



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L90-830-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-L90-830-RA-DIM-UNV
 [LAMPCAT] HLM 80 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	8928
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	71.4
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	3829	4040	4246
55	3432	3756	4057
65	3016	3574	4061
75	2334	3585	4438
85	1409	4704	5390

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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	3415.591	3415.591	3415.591	3415.591	3415.591
5	3363.435	3358.799	3358.799	3347.209	3341.414
10	3353.004	3353.004	3358.799	3363.435	3363.435
15	3264.920	3269.556	3275.351	3283.464	3289.259
20	3049.345	3060.935	3074.843	3093.387	3099.182
25	2876.653	2887.084	2914.900	2939.239	2950.829
30	2520.838	2443.185	2760.752	2669.191	2655.283
35	2324.966	2346.987	2399.142	2443.185	2460.570
40	2068.826	2096.642	2154.592	2212.542	2234.564
45	1890.339	1914.678	1994.649	2068.826	2096.642
50	1642.312	1680.559	1768.643	1846.297	1872.954
55	1374.581	1416.305	1504.390	1592.474	1624.926
60	1120.759	1164.801	1264.476	1354.878	1388.489
65	890.117	948.067	1054.695	1160.165	1198.412
70	655.997	724.379	850.710	961.975	1000.222
75	421.878	506.486	647.884	760.308	802.032
80	231.801	341.907	504.168	614.273	647.884
85	85.766	195.872	286.274	322.204	327.999
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1238.15	N.A.	13.90
0-30	2566.05	N.A.	28.70
0-40	4062.96	N.A.	45.50
0-60	6938.65	N.A.	77.70
0-80	8661.05	N.A.	97.00
0-90	8928.05	N.A.	100.00
10-90	8606.98	N.A.	96.40
20-40	2824.81	N.A.	31.60
20-50	4351.62	N.A.	48.70
40-70	3916.97	N.A.	43.90
60-80	1722.4	N.A.	19.30
70-80	681.13	N.A.	7.60
80-90	267.00	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	8928.05	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	321.07
10-20	917.08
20-30	1327.9
30-40	1496.91
40-50	1526.8
50-60	1348.89
60-70	1041.27
70-80	681.13
80-90	267.00
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

