



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L49-935-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-L49-935-RA-DIM-UNV
 [LAMPCAT] HLM 90 CRI 3500K 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	4140
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
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	1775	1873	1969
55	1591	1742	1881
65	1399	1657	1883
75	1082	1662	2058
85	653	2181	2499

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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	1583.690	1583.690	1583.690	1583.690	1583.690
5	1559.507	1557.358	1557.358	1551.984	1549.297
10	1554.671	1554.671	1557.358	1559.507	1559.507
15	1513.829	1515.979	1518.666	1522.428	1525.114
20	1413.875	1419.249	1425.697	1434.295	1436.982
25	1333.803	1338.640	1351.537	1362.823	1368.196
30	1168.825	1132.819	1280.064	1237.611	1231.162
35	1078.006	1088.216	1112.399	1132.819	1140.880
40	959.242	972.140	999.009	1025.879	1036.089
45	876.484	887.769	924.849	959.242	972.140
50	761.482	779.216	820.058	856.063	868.423
55	637.345	656.691	697.533	738.375	753.422
60	519.657	540.078	586.293	628.210	643.794
65	412.716	439.586	489.025	537.928	555.662
70	304.163	335.869	394.445	446.034	463.768
75	195.610	234.840	300.401	352.528	371.874
80	107.478	158.530	233.765	284.817	300.401
85	39.767	90.819	132.735	149.395	152.082
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	574.08	N.A.	13.90
0-30	1189.79	N.A.	28.70
0-40	1883.85	N.A.	45.50
0-60	3217.21	N.A.	77.70
0-80	4015.83	N.A.	97.00
0-90	4139.62	N.A.	100.00
10-90	3990.76	N.A.	96.40
20-40	1309.77	N.A.	31.60
20-50	2017.69	N.A.	48.70
40-70	1816.16	N.A.	43.90
60-80	798.62	N.A.	19.30
70-80	315.82	N.A.	7.60
80-90	123.80	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	4139.62	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	148.87
10-20	425.22
20-30	615.70
30-40	694.06
40-50	707.93
50-60	625.43
60-70	482.80
70-80	315.82
80-90	123.80
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

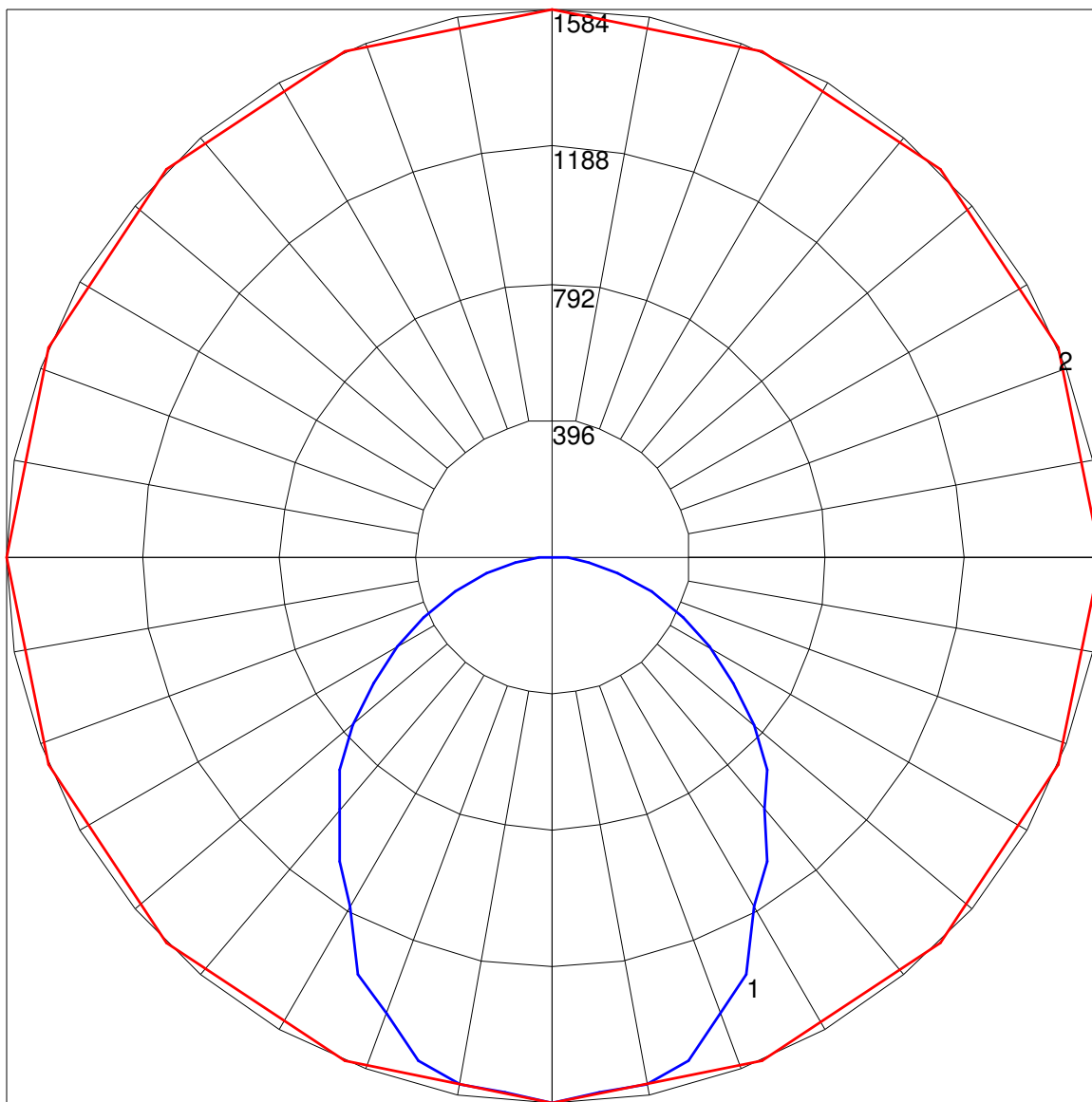
Reflectances

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	13.2	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 = 1583.69 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.)