H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 76R-8-L104-840-(L80)-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] 15-AUG-2022
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 96 INCH LENSED LED SURFACE LUMINAIRE
[MORE] WHITE REFLECTOR w/RADIAL RIBBED FROST ACRYLIC LENS
[LUMCAT] 76R-8-L104-840-(L80)-DIM-UNV
[LAMPCAT] HLMX 80 CRI 4000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8103
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	155
Total Luminaire Watts	52.4
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)	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	7197	6544	6648
55	6182	5689	5912
65	5033	4731	5118
75	4003	4036	4423
85	2072	3678	4117

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2616.620	2616.620	2616.620	2616.620	2616.620
5	2638.559	2603.963	2597.213	2597.213	2589.619
10	2590.462	2560.929	2562.617	2569.367	2560.929
15	2503.551	2480.769	2499.332	2519.583	2517.052
20	2391.326	2382.044	2412.421	2449.548	2451.236
25	2236.067	2246.192	2301.039	2349.980	2362.637
30	2072.370	2090.090	2168.563	2231.848	2256.318
35	1868.171	1909.517	2013.304	2095.996	2124.685
40	1673.253	1717.974	1842.857	1958.457	1985.459
45	1442.052	1507.025	1658.908	1783.791	1817.543
50	1226.040	1306.201	1472.429	1609.968	1647.095
55	1012.559	1091.032	1281.730	1424.332	1468.210
60	810.047	898.646	1094.407	1226.040	1275.824
65	615.129	708.791	900.333	1068.249	1104.533
70	453.964	536.656	737.480	900.333	943.367
75	307.987	399.961	603.316	749.293	781.358
80	171.291	283.516	482.653	615.129	660.694
85	60.754	191.542	383.085	506.279	544.250
90	0.000	126.570	298.705	419.368	443.838
95	0.000	81.005	235.420	343.426	380.553
100	0.000	54.003	180.573	284.360	313.893
105	0.000	36.283	142.602	229.513	262.421
110	0.000	16.876	113.069	188.167	219.388
115	0.000	10.969	90.286	158.634	180.573
120	0.000	0.000	71.723	129.945	152.728
125	0.000	0.000	55.691	103.787	121.507
130	0.000	0.000	43.878	81.848	97.037
135	0.000	0.000	35.440	63.285	77.629
140	0.000	0.000	18.564	48.097	59.066
145	0.000	0.000	6.750	37.127	43.034
150	0.000	0.000	0.000	32.064	36.283
155	0.000	0.000	0.000	30.377	32.064
160	0.000	0.000	0.000	17.720	29.533
165	0.000	0.000	0.000	5.907	10.126
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	953.47	N.A.	11.80
0-30	2012.81	N.A.	24.80
0-40	3267.34	N.A.	40.30
0-60	5666.57	N.A.	69.90
0-80	7158.12	N.A.	88.30
0-90	7541.89	N.A.	93.10
10-90	7294.53	N.A.	90.00
20-40	2313.88	N.A.	28.60
20-50	3585.24	N.A.	44.20
40-70	3279.02	N.A.	40.50
60-80	1491.55	N.A.	18.40
70-80	611.76	N.A.	7.60
80-90	383.77	N.A.	4.70
90-110	379.39	N.A.	4.70
90-120	466.82	N.A.	5.80
90-130	517.05	N.A.	6.40
90-150	554.62	N.A.	6.80
90-180	560.80	N.A.	6.90
110-180	181.41	N.A.	2.20
0-180	8102.69	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	247.36
10-20	706.11
20-30	1059.34
30-40	1254.53
40-50	1271.37
50-60	1127.86
60-70	879.79
70-80	611.76
80-90	383.77
90-100	234.86
100-110	144.52
110-120	87.43
120-130	50.24
130-140	26.57
140-150	11.00
150-160	5.13
160-170	1.06
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	15.8	17.3	16.2	17.7	18.2	18.8	20.3	19.3	20.8	21.3
	3H	17.0	18.3	17.5	18.8	19.3	21.1	22.5	21.6	22.9	23.5
	4H	17.4	18.7	17.9	19.1	19.7	22.2	23.5	22.7	24.0	24.5
	6H	17.6	18.8	18.1	19.3	19.8	23.3	24.5	23.8	25.0	25.6
	8H	17.6	18.8	18.2	19.3	19.9	23.9	25.1	24.4	25.6	26.1
	12H	17.6	18.7	18.2	19.3	19.9	24.6	25.7	25.1	26.2	26.8
4H	2H	16.7	18.0	17.2	18.5	19.0	19.1	20.4	19.7	20.9	21.5
	3H	18.2	19.3	18.7	19.8	20.4	21.7	22.8	22.2	23.3	23.9
	4H	18.7	19.7	19.2	20.2	20.8	22.9	23.9	23.4	24.5	25.1
	6H	19.0	19.9	19.6	20.5	21.1	24.2	25.1	24.8	25.7	26.3
	8H	19.1	19.9	19.6	20.5	21.1	24.9	25.8	25.5	26.3	27.0
	12H	19.1	19.9	19.7	20.5	21.1	25.7	26.5	26.3	27.1	27.7
8H	4H	19.4	20.3	20.0	20.8	21.4	23.1	23.9	23.6	24.5	25.1
	6H	19.9	20.6	20.5	21.3	21.9	24.6	25.3	25.2	25.9	26.5
	8H	20.1	20.7	20.7	21.4	22.0	25.4	26.0	26.0	26.6	27.3
	12H	20.2	20.8	20.8	21.4	22.1	26.4	26.9	27.0	27.5	28.2
12H	4H	19.6	20.4	20.2	21.0	21.6	23.1	23.8	23.7	24.4	25.0
	6H	20.3	20.9	20.9	21.5	22.2	24.6	25.2	25.2	25.8	26.5
	8H	20.5	21.1	21.1	21.7	22.4	25.5	26.1	26.1	26.7	27.4

