



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L49-950-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-L49-950-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	4435
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
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	1902	2007	2110
55	1705	1866	2016
65	1498	1776	2017
75	1160	1781	2205
85	700	2337	2678

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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	1696.811	1696.811	1696.811	1696.811	1696.811
5	1670.901	1668.598	1668.598	1662.840	1659.961
10	1665.719	1665.719	1668.598	1670.901	1670.901
15	1621.960	1624.263	1627.142	1631.173	1634.051
20	1514.866	1520.624	1527.533	1536.745	1539.624
25	1429.075	1434.257	1448.076	1460.167	1465.925
30	1252.312	1213.735	1371.498	1326.011	1319.102
35	1155.006	1165.946	1191.856	1213.735	1222.372
40	1027.760	1041.578	1070.367	1099.156	1110.096
45	939.090	951.181	990.910	1027.760	1041.578
50	815.874	834.875	878.634	917.211	930.454
55	682.870	703.598	747.357	791.116	807.238
60	556.775	578.655	628.171	673.082	689.779
65	442.196	470.985	523.956	576.351	595.352
70	325.889	359.860	422.619	477.894	496.894
75	209.582	251.614	321.859	377.709	398.437
80	115.155	169.854	250.462	305.161	321.859
85	42.607	97.306	142.217	160.066	162.945
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	615.09	N.A.	13.90
0-30	1274.77	N.A.	28.70
0-40	2018.41	N.A.	45.50
0-60	3447.01	N.A.	77.70
0-80	4302.67	N.A.	97.00
0-90	4435.31	N.A.	100.00
10-90	4275.81	N.A.	96.40
20-40	1403.32	N.A.	31.60
20-50	2161.81	N.A.	48.70
40-70	1945.89	N.A.	43.90
60-80	855.66	N.A.	19.30
70-80	338.37	N.A.	7.60
80-90	132.64	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	4435.31	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	159.50
10-20	455.59
20-30	659.68
30-40	743.64
40-50	758.49
50-60	670.11
60-70	517.29
70-80	338.37
80-90	132.64
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	33	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

