



IES INDOOR REPORT
PHOTOMETRIC FILENAME : PTDC-24-L49-830-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 19235.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 2022-05-06
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 2x4' RECESSED LED LUMINAIRE
 [MORE] w/RIBBED FROSTED ACRYLIC CENTER DIFFUSER
 [LUMCAT] PTDC-24-L49-830-RA-DIM-UNV
 [LAMPCAT] HLM 80 CRI 3000K CCT
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Architectural, Office, Direct
 [_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4879
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	37.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2092	2208	2321
55	1876	2053	2217
65	1648	1953	2219
75	1276	1959	2425
85	770	2571	2945

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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	1866.492	1866.492	1866.492	1866.492	1866.492
5	1837.991	1835.457	1835.457	1829.124	1825.957
10	1832.291	1832.291	1835.457	1837.991	1837.991
15	1784.156	1786.689	1789.856	1794.290	1797.456
20	1666.352	1672.686	1680.286	1690.420	1693.586
25	1571.983	1577.683	1592.883	1606.184	1612.517
30	1377.543	1335.108	1508.647	1458.612	1451.012
35	1270.506	1282.540	1311.041	1335.108	1344.609
40	1130.535	1145.736	1177.404	1209.071	1221.105
45	1032.999	1046.299	1090.001	1130.535	1145.736
50	897.461	918.362	966.497	1008.932	1023.499
55	751.157	773.958	822.092	870.227	887.961
60	612.453	636.520	690.988	740.390	758.757
65	486.415	518.083	576.351	633.987	654.887
70	358.478	395.846	464.881	525.683	546.584
75	230.541	276.775	354.044	415.480	438.280
80	126.671	186.839	275.509	335.677	354.044
85	46.868	107.037	156.438	176.072	179.239
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	676.60	N.A.	13.90
0-30	1402.25	N.A.	28.70
0-40	2220.25	N.A.	45.50
0-60	3791.71	N.A.	77.70
0-80	4732.94	N.A.	97.00
0-90	4878.84	N.A.	100.00
10-90	4703.39	N.A.	96.40
20-40	1543.65	N.A.	31.60
20-50	2377.99	N.A.	48.70
40-70	2140.47	N.A.	43.90
60-80	941.23	N.A.	19.30
70-80	372.21	N.A.	7.60
80-90	145.90	N.A.	3.00
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	4878.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	175.45
10-20	501.15
20-30	725.65
30-40	818.00
40-50	834.34
50-60	737.12
60-70	569.02
70-80	372.21
80-90	145.90
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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	33	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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UGR TABLE - CORRECTED

