



IES INDOOR REPORT
PHOTOMETRIC FILENAME : PTDC-24-L49-827-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-L49-827-RA-DIM-UNV
 [LAMPCAT] HLM 80 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	4780
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
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	2050	2163	2274
55	1838	2011	2172
65	1615	1914	2174
75	1250	1919	2376
85	755	2519	2886

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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	1828.785	1828.785	1828.785	1828.785	1828.785
5	1800.860	1798.378	1798.378	1792.172	1789.069
10	1795.275	1795.275	1798.378	1800.860	1800.860
15	1748.112	1750.595	1753.697	1758.041	1761.144
20	1632.689	1638.894	1646.341	1656.270	1659.373
25	1540.225	1545.810	1560.704	1573.736	1579.941
30	1349.714	1308.137	1478.170	1429.146	1421.699
35	1244.840	1256.630	1284.555	1308.137	1317.445
40	1107.696	1122.590	1153.618	1184.646	1196.436
45	1012.130	1025.162	1067.981	1107.696	1122.590
50	879.331	899.809	946.972	988.549	1002.822
55	735.982	758.322	805.485	852.647	870.023
60	600.080	623.661	677.029	725.433	743.429
65	476.589	507.617	564.708	621.179	641.657
70	351.236	387.849	455.490	515.063	535.542
75	225.883	271.184	346.892	407.086	429.426
80	124.112	183.065	269.943	328.896	346.892
85	45.921	104.874	153.278	172.515	175.618
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	662.93	N.A.	13.90
0-30	1373.92	N.A.	28.70
0-40	2175.4	N.A.	45.50
0-60	3715.11	N.A.	77.70
0-80	4637.33	N.A.	97.00
0-90	4780.28	N.A.	100.00
10-90	4608.38	N.A.	96.40
20-40	1512.47	N.A.	31.60
20-50	2329.95	N.A.	48.70
40-70	2097.23	N.A.	43.90
60-80	922.21	N.A.	19.30
70-80	364.69	N.A.	7.60
80-90	142.96	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	4780.28	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	171.91
10-20	491.03
20-30	710.99
30-40	801.48
40-50	817.49
50-60	722.23
60-70	557.52
70-80	364.69
80-90	142.96
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

