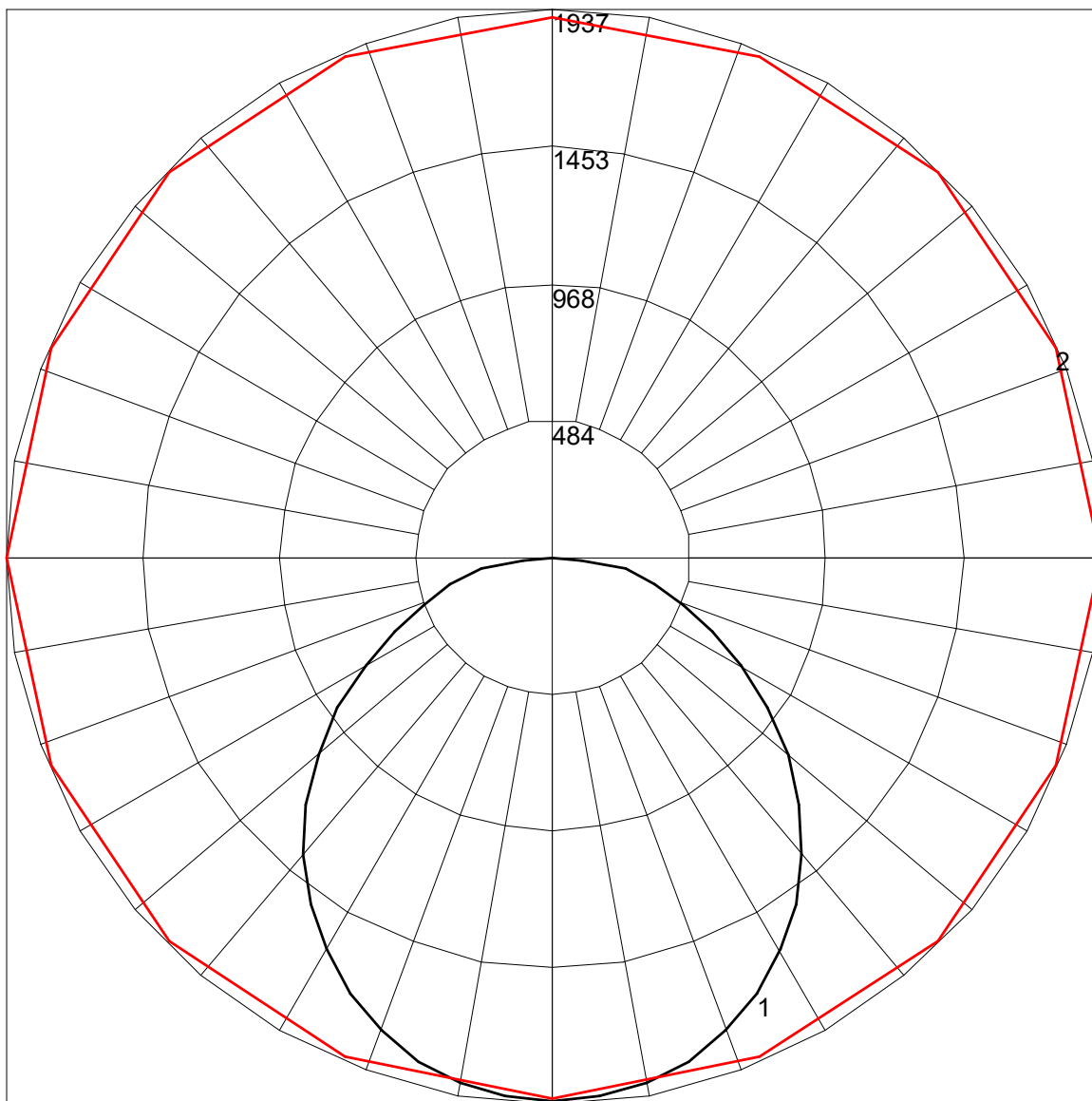
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	16.4	18.0	16.7	18.3	18.6	17.4	19.0	17.8	19.3	19.6
	3H	17.7	19.1	18.0	19.4	19.8	19.2	20.7	19.6	21.0	21.4
	4H	18.1	19.4	18.5	19.8	20.2	20.0	21.4	20.4	21.7	22.1
	6H	18.3	19.6	18.8	20.0	20.4	20.7	22.0	21.1	22.3	22.7
	8H	18.4	19.6	18.8	20.0	20.4	20.9	22.1	21.4	22.5	22.9
	12H	18.4	19.6	18.9	20.0	20.4	21.1	22.2	21.5	22.6	23.1
4H	2H	17.1	18.4	17.5	18.8	19.2	17.9	19.3	18.3	19.6	20.0
	3H	18.6	19.7	19.0	20.1	20.5	20.0	21.1	20.4	21.5	21.9
	4H	19.2	20.2	19.6	20.6	21.0	20.9	21.9	21.3	22.3	22.8
	6H	19.5	20.4	20.0	20.9	21.3	21.8	22.7	22.2	23.1	23.6
	8H	19.6	20.5	20.1	20.9	21.4	22.1	22.9	22.5	23.3	23.8
	12H	19.7	20.5	20.2	20.9	21.4	22.3	23.0	22.7	23.5	24.0
8H	4H	19.6	20.4	20.1	20.9	21.3	21.2	22.0	21.6	22.4	22.9
	6H	20.1	20.8	20.6	21.3	21.8	22.1	22.8	22.6	23.3	23.8
	8H	20.3	20.9	20.8	21.5	21.9	22.5	23.2	23.1	23.7	24.2
	12H	20.4	21.0	20.9	21.5	22.0	22.8	23.4	23.3	23.8	24.4
12H	4H	19.7	20.4	20.2	20.9	21.4	21.2	21.9	21.6	22.4	22.9
	6H	20.3	20.9	20.8	21.4	21.9	22.2	22.8	22.7	23.3	23.8
	8H	20.5	21.1	21.0	21.6	22.1	22.6	23.2	23.1	23.7	24.2

Maximum UGR = 24.4

POLAR GRAPH



Maximum Candela = 1936.72 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.)