



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L49-927-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-L49-927-RA-DIM-UNV
[LAMPCAT] HLM 90 CRI 2700K 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	4041
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	109
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	1733	1829	1922
55	1553	1700	1836
65	1365	1618	1838
75	1057	1623	2009
85	638	2129	2440

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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	1545.983	1545.983	1545.983	1545.983	1545.983
5	1522.376	1520.278	1520.278	1515.032	1512.409
10	1517.655	1517.655	1520.278	1522.376	1522.376
15	1477.786	1479.884	1482.507	1486.179	1488.802
20	1380.211	1385.457	1391.752	1400.146	1402.769
25	1302.046	1306.768	1319.358	1330.374	1335.620
30	1140.995	1105.848	1249.587	1208.144	1201.849
35	1052.339	1062.306	1085.913	1105.848	1113.716
40	936.403	948.993	975.223	1001.453	1011.420
45	855.615	866.632	902.829	936.403	948.993
50	743.352	760.664	800.533	835.681	847.747
55	622.170	641.056	680.925	720.794	735.483
60	507.284	527.219	572.334	613.252	628.466
65	402.889	429.119	477.382	525.120	542.432
70	296.921	327.872	385.053	435.414	452.726
75	190.953	229.248	293.249	344.135	363.020
80	104.919	154.756	228.199	278.036	293.249
85	38.820	88.657	129.575	145.838	148.461
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	560.42	N.A.	13.90
0-30	1161.46	N.A.	28.70
0-40	1839.00	N.A.	45.50
0-60	3140.61	N.A.	77.70
0-80	3920.21	N.A.	97.00
0-90	4041.06	N.A.	100.00
10-90	3895.74	N.A.	96.40
20-40	1278.58	N.A.	31.60
20-50	1969.65	N.A.	48.70
40-70	1772.92	N.A.	43.90
60-80	779.60	N.A.	19.30
70-80	308.30	N.A.	7.60
80-90	120.85	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	4041.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	145.32
10-20	415.09
20-30	601.04
30-40	677.54
40-50	691.07
50-60	610.54
60-70	471.31
70-80	308.30
80-90	120.85
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

