



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L90-835-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-L90-835-RA-DIM-UNV
[LAMPCAT] HLM 80 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	9018
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
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	3867	4081	4289
55	3467	3794	4098
65	3047	3610	4102
75	2358	3621	4483
85	1424	4752	5444

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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	3450.091	3450.091	3450.091	3450.091	3450.091
5	3397.409	3392.726	3392.726	3381.019	3375.165
10	3386.873	3386.873	3392.726	3397.409	3397.409
15	3297.898	3302.581	3308.435	3316.630	3322.483
20	3080.146	3091.853	3105.901	3124.633	3130.486
25	2905.710	2916.246	2944.343	2968.928	2980.635
30	2546.301	2467.863	2788.638	2696.152	2682.103
35	2348.450	2370.694	2423.376	2467.863	2485.424
40	2089.723	2117.820	2176.355	2234.891	2257.135
45	1909.433	1934.018	2014.797	2089.723	2117.820
50	1658.900	1697.534	1786.508	1864.946	1891.872
55	1388.466	1430.611	1519.585	1608.560	1641.340
60	1132.079	1176.567	1277.248	1368.563	1402.514
65	899.108	957.643	1065.349	1171.884	1210.517
70	662.624	731.696	859.303	971.692	1010.325
75	426.140	511.602	654.429	767.988	810.133
80	234.143	345.360	509.260	620.478	654.429
85	86.633	197.850	289.166	325.458	331.312
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1250.65	N.A.	13.90
0-30	2591.97	N.A.	28.70
0-40	4104.00	N.A.	45.50
0-60	7008.74	N.A.	77.70
0-80	8748.54	N.A.	97.00
0-90	9018.23	N.A.	100.00
10-90	8693.92	N.A.	96.40
20-40	2853.34	N.A.	31.60
20-50	4395.57	N.A.	48.70
40-70	3956.53	N.A.	43.90
60-80	1739.8	N.A.	19.30
70-80	688.01	N.A.	7.60
80-90	269.69	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	9018.23	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	324.31
10-20	926.34
20-30	1341.32
30-40	1512.03
40-50	1542.23
50-60	1362.52
60-70	1051.79
70-80	688.01
80-90	269.69
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

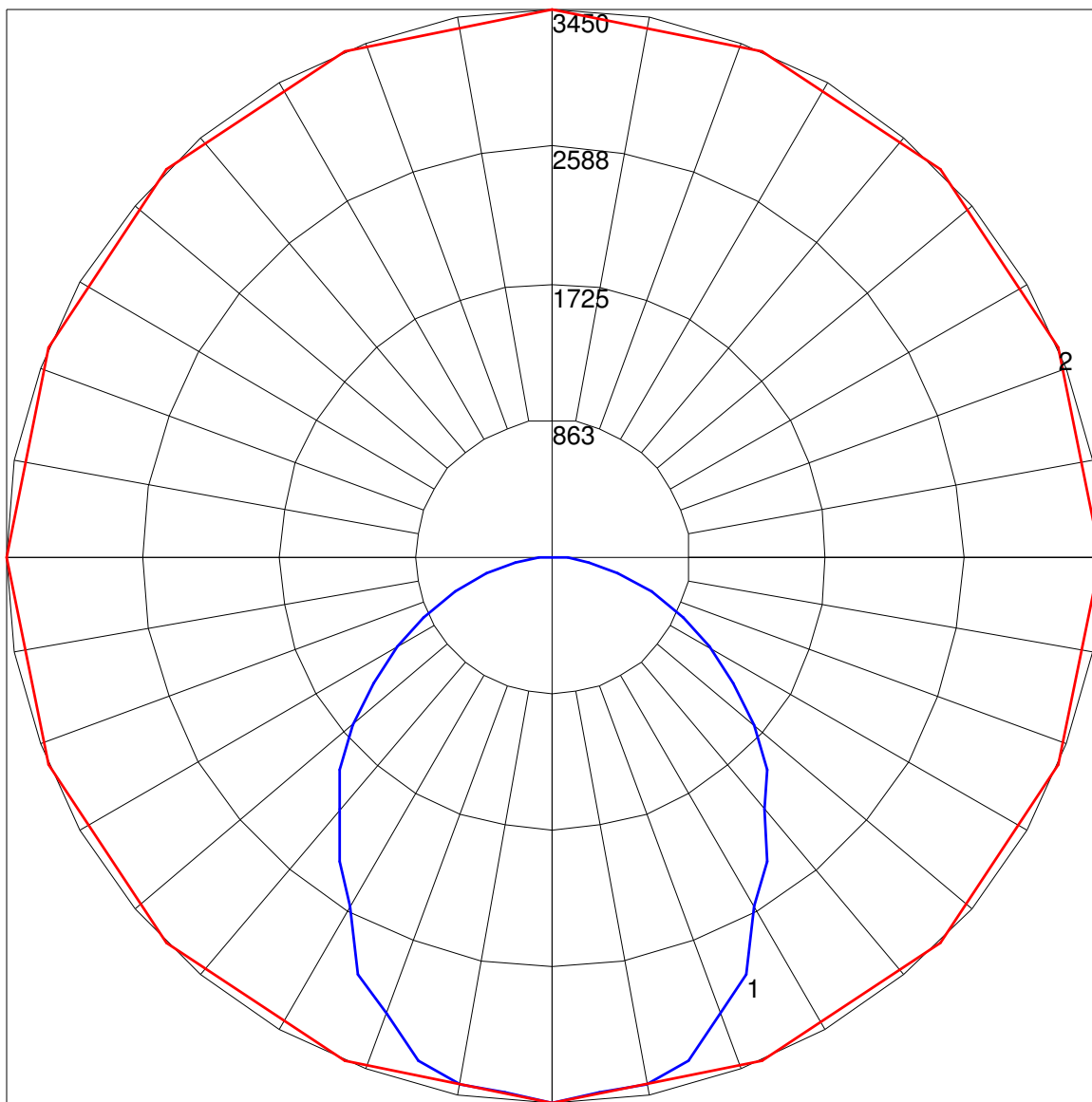
Reflectances

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 = 3450.091 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.)