H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L26-830-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] 2023-06-23
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2x2'RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/CENTER FROSTED RIBBED ACRYLIC LENS
[MORE] ELECTRONIC 0-10V LED DRIVER
[LUMCAT] PT-22-L26-830-RA-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAY

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2895
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	21.5
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	2720	2821	2913
55	2300	2534	2704
65	1758	2198	2444
75	1222	1950	2410
85	696	1590	1988

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1106.273	1106.273	1106.273	1106.273	1106.273
5	1109.993	1103.297	1101.809	1098.089	1098.089
10	1095.114	1088.418	1087.674	1083.954	1083.210
15	1069.075	1061.635	1060.891	1059.403	1058.659
20	1031.877	1025.181	1024.437	1025.181	1025.181
25	979.799	973.104	977.567	980.543	977.567
30	915.818	912.843	917.306	922.514	918.794
35	842.166	841.422	851.094	854.813	858.533
40	757.354	757.354	773.722	780.417	786.369
45	660.639	660.639	685.190	700.813	707.509
50	558.716	559.460	592.195	613.026	622.697
55	453.073	461.257	499.199	521.518	532.678
60	349.663	366.030	403.972	428.523	440.426
65	255.179	276.754	319.160	345.943	354.870
70	171.855	198.638	241.044	268.571	278.986
75	108.619	134.657	173.343	200.870	214.261
80	58.773	81.092	115.314	134.657	148.049
85	20.831	36.454	47.614	47.614	59.517
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	404.19	N.A.	14.00
0-30	854.11	N.A.	29.50
0-40	1384.63	N.A.	47.80
0-60	2352.28	N.A.	81.30
0-80	2841.66	N.A.	98.20
0-90	2894.61	N.A.	100.00
10-90	2789.91	N.A.	96.40
20-40	980.44	N.A.	33.90
20-50	1506.5	N.A.	52.00
40-70	1278.32	N.A.	44.20
60-80	489.38	N.A.	16.90
70-80	178.72	N.A.	6.20
80-90	52.95	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	2894.61	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	104.71
10-20	299.48
20-30	449.92
30-40	530.52
40-50	526.06
50-60	441.59
60-70	310.66
70-80	178.72
80-90	52.95
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	99	91	85	79	97	90	83	78	86	81	76	83	78	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					UGR Viewed Endwise				
X=2H	Y=2H	14.5	16.1	14.8	16.4	16.7	15.5	17.1	15.9	17.4	17.7
	3H	15.8	17.2	16.1	17.5	17.9	17.3	18.8	17.7	19.1	19.5
	4H	16.2	17.5	16.6	17.9	18.3	18.1	19.5	18.5	19.8	20.2
	6H	16.4	17.7	16.9	18.1	18.5	18.8	20.1	19.2	20.4	20.8
	8H	16.5	17.7	16.9	18.1	18.5	19.0	20.2	19.5	20.6	21.0
	12H	16.5	17.7	17.0	18.1	18.5	19.2	20.3	19.6	20.7	21.2
4H	2H	15.2	16.5	15.6	16.9	17.3	16.0	17.4	16.4	17.7	18.1
	3H	16.7	17.8	17.1	18.2	18.6	18.1	19.2	18.5	19.6	20.0
	4H	17.3	18.3	17.7	18.7	19.1	19.0	20.0	19.4	20.4	20.9
	6H	17.6	18.5	18.1	19.0	19.4	19.9	20.8	20.3	21.2	21.7
	8H	17.7	18.6	18.2	19.0	19.5	20.2	21.0	20.6	21.4	21.9
	12H	17.8	18.6	18.3	19.0	19.5	20.4	21.1	20.9	21.6	22.1
8H	4H	17.7	18.5	18.2	19.0	19.5	19.3	20.1	19.7	20.5	21.0
	6H	18.2	18.9	18.7	19.4	19.9	20.2	20.9	20.7	21.4	21.9
	8H	18.4	19.0	18.9	19.6	20.0	20.6	21.3	21.2	21.8	22.3
	12H	18.5	19.1	19.0	19.6	20.1	20.9	21.5	21.4	21.9	22.5
12H	4H	17.8	18.5	18.3	19.0	19.5	19.3	20.0	19.7	20.5	21.0
	6H	18.4	19.0	18.9	19.5	20.0	20.3	20.9	20.8	21.4	21.9
	8H	18.6	19.2	19.1	19.7	20.2	20.7	21.3	21.2	21.8	22.3

