H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-24-L61-850-SA-DIM-UNV_.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] 2023-06-27
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2 X 4 RECESSED LED LUMINAIRE WITH
[MORE] FROST SQUARED RIBBED LENS
[MORE] 0-10V DRIVER
[LUMCAT] PT-24-L61-850-SA-DIM-UNV
[LAMPCAT] 22 INCH LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] INDOOR
[_SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6749
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	148
Total Luminaire Watts	45.5
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)	0.98 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6030	5843	5800
55	5426	5458	5579
65	4741	5247	5747
75	3828	5297	6610
85	1774	5718	6909

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2628.132	2628.132	2628.132	2628.132	2628.132
5	2641.189	2612.173	2597.665	2561.395	2594.763
10	2590.411	2559.219	2540.358	2536.731	2541.809
15	2504.814	2474.347	2457.662	2451.859	2447.507
20	2390.925	2361.184	2333.619	2319.836	2322.012
25	2248.747	2224.083	2212.476	2176.206	2162.424
30	2082.629	2057.240	2031.126	2011.540	2000.659
35	1909.984	1886.771	1855.579	1828.739	1813.505
40	1711.949	1693.089	1660.445	1639.409	1627.077
45	1520.443	1498.681	1473.292	1461.685	1462.411
50	1318.056	1311.527	1283.962	1289.040	1295.568
55	1109.865	1109.865	1116.394	1133.804	1141.058
60	916.183	920.535	950.277	980.018	998.153
65	714.521	740.636	790.688	842.192	866.130
70	520.839	564.363	636.178	705.091	733.382
75	353.271	398.246	488.921	578.145	610.063
80	184.978	261.870	356.172	450.475	480.216
85	55.131	124.044	177.724	201.662	214.719
90	0.000	2.176	2.902	5.078	2.902

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	940.38	N.A.	13.90
0-30	1953.88	N.A.	29.00
0-40	3115.17	N.A.	46.20
0-60	5264.67	N.A.	78.00
0-80	6565.69	N.A.	97.30
0-90	6748.72	N.A.	100.00
10-90	6502.1	N.A.	96.30
20-40	2174.79	N.A.	32.20
20-50	3319.02	N.A.	49.20
40-70	2933.82	N.A.	43.50
60-80	1301.02	N.A.	19.30
70-80	516.70	N.A.	7.70
80-90	183.03	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	6748.72	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	246.63
10-20	693.75
20-30	1013.51
30-40	1161.28
40-50	1144.23
50-60	1005.27
60-70	784.32
70-80	516.70
80-90	183.03
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	103	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	82	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	36	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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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	19.6	19.9	17.9	19.5	18.3	19.9	20.2
	3H	19.3	20.7	19.6	21.1	21.4	20.2	21.7	20.6	22.0	22.3
	4H	19.9	21.2	20.3	21.6	22.0	21.3	22.7	21.7	23.0	23.4
	6H	20.2	21.5	20.7	21.9	22.3	22.3	23.6	22.7	24.0	24.4
	8H	20.3	21.6	20.8	22.0	22.4	22.7	24.0	23.1	24.4	24.8
	12H	20.4	21.6	20.8	22.0	22.4	23.0	24.2	23.4	24.6	25.0
4H	2H	18.3	19.7	18.7	20.1	20.4	18.6	19.9	19.0	20.3	20.7
	3H	20.2	21.4	20.6	21.8	22.2	21.1	22.2	21.5	22.6	23.0
	4H	21.0	22.0	21.4	22.4	22.9	22.3	23.4	22.8	23.8	24.2
	6H	21.5	22.4	22.0	22.9	23.3	23.6	24.5	24.0	25.0	25.4
	8H	21.7	22.5	22.1	23.0	23.4	24.1	24.9	24.5	25.4	25.9
	12H	21.7	22.5	22.2	23.0	23.5	24.4	25.2	24.9	25.7	26.2
8H	4H	21.5	22.4	21.9	22.8	23.3	22.7	23.5	23.1	24.0	24.4
	6H	22.2	22.9	22.7	23.4	23.9	24.1	24.9	24.6	25.3	25.8
	8H	22.5	23.1	23.0	23.6	24.1	24.7	25.4	25.2	25.9	26.4
	12H	22.6	23.2	23.1	23.7	24.3	25.2	25.8	25.7	26.3	26.8
12H	4H	21.6	22.4	22.1	22.9	23.3	22.7	23.5	23.2	24.0	24.4
	6H	22.4	23.1	22.9	23.5	24.1	24.2	24.9	24.7	25.3	25.9
	8H	22.7	23.3	23.3	23.8	24.4	24.9	25.4	25.4	25.9	26.5

