H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-P31-8TW-SA-POE X_4000K.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-P31-8TW-SA-POE x
[LAMPCAT] HLM 80 CRI TUNABLE WHITE CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3331
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
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	2978	2934	2893
55	2676	2700	2775
65	2342	2555	2869
75	1826	2572	3325
85	950	2394	3225

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1320.232	1320.232	1320.232	1320.232	1320.232
5	1320.232	1311.714	1306.239	1306.847	1305.630
10	1292.245	1285.553	1280.077	1277.644	1275.819
15	1246.615	1241.748	1235.664	1230.797	1229.580
20	1194.901	1186.992	1172.390	1169.348	1166.306
25	1119.459	1116.417	1099.382	1090.864	1085.389
30	1033.675	1028.807	1017.248	1003.863	994.737
35	936.939	938.156	923.554	910.169	904.693
40	837.769	840.811	826.210	817.084	813.433
45	742.859	741.033	731.907	728.865	721.565
50	641.864	643.689	635.171	642.472	636.388
55	541.478	546.953	546.345	561.555	561.555
60	442.916	446.567	462.385	483.071	492.197
65	349.223	358.349	380.860	410.671	427.706
70	254.312	270.130	307.851	346.181	366.866
75	166.702	194.689	234.843	279.256	303.592
80	88.218	119.855	164.877	208.682	231.193
85	29.203	48.672	73.617	90.043	99.169
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	472.46	N.A.	14.20
0-30	979.63	N.A.	29.40
0-40	1557.26	N.A.	46.70
0-60	2617.92	N.A.	78.60
0-80	3249.17	N.A.	97.50
0-90	3331.25	N.A.	100.00
10-90	3207.11	N.A.	96.30
20-40	1084.8	N.A.	32.60
20-50	1651.38	N.A.	49.60
40-70	1442.71	N.A.	43.30
60-80	631.25	N.A.	18.90
70-80	249.20	N.A.	7.50
80-90	82.08	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	3331.25	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	124.13
10-20	348.33
20-30	507.16
30-40	577.64
40-50	566.58
50-60	494.07
60-70	382.05
70-80	249.20
80-90	82.08
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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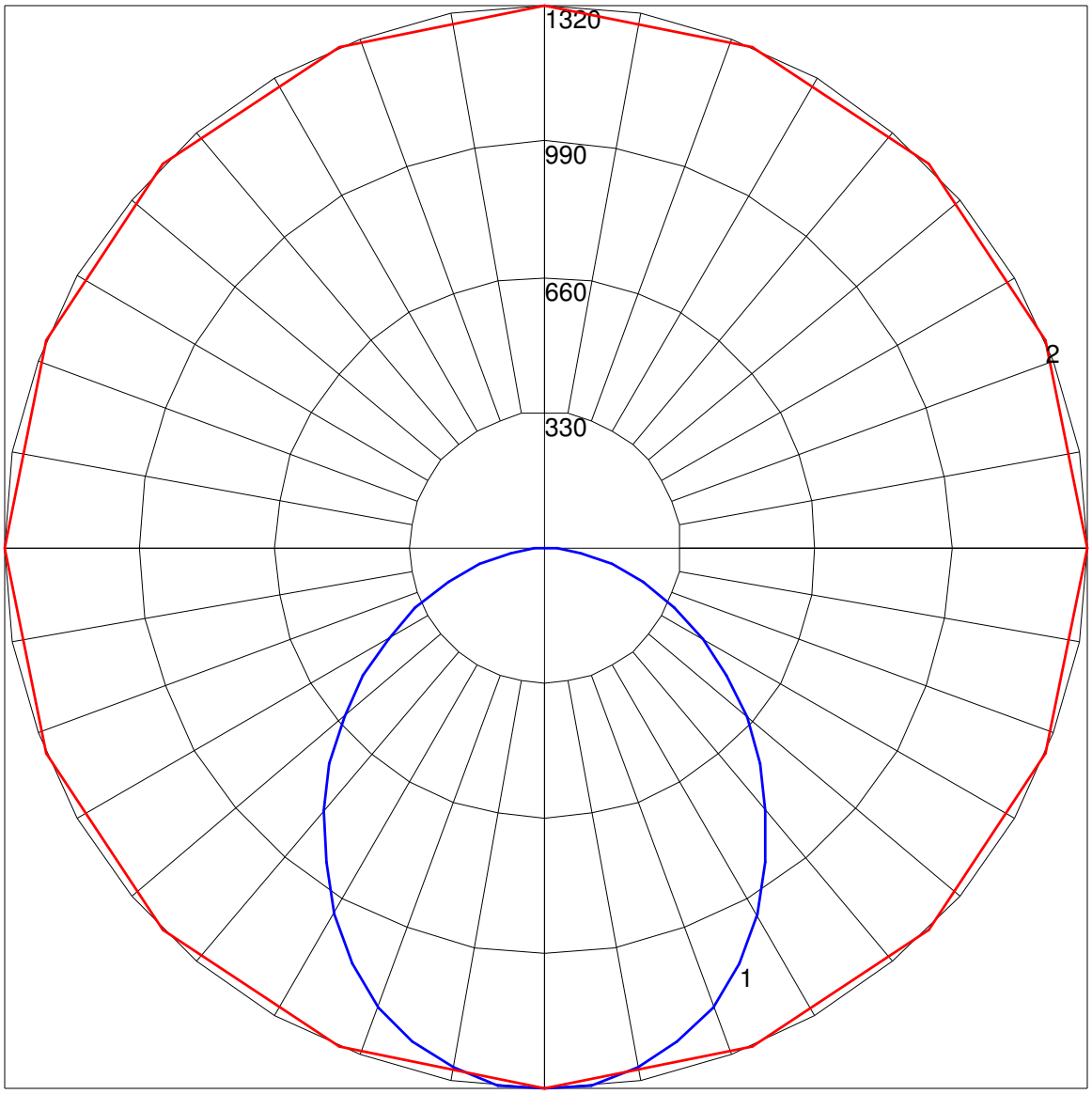
POLAR GRAPH



Maximum Candela = 1320.232 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.)