



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L90-927-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-L90-927-RA-DIM-UNV
 [LAMPCAT] HLM 90 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	7395
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
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	3171	3346	3517
55	2843	3111	3361
65	2498	2960	3364
75	1934	2969	3676
85	1167	3896	4464

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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	2829.074	2829.074	2829.074	2829.074	2829.074
5	2785.875	2782.035	2782.035	2772.435	2767.635
10	2777.235	2777.235	2782.035	2785.875	2785.875
15	2704.276	2708.116	2712.916	2719.636	2724.436
20	2525.719	2535.319	2546.839	2562.198	2566.998
25	2382.681	2391.321	2414.361	2434.520	2444.120
30	2087.966	2023.647	2286.683	2210.844	2199.324
35	1925.729	1943.968	1987.168	2023.647	2038.047
40	1713.572	1736.612	1784.611	1832.610	1850.850
45	1565.735	1585.894	1652.133	1713.572	1736.612
50	1360.298	1391.977	1464.936	1529.255	1551.335
55	1138.542	1173.101	1246.060	1319.019	1345.898
60	928.305	964.784	1047.343	1122.222	1150.061
65	737.268	785.267	873.586	960.944	992.624
70	543.351	599.990	704.629	796.787	828.467
75	349.434	419.513	536.631	629.750	664.309
80	191.997	283.195	417.593	508.792	536.631
85	71.039	162.237	237.116	266.876	271.676
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1025.53	N.A.	13.90
0-30	2125.41	N.A.	28.70
0-40	3365.28	N.A.	45.50
0-60	5747.16	N.A.	77.70
0-80	7173.8	N.A.	97.00
0-90	7394.95	N.A.	100.00
10-90	7129.01	N.A.	96.40
20-40	2339.74	N.A.	31.60
20-50	3604.37	N.A.	48.70
40-70	3244.35	N.A.	43.90
60-80	1426.63	N.A.	19.30
70-80	564.17	N.A.	7.60
80-90	221.15	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	7394.95	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	265.93
10-20	759.60
20-30	1099.88
30-40	1239.86
40-50	1264.62
50-60	1117.26
60-70	862.47
70-80	564.17
80-90	221.15
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