Maximum UGR = 26.8

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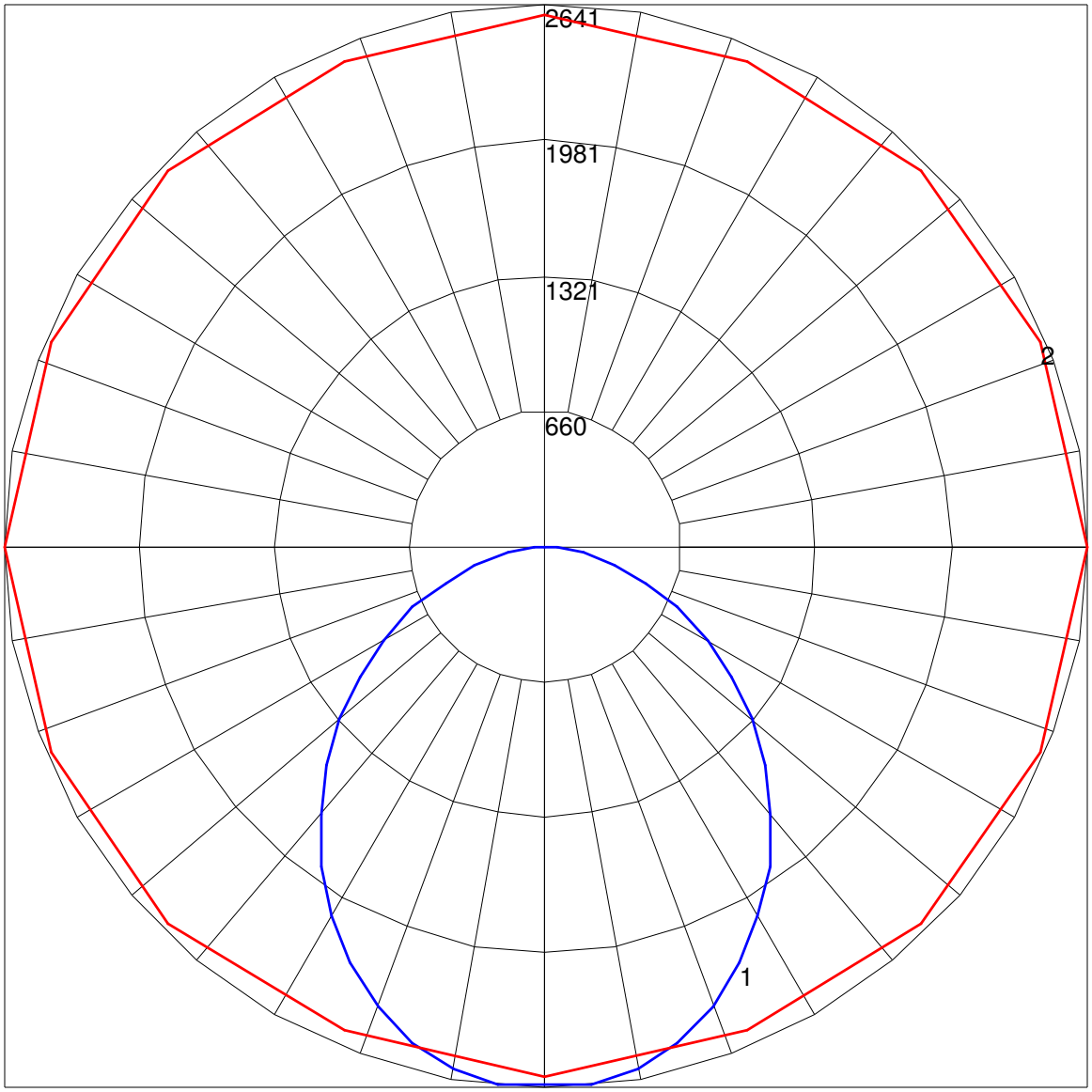
POLAR GRAPH



Maximum Candela = 2641.189 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.)

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