H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 76R-4-L72-835-(L61)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN from BALLABS TEST NO. 20990.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 02-13-2023
[MANUFAC] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 72 LED 23.75", 68 LED 22.375"ARRAYS 4' 76R SURFACE LUMINAIRE
[MORE] WHITE REFLECTOR w/RADIAL RIBBED FROST ACRYLIC LENS
[LUMCAT] 76R-4-L72-835-(L61)-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6074
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	144
Total Luminaire Watts	42.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.98 ft
Luminous Width (90-270)	0.38 ft
Luminous Height	0.15 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	10628	9740	9995
55	9062	8441	8887
65	7290	6992	7695
75	5654	5928	6649
85	2653	5344	6190

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1961.416	1961.416	1961.416	1961.416	1961.416
5	1977.861	1951.928	1946.868	1946.868	1941.175
10	1941.808	1919.670	1920.935	1925.995	1919.670
15	1876.659	1859.582	1873.497	1888.677	1886.779
20	1792.535	1785.578	1808.348	1836.179	1837.444
25	1676.153	1683.744	1724.857	1761.542	1771.030
30	1553.446	1566.729	1625.553	1672.991	1691.334
35	1400.379	1431.372	1509.171	1571.157	1592.662
40	1254.269	1287.792	1381.403	1468.057	1488.298
45	1080.961	1129.664	1243.516	1337.128	1362.428
50	919.038	979.127	1103.731	1206.830	1234.661
55	759.013	817.836	960.784	1067.678	1100.569
60	607.210	673.624	820.366	919.038	956.356
65	461.100	531.309	674.889	800.759	827.957
70	340.291	402.277	552.814	674.889	707.147
75	230.866	299.810	452.245	561.670	585.705
80	128.400	212.524	361.796	461.100	495.256
85	45.541	143.580	287.160	379.506	407.969
90	0.000	94.877	223.909	314.358	332.701
95	0.000	60.721	176.470	257.432	285.262
100	0.000	40.481	135.357	213.156	235.294
105	0.000	27.198	106.894	172.043	196.711
110	0.000	12.650	84.756	141.050	164.453
115	0.000	8.223	67.679	118.912	135.357
120	0.000	0.000	53.763	97.407	114.484
125	0.000	0.000	41.746	77.799	91.082
130	0.000	0.000	32.891	61.354	72.739
135	0.000	0.000	26.565	47.438	58.191
140	0.000	0.000	13.915	36.053	44.276
145	0.000	0.000	5.060	27.830	32.258
150	0.000	0.000	0.000	24.035	27.198
155	0.000	0.000	0.000	22.770	24.035
160	0.000	0.000	0.000	13.283	22.138
165	0.000	0.000	0.000	4.428	7.590
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	714.72	N.A.	11.80
0-30	1508.8	N.A.	24.80
0-40	2449.2	N.A.	40.30
0-60	4247.66	N.A.	69.90
0-80	5365.72	N.A.	88.30
0-90	5653.39	N.A.	93.10
10-90	5467.98	N.A.	90.00
20-40	1734.48	N.A.	28.60
20-50	2687.49	N.A.	44.20
40-70	2457.95	N.A.	40.50
60-80	1118.06	N.A.	18.40
70-80	458.57	N.A.	7.60
80-90	287.68	N.A.	4.70
90-110	284.39	N.A.	4.70
90-120	349.93	N.A.	5.80
90-130	387.58	N.A.	6.40
90-150	415.74	N.A.	6.80
90-180	420.38	N.A.	6.90
110-180	135.99	N.A.	2.20
0-180	6073.77	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	185.42
10-20	529.30
20-30	794.08
30-40	940.40
40-50	953.01
50-60	845.45
60-70	659.49
70-80	458.57
80-90	287.68
90-100	176.05
100-110	108.34
110-120	65.54
120-130	37.66
130-140	19.92
140-150	8.24
150-160	3.84
160-170	0.79
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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93
1	106	101	96	92	102	98	93	90	92	89	85	87	84	82	82	80	78	75
2	96	87	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	88	77	68	61	84	74	67	60	70	64	58	67	61	57	63	59	55	52
4	80	68	59	52	77	66	58	51	63	55	50	59	53	48	57	51	47	45
5	74	61	51	45	71	59	51	44	56	49	43	53	47	42	51	45	41	39
6	68	55	46	39	66	53	45	39	51	43	38	48	42	37	46	40	36	34
7	63	49	41	34	61	48	40	34	46	39	33	44	38	33	42	36	32	30
8	59	45	37	31	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	28	53	41	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	24	22

