

IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L26-950-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-L26-950-RA-DIM-UNV

[LAMPCAT] HLM 90 CRI 5000K 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	2370
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
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	2226	2309	2384
55	1882	2074	2213
65	1439	1800	2001
75	1000	1596	1973
85	570	1302	1627

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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	905.614	905.614	905.614	905.614	905.614
5	908.659	903.178	901.960	898.915	898.915
10	896.479	890.997	890.388	887.343	886.734
15	875.163	869.073	868.464	867.246	866.637
20	844.712	839.231	838.622	839.231	839.231
25	802.080	796.599	800.253	802.689	800.253
30	749.705	747.269	750.923	755.186	752.141
35	689.412	688.803	696.720	699.765	702.810
40	619.983	619.983	633.382	638.863	643.735
45	540.810	540.810	560.908	573.698	579.179
50	457.375	457.984	484.781	501.833	509.750
55	370.894	377.593	408.653	426.924	436.059
60	286.240	299.638	330.698	350.796	360.540
65	208.894	226.556	261.270	283.195	290.503
70	140.684	162.609	197.323	219.857	228.383
75	88.917	110.233	141.902	164.436	175.398
80	48.113	66.383	94.398	110.233	121.195
85	17.053	29.842	38.977	38.977	48.722
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	330.88	N.A.	14.00
0-30	699.19	N.A.	29.50
0-40	1133.48	N.A.	47.80
0-60	1925.62	N.A.	81.30
0-80	2326.23	N.A.	98.20
0-90	2369.58	N.A.	100.00
10-90	2283.86	N.A.	96.40
20-40	802.60	N.A.	33.90
20-50	1233.25	N.A.	52.00
40-70	1046.45	N.A.	44.20
60-80	400.61	N.A.	16.90
70-80	146.30	N.A.	6.20
80-90	43.35	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	2369.58	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	85.72
10-20	245.16
20-30	368.31
30-40	434.29
40-50	430.64
50-60	361.49
60-70	254.31
70-80	146.30
80-90	43.35
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	86	84
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	81	73	66	88	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	33	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

X=2H	Y=2H	13.8	15.4	14.1	15.7	16.0	14.8	16.4	15.2	16.7	17.0
	3H	15.1	16.5	15.4	16.8	17.2	16.6	18.1	17.0	18.4	18.8
	4H	15.5	16.8	15.9	17.2	17.6	17.4	18.8	17.8	19.1	19.5
	6H	15.7	17.0	16.2	17.4	17.8	18.1	19.4	18.5	19.7	20.1
	8H	15.8	17.0	16.2	17.4	17.8	18.3	19.5	18.8	19.9	20.3
	12H	15.8	17.0	16.3	17.4	17.8	18.5	19.6	18.9	20.0	20.5

