



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-24-L38-850-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-L38-850-RA-DIM-UNV
[LAMPCAT] HLM 80 CRI 5000K 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	3989
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
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	1711	1805	1897
55	1533	1678	1813
65	1348	1597	1814
75	1043	1602	1983
85	630	2102	2408

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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	1526.020	1526.020	1526.020	1526.020	1526.020
5	1502.718	1500.647	1500.647	1495.469	1492.880
10	1498.058	1498.058	1500.647	1502.718	1502.718
15	1458.703	1460.775	1463.364	1466.989	1469.578
20	1362.389	1367.567	1373.781	1382.066	1384.655
25	1285.233	1289.894	1302.321	1313.196	1318.374
30	1126.262	1091.568	1233.451	1192.543	1186.329
35	1038.750	1048.589	1071.891	1091.568	1099.335
40	924.312	936.739	962.630	988.521	998.360
45	844.567	855.441	891.171	924.312	936.739
50	733.753	750.841	790.196	824.890	836.800
55	614.136	632.778	672.132	711.487	725.986
60	500.733	520.411	564.943	605.333	620.350
65	397.687	423.578	471.218	518.339	535.428
70	293.087	323.639	380.081	429.792	446.880
75	188.487	226.288	289.462	339.691	358.333
80	103.564	152.757	225.252	274.445	289.462
85	38.319	87.512	127.902	143.954	146.544
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	553.18	N.A.	13.90
0-30	1146.46	N.A.	28.70
0-40	1815.25	N.A.	45.50
0-60	3100.06	N.A.	77.70
0-80	3869.59	N.A.	97.00
0-90	3988.88	N.A.	100.00
10-90	3845.43	N.A.	96.40
20-40	1262.07	N.A.	31.60
20-50	1944.22	N.A.	48.70
40-70	1750.03	N.A.	43.90
60-80	769.54	N.A.	19.30
70-80	304.32	N.A.	7.60
80-90	119.29	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	3988.88	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	143.45
10-20	409.73
20-30	593.28
30-40	668.79
40-50	682.15
50-60	602.66
60-70	465.22
70-80	304.32
80-90	119.29
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

