

IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L26-930-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19562.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 2022-05-03

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 1-72 LED 22"ARRAY 2x2'RECESSED LUMINAIRE

[MORE] WHITE REFLECTOR w/CENTER FROSTED RIBBED ACRYLIC LENS

[MORE] ELECTRONIC 0-10V LED DRIVER

[LUMCAT] PTDC-22-L26-930-RA-DIM-UNV

[LAMPCAT] HLM 90 CRI 3000K CCT

[SEARCH_SOURCETYPE] LED

[SEARCH_APPLICATION] INDOOR

[SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2185
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	21.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.93 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2053	2130	2199
55	1736	1913	2041
65	1327	1660	1845
75	922	1472	1819
85	525	1201	1501

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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	835.177	835.177	835.177	835.177	835.177
5	837.986	832.931	831.807	828.999	828.999
10	826.752	821.698	821.136	818.328	817.766
15	807.095	801.478	800.916	799.793	799.231
20	779.012	773.957	773.395	773.957	773.957
25	739.696	734.641	738.011	740.258	738.011
30	691.394	689.148	692.518	696.449	693.641
35	635.791	635.229	642.530	645.339	648.147
40	571.762	571.762	584.119	589.173	593.667
45	498.747	498.747	517.282	529.077	534.132
50	421.801	422.363	447.075	462.802	470.103
55	342.046	348.225	376.869	393.718	402.143
60	263.977	276.333	304.977	323.512	332.498
65	192.647	208.935	240.949	261.168	267.908
70	129.742	149.961	181.975	202.757	210.620
75	82.001	101.659	130.865	151.646	161.756
80	44.371	61.220	87.056	101.659	111.769
85	15.726	27.521	35.946	35.946	44.932
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	305.14	N.A.	14.00
0-30	644.81	N.A.	29.50
0-40	1045.32	N.A.	47.80
0-60	1775.85	N.A.	81.30
0-80	2145.3	N.A.	98.20
0-90	2185.28	N.A.	100.00
10-90	2106.23	N.A.	96.40
20-40	740.18	N.A.	33.90
20-50	1137.33	N.A.	52.00
40-70	965.06	N.A.	44.20
60-80	369.45	N.A.	16.90
70-80	134.92	N.A.	6.20
80-90	39.98	N.A.	1.80
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	2185.28	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	79.05
10-20	226.09
20-30	339.67
30-40	400.51
40-50	397.15
50-60	333.38
60-70	234.53
70-80	134.92
80-90	39.98
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	109	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	87	84
2	100	91	85	79	97	90	83	78	86	81	76	83	79	75	80	76	73	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	62	48	40	34	60	47	39	34	46	39	34	45	38	34	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	28	38	32	27	26

