



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L52-930-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] 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-L52-930-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	4322
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	34.7
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	4061	4212	4349
55	3433	3783	4036
65	2624	3282	3650
75	1824	2911	3598
85	1039	2374	2968

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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	1651.641	1651.641	1651.641	1651.641	1651.641
5	1657.194	1647.198	1644.976	1639.423	1639.423
10	1634.980	1624.983	1623.873	1618.319	1617.208
15	1596.105	1584.997	1583.887	1581.665	1580.555
20	1540.569	1530.572	1529.461	1530.572	1530.572
25	1462.818	1452.822	1459.486	1463.929	1459.486
30	1367.296	1362.853	1369.518	1377.293	1371.739
35	1257.335	1256.224	1270.664	1276.217	1281.771
40	1130.713	1130.713	1155.149	1165.145	1174.031
45	986.319	986.319	1022.973	1046.298	1056.295
50	834.151	835.261	884.133	915.233	929.673
55	676.429	688.646	745.293	778.615	795.276
60	522.038	546.474	603.121	639.775	657.546
65	380.977	413.188	476.499	516.485	529.813
70	256.576	296.562	359.873	400.970	416.520
75	162.165	201.040	258.798	299.894	319.887
80	87.747	121.068	172.162	201.040	221.033
85	31.100	54.425	71.086	71.086	88.858
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	603.45	N.A.	14.00
0-30	1275.17	N.A.	29.50
0-40	2067.22	N.A.	47.80
0-60	3511.9	N.A.	81.30
0-80	4242.54	N.A.	98.20
0-90	4321.59	N.A.	100.00
10-90	4165.27	N.A.	96.40
20-40	1463.77	N.A.	33.90
20-50	2249.17	N.A.	52.00
40-70	1908.5	N.A.	44.20
60-80	730.63	N.A.	16.90
70-80	266.82	N.A.	6.20
80-90	79.06	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	4321.59	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	156.33
10-20	447.12
20-30	671.72
30-40	792.05
40-50	785.40
50-60	659.29
60-70	463.81
70-80	266.82
80-90	79.06
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	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	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

