IES INDOOR REPORT
PHOTOMETRIC FILENAME : 76R-8-L144-840-DRV-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] 10-FEB-2020
[MANUFAC] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 72 LED 23.75", 68 LED 22.375"ARRAYS 8' 76R SURFACE LUMINAIRE
[MORE] WHITE REFLECTOR w/RADIAL RIBBED FROST ACRYLIC LENS
[LUMCAT] 76R-8-L144/840-DRV-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	14424
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	144
Total Luminaire Watts	100.5
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)	7.98 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	12814	11652	11837
55	11007	10128	10525
65	8961	8424	9113
75	7127	7185	7874
85	3689	6548	7331

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	4658.121	4658.121	4658.121	4658.121	4658.121
5	4697.176	4635.589	4623.572	4623.572	4610.052
10	4611.555	4558.980	4561.984	4574.001	4558.980
15	4456.835	4416.277	4449.324	4485.375	4480.869
20	4257.051	4240.527	4294.604	4360.698	4363.702
25	3980.658	3998.683	4096.322	4183.446	4205.978
30	3689.244	3720.788	3860.487	3973.147	4016.709
35	3325.727	3399.332	3584.094	3731.303	3782.376
40	2978.734	3058.347	3280.663	3486.455	3534.524
45	2567.149	2682.813	2953.197	3175.513	3235.599
50	2182.602	2325.305	2621.226	2866.074	2932.168
55	1802.562	1942.261	2281.743	2535.604	2613.715
60	1442.050	1599.774	1948.269	2182.602	2271.228
65	1095.056	1261.793	1602.778	1901.703	1966.295
70	808.149	955.358	1312.866	1602.778	1679.387
75	548.279	712.012	1074.027	1333.896	1390.977
80	304.933	504.717	859.221	1095.056	1176.172
85	108.154	340.985	681.969	901.281	968.877
90	0.000	225.320	531.756	746.561	790.123
95	0.000	144.205	419.096	611.369	677.463
100	0.000	96.137	321.457	506.220	558.794
105	0.000	64.592	253.861	408.581	467.164
110	0.000	30.043	201.286	334.976	390.555
115	0.000	19.528	160.728	282.401	321.457
120	0.000	0.000	127.681	231.329	271.886
125	0.000	0.000	99.141	184.763	216.307
130	0.000	0.000	78.111	145.707	172.746
135	0.000	0.000	63.090	112.660	138.196
140	0.000	0.000	33.047	85.622	105.149
145	0.000	0.000	12.017	66.094	76.609
150	0.000	0.000	0.000	57.081	64.592
155	0.000	0.000	0.000	54.077	57.081
160	0.000	0.000	0.000	31.545	52.575
165	0.000	0.000	0.000	10.515	18.026
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	1697.36	N.A.	11.80
0-30	3583.21	N.A.	24.80
0-40	5816.54	N.A.	40.30
0-60	10087.66	N.A.	69.90
0-80	12742.92	N.A.	88.30
0-90	13426.11	N.A.	93.10
10-90	12985.77	N.A.	90.00
20-40	4119.18	N.A.	28.60
20-50	6382.47	N.A.	44.20
40-70	5837.32	N.A.	40.50
60-80	2655.26	N.A.	18.40
70-80	1089.06	N.A.	7.60
80-90	683.20	N.A.	4.70
90-110	675.39	N.A.	4.70
90-120	831.03	N.A.	5.80
90-130	920.46	N.A.	6.40
90-150	987.33	N.A.	6.80
90-180	998.34	N.A.	6.90
110-180	322.95	N.A.	2.20
0-180	14424.45	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	440.35
10-20	1257.02
20-30	1885.85
30-40	2233.33
40-50	2263.29
50-60	2007.83
60-70	1566.2
70-80	1089.06
80-90	683.20
90-100	418.11
100-110	257.28
110-120	155.64
120-130	89.43
130-140	47.30
140-150	19.57
150-160	9.12
160-170	1.88
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	276	276	276	276	268	268	268	268	252	252	252	238	238	238	225	225	225	219
1	249	237	226	216	241	230	220	211	217	208	201	205	198	192	194	188	183	177
2	226	205	189	174	218	200	184	171	188	176	164	178	168	158	169	160	152	146
3	206	180	160	145	198	175	157	142	166	150	138	157	144	133	149	138	129	123
4	188	160	138	122	182	155	136	121	147	130	117	140	125	114	133	121	111	105
5	173	143	121	105	167	139	119	104	132	115	101	126	111	99	120	107	96	91
6	160	128	107	92	154	125	105	91	119	102	89	114	98	87	109	95	85	79
7	148	116	96	81	143	114	94	80	109	91	79	104	88	77	99	86	75	70
8	138	106	86	72	133	104	85	72	99	82	70	95	80	69	91	78	67	63
9	129	97	78	65	125	95	77	64	91	75	63	88	73	62	84	71	61	56
10	121	90	71	59	117	88	70	58	85	69	57	81	67	56	78	65	55	51

