H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L26-827-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
[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-L26-827-RA-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAY

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2836
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
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	2665	2764	2854
55	2253	2482	2649
65	1722	2154	2395
75	1197	1910	2361
85	682	1558	1948

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1083.924	1083.924	1083.924	1083.924	1083.924
5	1087.569	1081.008	1079.551	1075.906	1075.906
10	1072.990	1066.430	1065.701	1062.056	1061.327
15	1047.477	1040.188	1039.459	1038.001	1037.272
20	1011.031	1004.470	1003.741	1004.470	1004.470
25	960.005	953.445	957.819	960.734	957.819
30	897.317	894.401	898.775	903.878	900.233
35	825.153	824.424	833.900	837.545	841.189
40	742.054	742.054	758.091	764.651	770.483
45	647.293	647.293	671.348	686.655	693.216
50	547.429	548.158	580.231	600.641	610.117
55	443.921	451.939	489.114	510.982	521.916
60	342.599	358.635	395.811	419.866	431.529
65	250.024	271.163	312.712	338.954	347.701
70	168.384	194.625	236.174	263.145	273.350
75	106.424	131.937	169.842	196.812	209.933
80	57.586	79.454	112.985	131.937	145.058
85	20.410	35.718	46.652	46.652	58.315
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	396.03	N.A.	14.00
0-30	836.86	N.A.	29.50
0-40	1356.66	N.A.	47.80
0-60	2304.76	N.A.	81.30
0-80	2784.25	N.A.	98.20
0-90	2836.14	N.A.	100.00
10-90	2733.54	N.A.	96.40
20-40	960.63	N.A.	33.90
20-50	1476.06	N.A.	52.00
40-70	1252.49	N.A.	44.20
60-80	479.49	N.A.	16.90
70-80	175.11	N.A.	6.20
80-90	51.88	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	2836.14	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	102.59
10-20	293.43
20-30	440.83
30-40	519.80
40-50	515.43
50-60	432.67
60-70	304.39
70-80	175.11
80-90	51.88
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					UGR Viewed Endwise				
X=2H	Y=2H	14.4	16.0	14.7	16.3	16.6	15.4	17.0	15.8	17.3	17.6
	3H	15.7	17.1	16.0	17.4	17.8	17.2	18.7	17.6	19.0	19.4
	4H	16.1	17.4	16.5	17.8	18.2	18.0	19.4	18.4	19.7	20.1
	6H	16.3	17.6	16.8	18.0	18.4	18.7	20.0	19.1	20.3	20.7
	8H	16.4	17.6	16.8	18.0	18.4	18.9	20.1	19.4	20.5	20.9
	12H	16.4	17.6	16.9	18.0	18.4	19.1	20.2	19.5	20.6	21.1
4H	2H	15.1	16.4	15.5	16.8	17.2	15.9	17.3	16.3	17.6	18.0
	3H	16.6	17.7	17.0	18.1	18.5	18.0	19.1	18.4	19.5	19.9
	4H	17.2	18.2	17.6	18.6	19.0	18.9	19.9	19.3	20.3	20.8
	6H	17.5	18.4	18.0	18.9	19.3	19.8	20.7	20.2	21.1	21.6
	8H	17.6	18.5	18.1	18.9	19.4	20.1	20.9	20.5	21.3	21.8
	12H	17.7	18.5	18.2	18.9	19.4	20.3	21.0	20.7	21.5	22.0
8H	4H	17.6	18.4	18.1	18.9	19.3	19.2	20.0	19.6	20.4	20.9
	6H	18.1	18.8	18.6	19.3	19.8	20.1	20.8	20.6	21.3	21.8
	8H	18.3	18.9	18.8	19.5	19.9	20.5	21.2	21.1	21.7	22.2
	12H	18.4	19.0	18.9	19.5	20.0	20.8	21.4	21.3	21.8	22.4
12H	4H	17.7	18.4	18.2	18.9	19.4	19.2	19.9	19.6	20.4	20.9
	6H	18.3	18.9	18.8	19.4	19.9	20.2	20.8	20.7	21.3	21.8
	8H	18.5	19.1	19.0	19.6	20.1	20.6	21.2	21.1	21.7	22.2