Maximum UGR = 28.2

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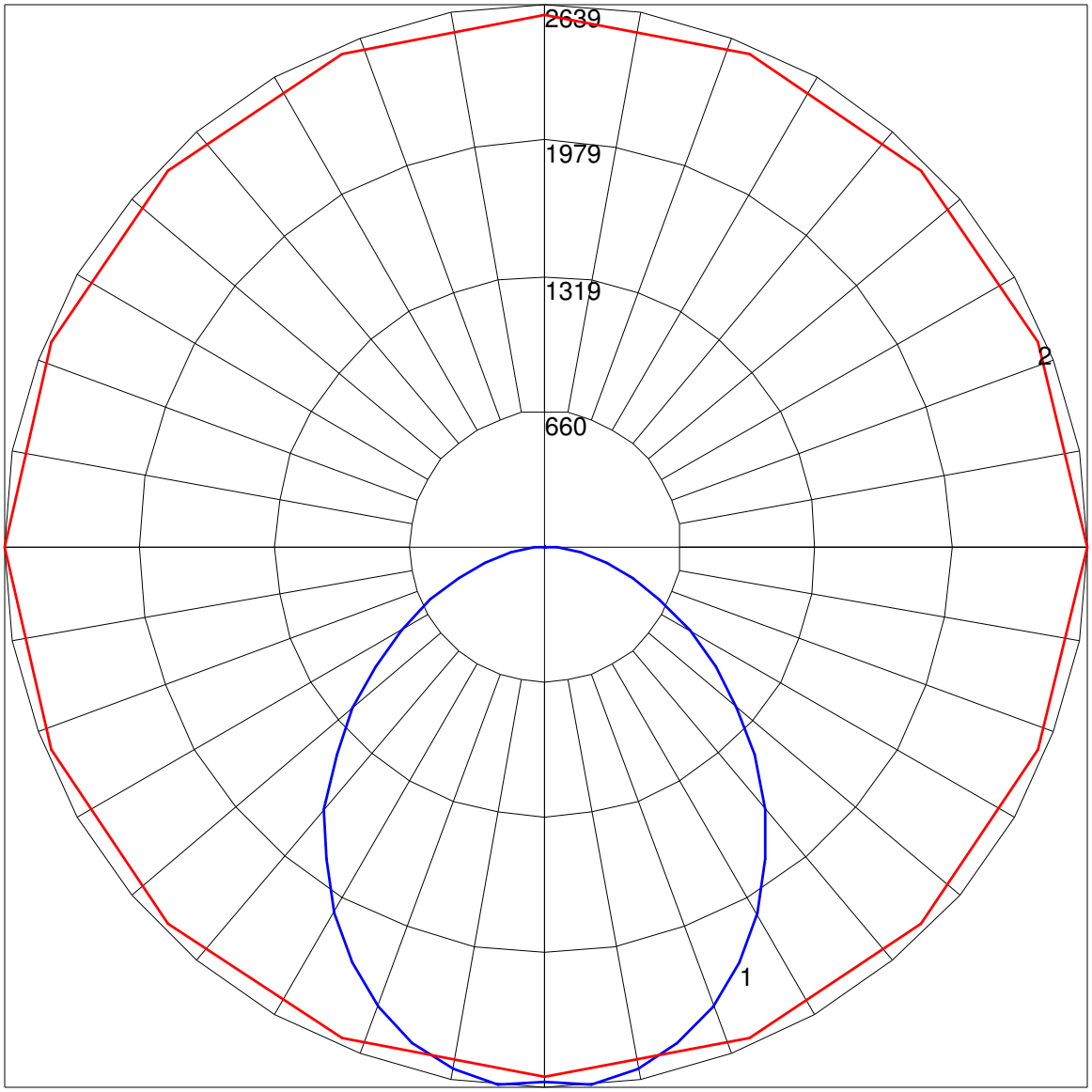
POLAR GRAPH



Maximum Candela = 2638.559 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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