



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L43-830-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-L43-830-RA-DIM-UNV
 [LAMPCAT] HLM 80 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	4299
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
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	4040	4190	4326
55	3415	3763	4016
65	2611	3265	3631
75	1815	2896	3579
85	1033	2362	2953

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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	1643.141	1643.141	1643.141	1643.141	1643.141
5	1648.666	1638.721	1636.511	1630.986	1630.986
10	1626.566	1616.621	1615.516	1609.991	1608.886
15	1587.891	1576.841	1575.736	1573.526	1572.421
20	1532.640	1522.695	1521.590	1522.695	1522.695
25	1455.290	1445.345	1451.975	1456.395	1451.975
30	1360.260	1355.840	1362.470	1370.205	1364.680
35	1250.864	1249.759	1264.125	1269.650	1275.175
40	1124.894	1124.894	1149.204	1159.149	1167.989
45	981.244	981.244	1017.709	1040.914	1050.859
50	829.858	830.963	879.583	910.523	924.888
55	672.947	685.102	741.458	774.608	791.183
60	519.352	543.662	600.017	636.482	654.162
65	379.016	411.061	474.047	513.827	527.087
70	255.256	295.036	358.021	398.906	414.376
75	161.331	200.006	257.466	298.351	318.241
80	87.295	120.445	171.276	200.006	219.896
85	30.940	54.145	70.720	70.720	88.400
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	600.34	N.A.	14.00
0-30	1268.61	N.A.	29.50
0-40	2056.58	N.A.	47.80
0-60	3493.83	N.A.	81.30
0-80	4220.7	N.A.	98.20
0-90	4299.35	N.A.	100.00
10-90	4143.83	N.A.	96.40
20-40	1456.24	N.A.	33.90
20-50	2237.59	N.A.	52.00
40-70	1898.67	N.A.	44.20
60-80	726.87	N.A.	16.90
70-80	265.45	N.A.	6.20
80-90	78.65	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	4299.35	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	155.52
10-20	444.82
20-30	668.26
30-40	787.98
40-50	781.36
50-60	655.89
60-70	461.43
70-80	265.45
80-90	78.65
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	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

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

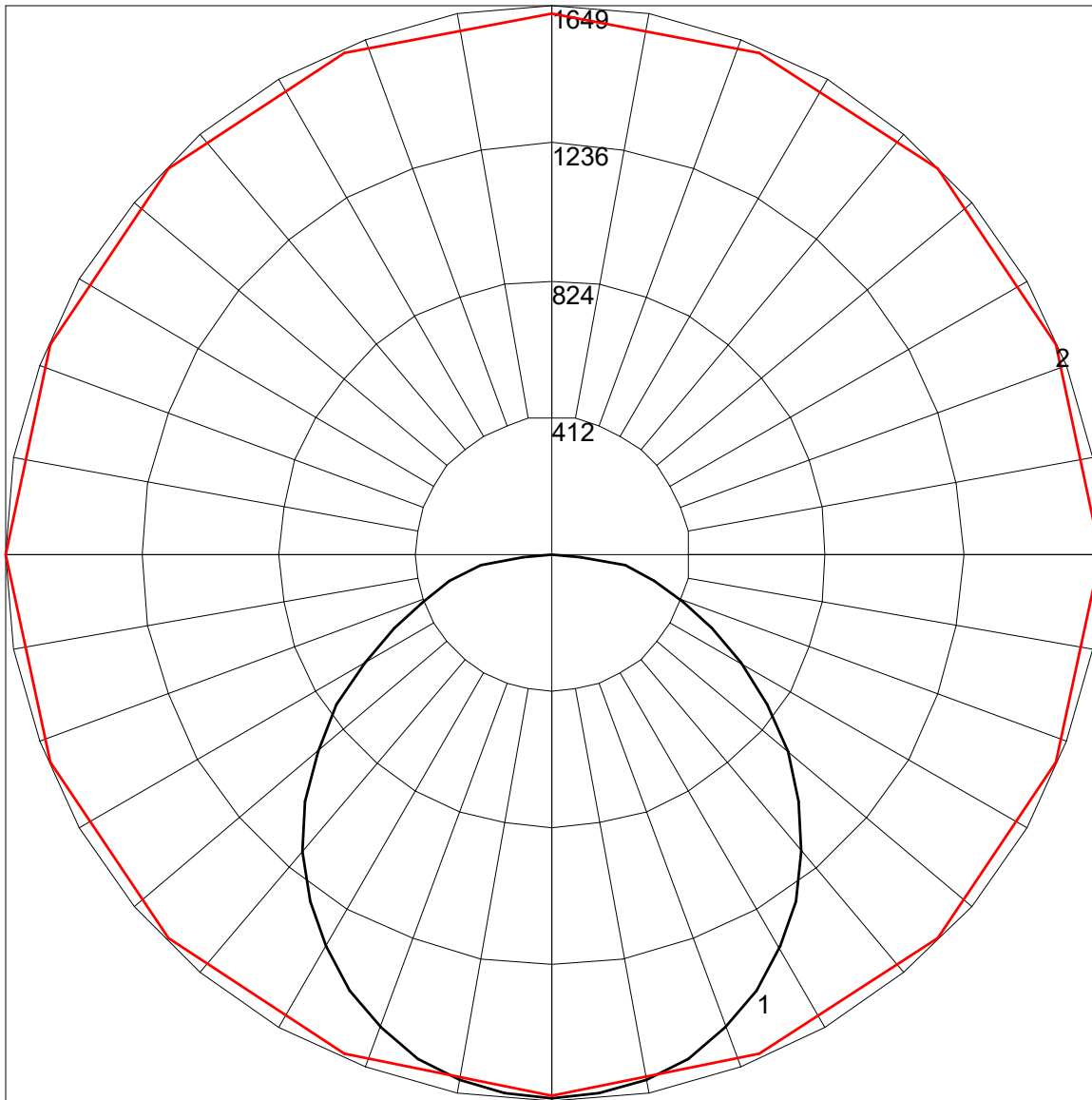
4H	2H	16.6	17.9	17.0	18.3	18.7	17.4	18.8	17.8	19.1	19.5
	3H	18.1	19.2	18.5	19.6	20.0	19.5	20.6	19.9	21.0	21.4
	4H	18.7	19.7	19.1	20.1	20.5	20.4	21.4	20.8	21.8	22.3
	6H	19.0	19.9	19.5	20.4	20.8	21.3	22.2	21.7	22.6	23.1
	8H	19.1	20.0	19.6	20.4	20.9	21.6	22.4	22.0	22.8	23.3
	12H	19.2	20.0	19.7	20.4	20.9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

8H	4H	19.1	19.9	19.6	20.4	20.9	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 = 1648.666 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.)