H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-P31-835-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-P31-835-SA-POE x
[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3234
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
Total Luminaire Watts	25
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	2891	2849	2808
55	2598	2621	2694
65	2274	2480	2785
75	1773	2497	3228
85	922	2325	3131

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1281.786	1281.786	1281.786	1281.786	1281.786
5	1281.786	1273.517	1268.201	1268.791	1267.610
10	1254.615	1248.117	1242.801	1240.439	1238.666
15	1210.314	1205.588	1199.681	1194.956	1193.774
20	1160.105	1152.426	1138.250	1135.297	1132.343
25	1086.860	1083.907	1067.368	1059.098	1053.782
30	1003.574	998.848	987.625	974.630	965.770
35	909.655	910.836	896.660	883.665	878.349
40	813.373	816.327	802.150	793.290	789.746
45	721.226	719.454	710.594	707.641	700.552
50	623.173	624.945	616.675	623.763	617.857
55	525.710	531.026	530.435	545.202	545.202
60	430.019	433.563	448.921	469.004	477.864
65	339.053	347.913	369.769	398.712	415.252
70	246.906	262.264	298.887	336.100	356.183
75	161.848	189.019	228.004	271.124	294.752
80	85.649	116.365	160.076	202.605	224.460
85	28.353	47.255	71.473	87.421	96.282
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	458.71	N.A.	14.20
0-30	951.10	N.A.	29.40
0-40	1511.91	N.A.	46.70
0-60	2541.68	N.A.	78.60
0-80	3154.55	N.A.	97.50
0-90	3234.24	N.A.	100.00
10-90	3113.72	N.A.	96.30
20-40	1053.21	N.A.	32.60
20-50	1603.29	N.A.	49.60
40-70	1400.69	N.A.	43.30
60-80	612.87	N.A.	18.90
70-80	241.94	N.A.	7.50
80-90	79.69	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	3234.24	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	120.52
10-20	338.19
20-30	492.39
30-40	560.82
40-50	550.08
50-60	479.69
60-70	370.93
70-80	241.94
80-90	79.69
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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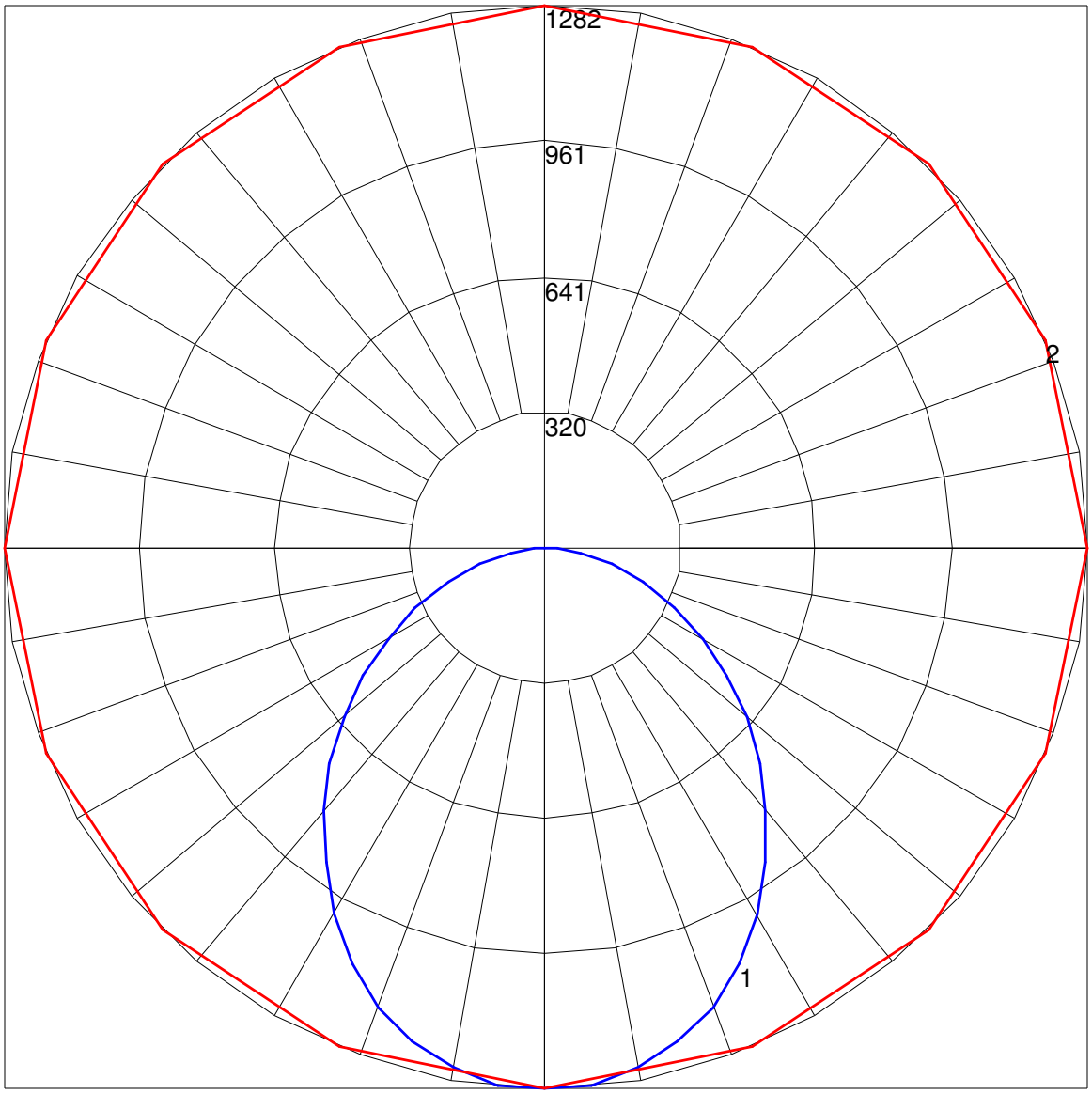
POLAR GRAPH



Maximum Candela = 1281.786 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.)