H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 76R-4-L52-940-(L50)-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] 04-04-2024
[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-L52-940-(L50)-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4428
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	35.4
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	7748	7101	7286
55	6606	6153	6479
65	5314	5097	5610
75	4122	4322	4847
85	1934	3896	4513

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1429.889	1429.889	1429.889	1429.889	1429.889
5	1441.878	1422.973	1419.284	1419.284	1415.134
10	1415.595	1399.456	1400.379	1404.068	1399.456
15	1368.101	1355.651	1365.796	1376.862	1375.479
20	1306.774	1301.702	1318.302	1338.590	1339.513
25	1221.931	1227.464	1257.436	1284.180	1291.097
30	1132.476	1142.159	1185.042	1219.625	1232.997
35	1020.888	1043.483	1100.199	1145.387	1161.065
40	914.373	938.812	1007.055	1070.227	1084.982
45	788.030	823.535	906.534	974.778	993.222
50	669.987	713.792	804.630	879.790	900.079
55	553.327	596.210	700.420	778.347	802.324
60	442.662	491.078	598.054	669.987	697.192
65	336.146	387.329	492.000	583.760	603.588
70	248.075	293.263	403.007	492.000	515.516
75	168.304	218.564	329.691	409.462	426.984
80	93.605	154.932	263.753	336.146	361.046
85	33.200	104.671	209.342	276.664	297.413
90	0.000	69.166	163.231	229.170	242.542
95	0.000	44.266	128.649	187.670	207.959
100	0.000	29.511	98.677	155.393	171.531
105	0.000	19.828	77.927	125.421	143.404
110	0.000	9.222	61.788	102.827	119.888
115	0.000	5.994	49.338	86.688	98.677
120	0.000	0.000	39.194	71.010	83.460
125	0.000	0.000	30.433	56.716	66.399
130	0.000	0.000	23.978	44.727	53.027
135	0.000	0.000	19.366	34.583	42.422
140	0.000	0.000	10.144	26.283	32.277
145	0.000	0.000	3.689	20.289	23.516
150	0.000	0.000	0.000	17.522	19.828
155	0.000	0.000	0.000	16.600	17.522
160	0.000	0.000	0.000	9.683	16.139
165	0.000	0.000	0.000	3.228	5.533
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	521.03	N.A.	11.80
0-30	1099.93	N.A.	24.80
0-40	1785.49	N.A.	40.30
0-60	3096.58	N.A.	69.90
0-80	3911.66	N.A.	88.30
0-90	4121.37	N.A.	93.10
10-90	3986.2	N.A.	90.00
20-40	1264.45	N.A.	28.60
20-50	1959.21	N.A.	44.20
40-70	1791.87	N.A.	40.50
60-80	815.08	N.A.	18.40
70-80	334.30	N.A.	7.50
80-90	209.72	N.A.	4.70
90-110	207.32	N.A.	4.70
90-120	255.10	N.A.	5.80
90-130	282.55	N.A.	6.40
90-150	303.08	N.A.	6.80
90-180	306.46	N.A.	6.90
110-180	99.13	N.A.	2.20
0-180	4427.83	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	135.17
10-20	385.86
20-30	578.89
30-40	685.56
40-50	694.76
50-60	616.34
60-70	480.77
70-80	334.30
80-90	209.72
90-100	128.35
100-110	78.98
110-120	47.78
120-130	27.45
130-140	14.52
140-150	6.01
150-160	2.80
160-170	0.58
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	16.1	17.6	16.5	18.0	18.5	19.1	20.6	19.6	21.0	21.5
	3H	17.3	18.6	17.8	19.1	19.6	21.3	22.7	21.8	23.2	23.7
	4H	17.7	19.0	18.2	19.4	20.0	22.4	23.7	22.9	24.2	24.7
	6H	17.9	19.1	18.4	19.6	20.1	23.5	24.7	24.0	25.2	25.7
	8H	17.9	19.1	18.5	19.6	20.2	24.1	25.2	24.6	25.7	26.3
	12H	17.9	19.0	18.5	19.6	20.2	24.7	25.8	25.2	26.3	26.9
4H	2H	17.0	18.3	17.5	18.8	19.3	19.4	20.7	19.9	21.2	21.7
	3H	18.5	19.6	19.0	20.1	20.7	21.9	23.0	22.4	23.5	24.1
	4H	19.0	20.0	19.5	20.5	21.1	23.1	24.1	23.6	24.7	25.3
	6H	19.3	20.2	19.8	20.7	21.4	24.4	25.3	25.0	25.9	26.5
	8H	19.4	20.2	19.9	20.8	21.4	25.1	25.9	25.6	26.5	27.1
	12H	19.4	20.2	20.0	20.8	21.4	25.8	26.6	26.4	27.2	27.8
8H	4H	19.7	20.5	20.3	21.1	21.7	23.3	24.1	23.8	24.7	25.3
	6H	20.2	20.9	20.8	21.5	22.2	24.7	25.4	25.3	26.0	26.7
	8H	20.4	21.0	21.0	21.6	22.3	25.5	26.2	26.1	26.8	27.4
	12H	20.5	21.1	21.1	21.7	22.4	26.5	27.0	27.1	27.6	28.3
12H	4H	19.9	20.7	20.5	21.3	21.9	23.3	24.0	23.9	24.6	25.3
	6H	20.5	21.2	21.2	21.8	22.4	24.8	25.4	25.4	26.0	26.7
	8H	20.8	21.4	21.4	22.0	22.7	25.6	26.2	26.2	26.8	27.5