Maximum UGR = 22.5

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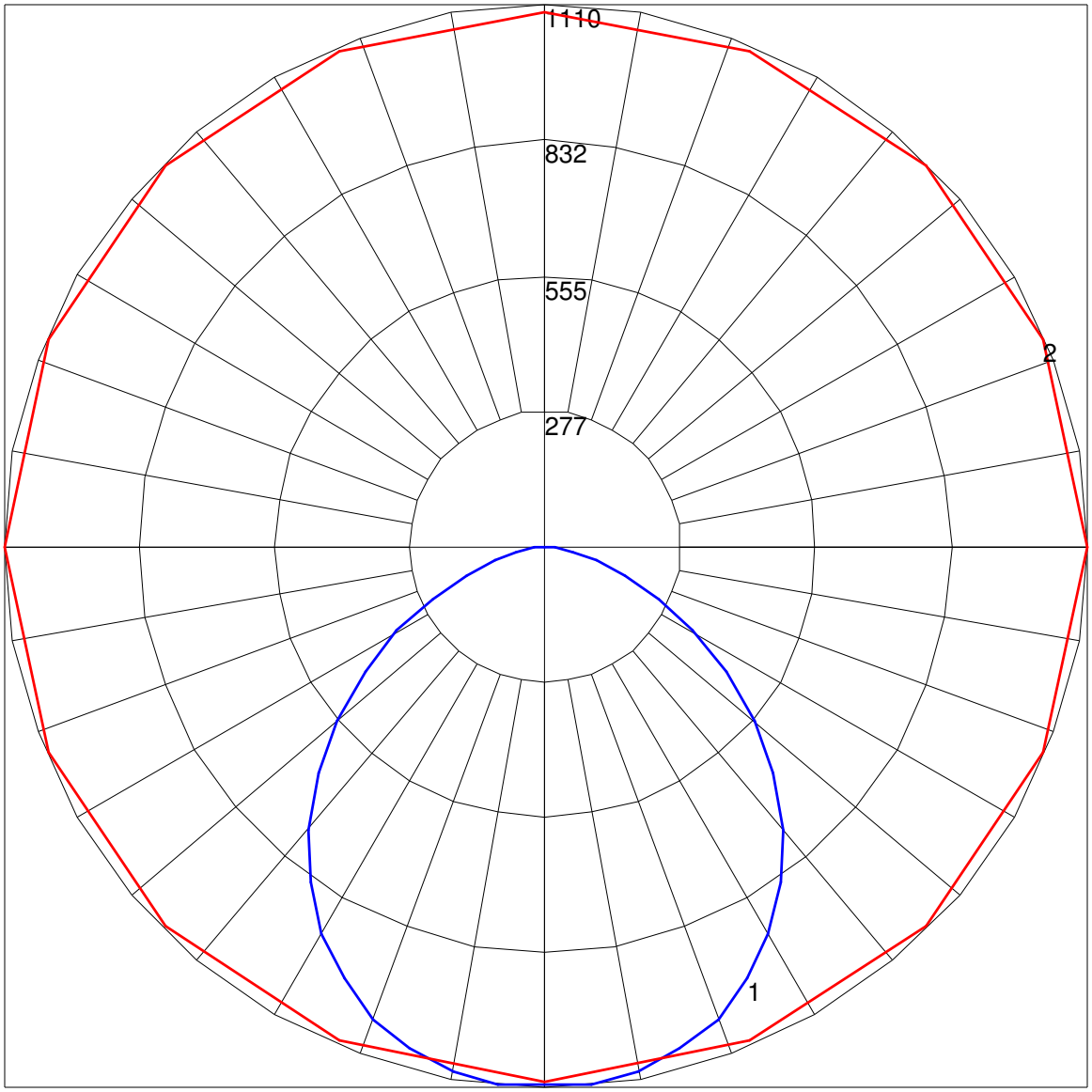
POLAR GRAPH



Maximum Candela = 1109.993 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

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