H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L52-840-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-L52-840-SA-DIM-UNV
[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5656
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	41.6
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	5056	4982	4911
55	4544	4584	4712
65	3977	4337	4871
75	3100	4367	5645
85	1613	4065	5476

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2241.604	2241.604	2241.604	2241.604	2241.604
5	2241.604	2227.142	2217.845	2218.878	2216.812
10	2194.086	2182.723	2173.426	2169.294	2166.195
15	2116.611	2108.347	2098.017	2089.753	2087.687
20	2028.806	2015.377	1990.585	1985.420	1980.255
25	1900.715	1895.550	1866.626	1852.164	1842.867
30	1755.062	1746.798	1727.171	1704.445	1688.950
35	1590.815	1592.881	1568.089	1545.364	1536.067
40	1422.437	1427.602	1402.810	1387.315	1381.117
45	1261.289	1258.190	1242.695	1237.530	1225.134
50	1089.812	1092.911	1078.449	1090.845	1080.515
55	919.367	928.664	927.631	953.456	953.456
60	752.022	758.220	785.078	820.200	835.695
65	592.940	608.435	646.656	697.273	726.197
70	431.793	458.651	522.696	587.775	622.897
75	283.041	330.559	398.737	474.146	515.466
80	149.785	203.500	279.942	354.318	392.539
85	49.584	82.640	124.993	152.884	168.379
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	802.19	N.A.	14.20
0-30	1663.29	N.A.	29.40
0-40	2644.05	N.A.	46.70
0-60	4444.92	N.A.	78.60
0-80	5516.72	N.A.	97.50
0-90	5656.08	N.A.	100.00
10-90	5445.31	N.A.	96.30
20-40	1841.86	N.A.	32.60
20-50	2803.85	N.A.	49.60
40-70	2449.55	N.A.	43.30
60-80	1071.79	N.A.	18.90
70-80	423.11	N.A.	7.50
80-90	139.36	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	5656.08	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	210.77
10-20	591.42
20-30	861.10
30-40	980.76
40-50	961.99
50-60	838.88
60-70	648.68
70-80	423.11
80-90	139.36
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	17.0	18.6	17.4	18.9	19.2	17.4	19.0	17.7	19.3	19.6
	3H	18.6	20.1	19.0	20.4	20.8	19.6	21.1	20.0	21.4	21.8
	4H	19.2	20.6	19.6	20.9	21.3	20.7	22.1	21.1	22.4	22.8
	6H	19.6	20.8	20.0	21.2	21.6	21.7	23.0	22.1	23.4	23.8
	8H	19.7	20.9	20.1	21.3	21.7	22.1	23.3	22.5	23.7	24.1
	12H	19.7	20.9	20.1	21.3	21.7	22.4	23.5	22.8	23.9	24.4
4H	2H	17.7	19.0	18.1	19.4	19.8	18.0	19.4	18.4	19.7	20.1
	3H	19.5	20.7	20.0	21.1	21.5	20.5	21.7	20.9	22.0	22.4
	4H	20.3	21.3	20.7	21.7	22.2	21.7	22.8	22.2	23.2	23.6
	6H	20.8	21.7	21.2	22.2	22.6	22.9	23.9	23.4	24.3	24.8
	8H	20.9	21.8	21.4	22.2	22.7	23.4	24.3	23.9	24.7	25.2
	12H	21.0	21.8	21.5	22.3	22.7	23.7	24.5	24.2	25.0	25.4
8H	4H	20.8	21.7	21.2	22.1	22.6	22.0	22.9	22.5	23.4	23.8
	6H	21.5	22.2	22.0	22.7	23.2	23.4	24.2	23.9	24.6	25.1
	8H	21.7	22.3	22.2	22.8	23.3	24.0	24.6	24.5	25.2	25.6
	12H	21.8	22.4	22.3	22.9	23.5	24.4	25.0	24.9	25.5	26.0
12H	4H	20.9	21.7	21.4	22.2	22.6	22.1	22.9	22.5	23.3	23.8
	6H	21.6	22.3	22.2	22.8	23.3	23.5	24.2	24.0	24.6	25.1
	8H	21.9	22.5	22.4	23.0	23.6	24.1	24.7	24.6	25.2	25.7

