H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PTDC-24-L49-850-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19235.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2022-05-06
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2x4' RECESSED LED LUMINAIRE
[MORE] w/RIBBED FROSTED ACRYLIC CENTER DIFFUSER
[LUMCAT] PTDC-24-L49-850-RA-DIM-UNV
[LAMPCAT] HLM 80 CRI 5000K CCT
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Architectural, Office, Direct
[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5224
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	140
Total Luminaire Watts	37.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2240	2364	2485
55	2008	2198	2374
65	1765	2091	2376
75	1366	2098	2597
85	825	2752	3154

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1998.466	1998.466	1998.466	1998.466	1998.466
5	1967.950	1965.238	1965.238	1958.456	1955.066
10	1961.847	1961.847	1965.238	1967.950	1967.950
15	1910.309	1913.021	1916.412	1921.159	1924.549
20	1784.175	1790.957	1799.094	1809.944	1813.335
25	1683.133	1689.236	1705.512	1719.752	1726.534
30	1474.945	1429.510	1615.320	1561.747	1553.609
35	1360.340	1373.225	1403.741	1429.510	1439.682
40	1210.472	1226.748	1260.654	1294.561	1307.446
45	1106.040	1120.280	1167.072	1210.472	1226.748
50	960.918	983.297	1034.835	1080.270	1095.867
55	804.269	828.682	880.220	931.759	950.746
60	655.757	681.526	739.846	792.741	812.407
65	520.808	554.715	617.104	678.814	701.192
70	383.825	423.835	497.752	562.853	585.231
75	246.841	296.345	379.078	444.857	469.270
80	135.627	200.050	294.989	359.412	379.078
85	50.182	114.605	167.500	188.522	191.912
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	724.44	N.A.	13.90
0-30	1501.4	N.A.	28.70
0-40	2377.24	N.A.	45.50
0-60	4059.81	N.A.	77.70
0-80	5067.59	N.A.	97.00
0-90	5223.81	N.A.	100.00
10-90	5035.96	N.A.	96.40
20-40	1652.8	N.A.	31.60
20-50	2546.14	N.A.	48.70
40-70	2291.82	N.A.	43.90
60-80	1007.78	N.A.	19.30
70-80	398.53	N.A.	7.60
80-90	156.22	N.A.	3.00
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	5223.81	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	187.86
10-20	536.58
20-30	776.96
30-40	875.84
40-50	893.33
50-60	789.24
60-70	609.25
70-80	398.53
80-90	156.22
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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	33	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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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					UGR Viewed Endwise				
X=2H	Y=2H	14.1	15.7	14.4	16.0	16.3	15.1	16.7	15.4	17.0	17.3
	3H	15.7	17.2	16.1	17.5	17.9	17.2	18.7	17.6	19.1	19.4
	4H	16.3	17.7	16.7	18.0	18.4	18.2	19.6	18.6	20.0	20.4
	6H	16.6	18.0	17.1	18.3	18.7	19.3	20.6	19.7	20.9	21.3
	8H	16.8	18.0	17.2	18.4	18.8	19.7	20.9	20.1	21.3	21.7
	12H	16.8	18.0	17.3	18.4	18.8	20.0	21.2	20.5	21.6	22.0
4H	2H	14.8	16.2	15.2	16.6	17.0	15.6	17.0	16.0	17.4	17.7
	3H	16.7	17.9	17.2	18.3	18.7	18.1	19.3	18.5	19.7	20.1
	4H	17.4	18.5	17.9	18.9	19.4	19.2	20.3	19.7	20.7	21.2
	6H	18.0	18.9	18.4	19.4	19.8	20.5	21.4	20.9	21.9	22.3
	8H	18.1	19.0	18.6	19.5	19.9	21.0	21.9	21.5	22.3	22.8
	12H	18.3	19.1	18.8	19.5	20.0	21.4	22.2	21.9	22.7	23.2
8H	4H	18.0	18.9	18.5	19.4	19.8	19.6	20.5	20.0	20.9	21.4
	6H	18.8	19.5	19.3	20.0	20.5	21.0	21.8	21.5	22.3	22.7
	8H	19.1	19.7	19.6	20.2	20.7	21.7	22.4	22.2	22.9	23.3
	12H	19.3	19.9	19.8	20.4	20.9	22.3	22.8	22.8	23.3	23.9
12H	4H	18.2	19.0	18.7	19.5	19.9	19.6	20.4	20.1	20.9	21.4
	6H	19.0	19.7	19.6	20.2	20.7	21.1	21.8	21.7	22.3	22.8
	8H	19.4	20.0	19.9	20.5	21.1	21.9	22.4	22.4	22.9	23.5

