



IES INDOOR REPORT
PHOTOMETRIC FILENAME : PTDC-24-L49-930-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-L49-930-RA-DIM-UNV
 [LAMPCAT] HLM 90 CRI 3000K 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	4090
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
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	1754	1851	1945
55	1572	1721	1859
65	1382	1637	1861
75	1069	1642	2033
85	646	2155	2469

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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	1564.837	1564.837	1564.837	1564.837	1564.837
5	1540.942	1538.818	1538.818	1533.508	1530.853
10	1536.163	1536.163	1538.818	1540.942	1540.942
15	1495.808	1497.932	1500.587	1504.303	1506.958
20	1397.043	1402.353	1408.725	1417.221	1419.876
25	1317.925	1322.704	1335.448	1346.599	1351.908
30	1154.910	1119.333	1264.826	1222.877	1216.505
35	1065.172	1075.261	1099.156	1119.333	1127.298
40	947.823	960.567	987.116	1013.666	1023.755
45	866.050	877.201	913.839	947.823	960.567
50	752.417	769.940	810.295	845.872	858.085
55	629.758	648.874	689.229	729.585	744.452
60	513.470	533.648	579.313	620.731	636.130
65	407.803	434.352	483.204	531.524	549.047
70	300.542	331.871	389.749	440.724	458.247
75	193.281	232.044	296.825	348.331	367.447
80	106.199	156.643	230.982	281.426	296.825
85	39.293	89.738	131.155	147.616	150.271
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	567.25	N.A.	13.90
0-30	1175.62	N.A.	28.70
0-40	1861.42	N.A.	45.50
0-60	3178.91	N.A.	77.70
0-80	3968.02	N.A.	97.00
0-90	4090.34	N.A.	100.00
10-90	3943.25	N.A.	96.40
20-40	1294.17	N.A.	31.60
20-50	1993.67	N.A.	48.70
40-70	1794.54	N.A.	43.90
60-80	789.11	N.A.	19.30
70-80	312.06	N.A.	7.60
80-90	122.32	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	4090.34	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	147.09
10-20	420.16
20-30	608.37
30-40	685.80
40-50	699.50
50-60	617.99
60-70	477.05
70-80	312.06
80-90	122.32
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

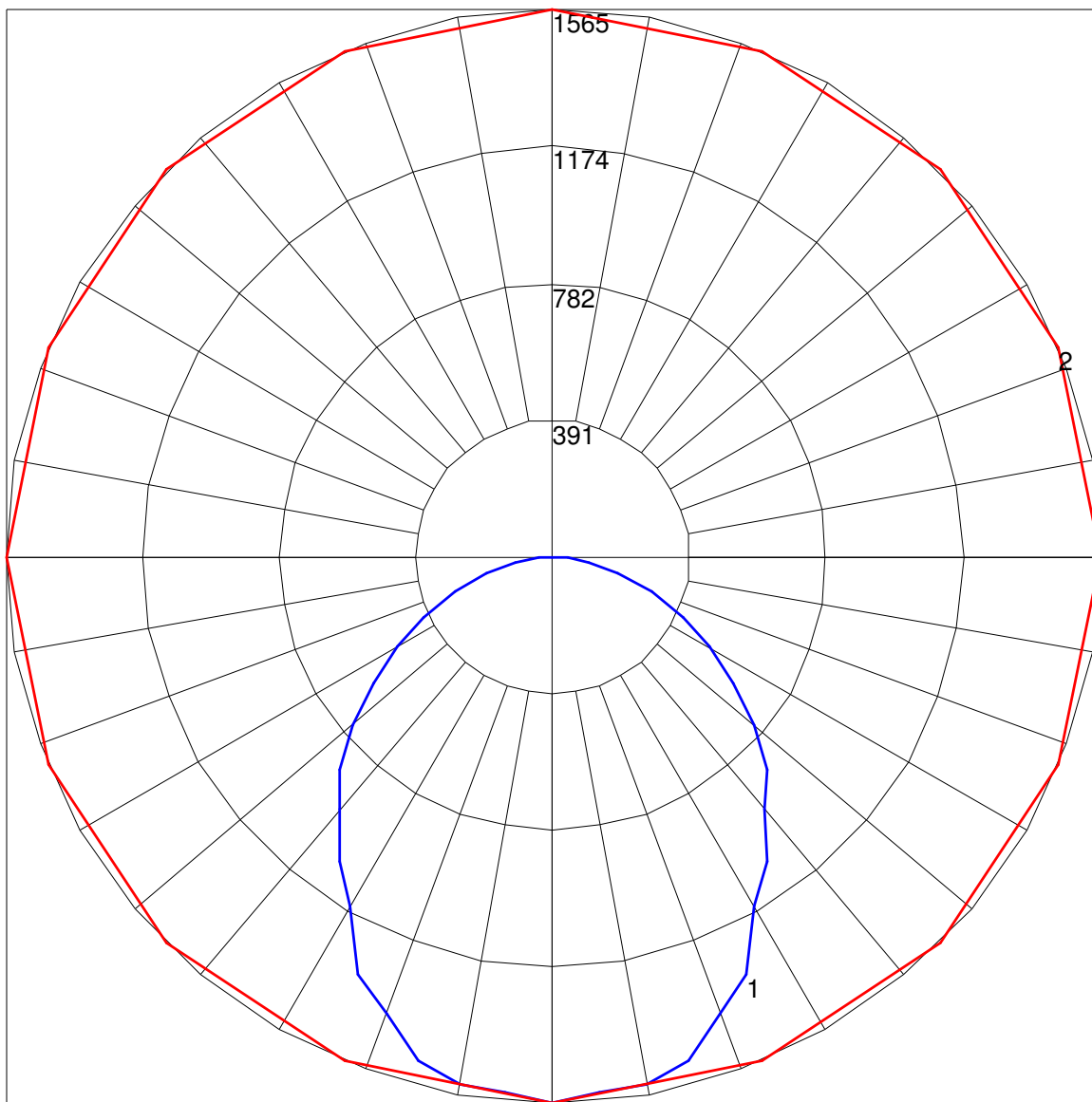
Reflectances

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	13.2	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	19.2
	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 = 1564.837 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.)