



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L43-827-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
 [ISSUE DATE] 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-L43-827-RA-DIM-UNV
 [LAMPCAT] HLM 80 CRI 2700K 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	4212
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
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	3958	4105	4239
55	3346	3687	3934
65	2558	3199	3557
75	1778	2837	3507
85	1013	2314	2893

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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	1609.947	1609.947	1609.947	1609.947	1609.947
5	1615.360	1605.616	1603.450	1598.037	1598.037
10	1593.706	1583.962	1582.880	1577.466	1576.383
15	1555.813	1544.986	1543.903	1541.738	1540.655
20	1501.678	1491.934	1490.852	1491.934	1491.934
25	1425.891	1416.147	1422.643	1426.973	1422.643
30	1332.780	1328.450	1334.946	1342.524	1337.111
35	1225.595	1224.512	1238.587	1244.000	1249.414
40	1102.169	1102.169	1125.988	1135.732	1144.394
45	961.421	961.421	997.149	1019.885	1029.630
50	813.093	814.176	861.814	892.129	906.204
55	659.353	671.262	726.479	758.959	775.200
60	508.860	532.679	587.896	623.624	640.947
65	371.360	402.757	464.470	503.447	516.439
70	250.099	289.076	350.789	390.848	406.005
75	158.071	195.965	252.265	292.324	311.812
80	85.532	118.012	167.816	195.965	215.454
85	30.315	53.051	69.292	69.292	86.614
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	588.22	N.A.	14.00
0-30	1242.98	N.A.	29.50
0-40	2015.04	N.A.	47.80
0-60	3423.25	N.A.	81.30
0-80	4135.44	N.A.	98.20
0-90	4212.5	N.A.	100.00
10-90	4060.12	N.A.	96.40
20-40	1426.82	N.A.	33.90
20-50	2192.39	N.A.	52.00
40-70	1860.32	N.A.	44.20
60-80	712.19	N.A.	16.90
70-80	260.08	N.A.	6.20
80-90	77.06	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	4212.5	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	152.38
10-20	435.84
20-30	654.76
30-40	772.06
40-50	765.57
50-60	642.64
60-70	452.10
70-80	260.08
80-90	77.06
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	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

X=2H	Y=2H	15.8	17.4	16.1	17.7	18.0	UGR Viewed Endwise			
	3H	17.1	18.5	17.4	18.8	19.2	16.8	18.4	17.2	18.7
	4H	17.5	18.8	17.9	19.2	19.6	18.6	20.1	19.0	20.4
	6H	17.7	19.0	18.2	19.4	19.8	19.4	20.8	19.8	21.1
	8H	17.8	19.0	18.2	19.4	19.8	20.1	21.4	20.5	21.7
	12H	17.8	19.0	18.3	19.4	19.8	20.3	21.5	20.8	21.9

