H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-24-P21-835-SA-POE X.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]GEN FROM BALLABS TEST NO. 20790.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 16-MAY-2019
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2-84 LED 22"ARRAYS w/WHITE REFLECTOR
[MORE] FROST SQUARED RIBBED LENS - 2x4 LUMINAIRE
[LUMCAT] PT-24-P21-835-SA-POE x
[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2207
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	138
Total Luminaire Watts	16
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 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	975	945	938
55	877	883	902
65	767	848	929
75	619	857	1069
85	287	925	1117

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	859.503	859.503	859.503	859.503	859.503
5	863.774	854.284	849.540	837.678	848.591
10	847.167	836.966	830.798	829.612	831.272
15	819.173	809.210	803.753	801.855	800.432
20	781.928	772.201	763.186	758.678	759.390
25	735.429	727.363	723.568	711.706	707.198
30	681.103	672.799	664.259	657.853	654.295
35	624.641	617.049	606.848	598.070	593.088
40	559.875	553.707	543.032	536.152	532.119
45	497.245	490.128	481.825	478.029	478.266
50	431.057	428.921	419.906	421.567	423.702
55	362.970	362.970	365.105	370.799	373.171
60	299.628	301.052	310.778	320.505	326.436
65	233.677	242.217	258.586	275.430	283.259
70	170.335	184.569	208.055	230.593	239.845
75	115.534	130.242	159.897	189.077	199.515
80	60.495	85.642	116.483	147.323	157.050
85	18.030	40.567	58.123	65.951	70.222
90	0.000	0.712	0.949	1.661	0.949

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	307.54	N.A.	13.90
0-30	639.00	N.A.	29.00
0-40	1018.78	N.A.	46.20
0-60	1721.76	N.A.	78.00
0-80	2147.24	N.A.	97.30
0-90	2207.1	N.A.	100.00
10-90	2126.44	N.A.	96.30
20-40	711.24	N.A.	32.20
20-50	1085.45	N.A.	49.20
40-70	959.48	N.A.	43.50
60-80	425.48	N.A.	19.30
70-80	168.98	N.A.	7.70
80-90	59.86	N.A.	2.70
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	2207.1	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	80.66
10-20	226.88
20-30	331.46
30-40	379.79
40-50	374.21
50-60	328.76
60-70	256.50
70-80	168.98
80-90	59.86
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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	83	70	62	55	80	69	61	55	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	54	47	60	52	47	58	51	46	56	50	46	44
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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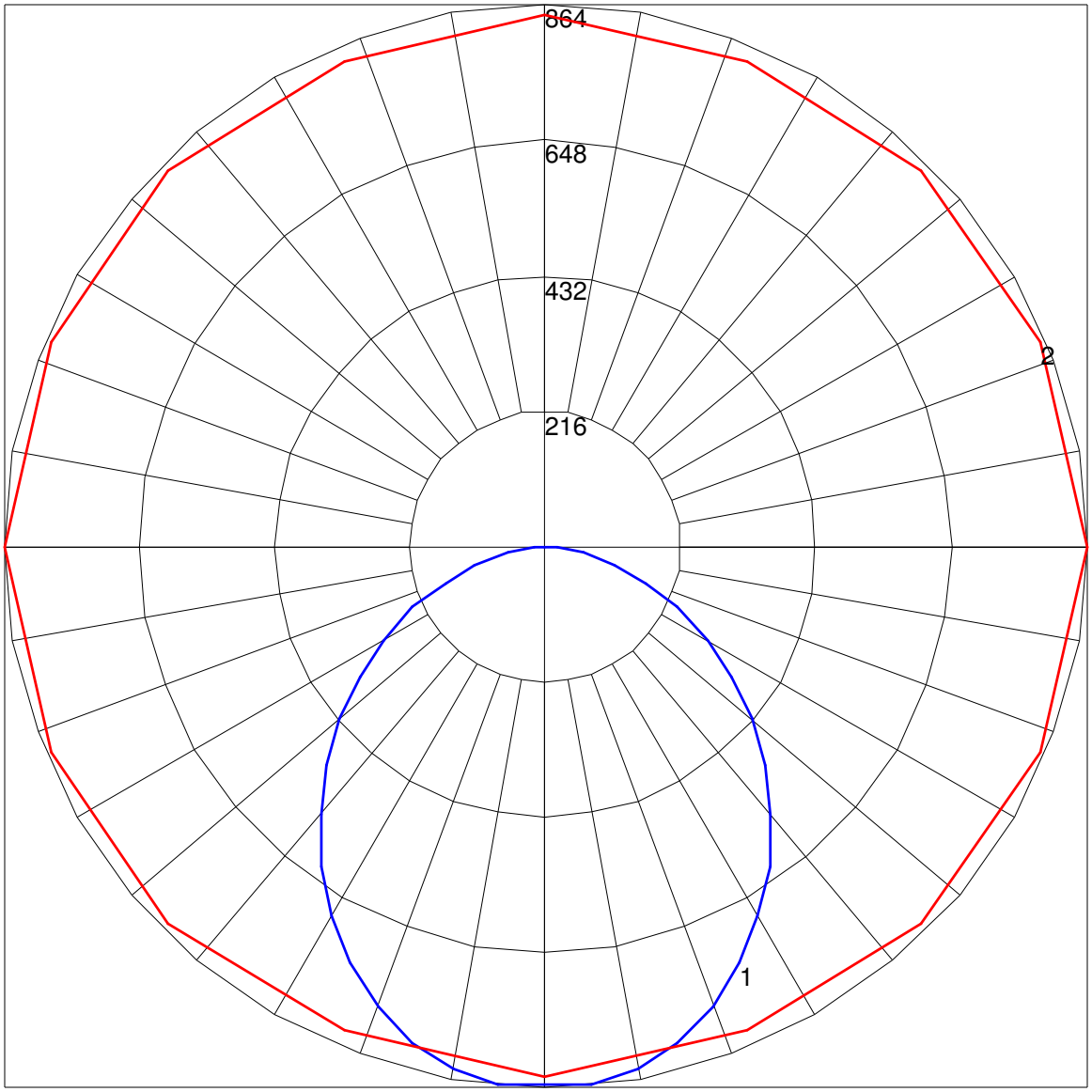
POLAR GRAPH



Maximum Candela = 863.774 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.)