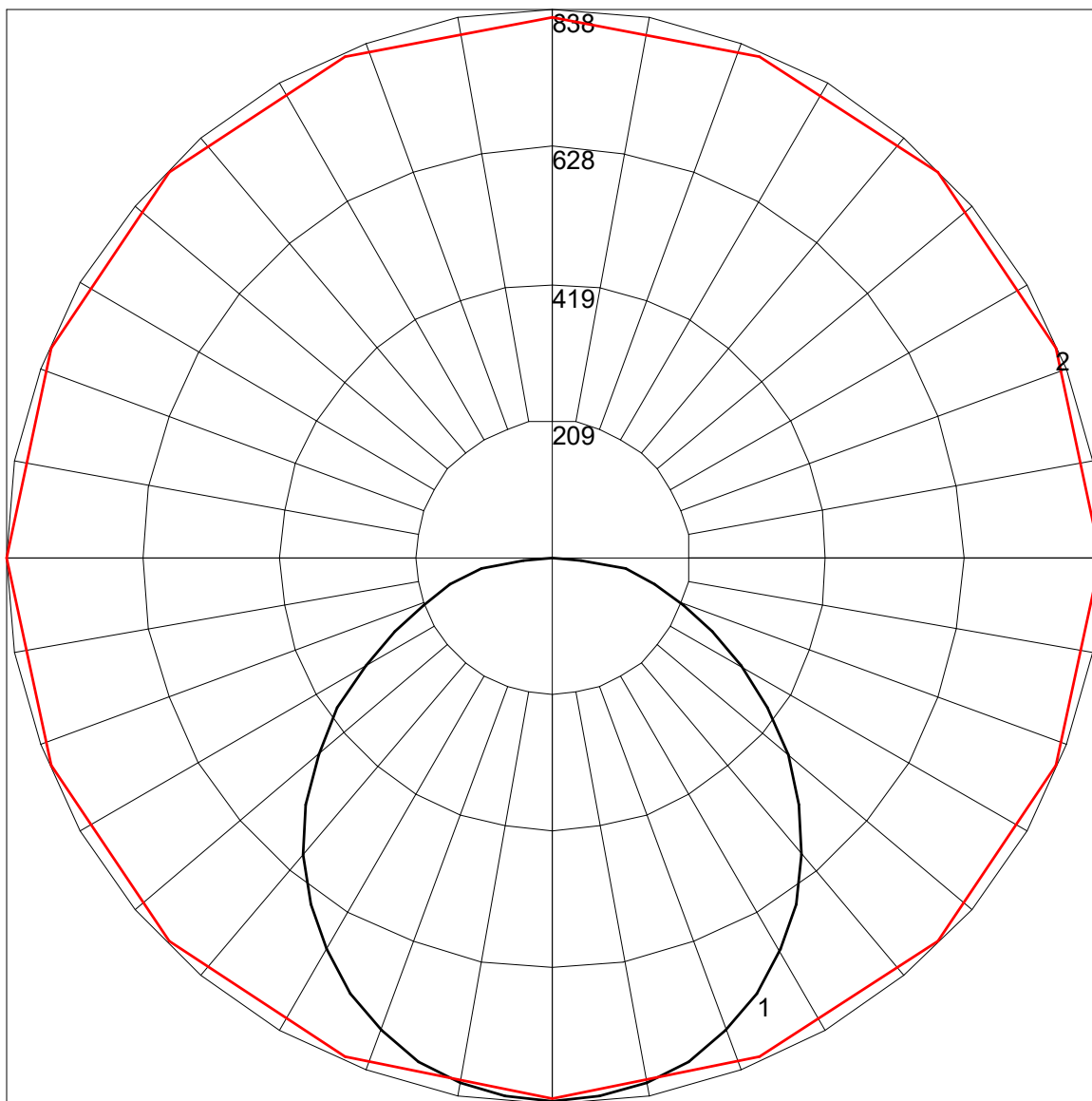
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UGR TABLE - CORRECTED

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	13.5	15.1	13.8	15.4	15.7	14.5	16.1	14.9	16.4	16.7
	3H	14.8	16.2	15.1	16.5	16.9	16.3	17.8	16.7	18.1	18.5
	4H	15.2	16.5	15.6	16.9	17.3	17.1	18.5	17.5	18.8	19.2
	6H	15.4	16.7	15.9	17.1	17.5	17.8	19.1	18.2	19.4	19.8
	8H	15.5	16.7	15.9	17.1	17.5	18.0	19.2	18.5	19.6	20.0
	12H	15.5	16.7	16.0	17.1	17.5	18.2	19.3	18.6	19.7	20.2
4H	2H	14.2	15.5	14.6	15.9	16.3	15.0	16.4	15.4	16.7	17.1
	3H	15.7	16.8	16.1	17.2	17.6	17.1	18.2	17.5	18.6	19.0
	4H	16.3	17.3	16.7	17.7	18.1	18.0	19.0	18.4	19.4	19.9
	6H	16.6	17.5	17.1	18.0	18.4	18.9	19.8	19.3	20.2	20.7
	8H	16.7	17.6	17.2	18.0	18.5	19.2	20.0	19.6	20.4	20.9
	12H	16.8	17.6	17.3	18.0	18.5	19.4	20.1	19.8	20.6	21.1
8H	4H	16.7	17.5	17.2	18.0	18.4	18.3	19.1	18.7	19.5	20.0
	6H	17.2	17.9	17.7	18.4	18.9	19.2	19.9	19.7	20.4	20.9
	8H	17.4	18.0	17.9	18.6	19.0	19.6	20.3	20.2	20.8	21.3
	12H	17.5	18.1	18.0	18.6	19.1	19.9	20.5	20.4	20.9	21.5
12H	4H	16.8	17.5	17.3	18.0	18.5	18.3	19.0	18.7	19.5	20.0
	6H	17.4	18.0	17.9	18.5	19.0	19.3	19.9	19.8	20.4	20.9
	8H	17.6	18.2	18.1	18.7	19.2	19.7	20.3	20.2	20.8	21.3

Maximum UGR = 21.5

POLAR GRAPH



Maximum Candela = 837.986 Located At Horizontal Angle = 0, Vertical Angle = 5

1 - Vertical Plane Through Horizontal Angles (90 - 270)

2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)