



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L38-927-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-L38-927-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	3086
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	31.4
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	1323	1396	1468
55	1186	1298	1402
65	1043	1235	1404
75	807	1239	1534
85	487	1626	1863

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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	1180.506	1180.506	1180.506	1180.506	1180.506
5	1162.480	1160.878	1160.878	1156.872	1154.869
10	1158.875	1158.875	1160.878	1162.480	1162.480
15	1128.431	1130.033	1132.036	1134.840	1136.843
20	1053.923	1057.929	1062.736	1069.145	1071.148
25	994.237	997.842	1007.456	1015.868	1019.874
30	871.259	844.421	954.179	922.533	917.727
35	803.561	811.172	829.199	844.421	850.429
40	715.034	724.647	744.676	764.705	772.316
45	653.344	661.757	689.396	715.034	724.647
50	567.620	580.840	611.284	638.122	647.336
55	475.087	489.508	519.952	550.396	561.612
60	387.360	402.582	437.032	468.277	479.894
65	307.645	327.674	364.527	400.980	414.199
70	226.728	250.362	294.025	332.481	345.700
75	145.811	175.053	223.924	262.780	277.201
80	80.116	118.171	174.252	212.307	223.924
85	29.643	67.698	98.943	111.361	113.364
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	427.93	N.A.	13.90
0-30	886.88	N.A.	28.70
0-40	1404.25	N.A.	45.50
0-60	2398.16	N.A.	77.70
0-80	2993.46	N.A.	97.00
0-90	3085.74	N.A.	100.00
10-90	2974.77	N.A.	96.40
20-40	976.32	N.A.	31.60
20-50	1504.02	N.A.	48.70
40-70	1353.79	N.A.	43.90
60-80	595.30	N.A.	19.30
70-80	235.41	N.A.	7.60
80-90	92.28	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	3085.74	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	110.97
10-20	316.96
20-30	458.95
30-40	517.37
40-50	527.70
50-60	466.21
60-70	359.89
70-80	235.41
80-90	92.28
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

