H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L61-850-SA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] BALLABS TEST NO. 20789.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-06-23
[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
[MORE] ADVANCE #C1042C092V045CNN1
[LUMCAT] PT-22-L61-850-SA-DIM-UNV
[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6631
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	50.2
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	5928	5840	5758
55	5327	5375	5524
65	4663	5085	5710
75	3634	5120	6619
85	1891	4766	6420

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2627.981	2627.981	2627.981	2627.981	2627.981
5	2627.981	2611.026	2600.126	2601.338	2598.915
10	2572.272	2558.951	2548.051	2543.207	2539.574
15	2481.443	2471.755	2459.645	2449.956	2447.534
20	2378.504	2362.760	2333.695	2327.640	2321.585
25	2228.334	2222.279	2188.369	2171.414	2160.515
30	2057.576	2047.887	2024.877	1998.234	1980.068
35	1865.019	1867.441	1838.375	1811.732	1800.833
40	1667.617	1673.672	1644.607	1626.441	1619.175
45	1478.693	1475.060	1456.894	1450.839	1436.306
50	1277.659	1281.292	1264.337	1278.870	1266.759
55	1077.835	1088.735	1087.524	1117.800	1117.800
60	881.645	888.911	920.399	961.574	979.740
65	695.143	713.309	758.118	817.459	851.369
70	506.219	537.707	612.792	689.088	730.264
75	331.828	387.536	467.466	555.872	604.314
80	175.602	238.577	328.195	415.390	460.199
85	58.130	96.884	146.537	179.236	197.401
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	940.46	N.A.	14.20
0-30	1949.99	N.A.	29.40
0-40	3099.8	N.A.	46.70
0-60	5211.08	N.A.	78.60
0-80	6467.61	N.A.	97.50
0-90	6631.00	N.A.	100.00
10-90	6383.9	N.A.	96.30
20-40	2159.34	N.A.	32.60
20-50	3287.14	N.A.	49.60
40-70	2871.77	N.A.	43.30
60-80	1256.54	N.A.	18.90
70-80	496.04	N.A.	7.50
80-90	163.38	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	6631.00	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	247.10
10-20	693.37
20-30	1009.53
30-40	1149.81
40-50	1127.8
50-60	983.48
60-70	760.49
70-80	496.04
80-90	163.38
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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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	17.6	19.2	18.0	19.5	19.8	18.0	19.6	18.3	19.9	20.2
	3H	19.2	20.7	19.6	21.0	21.4	20.2	21.7	20.6	22.0	22.4
	4H	19.8	21.2	20.2	21.5	21.9	21.3	22.7	21.7	23.0	23.4
	6H	20.1	21.4	20.6	21.8	22.2	22.3	23.6	22.7	24.0	24.4
	8H	20.3	21.5	20.7	21.9	22.3	22.7	23.9	23.1	24.3	24.7
	12H	20.3	21.5	20.7	21.9	22.3	23.0	24.1	23.4	24.5	25.0
4H	2H	18.3	19.6	18.7	20.0	20.4	18.6	20.0	19.0	20.3	20.7
	3H	20.1	21.3	20.6	21.7	22.1	21.1	22.2	21.5	22.6	23.0
	4H	20.9	21.9	21.3	22.3	22.8	22.3	23.4	22.8	23.8	24.2
	6H	21.4	22.3	21.8	22.8	23.2	23.5	24.5	24.0	24.9	25.4
	8H	21.5	22.4	22.0	22.8	23.3	24.0	24.9	24.4	25.3	25.8
	12H	21.6	22.4	22.1	22.9	23.3	24.3	25.1	24.8	25.6	26.0
8H	4H	21.4	22.3	21.8	22.7	23.2	22.6	23.5	23.1	24.0	24.4
	6H	22.1	22.8	22.6	23.3	23.8	24.0	24.8	24.5	25.2	25.7
	8H	22.3	22.9	22.8	23.4	23.9	24.6	25.2	25.1	25.8	26.2
	12H	22.4	23.0	22.9	23.5	24.1	25.0	25.6	25.5	26.1	26.6
12H	4H	21.5	22.3	22.0	22.8	23.2	22.7	23.5	23.1	23.9	24.4
	6H	22.2	22.9	22.8	23.4	23.9	24.1	24.8	24.6	25.2	25.7
	8H	22.5	23.1	23.0	23.6	24.2	24.7	25.3	25.2	25.8	26.3

