



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L52-840-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-L52-840-RA-DIM-UNV

[LAMPCAT] HLM 80 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	5363
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	155
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	5039	5226	5397
55	4260	4694	5009
65	3257	4073	4529
75	2263	3612	4465
85	1289	2946	3683

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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	2049.626	2049.626	2049.626	2049.626	2049.626
5	2056.518	2044.112	2041.356	2034.464	2034.464
10	2028.950	2016.545	2015.167	2008.275	2006.897
15	1980.708	1966.924	1965.546	1962.789	1961.411
20	1911.789	1899.384	1898.006	1899.384	1899.384
25	1815.304	1802.899	1811.169	1816.682	1811.169
30	1696.765	1691.251	1699.522	1709.170	1702.278
35	1560.307	1558.929	1576.847	1583.739	1590.631
40	1403.174	1403.174	1433.498	1445.903	1456.930
45	1223.986	1223.986	1269.472	1298.418	1310.823
50	1035.151	1036.529	1097.177	1135.771	1153.690
55	839.423	854.585	924.882	966.232	986.908
60	647.831	678.155	748.451	793.937	815.991
65	472.779	512.751	591.318	640.939	657.479
70	318.402	368.023	446.590	497.589	516.886
75	201.241	249.484	321.159	372.158	396.969
80	108.891	150.242	213.646	249.484	274.294
85	38.594	67.540	88.215	88.215	110.269
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	748.86	N.A.	14.00
0-30	1582.44	N.A.	29.50
0-40	2565.35	N.A.	47.80
0-60	4358.15	N.A.	81.30
0-80	5264.83	N.A.	98.20
0-90	5362.94	N.A.	100.00
10-90	5168.94	N.A.	96.40
20-40	1816.49	N.A.	33.90
20-50	2791.14	N.A.	52.00
40-70	2368.37	N.A.	44.20
60-80	906.69	N.A.	16.90
70-80	331.11	N.A.	6.20
80-90	98.11	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	5362.94	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	194.00
10-20	554.86
20-30	833.58
30-40	982.91
40-50	974.65
50-60	818.15
60-70	575.57
70-80	331.11
80-90	98.11
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

