



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L38-950-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-L38-950-RA-DIM-UNV
[LAMPCAT] HLM 90 CRI 5000K 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	3387
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	31.4
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	1452	1533	1611
55	1302	1425	1539
65	1144	1356	1541
75	886	1360	1684
85	535	1784	2045

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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	1295.678	1295.678	1295.678	1295.678	1295.678
5	1275.893	1274.134	1274.134	1269.738	1267.539
10	1271.936	1271.936	1274.134	1275.893	1275.893
15	1238.522	1240.281	1242.479	1245.556	1247.755
20	1156.745	1161.142	1166.418	1173.452	1175.651
25	1091.236	1095.193	1105.745	1114.977	1119.374
30	956.260	926.803	1047.270	1012.537	1007.261
35	881.958	890.311	910.096	926.803	933.398
40	784.793	795.345	817.328	839.311	847.664
45	717.085	726.318	756.655	784.793	795.345
50	622.998	637.507	670.921	700.378	710.490
55	521.437	537.264	570.679	604.093	616.403
60	425.151	441.858	479.669	513.962	526.713
65	337.659	359.642	400.091	440.100	454.608
70	248.847	274.787	322.710	364.918	379.426
75	160.036	192.131	245.770	288.417	304.245
80	87.932	129.700	191.252	233.020	245.770
85	32.535	74.303	108.596	122.225	124.424
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	469.68	N.A.	13.90
0-30	973.41	N.A.	28.70
0-40	1541.25	N.A.	45.50
0-60	2632.12	N.A.	77.70
0-80	3285.5	N.A.	97.00
0-90	3386.79	N.A.	100.00
10-90	3264.99	N.A.	96.40
20-40	1071.57	N.A.	31.60
20-50	1650.75	N.A.	48.70
40-70	1485.87	N.A.	43.90
60-80	653.38	N.A.	19.30
70-80	258.38	N.A.	7.60
80-90	101.28	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	3386.79	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	121.79
10-20	347.89
20-30	503.73
30-40	567.84
40-50	579.18
50-60	511.69
60-70	395.00
70-80	258.38
80-90	101.28
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