UGR Viewed Endwise

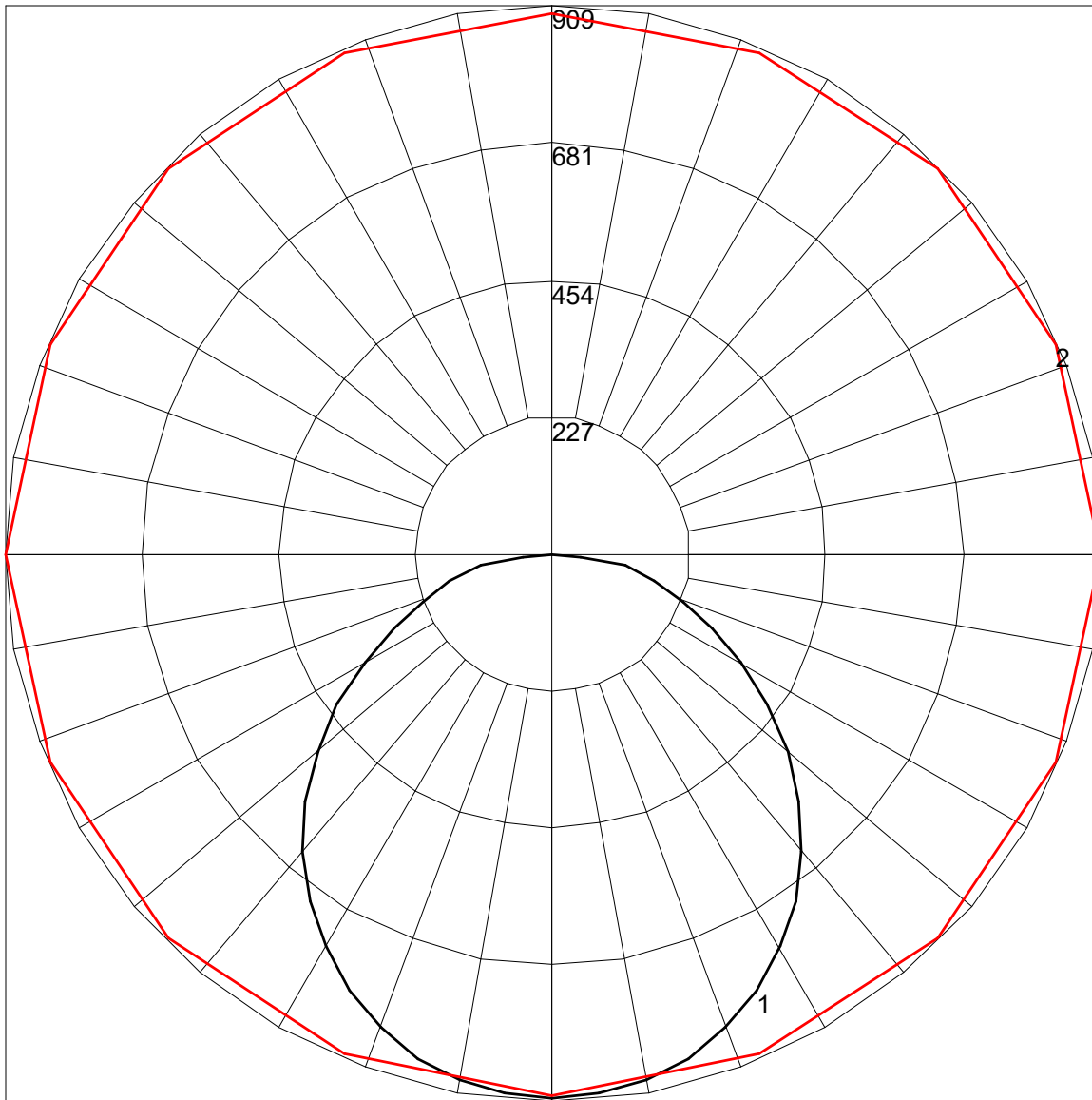
4H	2H	14.5	15.8	14.9	16.2	16.6	15.3	16.7	15.7	17.0	17.4
	3H	16.0	17.1	16.4	17.5	17.9	17.4	18.5	17.8	18.9	19.3
	4H	16.6	17.6	17.0	18.0	18.4	18.3	19.3	18.7	19.7	20.2
	6H	16.9	17.8	17.4	18.3	18.7	19.2	20.1	19.6	20.5	21.0
	8H	17.0	17.9	17.5	18.3	18.8	19.5	20.3	19.9	20.7	21.2
	12H	17.1	17.9	17.6	18.3	18.8	19.7	20.4	20.2	20.9	21.4

8H	4H	17.0	17.8	17.5	18.3	18.8	18.6	19.4	19.0	19.8	20.3
	6H	17.5	18.2	18.0	18.7	19.2	19.5	20.2	20.0	20.7	21.2
	8H	17.7	18.3	18.2	18.9	19.3	19.9	20.6	20.5	21.1	21.6
	12H	17.8	18.4	18.3	18.9	19.4	20.2	20.8	20.7	21.2	21.8

12H	4H	17.1	17.8	17.6	18.3	18.8	18.6	19.3	19.0	19.8	20.3
	6H	17.7	18.3	18.2	18.8	19.3	19.6	20.2	20.1	20.7	21.2
	8H	17.9	18.5	18.4	19.0	19.5	20.0	20.6	20.5	21.1	21.6

Maximum UGR = 21.8

POLAR GRAPH



Maximum Candela = 908.659 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.)