H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 76R-4-L30-835-(L28)-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-L30-835-(L28)-DIM-UNV
[LAMPCAT] HLMX 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2860
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	144
Total Luminaire Watts	19.8
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	5004	4586	4706
55	4267	3974	4185
65	3432	3292	3623
75	2662	2791	3131
85	1249	2516	2915

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	923.551	923.551	923.551	923.551	923.551
5	931.294	919.084	916.701	916.701	914.021
10	914.318	903.895	904.490	906.873	903.895
15	883.643	875.601	882.154	889.301	888.408
20	844.032	840.756	851.478	864.582	865.178
25	789.233	792.806	812.165	829.439	833.906
30	731.455	737.709	765.407	787.743	796.380
35	659.381	673.975	710.607	739.794	749.920
40	590.584	606.369	650.447	691.249	700.779
45	508.981	531.913	585.521	629.599	641.512
50	432.738	461.031	519.702	568.247	581.352
55	357.388	385.086	452.394	502.726	518.213
60	285.911	317.182	386.277	432.738	450.309
65	217.113	250.172	317.778	377.045	389.851
70	160.229	189.416	260.298	317.778	332.967
75	108.706	141.168	212.944	264.467	275.785
80	60.458	100.069	170.355	217.113	233.196
85	21.443	67.606	135.212	178.694	192.096
90	0.000	44.674	105.430	148.018	156.655
95	0.000	28.591	83.093	121.214	134.318
100	0.000	19.061	63.734	100.367	110.790
105	0.000	12.806	50.332	81.008	92.623
110	0.000	5.956	39.908	66.415	77.434
115	0.000	3.872	31.867	55.991	63.734
120	0.000	0.000	25.315	45.865	53.906
125	0.000	0.000	19.656	36.632	42.887
130	0.000	0.000	15.487	28.889	34.250
135	0.000	0.000	12.509	22.337	27.400
140	0.000	0.000	6.552	16.976	20.848
145	0.000	0.000	2.383	13.104	15.189
150	0.000	0.000	0.000	11.317	12.806
155	0.000	0.000	0.000	10.722	11.317
160	0.000	0.000	0.000	6.254	10.424
165	0.000	0.000	0.000	2.085	3.574
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	336.53	N.A.	11.80
0-30	710.43	N.A.	24.80
0-40	1153.23	N.A.	40.30
0-60	2000.05	N.A.	69.90
0-80	2526.5	N.A.	88.30
0-90	2661.95	N.A.	93.10
10-90	2574.65	N.A.	90.00
20-40	816.70	N.A.	28.60
20-50	1265.43	N.A.	44.20
40-70	1157.35	N.A.	40.50
60-80	526.45	N.A.	18.40
70-80	215.92	N.A.	7.50
80-90	135.45	N.A.	4.70
90-110	133.91	N.A.	4.70
90-120	164.77	N.A.	5.80
90-130	182.50	N.A.	6.40
90-150	195.76	N.A.	6.80
90-180	197.94	N.A.	6.90
110-180	64.03	N.A.	2.20
0-180	2859.89	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	87.31
10-20	249.22
20-30	373.90
30-40	442.80
40-50	448.74
50-60	398.09
60-70	310.53
70-80	215.92
80-90	135.45
90-100	82.90
100-110	51.01
110-120	30.86
120-130	17.73
130-140	9.38
140-150	3.88
150-160	1.81
160-170	0.37
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	14.6	16.1	15.0	16.5	17.0	17.6	19.1	18.1	19.5	20.0
	3H	15.8	17.1	16.3	17.6	18.1	19.8	21.2	20.3	21.7	22.2
	4H	16.2	17.5	16.7	17.9	18.5	20.9	22.2	21.4	22.7	23.2
	6H	16.4	17.6	16.9	18.1	18.6	22.0	23.2	22.5	23.7	24.2
	8H	16.4	17.6	17.0	18.1	18.7	22.6	23.7	23.1	24.2	24.8
	12H	16.4	17.5	17.0	18.1	18.7	23.2	24.3	23.7	24.8	25.4
4H	2H	15.5	16.8	16.0	17.3	17.8	17.9	19.2	18.4	19.7	20.2
	3H	17.0	18.1	17.5	18.6	19.2	20.4	21.5	20.9	22.0	22.6
	4H	17.5	18.5	18.0	19.0	19.6	21.6	22.6	22.1	23.2	23.8
	6H	17.8	18.7	18.3	19.2	19.9	22.9	23.8	23.5	24.4	25.0
	8H	17.9	18.7	18.4	19.3	19.9	23.6	24.4	24.1	25.0	25.6
	12H	17.9	18.7	18.5	19.3	19.9	24.3	25.1	24.9	25.7	26.3
8H	4H	18.2	19.0	18.8	19.6	20.2	21.8	22.6	22.3	23.2	23.8
	6H	18.7	19.4	19.3	20.0	20.7	23.2	23.9	23.8	24.5	25.2
	8H	18.9	19.5	19.5	20.1	20.8	24.0	24.7	24.6	25.3	25.9
	12H	19.0	19.6	19.6	20.2	20.9	25.0	25.5	25.6	26.1	26.8
12H	4H	18.4	19.2	19.0	19.8	20.4	21.8	22.5	22.4	23.1	23.8
	6H	19.0	19.7	19.7	20.3	20.9	23.3	23.9	23.9	24.5	25.2
	8H	19.3	19.9	19.9	20.5	21.2	24.1	24.7	24.7	25.3	26.0