Maximum UGR = 28.3

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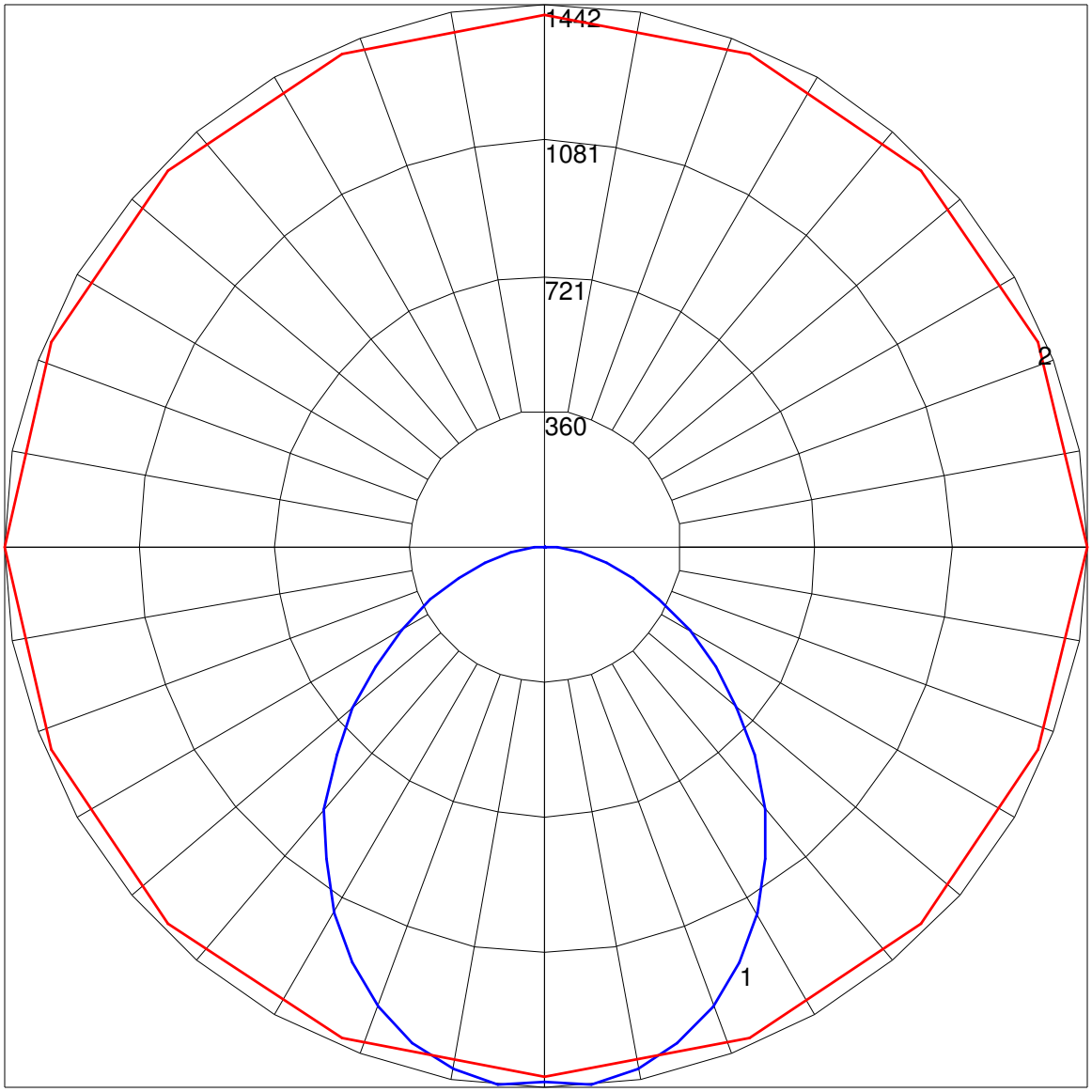
POLAR GRAPH



Maximum Candela = 1441.878 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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