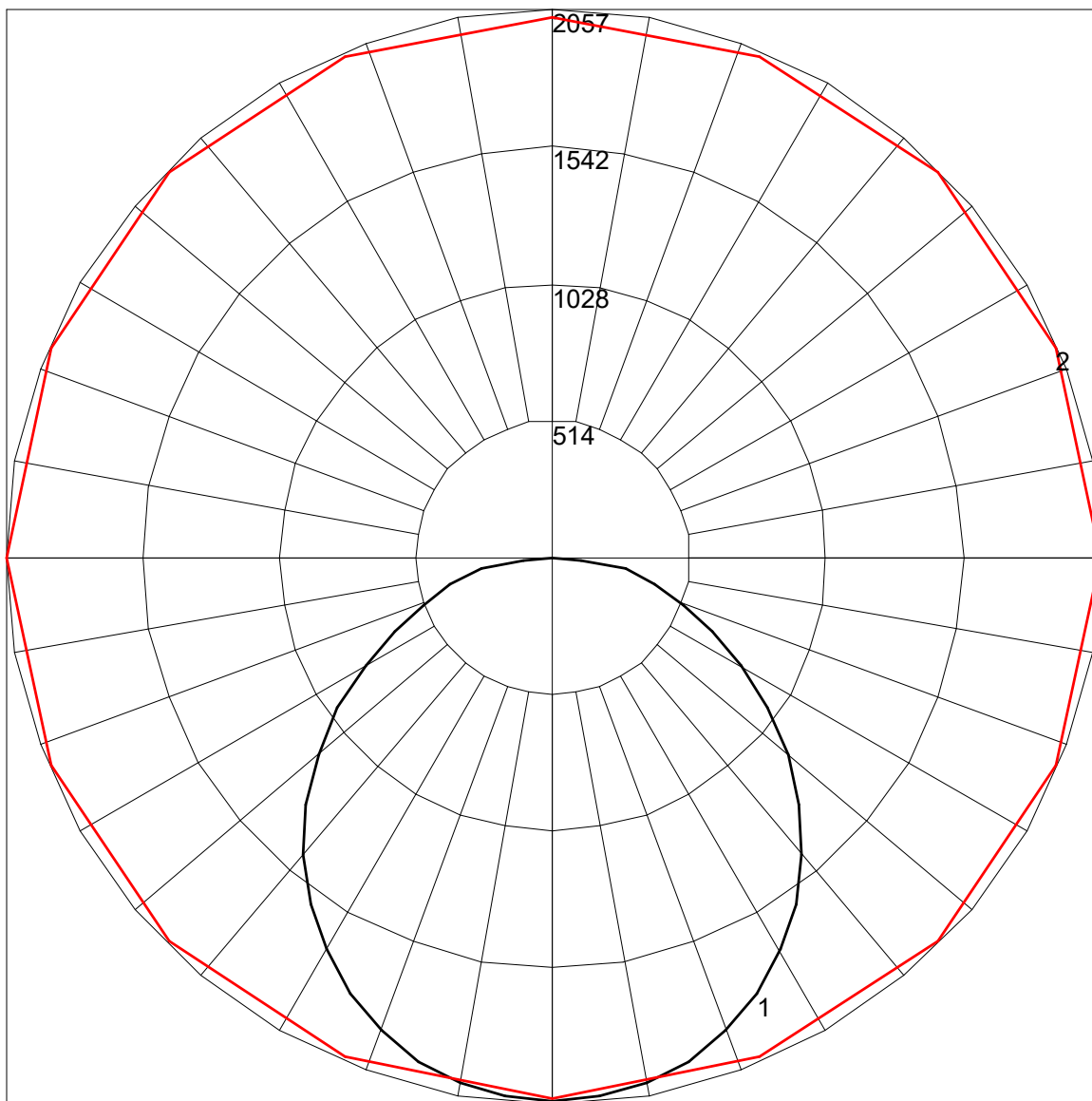
Reflectances

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	16.6	18.2	16.9	18.5	18.8	17.6	19.2	18.0	19.5	19.8
	3H	17.9	19.3	18.2	19.6	20.0	19.4	20.9	19.8	21.2	21.6
	4H	18.3	19.6	18.7	20.0	20.4	20.2	21.6	20.6	21.9	22.3
	6H	18.5	19.8	19.0	20.2	20.6	20.9	22.2	21.3	22.5	22.9
	8H	18.6	19.8	19.0	20.2	20.6	21.1	22.3	21.6	22.7	23.1
	12H	18.6	19.8	19.1	20.2	20.6	21.3	22.4	21.7	22.8	23.3
4H	2H	17.3	18.6	17.7	19.0	19.4	18.1	19.5	18.5	19.8	20.2
	3H	18.8	19.9	19.2	20.3	20.7	20.2	21.3	20.6	21.7	22.1
	4H	19.4	20.4	19.8	20.8	21.2	21.1	22.1	21.5	22.5	23.0
	6H	19.7	20.6	20.2	21.1	21.5	22.0	22.9	22.4	23.3	23.8
	8H	19.8	20.7	20.3	21.1	21.6	22.3	23.1	22.7	23.5	24.0
	12H	19.9	20.7	20.4	21.1	21.6	22.5	23.2	22.9	23.7	24.2
8H	4H	19.8	20.6	20.3	21.1	21.6	21.4	22.2	21.8	22.6	23.1
	6H	20.3	21.0	20.8	21.5	22.0	22.3	23.0	22.8	23.5	24.0
	8H	20.5	21.1	21.0	21.7	22.1	22.7	23.4	23.3	23.9	24.4
	12H	20.6	21.2	21.1	21.7	22.2	23.0	23.6	23.5	24.0	24.6
12H	4H	19.9	20.6	20.4	21.1	21.6	21.4	22.1	21.8	22.6	23.1
	6H	20.5	21.1	21.0	21.6	22.1	22.4	23.0	22.9	23.5	24.0
	8H	20.7	21.3	21.2	21.8	22.3	22.8	23.4	23.3	23.9	24.4

Maximum UGR = 24.6

POLAR GRAPH



Maximum Candela = 2056.518 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.)