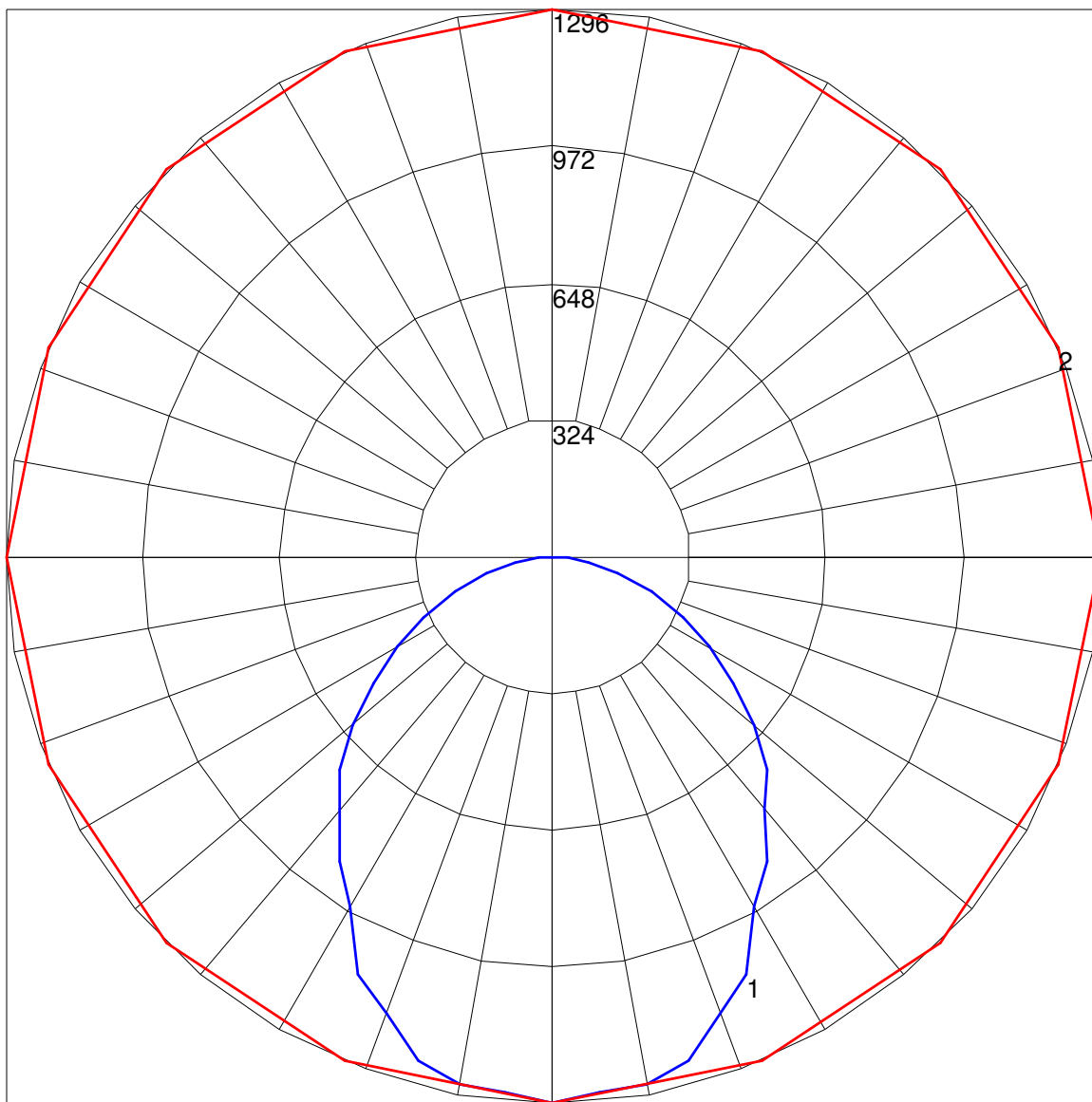
Reflectances

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	12.6	14.2	12.9	14.5	14.8	13.6	15.2	13.9	15.5	15.8
	3H	14.2	15.7	14.6	16.0	16.4	15.7	17.2	16.1	17.6	17.9
	4H	14.8	16.2	15.2	16.5	16.9	16.7	18.1	17.1	18.5	18.9
	6H	15.1	16.5	15.6	16.8	17.2	17.8	19.1	18.2	19.4	19.8
	8H	15.3	16.5	15.7	16.9	17.3	18.2	19.4	18.6	19.8	20.2
	12H	15.3	16.5	15.8	16.9	17.3	18.5	19.7	19.0	20.1	20.5
4H	2H	13.3	14.7	13.7	15.1	15.5	14.1	15.5	14.5	15.9	16.2
	3H	15.2	16.4	15.7	16.8	17.2	16.6	17.8	17.0	18.2	18.6
	4H	15.9	17.0	16.4	17.4	17.9	17.7	18.8	18.2	19.2	19.7
	6H	16.5	17.4	16.9	17.9	18.3	19.0	19.9	19.4	20.4	20.8
	8H	16.6	17.5	17.1	18.0	18.4	19.5	20.4	20.0	20.8	21.3
	12H	16.8	17.6	17.3	18.0	18.5	19.9	20.7	20.4	21.2	21.7
8H	4H	16.5	17.4	17.0	17.9	18.3	18.1	19.0	18.5	19.4	19.9
	6H	17.3	18.0	17.8	18.5	19.0	19.5	20.3	20.0	20.8	21.2
	8H	17.6	18.2	18.1	18.7	19.2	20.2	20.9	20.7	21.4	21.8
	12H	17.8	18.4	18.3	18.9	19.4	20.8	21.3	21.3	21.8	22.4
12H	4H	16.7	17.5	17.2	18.0	18.4	18.1	18.9	18.6	19.4	19.9
	6H	17.5	18.2	18.1	18.7	19.2	19.6	20.3	20.2	20.8	21.3
	8H	17.9	18.5	18.4	19.0	19.6	20.4	20.9	20.9	21.4	22.0

Maximum UGR = 22.4

POLAR GRAPH



Maximum Candela = 1295.678 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.)