IES INDOOR REPORT
PHOTOMETRIC FILENAME : 76R-8-L144-940-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] 22-MAR-2023
[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-L144-940-DIM-UNV
[LAMPCAT] HLMX 90 CRI 4000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	11972
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
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)	8.00 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	10608	9646	9799
55	9113	8385	8713
65	7419	6974	7544
75	5901	5948	6518
85	3055	5421	6069

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	3866.240	3866.240	3866.240	3866.240	3866.240
5	3898.656	3847.539	3837.564	3837.564	3826.343
10	3827.590	3783.953	3786.447	3796.421	3783.953
15	3699.173	3665.510	3692.939	3722.861	3719.121
20	3533.352	3519.637	3564.521	3619.379	3621.873
25	3303.946	3318.907	3399.947	3472.260	3490.962
30	3062.072	3088.254	3204.204	3297.712	3333.868
35	2760.353	2821.445	2974.798	3096.982	3139.372
40	2472.349	2538.428	2722.950	2893.758	2933.655
45	2130.733	2226.735	2451.154	2635.676	2685.547
50	1811.560	1930.003	2175.617	2378.841	2433.699
55	1496.126	1612.076	1893.847	2104.551	2169.383
60	1196.901	1327.812	1617.063	1811.560	1885.119
65	908.897	1047.289	1330.306	1578.413	1632.025
70	670.763	792.947	1089.679	1330.306	1393.891
75	455.072	590.970	891.442	1107.134	1154.511
80	253.095	418.915	713.154	908.897	976.223
85	89.768	283.017	566.035	748.063	804.168
90	0.000	187.016	441.357	619.646	655.802
95	0.000	119.690	347.849	507.436	562.294
100	0.000	79.793	266.809	420.162	463.799
105	0.000	53.611	210.704	339.122	387.746
110	0.000	24.935	167.067	278.030	324.161
115	0.000	16.208	133.405	234.393	266.809
120	0.000	0.000	105.976	192.003	225.666
125	0.000	0.000	82.287	153.353	179.535
130	0.000	0.000	64.832	120.937	143.379
135	0.000	0.000	52.364	93.508	114.703
140	0.000	0.000	27.429	71.066	87.274
145	0.000	0.000	9.974	54.858	63.585
150	0.000	0.000	0.000	47.377	53.611
155	0.000	0.000	0.000	44.884	47.377
160	0.000	0.000	0.000	26.182	43.637
165	0.000	0.000	0.000	8.727	14.961
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	1408.81	N.A.	11.80
0-30	2974.07	N.A.	24.80
0-40	4827.73	N.A.	40.30
0-60	8372.76	N.A.	69.90
0-80	10576.62	N.A.	88.30
0-90	11143.67	N.A.	93.10
10-90	10778.19	N.A.	90.00
20-40	3418.92	N.A.	28.60
20-50	5297.45	N.A.	44.20
40-70	4844.98	N.A.	40.50
60-80	2203.86	N.A.	18.40
70-80	903.92	N.A.	7.60
80-90	567.05	N.A.	4.70
90-110	560.57	N.A.	4.70
90-120	689.75	N.A.	5.80
90-130	763.98	N.A.	6.40
90-150	819.49	N.A.	6.80
90-180	828.62	N.A.	6.90
110-180	268.05	N.A.	2.20
0-180	11972.3	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	365.49
10-20	1043.32
20-30	1565.25
30-40	1853.66
40-50	1878.53
50-60	1666.5
60-70	1299.95
70-80	903.92
80-90	567.05
90-100	347.03
100-110	213.55
110-120	129.18
120-130	74.23
130-140	39.26
140-150	16.25
150-160	7.57
160-170	1.56
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	17.1	18.6	17.5	19.0	19.5	20.1	21.6	20.6	22.1	22.6
	3H	18.3	19.6	18.8	20.1	20.6	22.4	23.8	22.9	24.2	24.8
	4H	18.6	20.0	19.2	20.4	21.0	23.5	24.8	24.0	25.3	25.8
	6H	18.9	20.1	19.4	20.6	21.1	24.6	25.8	25.1	26.3	26.9
	8H	18.9	20.1	19.5	20.6	21.2	25.2	26.4	25.7	26.9	27.4
	12H	18.9	20.0	19.5	20.6	21.1	25.9	27.0	26.4	27.5	28.1
4H	2H	18.0	19.3	18.5	19.8	20.3	20.4	21.7	20.9	22.2	22.8
	3H	19.5	20.6	20.0	21.1	21.7	23.0	24.1	23.5	24.6	25.1
	4H	20.0	21.0	20.5	21.5	22.1	24.2	25.2	24.7	25.8	26.3
	6H	20.3	21.2	20.9	21.7	22.4	25.5	26.4	26.1	27.0	27.6
	8H	20.4	21.2	20.9	21.8	22.4	26.2	27.1	26.8	27.6	28.2
	12H	20.4	21.2	21.0	21.8	22.4	27.0	27.8	27.6	28.4	29.0
8H	4H	20.7	21.6	21.3	22.1	22.7	24.4	25.2	24.9	25.8	26.4
	6H	21.2	21.9	21.8	22.5	23.2	25.9	26.6	26.5	27.2	27.8
	8H	21.4	22.0	22.0	22.6	23.3	26.7	27.3	27.3	27.9	28.6
	12H	21.5	22.1	22.1	22.7	23.4	27.7	28.2	28.3	28.8	29.5
12H	4H	20.9	21.7	21.5	22.3	22.9	24.4	25.1	24.9	25.7	26.3
	6H	21.6	22.2	22.2	22.8	23.5	25.9	26.5	26.5	27.1	27.8
	8H	21.8	22.4	22.4	23.0	23.7	26.8	27.3	27.4	28.0	28.7

