



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 76-4-L32-840-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN from BALLABS TEST NO. 18634.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUE DATE] 18-NOV-2019  
 [MANUFAC] WILLIAMS LINEAR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 4' STRIP LUMINAIRE  
 [MORE] LED ARRAYS ON WHITE REFLECTOR  
 [LUMCAT] 76-4-L32-840-DRV-UNV  
 [ \_SEARCH\_SOURCETYPE]FL  
 [ \_SEARCH\_APPLICATION]INDOOR,COMMERCIAL,INDUSTRIAL,DIRECT,LINEAR  
 [ \_SEARCH\_APPLICATION]MANUFACTURING,WAREHOUSE  
 [ \_SEARCH\_MOUNTING]CEILING,SURFACE,SUSPENDED  
 [ \_SEARCH\_CERTIFICATION]DLC

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3263
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	153
Total Luminaire Watts	21.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.38 ft
Luminous Height	0.00 ft



### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8013	7957	7944
55	7612	7519	7473
65	7224	7129	6846
75	5983	5555	5555
85	3920	3615	3615

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 76-4-L32-840-DIM-UNV\_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	1124.596	1124.596	1124.596	1124.596	1124.596
<b>5</b>	1128.310	1128.310	1127.072	1127.072	1127.072
<b>10</b>	1112.217	1110.980	1110.980	1110.980	1109.742
<b>15</b>	1080.652	1080.652	1079.414	1078.795	1078.795
<b>20</b>	1064.560	1062.084	1061.465	1057.752	1058.989
<b>25</b>	1003.905	1003.286	1000.810	1000.191	1000.191
<b>30</b>	952.533	951.296	949.439	946.963	946.344
<b>35</b>	906.733	905.495	903.019	900.543	898.687
<b>40</b>	838.650	836.793	834.937	832.461	832.461
<b>45</b>	790.374	789.755	784.803	784.184	783.566
<b>50</b>	695.677	693.821	691.964	688.869	688.250
<b>55</b>	609.027	606.551	601.600	599.124	597.886
<b>60</b>	509.379	506.285	503.190	500.096	495.763
<b>65</b>	425.824	423.967	420.254	411.589	403.542
<b>70</b>	324.938	321.844	315.654	304.514	301.419
<b>75</b>	216.007	214.150	200.533	195.582	200.533
<b>80</b>	125.024	121.310	112.645	108.932	115.121
<b>85</b>	47.658	44.563	43.944	42.087	43.944
<b>90</b>	2.476	4.333	9.903	11.141	11.141

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 76-4-L32-840-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	413.35	N.A.	12.70
0-30	876.54	N.A.	26.90
0-40	1439.24	N.A.	44.10
0-60	2575.13	N.A.	78.90
0-80	3205.38	N.A.	98.20
0-90	3263.09	N.A.	100.00
10-90	3156.09	N.A.	96.70
20-40	1025.89	N.A.	31.40
20-50	1624.77	N.A.	49.80
40-70	1544.91	N.A.	47.30
60-80	630.25	N.A.	19.30
70-80	221.23	N.A.	6.80
80-90	57.71	N.A.	1.80
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3263.09	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	107.00
10-20	306.35
20-30	463.19
30-40	562.71
40-50	598.88
50-60	537.02
60-70	409.01
70-80	221.23
80-90	57.71
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 76-4-L32-840-DIM-UNV\_.IES**

**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	72	72	72	72	70	70	70	70	67	67	67	64	64	64	62	62	62	60
1	66	63	60	58	64	61	59	57	59	57	55	56	55	53	54	53	52	50
2	60	55	50	47	58	53	50	46	51	48	45	49	47	44	47	45	43	42
3	54	48	43	39	53	47	42	39	45	41	38	43	40	37	42	39	37	35
4	50	42	37	33	48	42	37	33	40	36	32	39	35	32	37	34	31	30
5	46	38	32	28	44	37	32	28	36	31	28	35	31	27	33	30	27	26
6	42	34	29	25	41	33	28	24	32	28	24	31	27	24	30	27	24	23
7	39	31	25	22	38	30	25	22	29	25	21	28	24	21	28	24	21	20
8	36	28	23	19	35	28	23	19	27	22	19	26	22	19	25	22	19	18
9	34	26	21	17	33	25	21	17	25	20	17	24	20	17	23	20	17	16
10	32	24	19	16	31	23	19	16	23	19	16	22	18	16	22	18	15	14

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 76-4-L32-840-DIM-UNV\_.IES**

**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

X=2H	Y=2H	21.0	22.7	21.4	23.0	23.3	20.9	22.6	21.3	22.9	23.2
	3H	22.9	24.4	23.3	24.7	25.1	22.7	24.2	23.1	24.5	24.9
	4H	23.5	24.9	23.9	25.3	25.7	23.3	24.7	23.7	25.0	25.4
	6H	24.0	25.3	24.4	25.6	26.0	23.7	25.0	24.1	25.3	25.7
	8H	24.1	25.4	24.5	25.7	26.1	23.8	25.0	24.2	25.4	25.8
	12H	24.2	25.4	24.6	25.8	26.2	23.9	25.0	24.3	25.4	25.9

