



IES INDOOR REPORT

PHOTOMETRIC FILENAME : PTDC-22-L52-835-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-L52-835-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	5207
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	150
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	4892	5074	5239
55	4136	4557	4863
65	3162	3955	4397
75	2198	3507	4335
85	1252	2861	3576

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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	1989.927	1989.927	1989.927	1989.927	1989.927
5	1996.618	1984.574	1981.898	1975.207	1975.207
10	1969.854	1957.810	1956.472	1949.781	1948.442
15	1923.016	1909.634	1908.296	1905.620	1904.281
20	1856.106	1844.062	1842.723	1844.062	1844.062
25	1762.430	1750.386	1758.416	1763.769	1758.416
30	1647.344	1641.991	1650.020	1659.388	1652.697
35	1514.860	1513.522	1530.919	1537.610	1544.301
40	1362.304	1362.304	1391.745	1403.789	1414.494
45	1188.336	1188.336	1232.497	1260.599	1272.643
50	1005.000	1006.338	1065.220	1102.690	1120.087
55	814.974	829.694	897.943	938.089	958.163
60	628.961	658.402	726.651	770.812	792.224
65	459.008	497.816	574.095	622.270	638.329
70	309.128	357.304	433.582	483.096	501.831
75	195.380	242.217	311.804	361.318	385.406
80	105.719	145.866	207.423	242.217	266.305
85	37.470	65.573	85.646	85.646	107.057
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	727.05	N.A.	14.00
0-30	1536.35	N.A.	29.50
0-40	2490.63	N.A.	47.80
0-60	4231.21	N.A.	81.30
0-80	5111.49	N.A.	98.20
0-90	5206.74	N.A.	100.00
10-90	5018.39	N.A.	96.40
20-40	1763.58	N.A.	33.90
20-50	2709.84	N.A.	52.00
40-70	2299.39	N.A.	44.20
60-80	880.28	N.A.	16.90
70-80	321.47	N.A.	6.20
80-90	95.25	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	5206.74	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	188.35
10-20	538.70
20-30	809.30
30-40	954.28
40-50	946.26
50-60	794.32
60-70	558.81
70-80	321.47
80-90	95.25
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	16.5	18.1	16.8	18.4	18.7	UGR Viewed Endwise			
	3H	17.8	19.2	18.1	19.5	19.9	17.5	19.1	17.9	19.4
	4H	18.2	19.5	18.6	19.9	20.3	19.3	20.8	19.7	21.1
	6H	18.4	19.7	18.9	20.1	20.5	20.1	21.5	20.5	21.8
	8H	18.5	19.7	18.9	20.1	20.5	20.8	22.1	21.2	22.4
	12H	18.5	19.7	19.0	20.1	20.5	21.0	22.2	21.5	22.6