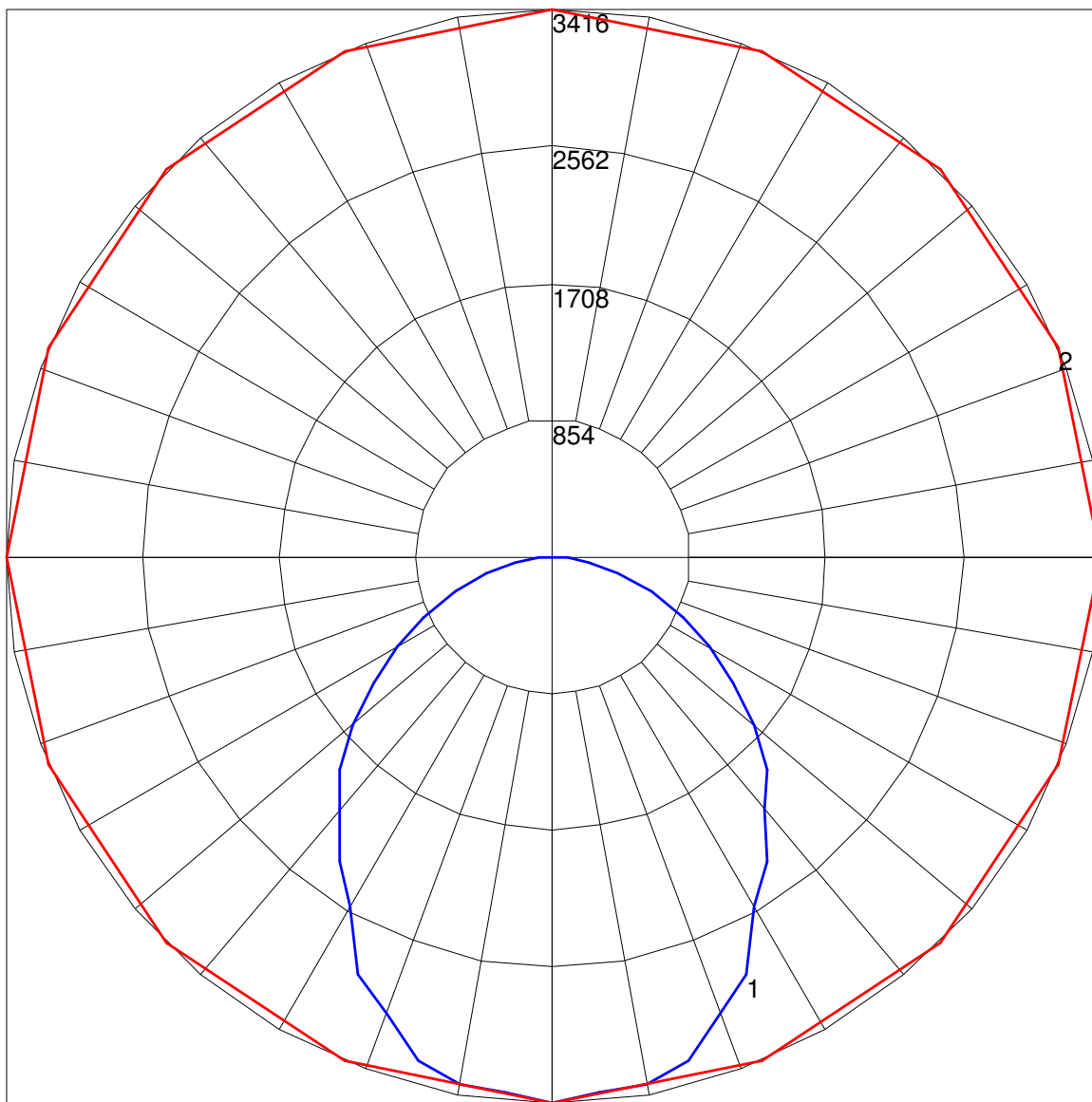
Reflectances

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	15.9	17.6	16.3	17.9	18.2	17.0	18.6	17.3	18.9	19.2
	3H	17.6	19.1	18.0	19.4	19.8	19.1	20.6	19.5	21.0	21.3
	4H	18.2	19.6	18.6	19.9	20.3	20.1	21.5	20.5	21.9	22.3
	6H	18.5	19.9	19.0	20.2	20.6	21.2	22.5	21.6	22.8	23.2
	8H	18.7	19.9	19.1	20.3	20.7	21.6	22.8	22.0	23.2	23.6
	12H	18.7	19.9	19.2	20.3	20.7	21.9	23.1	22.4	23.5	23.9
4H	2H	16.7	18.1	17.1	18.5	18.9	17.5	18.9	17.9	19.3	19.6
	3H	18.6	19.8	19.1	20.2	20.6	20.0	21.2	20.4	21.6	22.0
	4H	19.3	20.4	19.8	20.8	21.3	21.1	22.2	21.6	22.6	23.1
	6H	19.9	20.8	20.3	21.3	21.7	22.4	23.3	22.8	23.8	24.2
	8H	20.0	20.9	20.5	21.4	21.8	22.9	23.8	23.4	24.2	24.7
	12H	20.2	21.0	20.7	21.4	21.9	23.3	24.1	23.8	24.6	25.1
8H	4H	19.9	20.8	20.4	21.3	21.7	21.5	22.4	21.9	22.8	23.3
	6H	20.7	21.4	21.2	21.9	22.4	22.9	23.7	23.4	24.2	24.6
	8H	21.0	21.6	21.5	22.1	22.6	23.6	24.3	24.1	24.8	25.2
	12H	21.2	21.8	21.7	22.3	22.8	24.2	24.7	24.7	25.2	25.8
12H	4H	20.1	20.9	20.6	21.4	21.8	21.5	22.3	22.0	22.8	23.3
	6H	20.9	21.6	21.5	22.1	22.6	23.0	23.7	23.6	24.2	24.7
	8H	21.3	21.9	21.8	22.4	23.0	23.8	24.3	24.3	24.8	25.4

Maximum UGR = 25.8

POLAR GRAPH



Maximum Candela = 3415.591 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.)