Maximum UGR = 23.9

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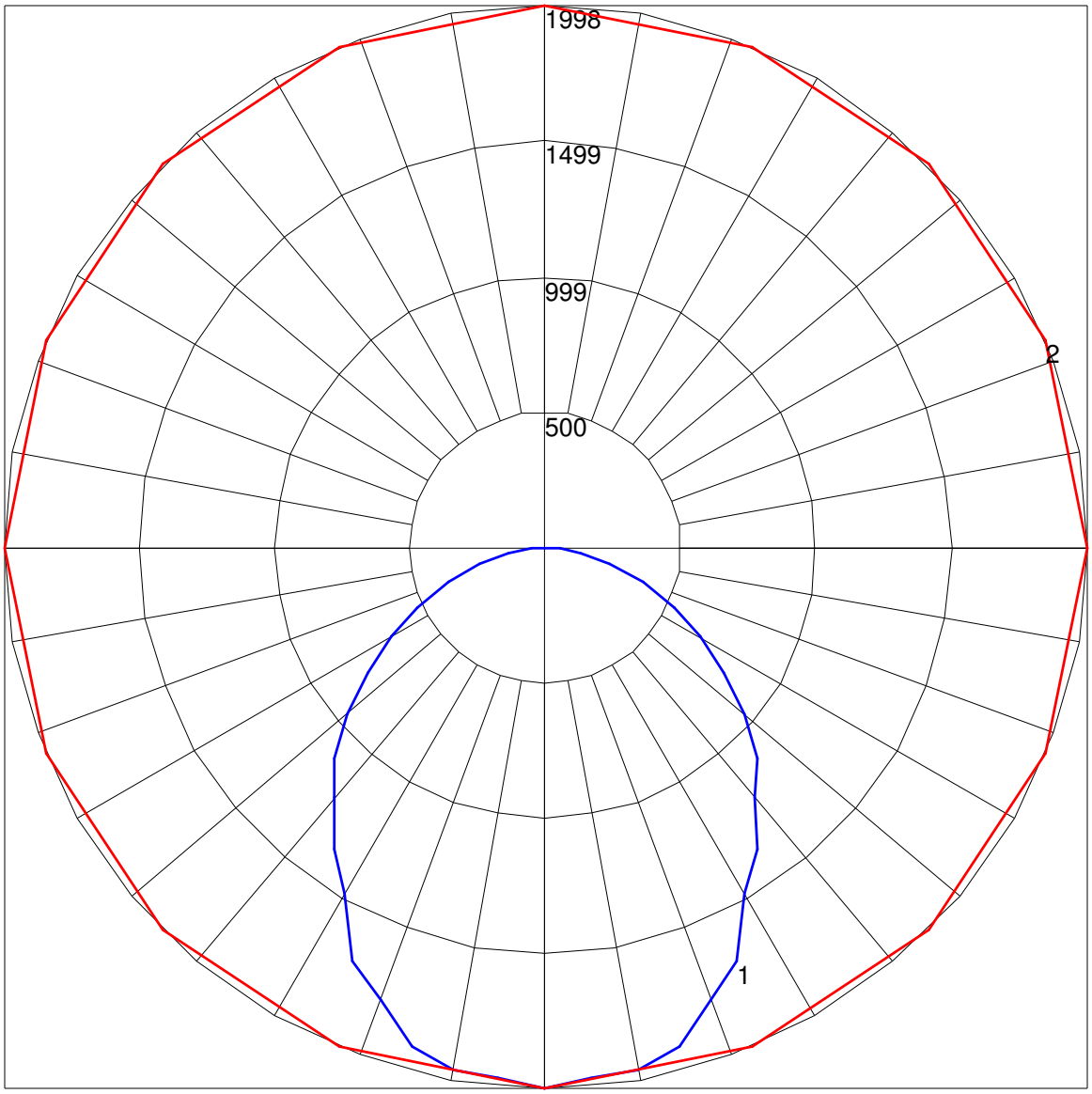
POLAR GRAPH



Maximum Candela = 1998.466 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

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