H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 76R-4-L52-835-(L40)-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] 06-24-2021
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 4' LENSED LED STRIP LUMINAIRE
[MORE] WHITE REFLECTOR w/RADIAL RIBBED FROST ACRYLIC LENS
[MORE] EVERLINE #D21CC80UNVPW-C
[LUMCAT] 76R-4-L52-835-(L40)-DIM-UNV
[LAMPCAT] HLMX 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3950
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	143
Total Luminaire Watts	27.6
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	6911	6334	6500
55	5893	5489	5779
65	4741	4547	5004
75	3677	3855	4324
85	1725	3475	4025

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1275.534	1275.534	1275.534	1275.534	1275.534
5	1286.228	1269.364	1266.073	1266.073	1262.371
10	1262.783	1248.386	1249.209	1252.499	1248.386
15	1220.416	1209.310	1218.359	1228.231	1226.997
20	1165.709	1161.184	1175.992	1194.090	1194.913
25	1090.024	1094.960	1121.696	1145.554	1151.723
30	1010.226	1018.864	1057.118	1087.967	1099.896
35	910.684	930.839	981.433	1021.743	1035.728
40	815.667	837.467	898.344	954.696	967.859
45	702.963	734.635	808.674	869.551	886.004
50	597.662	636.739	717.771	784.817	802.916
55	493.596	531.849	624.810	694.325	715.714
60	394.877	438.066	533.495	597.662	621.931
65	299.859	345.517	438.889	520.744	538.431
70	221.295	261.606	359.502	438.889	459.867
75	150.135	194.970	294.101	365.261	380.891
80	83.500	138.207	235.281	299.859	322.071
85	29.616	93.372	186.744	246.798	265.308
90	0.000	61.699	145.611	204.431	216.359
95	0.000	39.488	114.761	167.411	185.510
100	0.000	26.325	88.025	138.618	153.015
105	0.000	17.687	69.515	111.882	127.924
110	0.000	8.227	55.118	91.727	106.946
115	0.000	5.347	44.012	77.330	88.025
120	0.000	0.000	34.963	63.345	74.451
125	0.000	0.000	27.148	50.594	59.231
130	0.000	0.000	21.389	39.899	47.303
135	0.000	0.000	17.276	30.850	37.842
140	0.000	0.000	9.049	23.446	28.793
145	0.000	0.000	3.291	18.099	20.978
150	0.000	0.000	0.000	15.631	17.687
155	0.000	0.000	0.000	14.808	15.631
160	0.000	0.000	0.000	8.638	14.397
165	0.000	0.000	0.000	2.879	4.936
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	464.79	N.A.	11.80
0-30	981.19	N.A.	24.80
0-40	1592.74	N.A.	40.30
0-60	2762.3	N.A.	69.90
0-80	3489.39	N.A.	88.30
0-90	3676.47	N.A.	93.10
10-90	3555.89	N.A.	90.00
20-40	1127.95	N.A.	28.60
20-50	1747.71	N.A.	44.20
40-70	1598.43	N.A.	40.50
60-80	727.09	N.A.	18.40
70-80	298.22	N.A.	7.60
80-90	187.08	N.A.	4.70
90-110	184.94	N.A.	4.70
90-120	227.56	N.A.	5.80
90-130	252.05	N.A.	6.40
90-150	270.36	N.A.	6.80
90-180	273.38	N.A.	6.90
110-180	88.43	N.A.	2.20
0-180	3949.85	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	120.58
10-20	344.21
20-30	516.40
30-40	611.55
40-50	619.76
50-60	549.80
60-70	428.87
70-80	298.22
80-90	187.08
90-100	114.49
100-110	70.45
110-120	42.62
120-130	24.49
130-140	12.95
140-150	5.36
150-160	2.50
160-170	0.52
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	15.7	17.2	16.1	17.6	18.1	18.7	20.2	19.2	20.6	21.1
	3H	16.9	18.2	17.4	18.7	19.2	20.9	22.3	21.4	22.8	23.3
	4H	17.3	18.6	17.8	19.0	19.6	22.0	23.3	22.5	23.8	24.3
	6H	17.5	18.7	18.0	19.2	19.7	23.1	24.3	23.6	24.8	25.3
	8H	17.5	18.7	18.1	19.2	19.8	23.7	24.8	24.2	25.3	25.9
	12H	17.5	18.6	18.1	19.2	19.8	24.3	25.4	24.8	25.9	26.5
4H	2H	16.6	17.9	17.1	18.4	18.9	19.0	20.3	19.5	20.8	21.3
	3H	18.1	19.2	18.6	19.7	20.3	21.5	22.6	22.0	23.1	23.7
	4H	18.6	19.6	19.1	20.1	20.7	22.7	23.7	23.2	24.3	24.9
	6H	18.9	19.8	19.4	20.3	21.0	24.0	24.9	24.6	25.5	26.1
	8H	19.0	19.8	19.5	20.4	21.0	24.7	25.5	25.2	26.1	26.7
	12H	19.0	19.8	19.6	20.4	21.0	25.4	26.2	26.0	26.8	27.4
8H	4H	19.3	20.1	19.9	20.7	21.3	22.9	23.7	23.4	24.3	24.9
	6H	19.8	20.5	20.4	21.1	21.8	24.3	25.0	24.9	25.6	26.3
	8H	20.0	20.6	20.6	21.2	21.9	25.1	25.8	25.7	26.4	27.0
	12H	20.1	20.7	20.7	21.3	22.0	26.1	26.6	26.7	27.2	27.9
12H	4H	19.5	20.3	20.1	20.9	21.5	22.9	23.6	23.5	24.2	24.9
	6H	20.1	20.8	20.8	21.4	22.0	24.4	25.0	25.0	25.6	26.3
	8H	20.4	21.0	21.0	21.6	22.3	25.2	25.8	25.8	26.4	27.1

