H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L80-930-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] 2023-06-23
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1 X 4 RECESSED LED LUMINAIRE
[MORE] W/ FROSTED SQUARE RIBBED LENS
[MORE] 0-10V LED DRIVER
[LUMCAT] PT-14-L80-930-SA-DIM-UNV
[LAMPCAT] HLM 22" LED ARRAYS

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6821
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	61.9
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	6094	5905	5862
55	5484	5516	5638
65	4792	5303	5809
75	3869	5354	6681
85	1793	5779	6982

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2656.163	2656.163	2656.163	2656.163	2656.163
5	2669.359	2640.033	2625.371	2588.714	2622.438
10	2618.039	2586.514	2567.453	2563.787	2568.919
15	2531.529	2500.737	2483.875	2478.010	2473.611
20	2416.426	2386.367	2358.508	2344.578	2346.778
25	2272.731	2247.804	2236.074	2199.417	2185.487
30	2104.842	2079.182	2052.789	2032.994	2021.997
35	1930.355	1906.894	1875.370	1848.243	1832.847
40	1730.208	1711.146	1678.155	1656.894	1644.431
45	1536.659	1514.665	1489.005	1477.275	1478.008
50	1332.114	1325.515	1297.656	1302.788	1309.386
55	1121.703	1121.703	1128.301	1145.896	1153.228
60	925.955	930.353	960.412	990.471	1008.799
65	722.142	748.535	799.121	851.174	875.368
70	526.394	570.382	642.963	712.611	741.204
75	357.039	402.493	494.136	584.312	616.570
80	186.950	264.663	359.971	455.279	485.338
85	55.719	125.367	179.619	203.813	217.009
90	0.000	2.199	2.933	5.132	2.933

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	950.41	N.A.	13.90
0-30	1974.72	N.A.	29.00
0-40	3148.39	N.A.	46.20
0-60	5320.82	N.A.	78.00
0-80	6635.71	N.A.	97.30
0-90	6820.7	N.A.	100.00
10-90	6571.44	N.A.	96.30
20-40	2197.98	N.A.	32.20
20-50	3354.42	N.A.	49.20
40-70	2965.12	N.A.	43.50
60-80	1314.89	N.A.	19.30
70-80	522.21	N.A.	7.70
80-90	184.99	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	6820.7	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	249.26
10-20	701.15
20-30	1024.32
30-40	1173.67
40-50	1156.43
50-60	1016.00
60-70	792.68
70-80	522.21
80-90	184.99
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	17.7	19.3	18.1	19.7	20.0	18.0	19.6	18.4	20.0	20.3
	3H	19.4	20.8	19.7	21.2	21.5	20.3	21.8	20.7	22.1	22.4
	4H	20.0	21.3	20.4	21.7	22.1	21.4	22.8	21.8	23.1	23.5
	6H	20.3	21.6	20.8	22.0	22.4	22.4	23.7	22.8	24.1	24.5
	8H	20.4	21.7	20.9	22.1	22.5	22.8	24.1	23.2	24.5	24.9
	12H	20.5	21.7	20.9	22.1	22.5	23.1	24.3	23.5	24.7	25.1
4H	2H	18.4	19.8	18.8	20.2	20.5	18.7	20.0	19.1	20.4	20.8
	3H	20.3	21.5	20.7	21.9	22.3	21.2	22.3	21.6	22.7	23.1
	4H	21.1	22.1	21.5	22.5	23.0	22.4	23.5	22.9	23.9	24.3
	6H	21.6	22.5	22.1	23.0	23.4	23.7	24.6	24.1	25.1	25.5
	8H	21.8	22.6	22.2	23.1	23.5	24.2	25.0	24.6	25.5	26.0
	12H	21.8	22.6	22.3	23.1	23.6	24.5	25.3	25.0	25.8	26.3
8H	4H	21.6	22.5	22.0	22.9	23.4	22.8	23.6	23.2	24.1	24.5
	6H	22.3	23.0	22.8	23.5	24.0	24.2	25.0	24.7	25.4	25.9
	8H	22.6	23.2	23.1	23.7	24.2	24.8	25.5	25.3	26.0	26.5
	12H	22.7	23.3	23.2	23.8	24.4	25.3	25.9	25.8	26.4	26.9
12H	4H	21.7	22.5	22.2	23.0	23.4	22.8	23.6	23.3	24.1	24.5
	6H	22.5	23.2	23.0	23.6	24.2	24.3	25.0	24.8	25.4	26.0
	8H	22.8	23.4	23.4	23.9	24.5	25.0	25.5	25.5	26.0	26.6