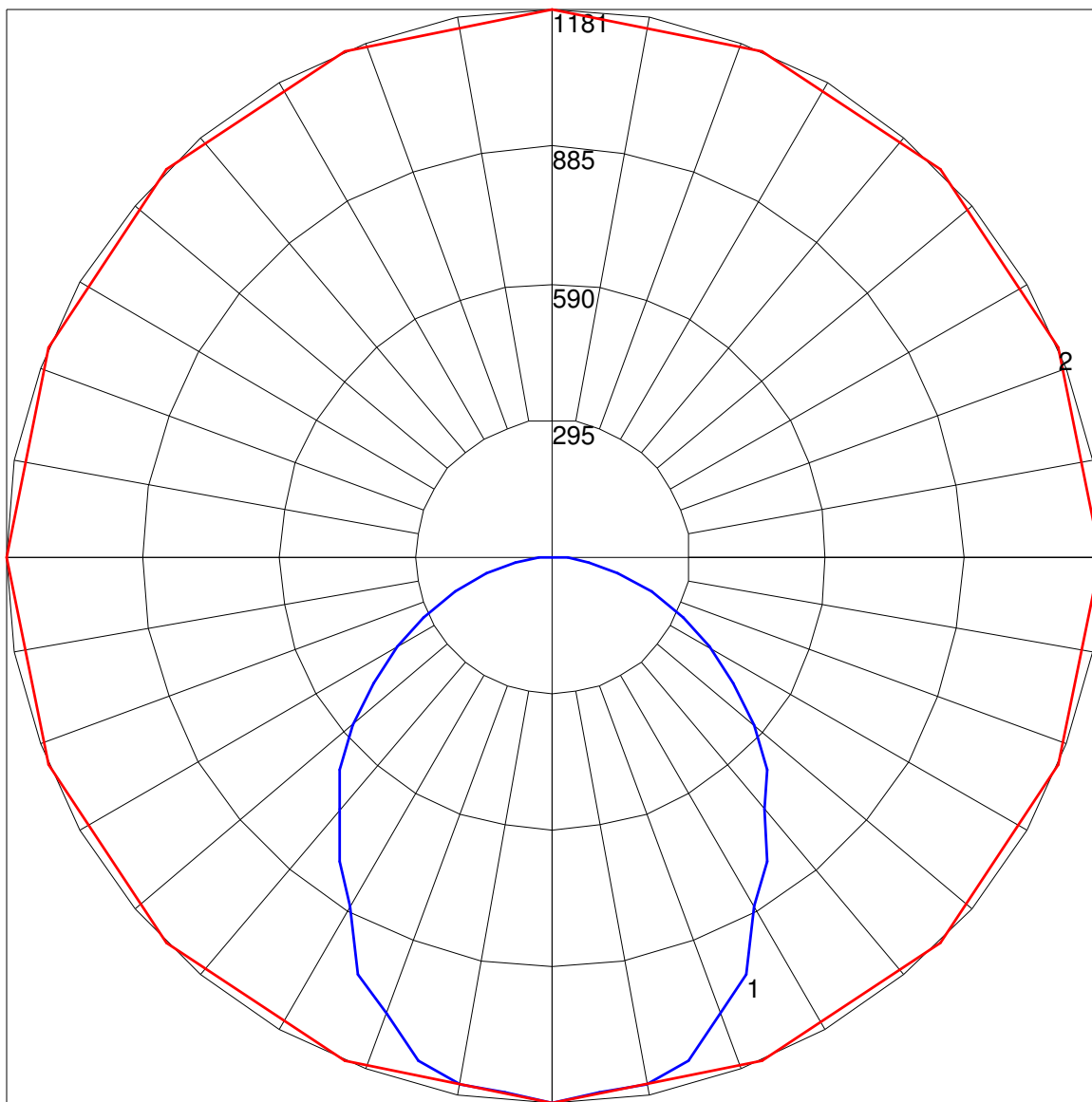
Reflectances

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	12.2	13.9	12.6	14.2	14.5	13.3	14.9	13.6	15.2	15.5
	3H	13.9	15.4	14.3	15.7	16.1	15.4	16.9	15.8	17.3	17.6
	4H	14.5	15.9	14.9	16.2	16.6	16.4	17.8	16.8	18.2	18.6
	6H	14.8	16.2	15.3	16.5	16.9	17.5	18.8	17.9	19.1	19.5
	8H	15.0	16.2	15.4	16.6	17.0	17.9	19.1	18.3	19.5	19.9
	12H	15.0	16.2	15.5	16.6	17.0	18.2	19.4	18.7	19.8	20.2
4H	2H	13.0	14.4	13.4	14.8	15.2	13.8	15.2	14.2	15.6	15.9
	3H	14.9	16.1	15.4	16.5	16.9	16.3	17.5	16.7	17.9	18.3
	4H	15.6	16.7	16.1	17.1	17.6	17.4	18.5	17.9	18.9	19.4
	6H	16.2	17.1	16.6	17.6	18.0	18.7	19.6	19.1	20.1	20.5
	8H	16.3	17.2	16.8	17.7	18.1	19.2	20.1	19.7	20.5	21.0
	12H	16.5	17.3	17.0	17.7	18.2	19.6	20.4	20.1	20.9	21.4
8H	4H	16.2	17.1	16.7	17.6	18.0	17.8	18.7	18.2	19.1	19.6
	6H	17.0	17.7	17.5	18.2	18.7	19.2	20.0	19.7	20.5	20.9
	8H	17.3	17.9	17.8	18.4	18.9	19.9	20.6	20.4	21.1	21.5
	12H	17.5	18.1	18.0	18.6	19.1	20.5	21.0	21.0	21.5	22.1
12H	4H	16.4	17.2	16.9	17.7	18.1	17.8	18.6	18.3	19.1	19.6
	6H	17.2	17.9	17.8	18.4	18.9	19.3	20.0	19.9	20.5	21.0
	8H	17.6	18.2	18.1	18.7	19.3	20.1	20.6	20.6	21.1	21.7

Maximum UGR = 22.1

POLAR GRAPH



Maximum Candela = 1180.506 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.)