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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	17.2	18.7	17.6	19.1	19.6	20.2	21.7	20.7	22.1	22.6
	3H	18.4	19.7	18.9	20.2	20.7	22.4	23.8	22.9	24.3	24.8
	4H	18.8	20.1	19.3	20.5	21.1	23.5	24.8	24.0	25.3	25.8
	6H	19.0	20.2	19.5	20.7	21.2	24.6	25.8	25.1	26.3	26.8
	8H	19.0	20.2	19.6	20.7	21.3	25.2	26.3	25.7	26.8	27.4
	12H	19.0	20.1	19.6	20.7	21.3	25.8	26.9	26.3	27.4	28.0
4H	2H	18.1	19.4	18.6	19.9	20.4	20.5	21.8	21.0	22.3	22.8
	3H	19.6	20.7	20.1	21.2	21.8	23.0	24.1	23.5	24.6	25.2
	4H	20.1	21.1	20.6	21.6	22.2	24.2	25.2	24.7	25.8	26.4
	6H	20.4	21.3	20.9	21.8	22.5	25.5	26.4	26.1	27.0	27.6
	8H	20.5	21.3	21.0	21.9	22.5	26.2	27.0	26.7	27.6	28.2
	12H	20.5	21.3	21.1	21.9	22.5	26.9	27.7	27.5	28.3	28.9
8H	4H	20.8	21.6	21.4	22.2	22.8	24.4	25.2	24.9	25.8	26.4
	6H	21.3	22.0	21.9	22.6	23.3	25.8	26.5	26.4	27.1	27.8
	8H	21.5	22.1	22.1	22.7	23.4	26.6	27.3	27.2	27.9	28.5
	12H	21.6	22.2	22.2	22.8	23.5	27.6	28.1	28.2	28.7	29.4
12H	4H	21.0	21.8	21.6	22.4	23.0	24.4	25.1	25.0	25.7	26.4
	6H	21.6	22.3	22.3	22.9	23.5	25.9	26.5	26.5	27.1	27.8
	8H	21.9	22.5	22.5	23.1	23.8	26.7	27.3	27.3	27.9	28.6

Maximum UGR = 29.4

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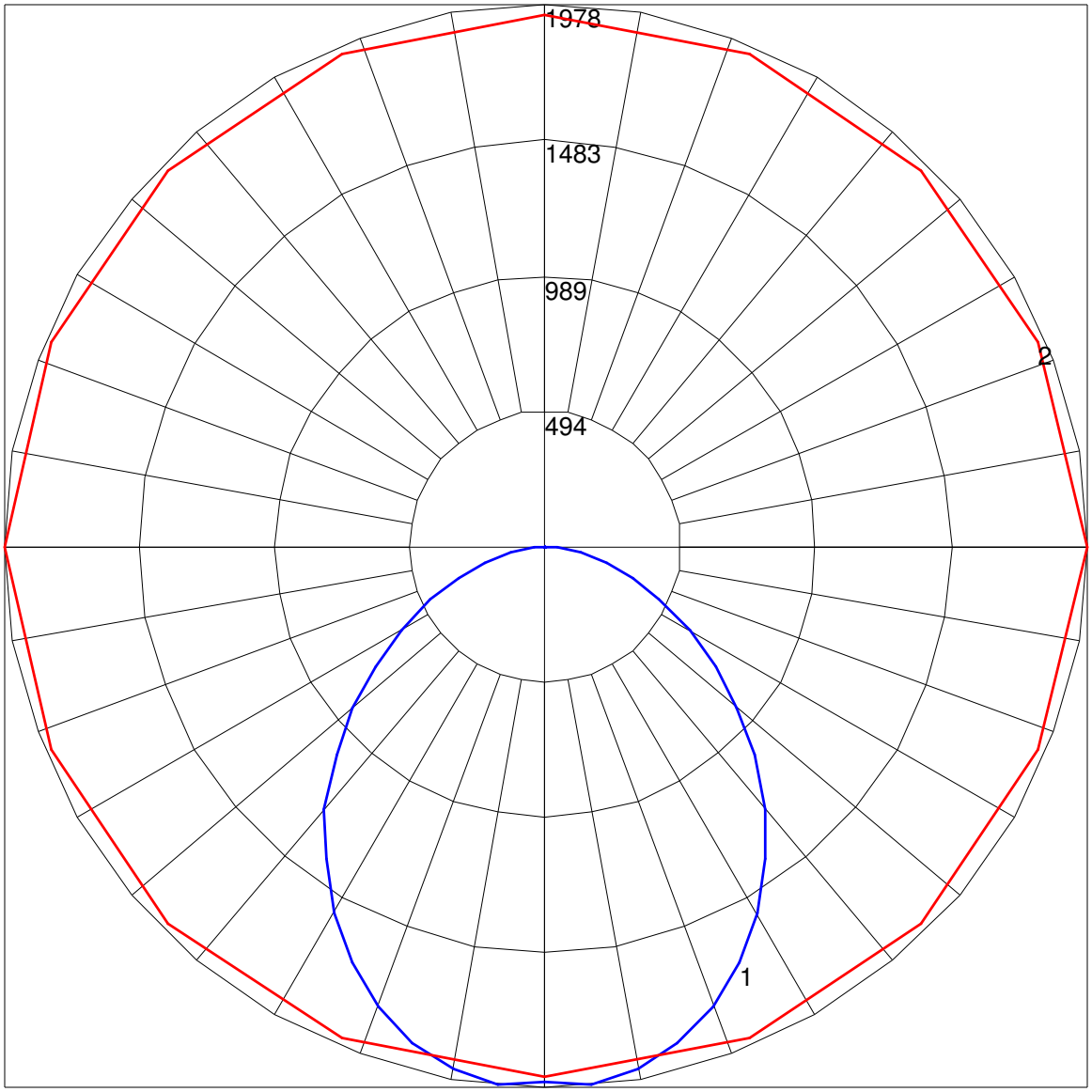
POLAR GRAPH



Maximum Candela = 1977.861 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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