UGR Viewed Endwise

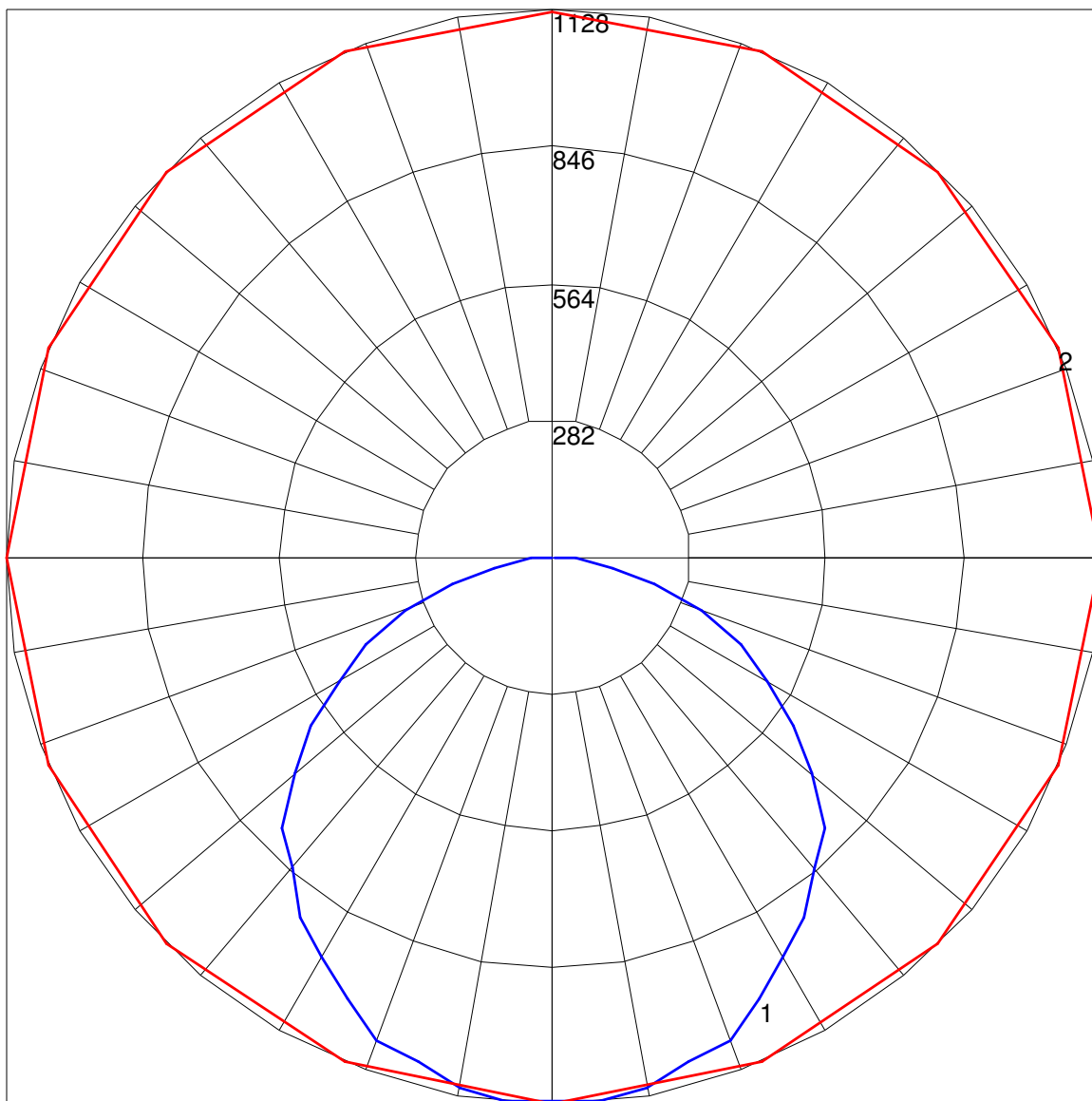
4H	2H	21.7	23.1	22.1	23.4	23.8	21.6	23.0	22.0	23.4	23.7
	3H	23.7	24.9	24.2	25.3	25.7	23.5	24.7	23.9	25.1	25.5
	4H	24.5	25.6	24.9	26.0	26.4	24.2	25.3	24.7	25.7	26.1
	6H	25.1	26.0	25.5	26.4	26.9	24.7	25.7	25.2	26.1	26.6
	8H	25.2	26.1	25.7	26.5	27.0	24.9	25.8	25.3	26.2	26.7
	12H	25.3	26.1	25.8	26.6	27.1	25.0	25.8	25.5	26.2	26.7

8H	4H	24.8	25.6	25.2	26.1	26.5	24.5	25.4	25.0	25.8	26.3
	6H	25.4	26.1	25.9	26.6	27.1	25.1	25.8	25.6	26.3	26.8
	8H	25.7	26.3	26.2	26.8	27.3	25.3	26.0	25.8	26.5	27.0
	12H	25.8	26.4	26.3	26.9	27.4	25.5	26.0	26.0	26.5	27.1

12H	4H	24.8	25.6	25.2	26.0	26.5	24.5	25.3	25.0	25.8	26.3
	6H	25.4	26.1	26.0	26.6	27.1	25.1	25.8	25.7	26.3	26.8
	8H	25.7	26.3	26.2	26.8	27.4	25.4	26.0	25.9	26.5	27.0

Maximum UGR = 27.4

POLAR GRAPH



Maximum Candela = 1128.31 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.)