



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L43-835-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-L43-835-RA-DIM-UNV
 [LAMPCAT] HLM 80 CRI 3500K 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	4343
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	4081	4232	4370
55	3450	3801	4056
65	2637	3298	3667
75	1833	2925	3616
85	1044	2386	2983

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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	1659.739	1659.739	1659.739	1659.739	1659.739
5	1665.320	1655.274	1653.042	1647.461	1647.461
10	1642.996	1632.951	1631.835	1626.254	1625.138
15	1603.931	1592.769	1591.653	1589.420	1588.304
20	1548.122	1538.077	1536.961	1538.077	1538.077
25	1469.991	1459.945	1466.642	1471.107	1466.642
30	1374.000	1369.536	1376.233	1384.046	1378.465
35	1263.500	1262.384	1276.894	1282.475	1288.056
40	1136.257	1136.257	1160.813	1170.858	1179.787
45	991.155	991.155	1027.989	1051.428	1061.474
50	838.241	839.357	888.468	919.721	934.231
55	679.745	692.023	748.947	782.432	799.175
60	524.598	549.154	606.078	642.912	660.770
65	382.845	415.214	478.835	519.017	532.411
70	257.834	298.016	361.638	402.936	418.562
75	162.960	202.026	260.067	301.365	321.456
80	88.177	121.662	173.006	202.026	222.117
85	31.253	54.692	71.435	71.435	89.293
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	606.41	N.A.	14.00
0-30	1281.42	N.A.	29.50
0-40	2077.36	N.A.	47.80
0-60	3529.12	N.A.	81.30
0-80	4263.34	N.A.	98.20
0-90	4342.78	N.A.	100.00
10-90	4185.69	N.A.	96.40
20-40	1470.95	N.A.	33.90
20-50	2260.2	N.A.	52.00
40-70	1917.85	N.A.	44.20
60-80	734.21	N.A.	16.90
70-80	268.13	N.A.	6.20
80-90	79.44	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	4342.78	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	157.09
10-20	449.31
20-30	675.01
30-40	795.94
40-50	789.25
50-60	662.52
60-70	466.09
70-80	268.13
80-90	79.44
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	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

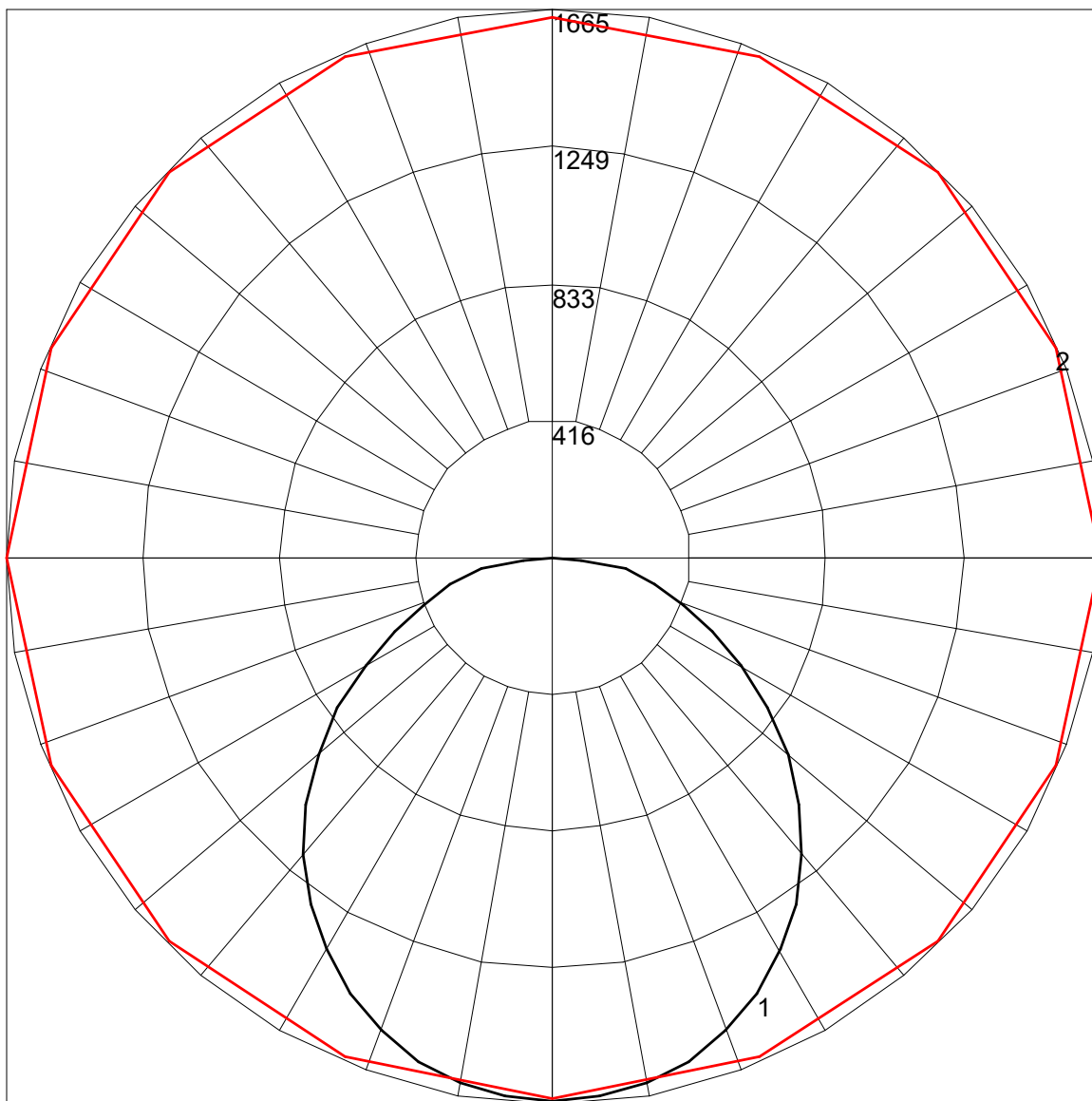
4H	2H	16.6	17.9	17.0	18.3	18.7	17.4	18.8	17.8	19.1	19.5
	3H	18.1	19.2	18.5	19.6	20.0	19.5	20.6	19.9	21.0	21.4
	4H	18.7	19.7	19.1	20.1	20.5	20.4	21.4	20.8	21.8	22.3
	6H	19.0	19.9	19.5	20.4	20.8	21.3	22.2	21.7	22.6	23.1
	8H	19.1	20.0	19.6	20.4	20.9	21.6	22.4	22.0	22.8	23.3
	12H	19.2	20.0	19.7	20.4	20.9	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 = 1665.32 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.)