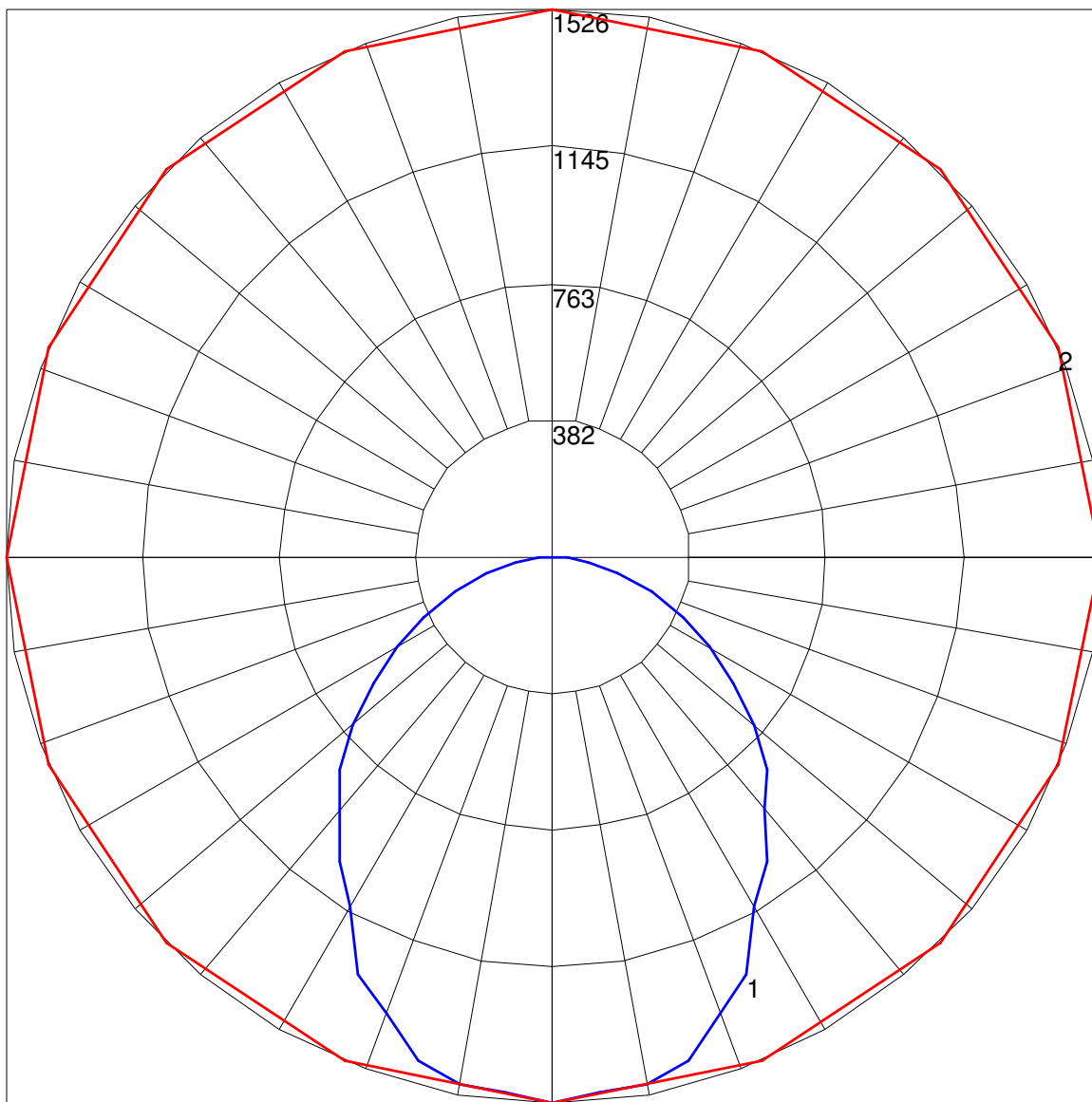
Reflectances

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	13.2	14.8	13.5	15.1	15.4	14.2	15.8	14.5	16.1	16.4
	3H	14.8	16.3	15.2	16.6	17.0	16.3	17.8	16.7	18.2	18.5
	4H	15.4	16.8	15.8	17.1	17.5	17.3	18.7	17.7	19.1	19.5
	6H	15.7	17.1	16.2	17.4	17.8	18.4	19.7	18.8	20.0	20.4
	8H	15.9	17.1	16.3	17.5	17.9	18.8	20.0	19.2	20.4	20.8
	12H	15.9	17.1	16.4	17.5	17.9	19.1	20.3	19.6	20.7	21.1
4H	2H	13.9	15.3	14.3	15.7	16.1	14.7	16.1	15.1	16.5	16.8
	3H	15.8	17.0	16.3	17.4	17.8	17.2	18.4	17.6	18.8	19.2
	4H	16.5	17.6	17.0	18.0	18.5	18.3	19.4	18.8	19.8	20.3
	6H	17.1	18.0	17.5	18.5	18.9	19.6	20.5	20.0	21.0	21.4
	8H	17.2	18.1	17.7	18.6	19.0	20.1	21.0	20.6	21.4	21.9
	12H	17.4	18.2	17.9	18.6	19.1	20.5	21.3	21.0	21.8	22.3
8H	4H	17.1	18.0	17.6	18.5	18.9	18.7	19.6	19.1	20.0	20.5
	6H	17.9	18.6	18.4	19.1	19.6	20.1	20.9	20.6	21.4	21.8
	8H	18.2	18.8	18.7	19.3	19.8	20.8	21.5	21.3	22.0	22.4
	12H	18.4	19.0	18.9	19.5	20.0	21.4	21.9	21.9	22.4	23.0
12H	4H	17.3	18.1	17.8	18.6	19.0	18.7	19.5	19.2	20.0	20.5
	6H	18.1	18.8	18.7	19.3	19.8	20.2	20.9	20.8	21.4	21.9
	8H	18.5	19.1	19.0	19.6	20.2	21.0	21.5	21.5	22.0	22.6

Maximum UGR = 23.0

POLAR GRAPH



Maximum Candela = 1526.02 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.)