IES INDOOR REPORT
PHOTOMETRIC FILENAME : 76R-8-L188-940-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] 21-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-L188-940-DIM-UNV
[LAMPCAT] HLMX 90 CRI 4000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	15633
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	137.1
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	13852	12595	12795
55	11899	10949	11377
65	9687	9106	9851
75	7705	7767	8512
85	3989	7079	7924

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	5048.490	5048.490	5048.490	5048.490	5048.490
5	5090.819	5024.070	5011.046	5011.046	4996.394
10	4998.022	4941.041	4944.297	4957.321	4941.041
15	4830.335	4786.379	4822.195	4861.268	4856.384
20	4613.809	4595.901	4654.509	4726.142	4729.398
25	4314.253	4333.789	4439.611	4534.036	4558.456
30	3998.417	4032.606	4184.012	4306.113	4353.326
35	3604.436	3684.209	3884.456	4044.002	4099.354
40	3228.364	3314.649	3555.596	3778.635	3830.731
45	2782.286	2907.644	3200.687	3441.634	3506.755
50	2365.513	2520.175	2840.895	3106.262	3177.895
55	1953.624	2105.030	2472.962	2748.098	2832.755
60	1562.899	1733.841	2111.542	2365.513	2461.566
65	1186.827	1367.537	1737.097	2061.073	2131.078
70	875.875	1035.421	1422.890	1737.097	1820.126
75	594.227	771.682	1164.034	1445.682	1507.547
80	330.488	547.015	931.227	1186.827	1274.740
85	117.217	369.561	739.121	976.812	1050.073
90	0.000	244.203	576.319	809.126	856.339
95	0.000	156.290	454.218	662.604	734.237
100	0.000	104.193	348.396	548.643	605.623
105	0.000	70.005	275.135	442.821	506.314
110	0.000	32.560	218.155	363.048	423.285
115	0.000	21.164	174.198	306.068	348.396
120	0.000	0.000	138.382	250.715	294.672
125	0.000	0.000	107.449	200.246	234.435
130	0.000	0.000	84.657	157.918	187.222
135	0.000	0.000	68.377	122.102	149.778
140	0.000	0.000	35.816	92.797	113.961
145	0.000	0.000	13.024	71.633	83.029
150	0.000	0.000	0.000	61.865	70.005
155	0.000	0.000	0.000	58.609	61.865
160	0.000	0.000	0.000	34.188	56.981
165	0.000	0.000	0.000	11.396	19.536
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	1839.61	N.A.	11.80
0-30	3883.5	N.A.	24.80
0-40	6303.99	N.A.	40.30
0-60	10933.05	N.A.	69.90
0-80	13810.83	N.A.	88.30
0-90	14551.28	N.A.	93.10
10-90	14074.03	N.A.	90.00
20-40	4464.38	N.A.	28.60
20-50	6917.34	N.A.	44.20
40-70	6326.51	N.A.	40.50
60-80	2877.78	N.A.	18.40
70-80	1180.32	N.A.	7.60
80-90	740.45	N.A.	4.70
90-110	731.99	N.A.	4.70
90-120	900.67	N.A.	5.80
90-130	997.60	N.A.	6.40
90-150	1070.08	N.A.	6.80
90-180	1082.01	N.A.	6.90
110-180	350.01	N.A.	2.20
0-180	15633.28	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	477.25
10-20	1362.36
20-30	2043.89
30-40	2420.49
40-50	2452.96
50-60	2176.09
60-70	1697.46
70-80	1180.32
80-90	740.45
90-100	453.15
100-110	278.84
110-120	168.68
120-130	96.93
130-140	51.26
140-150	21.21
150-160	9.89
160-170	2.04
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	18.1	19.6	18.5	20.0	20.5	21.1	22.6	21.6	23.1	23.6
	3H	19.3	20.6	19.8	21.1	21.6	23.4	24.8	23.9	25.2	25.8
	4H	19.6	21.0	20.2	21.4	22.0	24.5	25.8	25.0	26.3	26.8
	6H	19.9	21.1	20.4	21.6	22.1	25.6	26.8	26.1	27.3	27.9
	8H	19.9	21.1	20.5	21.6	22.2	26.2	27.4	26.7	27.9	28.4
	12H	19.9	21.0	20.5	21.6	22.1	26.9	28.0	27.4	28.5	29.1
4H	2H	19.0	20.3	19.5	20.8	21.3	21.4	22.7	21.9	23.2	23.8
	3H	20.5	21.6	21.0	22.1	22.7	24.0	25.1	24.5	25.6	26.1
	4H	21.0	22.0	21.5	22.5	23.1	25.2	26.2	25.7	26.8	27.3
	6H	21.3	22.2	21.9	22.7	23.4	26.5	27.4	27.1	28.0	28.6
	8H	21.4	22.2	21.9	22.8	23.4	27.2	28.1	27.8	28.6	29.2
	12H	21.4	22.2	22.0	22.8	23.4	28.0	28.8	28.6	29.4	30.0
8H	4H	21.7	22.6	22.3	23.1	23.7	25.4	26.2	25.9	26.8	27.4
	6H	22.2	22.9	22.8	23.5	24.2	26.9	27.6	27.5	28.2	28.8
	8H	22.4	23.0	23.0	23.6	24.3	27.7	28.3	28.3	28.9	29.6
	12H	22.5	23.1	23.1	23.7	24.4	28.7	29.2	29.3	29.8	30.5
12H	4H	21.9	22.7	22.5	23.3	23.9	25.4	26.1	25.9	26.7	27.3
	6H	22.6	23.2	23.2	23.8	24.5	26.9	27.5	27.5	28.1	28.8
	8H	22.8	23.4	23.4	24.0	24.7	27.8	28.3	28.4	29.0	29.7