Maximum UGR = 26.0

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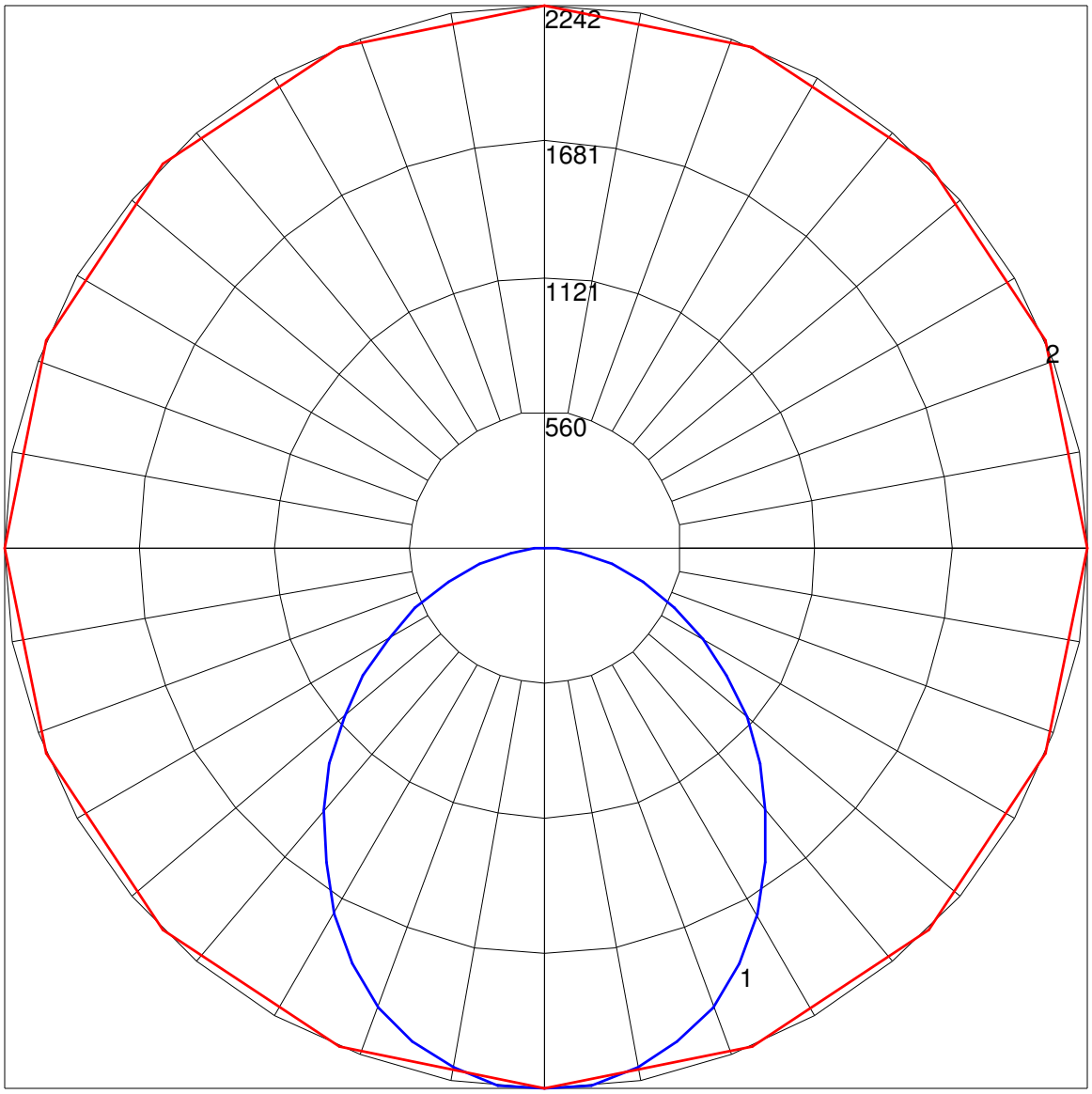
POLAR GRAPH



Maximum Candela = 2241.604 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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