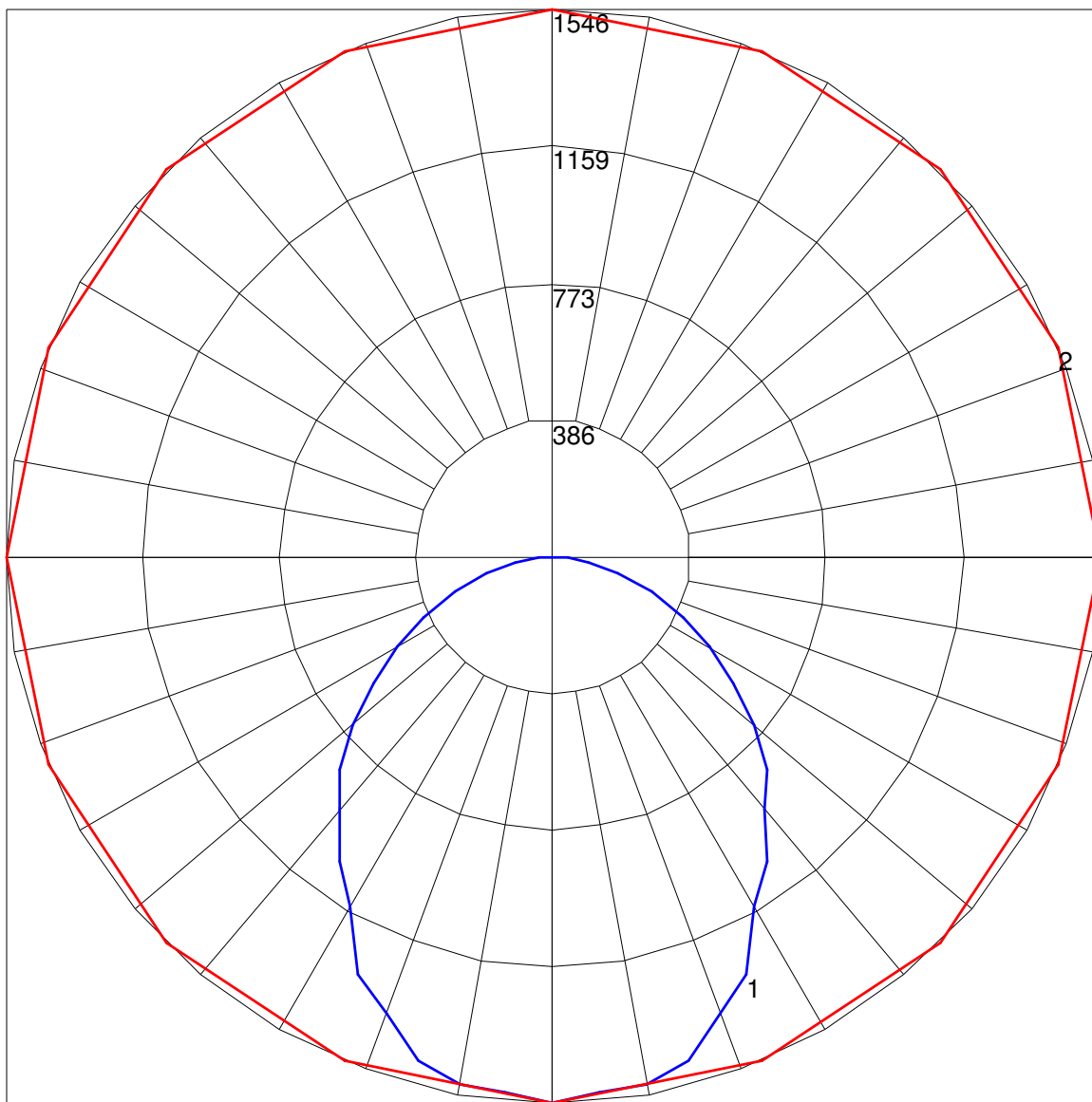
Reflectances

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	13.3	14.9	13.6	15.2	15.5	14.3	15.9	14.6	16.2	16.5
	3H	14.9	16.4	15.3	16.7	17.1	16.4	17.9	16.8	18.3	18.6
	4H	15.5	16.9	15.9	17.2	17.6	17.4	18.8	17.8	19.2	19.6
	6H	15.8	17.2	16.3	17.5	17.9	18.5	19.8	18.9	20.1	20.5
	8H	16.0	17.2	16.4	17.6	18.0	18.9	20.1	19.3	20.5	20.9
	12H	16.0	17.2	16.5	17.6	18.0	19.2	20.4	19.7	20.8	21.2
4H	2H	14.0	15.4	14.4	15.8	16.2	14.8	16.2	15.2	16.6	16.9
	3H	15.9	17.1	16.4	17.5	17.9	17.3	18.5	17.7	18.9	19.3
	4H	16.6	17.7	17.1	18.1	18.6	18.4	19.5	18.9	19.9	20.4
	6H	17.2	18.1	17.6	18.6	19.0	19.7	20.6	20.1	21.1	21.5
	8H	17.3	18.2	17.8	18.7	19.1	20.2	21.1	20.7	21.5	22.0
	12H	17.5	18.3	18.0	18.7	19.2	20.6	21.4	21.1	21.9	22.4
8H	4H	17.2	18.1	17.7	18.6	19.0	18.8	19.7	19.2	20.1	20.6
	6H	18.0	18.7	18.5	19.2	19.7	20.2	21.0	20.7	21.5	21.9
	8H	18.3	18.9	18.8	19.4	19.9	20.9	21.6	21.4	22.1	22.5
	12H	18.5	19.1	19.0	19.6	20.1	21.5	22.0	22.0	22.5	23.1
12H	4H	17.4	18.2	17.9	18.7	19.1	18.8	19.6	19.3	20.1	20.6
	6H	18.2	18.9	18.8	19.4	19.9	20.3	21.0	20.9	21.5	22.0
	8H	18.6	19.2	19.1	19.7	20.3	21.1	21.6	21.6	22.1	22.7

Maximum UGR = 23.1

POLAR GRAPH



Maximum Candela = 1545.983 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.)