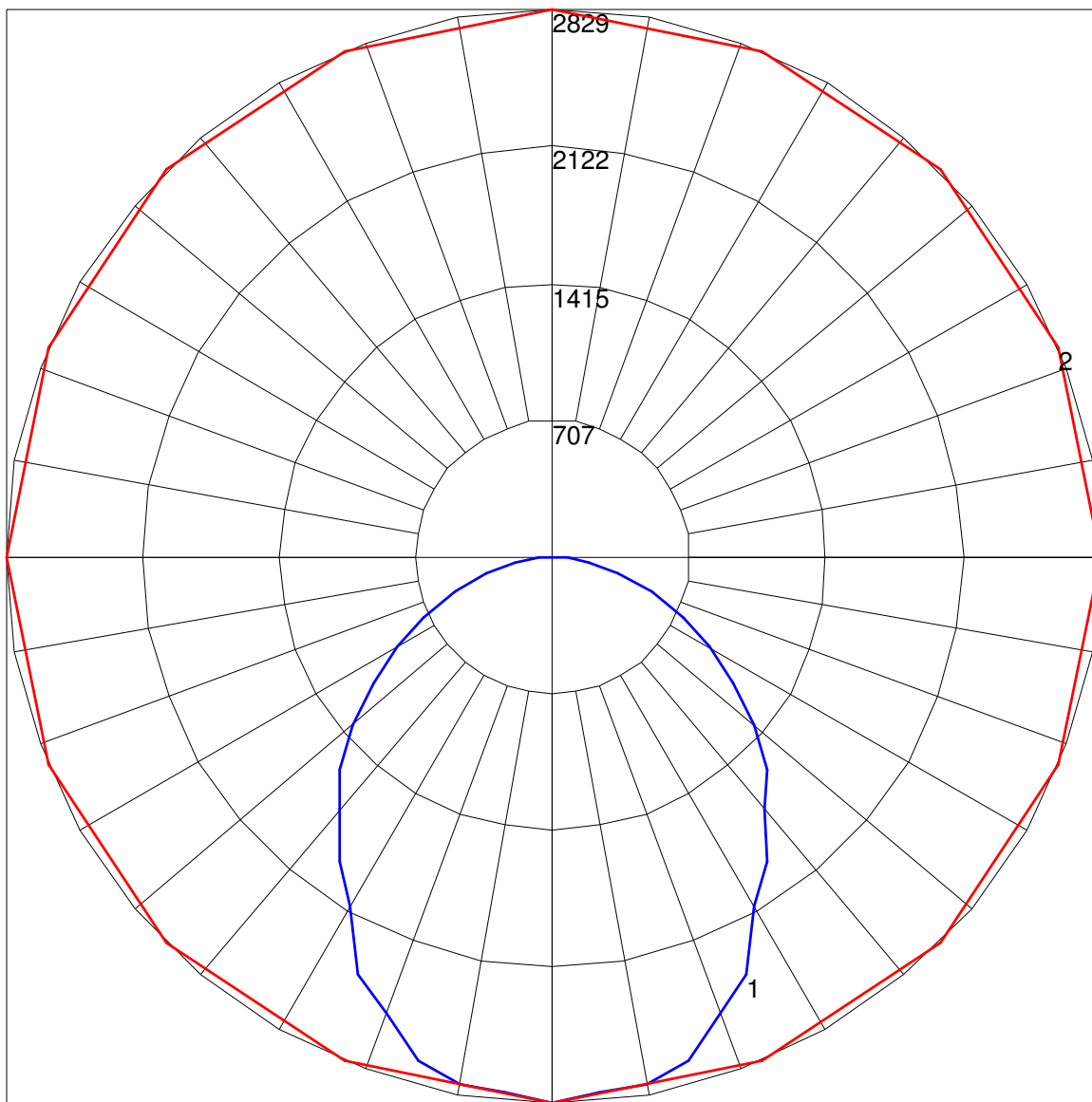
Reflectances

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	15.3	17.0	15.7	17.3	17.6	16.4	18.0	16.7	18.3	18.6
	3H	17.0	18.5	17.4	18.8	19.2	18.5	20.0	18.9	20.4	20.7
	4H	17.6	19.0	18.0	19.3	19.7	19.5	20.9	19.9	21.3	21.7
	6H	17.9	19.3	18.4	19.6	20.0	20.6	21.9	21.0	22.2	22.6
	8H	18.1	19.3	18.5	19.7	20.1	21.0	22.2	21.4	22.6	23.0
	12H	18.1	19.3	18.6	19.7	20.1	21.3	22.5	21.8	22.9	23.3
4H	2H	16.1	17.5	16.5	17.9	18.3	16.9	18.3	17.3	18.7	19.0
	3H	18.0	19.2	18.5	19.6	20.0	19.4	20.6	19.8	21.0	21.3
	4H	18.7	19.8	19.2	20.2	20.7	20.5	21.6	21.0	22.0	22.5
	6H	19.3	20.2	19.7	20.7	21.1	21.8	22.7	22.2	23.2	23.6
	8H	19.4	20.3	19.9	20.8	21.2	22.3	23.2	22.8	23.6	24.1
	12H	19.6	20.4	20.1	20.8	21.3	22.7	23.5	23.2	24.0	24.5
8H	4H	19.3	20.2	19.8	20.7	21.1	20.9	21.8	21.3	22.2	22.7
	6H	20.1	20.8	20.6	21.3	21.8	22.3	23.1	22.8	23.6	24.0
	8H	20.4	21.0	20.9	21.5	22.0	23.0	23.7	23.5	24.2	24.6
	12H	20.6	21.2	21.1	21.7	22.2	23.6	24.1	24.1	24.6	25.2
12H	4H	19.5	20.3	20.0	20.8	21.2	20.9	21.7	21.4	22.2	22.7
	6H	20.3	21.0	20.9	21.5	22.0	22.4	23.1	23.0	23.6	24.1
	8H	20.7	21.3	21.2	21.8	22.4	23.2	23.7	23.7	24.2	24.8

Maximum UGR = 25.2

POLAR GRAPH



Maximum Candela = 2829.074 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.)