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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	15.7	17.2	16.2	17.6	18.1	17.8	19.3	18.3	19.8	20.3
	3H	17.2	18.5	17.6	19.0	19.5	20.1	21.5	20.6	22.0	22.5
	4H	17.7	19.0	18.2	19.5	20.0	21.2	22.5	21.7	23.0	23.5
	6H	18.1	19.3	18.6	19.8	20.3	22.3	23.5	22.8	24.0	24.6
	8H	18.2	19.3	18.7	19.8	20.4	22.9	24.1	23.4	24.6	25.1
	12H	18.2	19.3	18.8	19.8	20.4	23.6	24.7	24.1	25.2	25.8
4H	2H	16.4	17.7	16.9	18.2	18.7	18.1	19.4	18.7	19.9	20.5
	3H	18.1	19.2	18.6	19.7	20.3	20.7	21.8	21.2	22.3	22.9
	4H	18.7	19.7	19.3	20.3	20.9	21.9	22.9	22.4	23.5	24.1
	6H	19.2	20.1	19.8	20.7	21.3	23.2	24.1	23.8	24.7	25.3
	8H	19.4	20.2	20.0	20.8	21.4	23.9	24.8	24.5	25.3	26.0
	12H	19.5	20.3	20.1	20.9	21.5	24.7	25.5	25.3	26.1	26.7
8H	4H	19.3	20.1	19.8	20.7	21.3	22.1	22.9	22.6	23.5	24.1
	6H	19.9	20.6	20.5	21.2	21.9	23.6	24.3	24.2	24.9	25.5
	8H	20.2	20.8	20.8	21.4	22.1	24.4	25.0	25.0	25.6	26.3
	12H	20.4	21.0	21.0	21.6	22.3	25.4	25.9	26.0	26.5	27.2
12H	4H	19.4	20.1	20.0	20.7	21.3	22.1	22.8	22.7	23.4	24.0
	6H	20.1	20.8	20.8	21.4	22.0	23.6	24.2	24.2	24.8	25.5
	8H	20.5	21.1	21.1	21.7	22.4	24.5	25.1	25.1	25.7	26.4

Maximum UGR = 27.2

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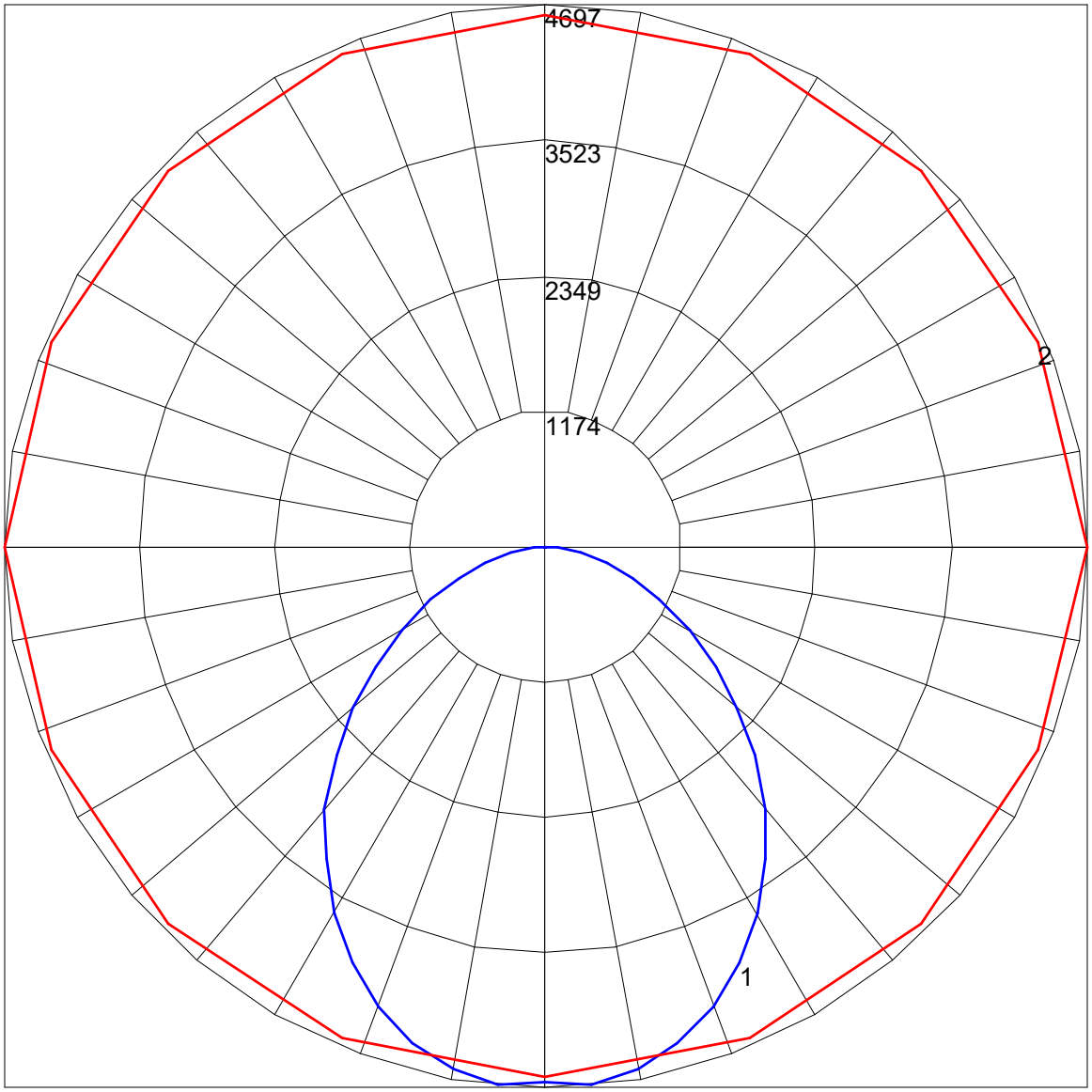
POLAR GRAPH



Maximum Candela = 4697.176 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.)