Maximum UGR = 27.9

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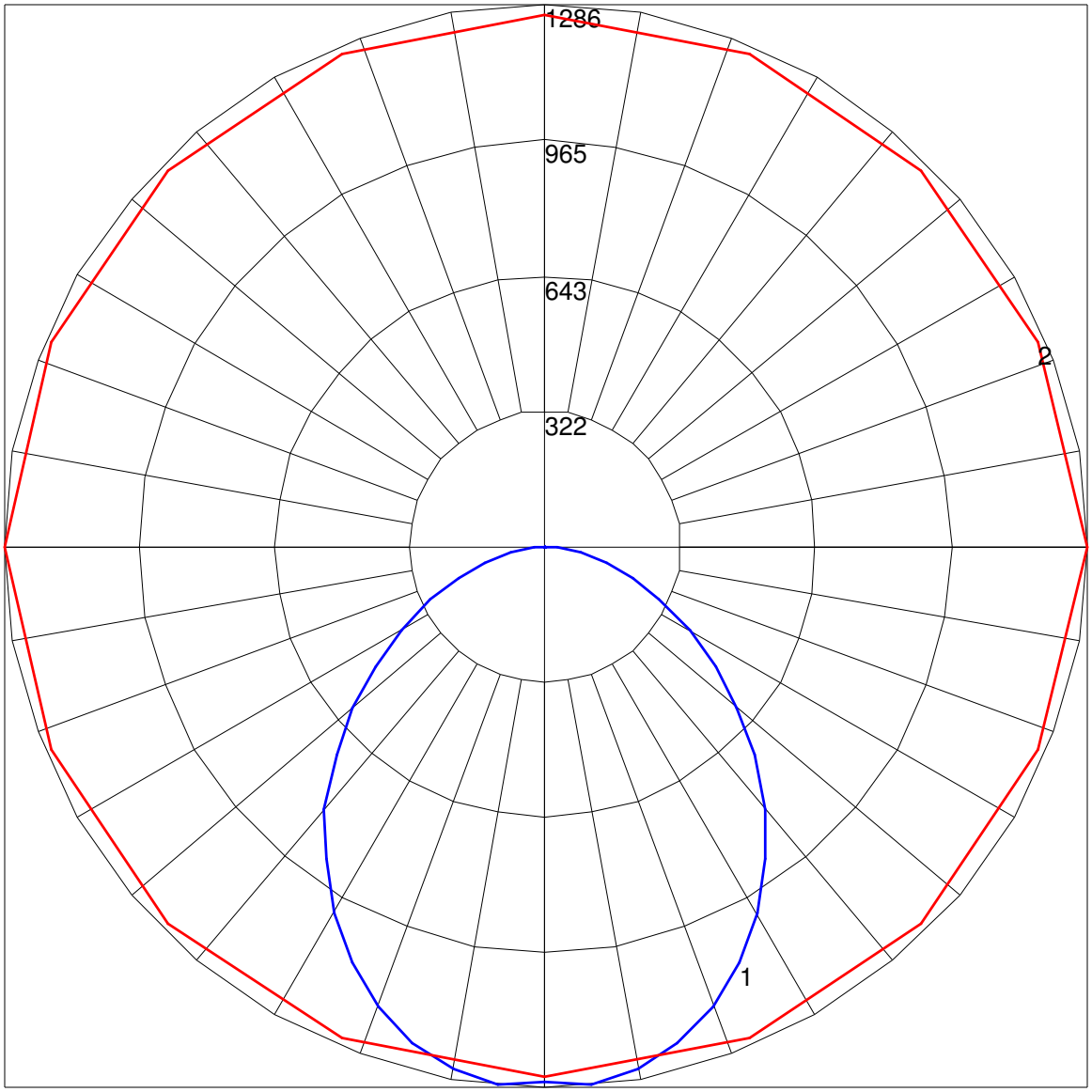
POLAR GRAPH



Maximum Candela = 1286.228 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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