Maximum UGR = 26.9

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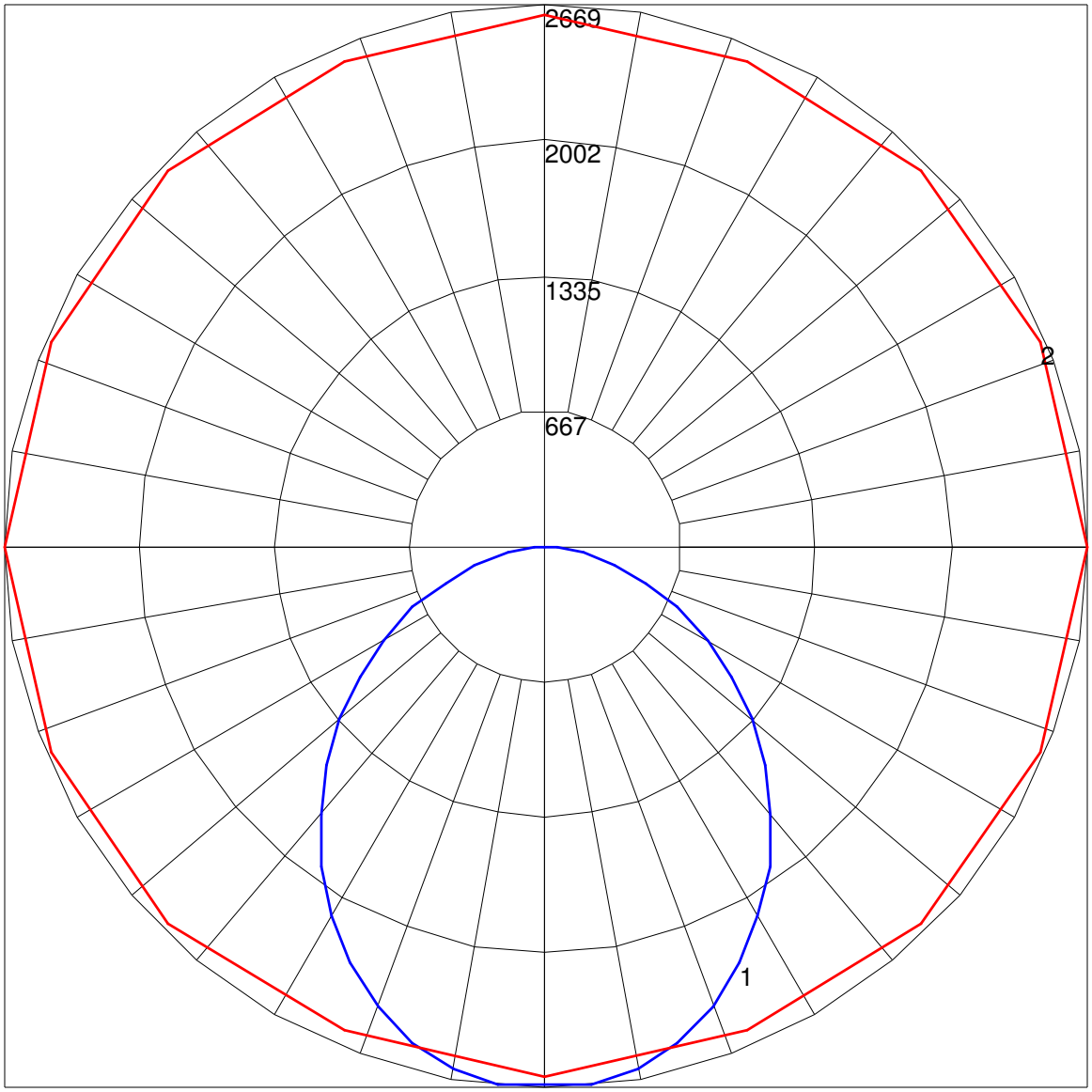
POLAR GRAPH



Maximum Candela = 2669.359 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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