Maximum UGR = 26.6

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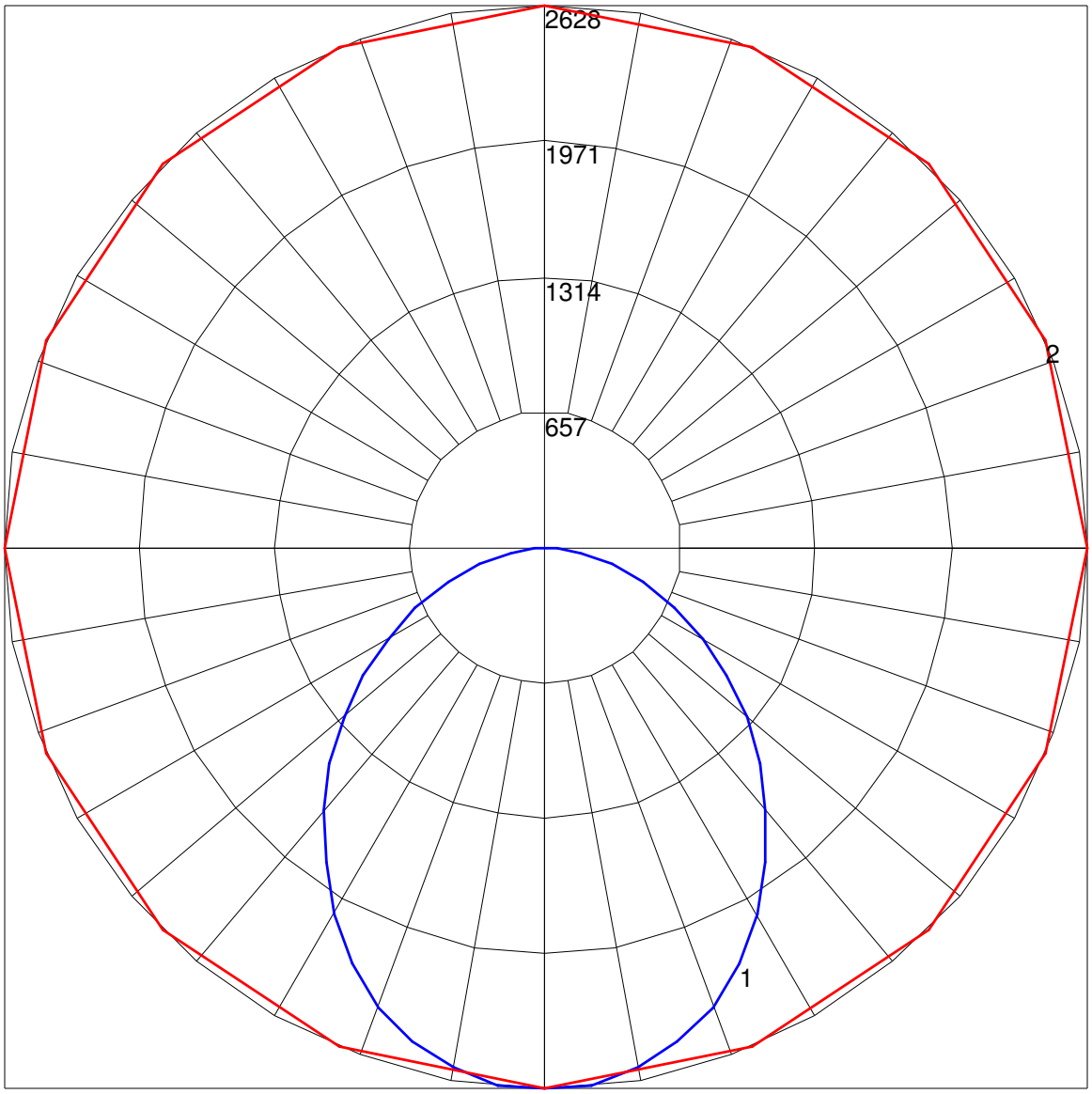
POLAR GRAPH



Maximum Candela = 2627.981 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.)

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