Maximum UGR = 26.8

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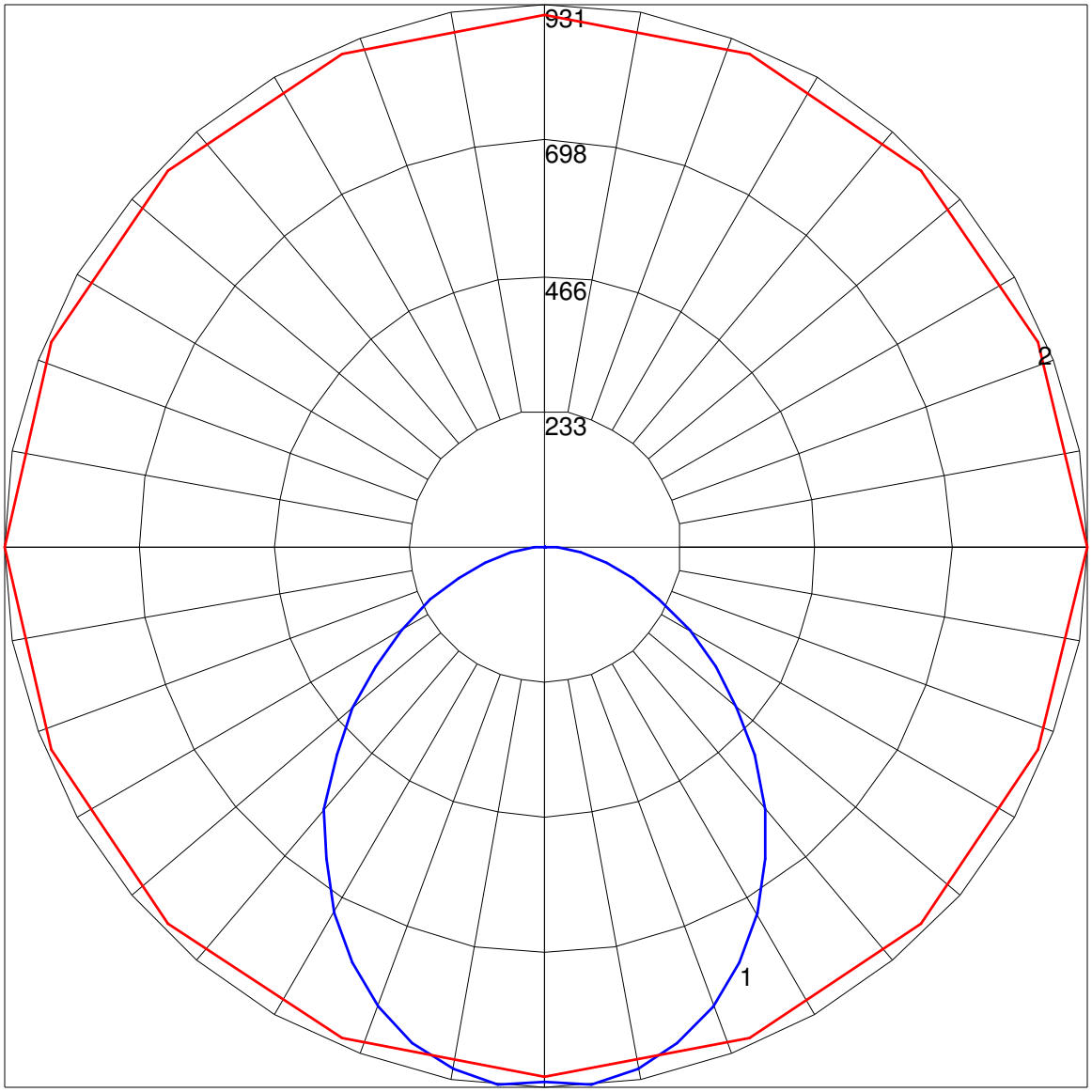
POLAR GRAPH



Maximum Candela = 931.294 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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