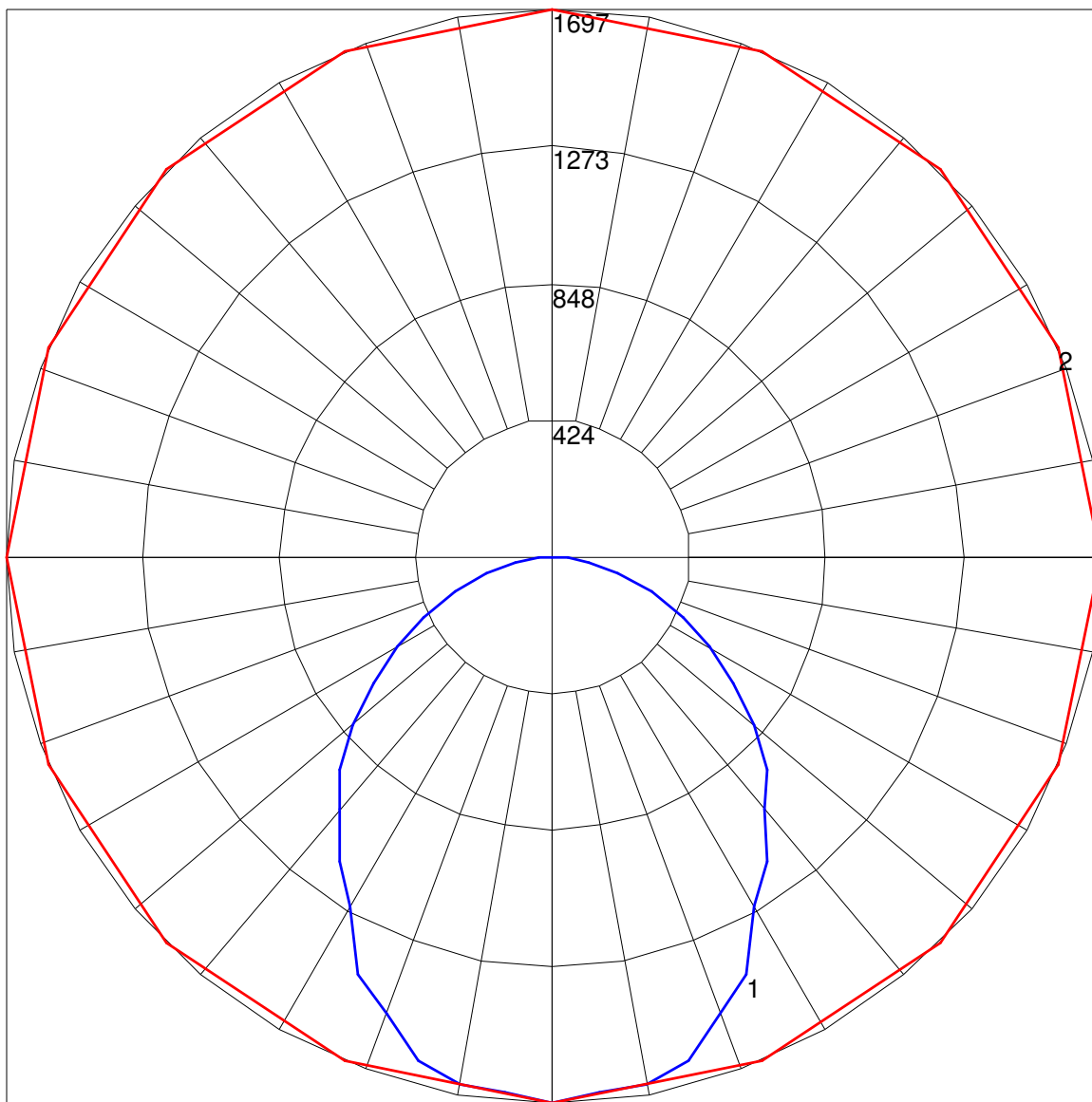
Reflectances

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	13.5	15.2	13.9	15.5	15.8	14.6	16.2	14.9	16.5	16.8
	3H	15.2	16.7	15.6	17.0	17.4	16.7	18.2	17.1	18.6	18.9
	4H	15.8	17.2	16.2	17.5	17.9	17.7	19.1	18.1	19.5	19.9
	6H	16.1	17.5	16.6	17.8	18.2	18.8	20.1	19.2	20.4	20.8
	8H	16.3	17.5	16.7	17.9	18.3	19.2	20.4	19.6	20.8	21.2
	12H	16.3	17.5	16.8	17.9	18.3	19.5	20.7	20.0	21.1	21.5
4H	2H	14.3	15.7	14.7	16.1	16.5	15.1	16.5	15.5	16.9	17.2
	3H	16.2	17.4	16.7	17.8	18.2	17.6	18.8	18.0	19.2	19.5
	4H	16.9	18.0	17.4	18.4	18.9	18.7	19.8	19.2	20.2	20.7
	6H	17.5	18.4	17.9	18.9	19.3	20.0	20.9	20.4	21.4	21.8
	8H	17.6	18.5	18.1	19.0	19.4	20.5	21.4	21.0	21.8	22.3
	12H	17.8	18.6	18.3	19.0	19.5	20.9	21.7	21.4	22.2	22.7
8H	4H	17.5	18.4	18.0	18.9	19.3	19.1	20.0	19.5	20.4	20.9
	6H	18.3	19.0	18.8	19.5	20.0	20.5	21.3	21.0	21.8	22.2
	8H	18.6	19.2	19.1	19.7	20.2	21.2	21.9	21.7	22.4	22.8
	12H	18.8	19.4	19.3	19.9	20.4	21.8	22.3	22.3	22.8	23.4
12H	4H	17.7	18.5	18.2	19.0	19.4	19.1	19.9	19.6	20.4	20.9
	6H	18.5	19.2	19.1	19.7	20.2	20.6	21.3	21.2	21.8	22.3
	8H	18.9	19.5	19.4	20.0	20.6	21.4	21.9	21.9	22.4	23.0

Maximum UGR = 23.4

POLAR GRAPH



Maximum Candela = 1696.811 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.)