Maximum UGR = 30.5

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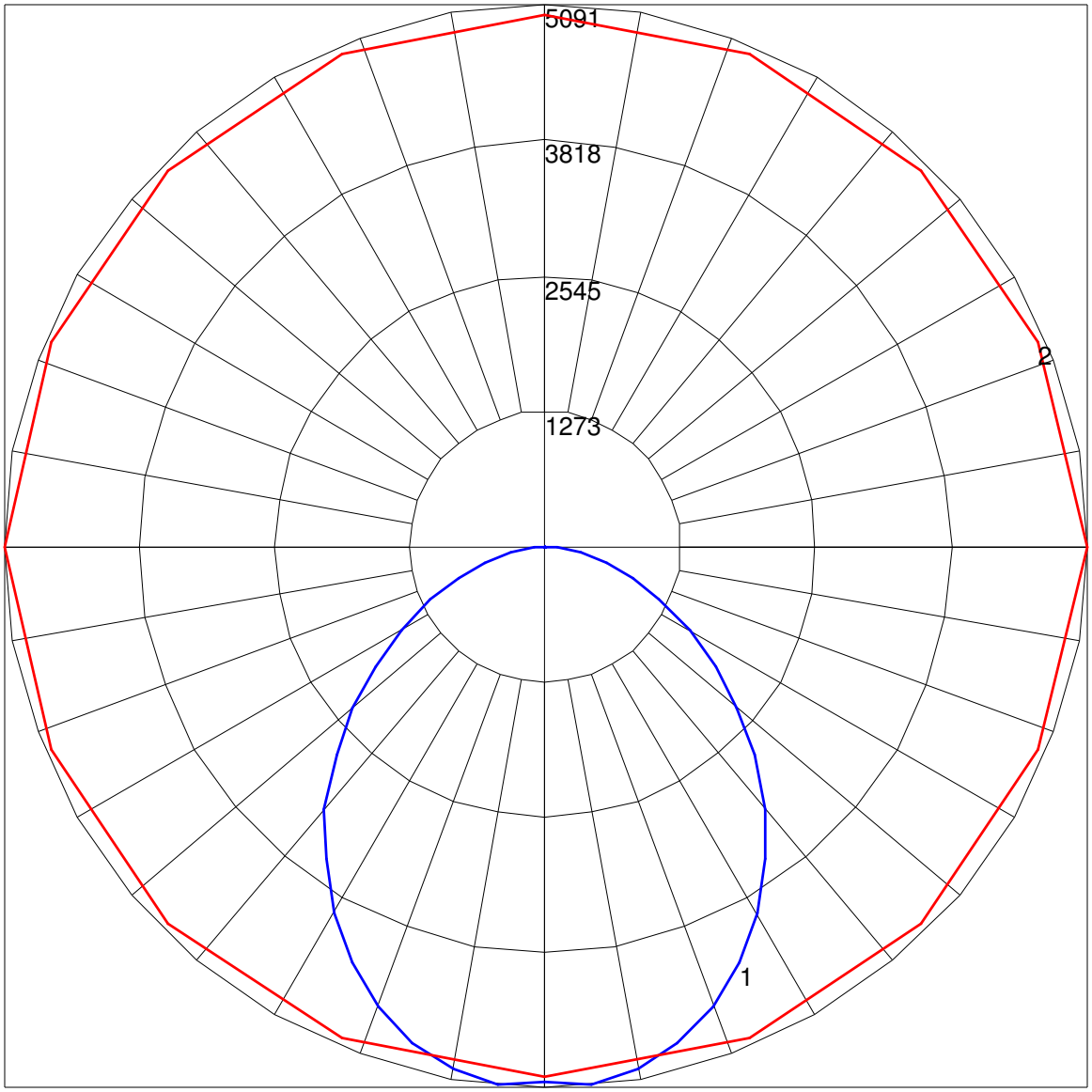
POLAR GRAPH



Maximum Candela = 5090.819 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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