Maximum UGR = 29.5

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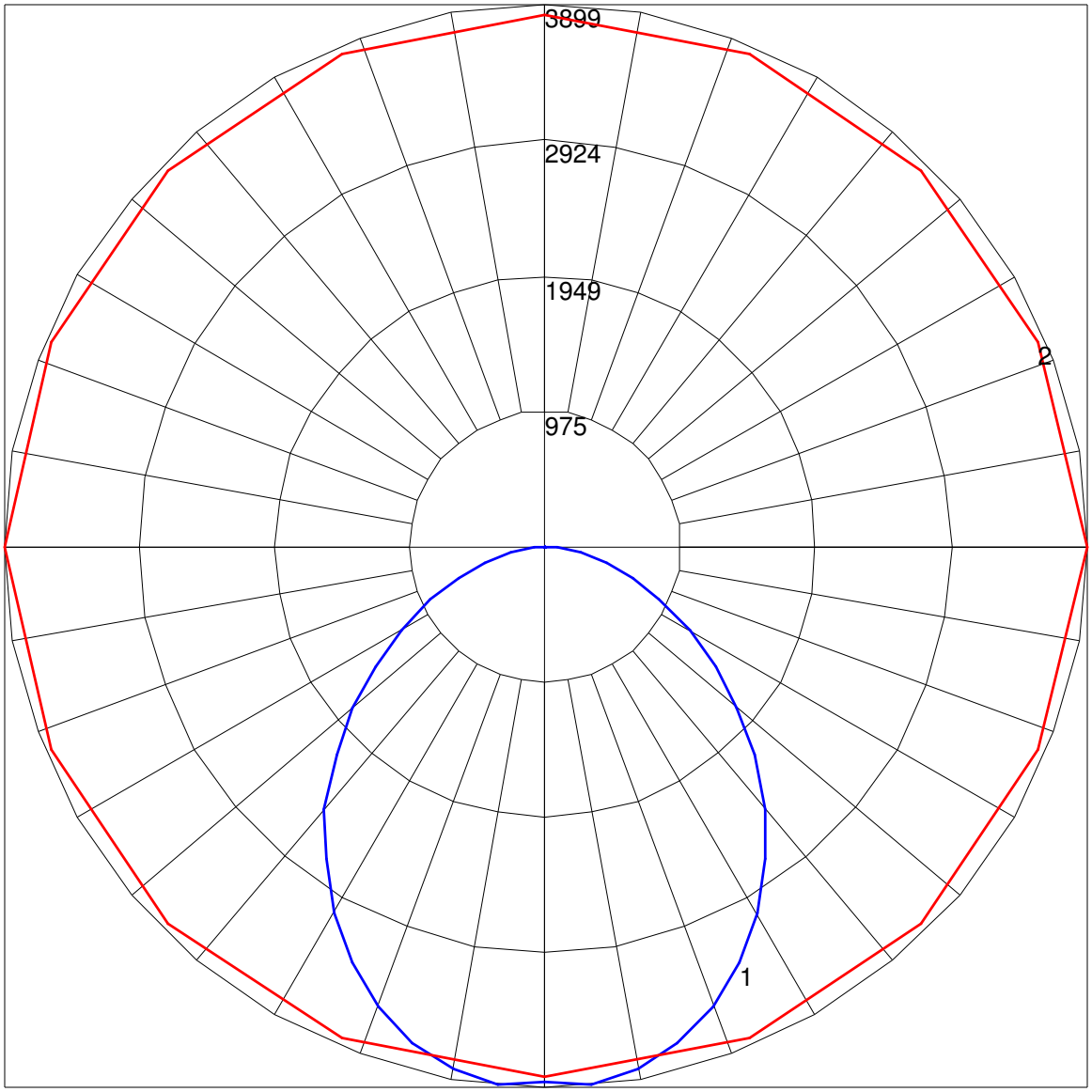
POLAR GRAPH



Maximum Candela = 3898.656 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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