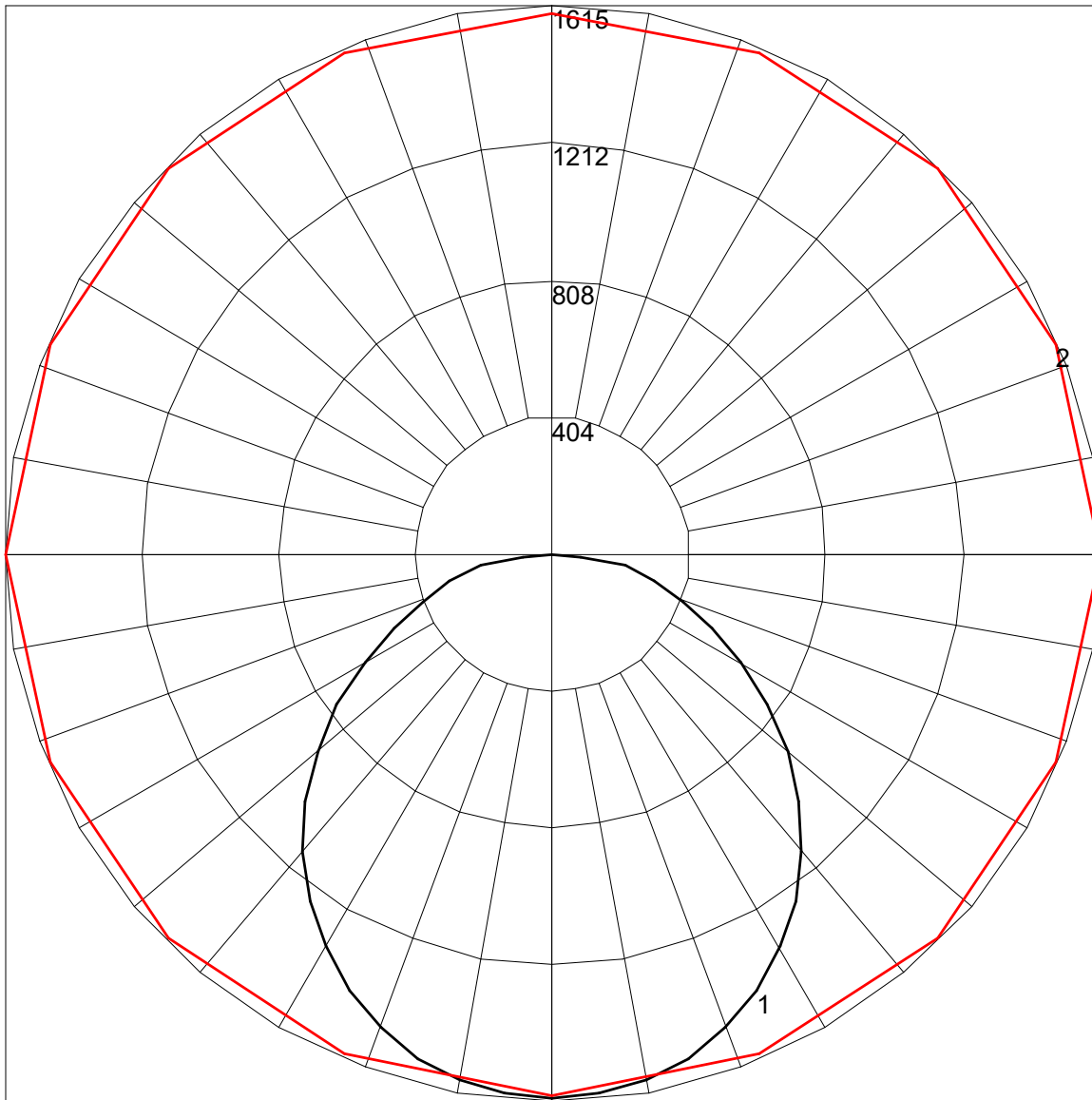
4H	2H	16.5	17.8	16.9	18.2	18.6	20.5	21.6	20.9	22.0
	3H	18.0	19.1	18.4	19.5	19.9	20.1	21.4	20.5	21.7
	4H	18.6	19.6	19.0	20.0	20.4	21.2	22.1	21.6	22.5
	6H	18.9	19.8	19.4	20.3	20.7	21.5	22.3	21.9	22.7
	8H	19.0	19.9	19.5	20.3	20.8	21.7	22.4	22.2	22.9
	12H	19.1	19.9	19.6	20.3	20.8				

8H	4H	19.0	19.8	19.5	20.3	20.8	20.6	21.4	21.0	21.8
	6H	19.5	20.2	20.0	20.7	21.2	21.5	22.2	22.0	22.7
	8H	19.7	20.3	20.2	20.9	21.3	21.9	22.6	22.5	23.1
	12H	19.8	20.4	20.3	20.9	21.4	22.2	22.8	22.7	23.2

12H	4H	19.1	19.8	19.6	20.3	20.8	20.6	21.3	21.0	21.8
	6H	19.7	20.3	20.2	20.8	21.3	21.6	22.2	22.1	22.7
	8H	19.9	20.5	20.4	21.0	21.5	22.0	22.6	22.5	23.1

Maximum UGR = 23.8

POLAR GRAPH



Maximum Candela = 1615.36 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.)