H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-P22-835-SA-POE X.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM BALLABS TEST NO. 20789.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 16-MAY-2019
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1-84 LED 22"ARRAY 2x2 LUMINAIRE
[MORE] WHITE REFLECTOR w/FROST SQUARED RIBBED LENS
[LUMCAT] PT-22-P22-835-SA-POE x
[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2301
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	17
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.98 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2057	2027	1998
55	1849	1865	1917
65	1618	1765	1982
75	1261	1777	2297
85	656	1654	2228

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	911.995	911.995	911.995	911.995	911.995
5	911.995	906.111	902.328	902.749	901.908
10	892.662	888.039	884.256	882.575	881.315
15	861.141	857.779	853.576	850.214	849.374
20	825.418	819.955	809.868	807.767	805.665
25	773.304	771.203	759.435	753.551	749.769
30	714.046	710.683	702.698	693.452	687.148
35	647.222	648.062	637.976	628.730	624.947
40	578.717	580.819	570.732	564.428	561.906
45	513.155	511.894	505.590	503.488	498.445
50	443.389	444.650	438.766	443.809	439.607
55	374.044	377.826	377.406	387.913	387.913
60	305.959	308.481	319.408	333.698	340.002
65	241.237	247.541	263.092	283.685	295.453
70	175.675	186.602	212.659	239.136	253.425
75	115.155	134.488	162.226	192.906	209.717
80	60.940	82.794	113.894	144.154	159.704
85	20.173	33.622	50.853	62.201	68.505
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	326.37	N.A.	14.20
0-30	676.71	N.A.	29.40
0-40	1075.73	N.A.	46.70
0-60	1808.41	N.A.	78.60
0-80	2244.47	N.A.	97.50
0-90	2301.17	N.A.	100.00
10-90	2215.42	N.A.	96.30
20-40	749.36	N.A.	32.60
20-50	1140.74	N.A.	49.60
40-70	996.60	N.A.	43.30
60-80	436.06	N.A.	18.90
70-80	172.14	N.A.	7.50
80-90	56.70	N.A.	2.50
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	2301.17	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	85.75
10-20	240.62
20-30	350.34
30-40	399.02
40-50	391.38
50-60	341.30
60-70	263.92
70-80	172.14
80-90	56.70
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	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	80	72	65	88	78	71	64	75	69	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	51
5	76	63	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

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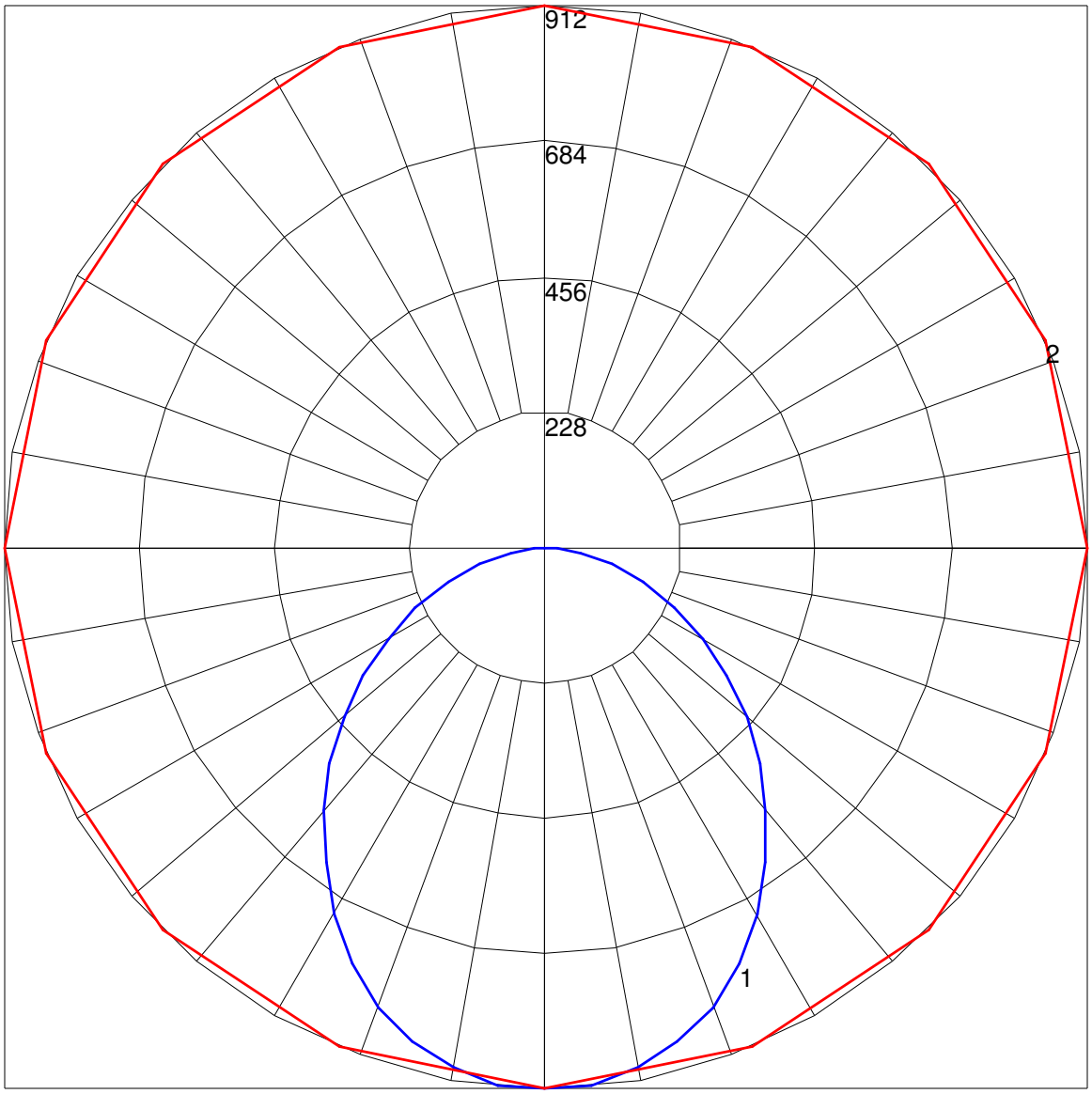
POLAR GRAPH



Maximum Candela = 911.995 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.)