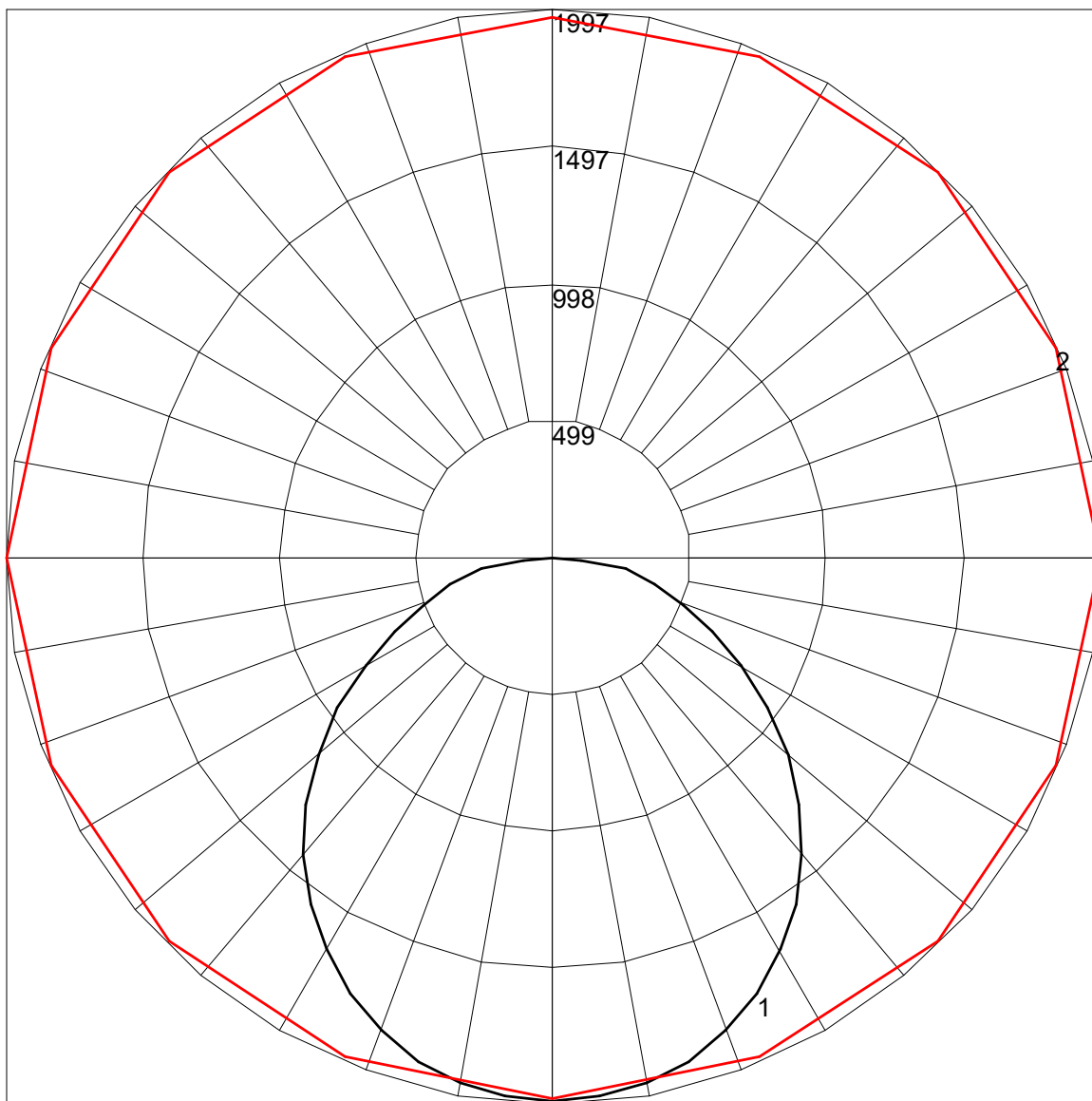
4H	2H	17.2	18.5	17.6	18.9	19.3	21.2	22.3	21.6	22.7
	3H	18.7	19.8	19.1	20.2	20.6	21.2	22.3	21.6	22.7
	4H	19.3	20.3	19.7	20.7	21.1	21.4	22.4	21.8	22.8
	6H	19.6	20.5	20.1	21.0	21.4	21.9	22.8	22.3	23.2
	8H	19.7	20.6	20.2	21.0	21.5	22.2	23.0	22.6	23.4
	12H	19.8	20.6	20.3	21.0	21.5	22.4	23.1	22.8	23.6

8H	4H	19.7	20.5	20.2	21.0	21.4	22.2	22.9	22.7	23.4
	6H	20.2	20.9	20.7	21.4	21.9	22.6	23.3	23.2	23.8
	8H	20.4	21.0	20.9	21.6	22.0	22.9	23.5	23.4	23.9
	12H	20.5	21.1	21.0	21.6	22.1	23.5	23.4	23.9	24.5

12H	4H	19.8	20.5	20.3	21.0	21.5	22.3	22.9	22.8	23.4
	6H	20.4	21.0	20.9	21.5	22.0	22.7	23.3	23.2	23.8
	8H	20.6	21.2	21.1	21.7	22.2	23.3	23.2	23.8	24.3

Maximum UGR = 24.5

POLAR GRAPH



Maximum Candela = 1996.618 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.)