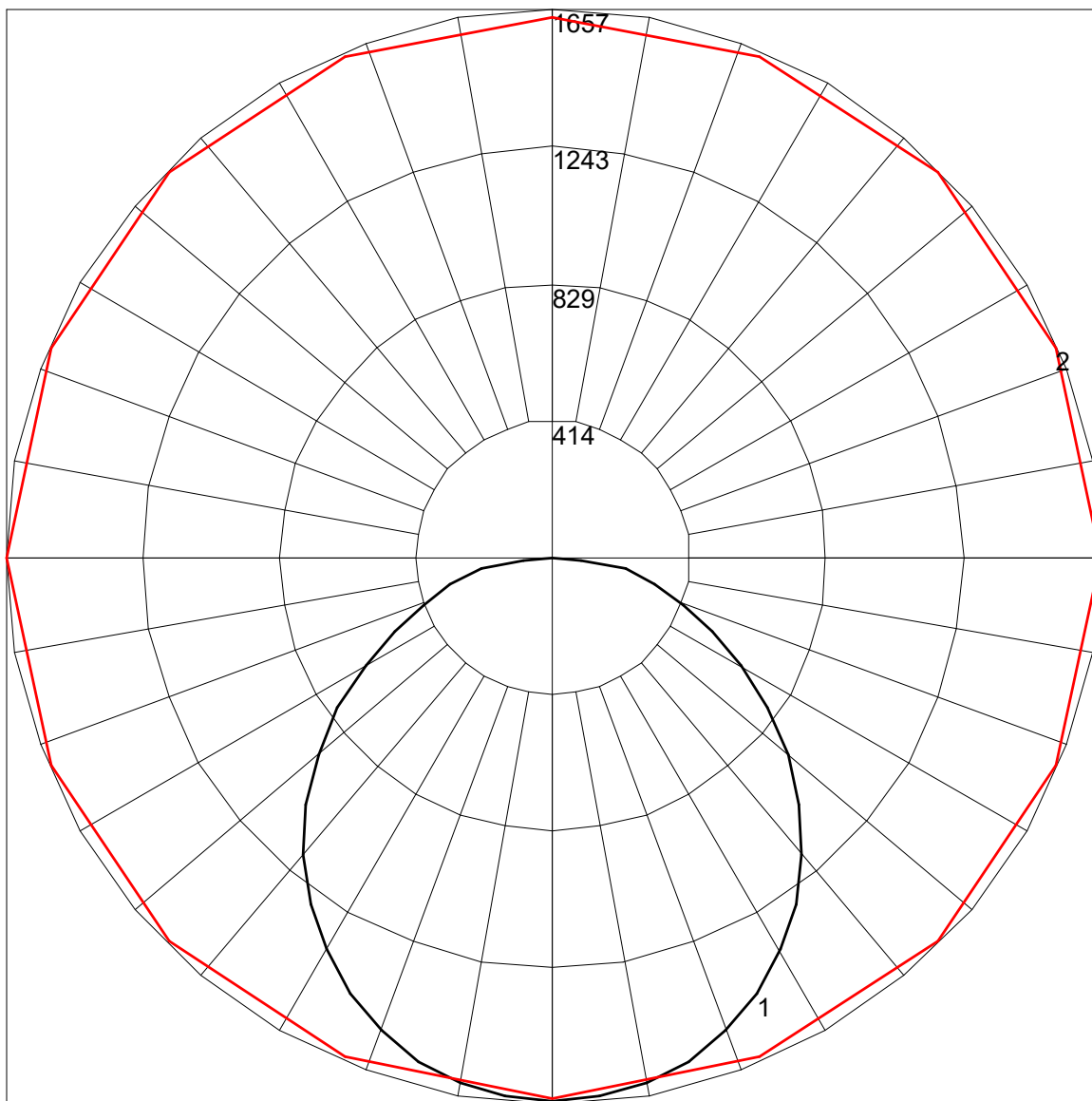
X=2H	Y=2H	15.9	17.5	16.2	17.8	18.1	16.9	18.5	17.3	18.8	19.1
	3H	17.2	18.6	17.5	18.9	19.3	18.7	20.2	19.1	20.5	20.9
	4H	17.6	18.9	18.0	19.3	19.7	19.5	20.9	19.9	21.2	21.6
	6H	17.8	19.1	18.3	19.5	19.9	20.2	21.5	20.6	21.8	22.2
	8H	17.9	19.1	18.3	19.5	19.9	20.4	21.6	20.9	22.0	22.4
	12H	17.9	19.1	18.4	19.5	19.9	20.6	21.7	21.0	22.1	22.6

UGR Viewed Endwise

4H	2H	16.6	17.9	17.0	18.3	18.7	17.4	18.8	17.8	19.1	19.5
	3H	18.1	19.2	18.5	19.6	20.0	19.5	20.6	19.9	21.0	21.4
	4H	18.7	19.7	19.1	20.1	20.5	20.4	21.4	20.8	21.8	22.3
	6H	19.0	19.9	19.5	20.4	20.8	21.3	22.2	21.7	22.6	23.1
	8H	19.1	20.0	19.6	20.4	20.9	21.6	22.4	22.0	22.8	23.3
	12H	19.2	20.0	19.7	20.4	20.9	21.8	22.5	22.2	23.0	23.5
8H	4H	19.1	19.9	19.6	20.4	20.8	20.7	21.5	21.1	21.9	22.4
	6H	19.6	20.3	20.1	20.8	21.3	21.6	22.3	22.1	22.8	23.3
	8H	19.8	20.4	20.3	21.0	21.4	22.0	22.7	22.6	23.2	23.7
	12H	19.9	20.5	20.4	21.0	21.5	22.3	22.9	22.8	23.3	23.9
12H	4H	19.2	19.9	19.7	20.4	20.9	20.7	21.4	21.1	21.9	22.4
	6H	19.8	20.4	20.3	20.9	21.4	21.7	22.3	22.2	22.8	23.3
	8H	20.0	20.6	20.5	21.1	21.6	22.1	22.7	22.6	23.2	23.7

Maximum UGR = 23.9

POLAR GRAPH



Maximum Candela = 1657.194 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.)