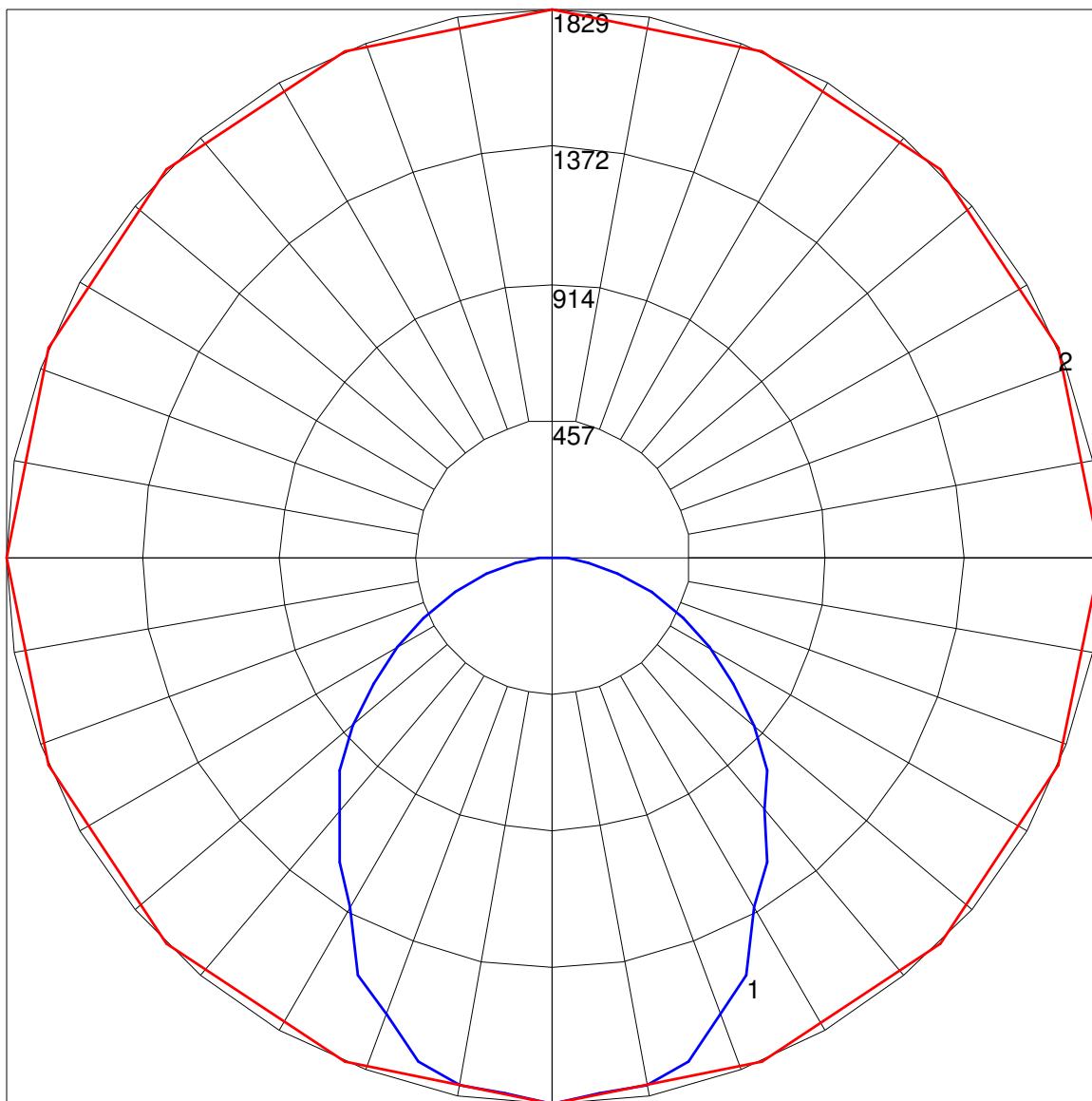
Reflectances

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	13.7	15.4	14.1	15.7	16.0	14.8	16.4	15.1	16.7	17.0
	3H	15.4	16.9	15.8	17.2	17.6	16.9	18.4	17.3	18.8	19.1
	4H	16.0	17.4	16.4	17.7	18.1	17.9	19.3	18.3	19.7	20.1
	6H	16.3	17.7	16.8	18.0	18.4	19.0	20.3	19.4	20.6	21.0
	8H	16.5	17.7	16.9	18.1	18.5	19.4	20.6	19.8	21.0	21.4
	12H	16.5	17.7	17.0	18.1	18.5	19.7	20.9	20.2	21.3	21.7
4H	2H	14.5	15.9	14.9	16.3	16.7	15.3	16.7	15.7	17.1	17.4
	3H	16.4	17.6	16.9	18.0	18.4	17.8	19.0	18.2	19.4	19.7
	4H	17.1	18.2	17.6	18.6	19.1	18.9	20.0	19.4	20.4	20.9
	6H	17.7	18.6	18.1	19.1	19.5	20.2	21.1	20.6	21.6	22.0
	8H	17.8	18.7	18.3	19.2	19.6	20.7	21.6	21.2	22.0	22.5
	12H	18.0	18.8	18.5	19.2	19.7	21.1	21.9	21.6	22.4	22.9
8H	4H	17.7	18.6	18.2	19.1	19.5	19.3	20.2	19.7	20.6	21.1
	6H	18.5	19.2	19.0	19.7	20.2	20.7	21.5	21.2	22.0	22.4
	8H	18.8	19.4	19.3	19.9	20.4	21.4	22.1	21.9	22.6	23.0
	12H	19.0	19.6	19.5	20.1	20.6	22.0	22.5	22.5	23.0	23.6
12H	4H	17.9	18.7	18.4	19.2	19.6	19.3	20.1	19.8	20.6	21.1
	6H	18.7	19.4	19.3	19.9	20.4	20.8	21.5	21.4	22.0	22.5
	8H	19.1	19.7	19.6	20.2	20.8	21.6	22.1	22.1	22.6	23.2

Maximum UGR = 23.6

POLAR GRAPH



Maximum Candela = 1828.785 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.)