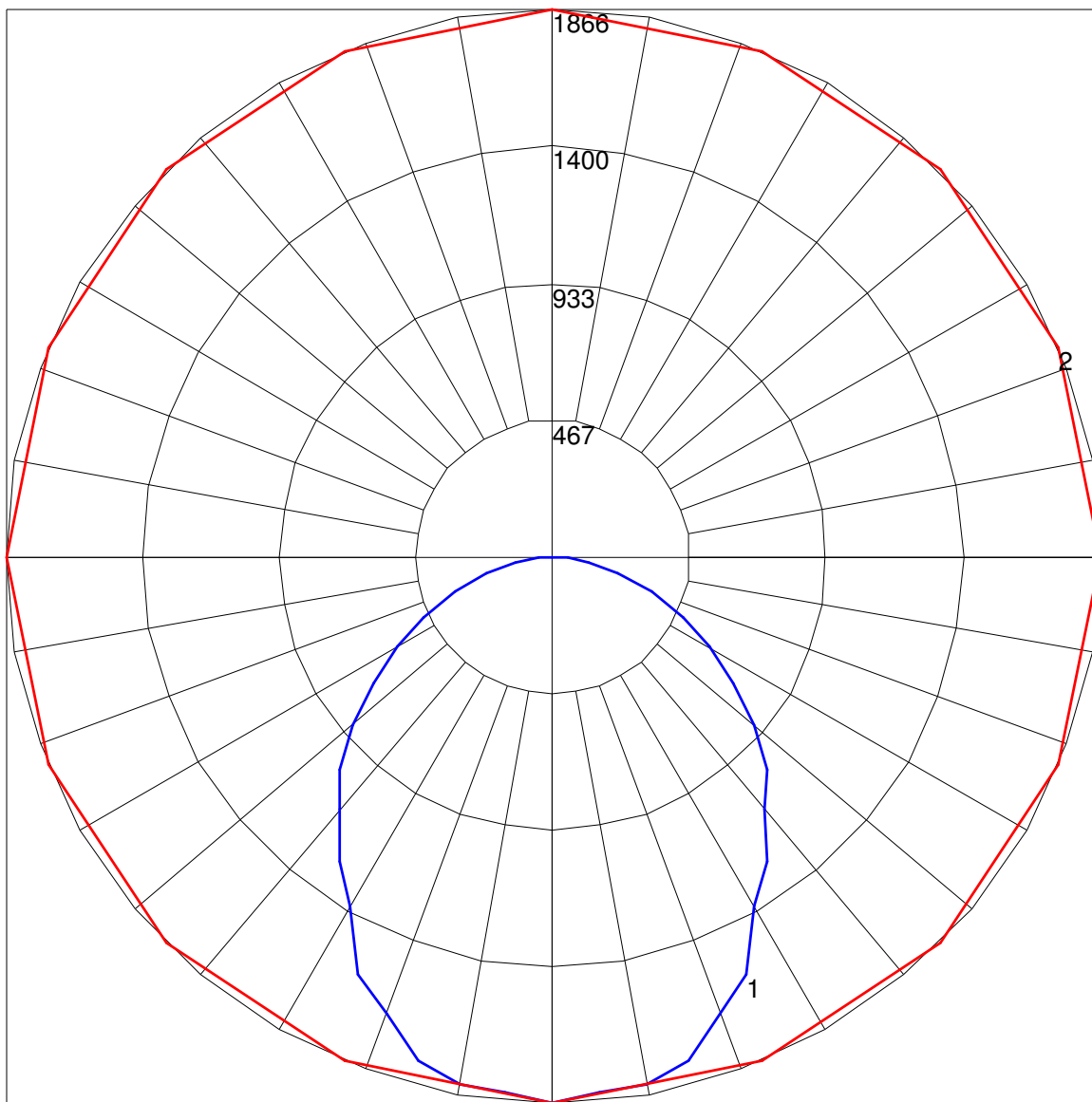
Reflectances

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	13.9	15.5	14.2	15.8	16.1	14.9	16.5	15.2	16.8	17.1
	3H	15.5	17.0	15.9	17.3	17.7	17.0	18.5	17.4	18.9	19.2
	4H	16.1	17.5	16.5	17.8	18.2	18.0	19.4	18.4	19.8	20.2
	6H	16.4	17.8	16.9	18.1	18.5	19.1	20.4	19.5	20.7	21.1
	8H	16.6	17.8	17.0	18.2	18.6	19.5	20.7	19.9	21.1	21.5
	12H	16.6	17.8	17.1	18.2	18.6	19.8	21.0	20.3	21.4	21.8
4H	2H	14.6	16.0	15.0	16.4	16.8	15.4	16.8	15.8	17.2	17.5
	3H	16.5	17.7	17.0	18.1	18.5	17.9	19.1	18.3	19.5	19.9
	4H	17.2	18.3	17.7	18.7	19.2	19.0	20.1	19.5	20.5	21.0
	6H	17.8	18.7	18.2	19.2	19.6	20.3	21.2	20.7	21.7	22.1
	8H	17.9	18.8	18.4	19.3	19.7	20.8	21.7	21.3	22.1	22.6
	12H	18.1	18.9	18.6	19.3	19.8	21.2	22.0	21.7	22.5	23.0
8H	4H	17.8	18.7	18.3	19.2	19.6	19.4	20.3	19.8	20.7	21.2
	6H	18.6	19.3	19.1	19.8	20.3	20.8	21.6	21.3	22.1	22.5
	8H	18.9	19.5	19.4	20.0	20.5	21.5	22.2	22.0	22.7	23.1
	12H	19.1	19.7	19.6	20.2	20.7	22.1	22.6	22.6	23.1	23.7
12H	4H	18.0	18.8	18.5	19.3	19.7	19.4	20.2	19.9	20.7	21.2
	6H	18.8	19.5	19.4	20.0	20.5	20.9	21.6	21.5	22.1	22.6
	8H	19.2	19.8	19.7	20.3	20.9	21.7	22.2	22.2	22.7	23.3

Maximum UGR = 23.7

POLAR GRAPH



Maximum Candela = 1866.492 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)