Maximum UGR = 22.4

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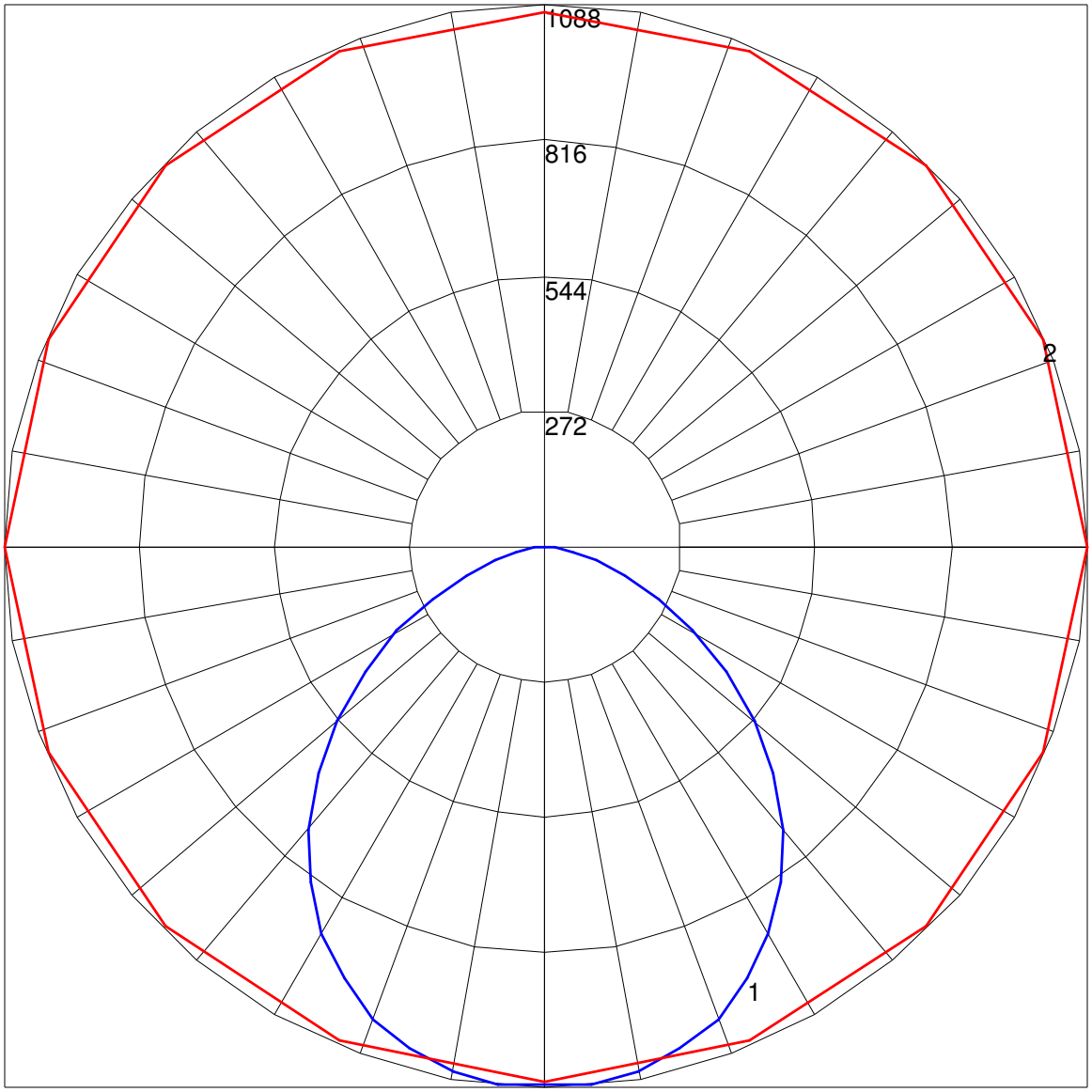
POLAR GRAPH



Maximum Candela = 1087.569 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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