



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LL6G-5-L85-835-SWF-AF125-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 17249.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 10-AUG-2020

[MANUFAC] WILLIAMS INDOOR

[OTHER]H.E. WILLIAMS INC. - CARTHAGE, MO. 64836

[LUMINAIRE] 5' LED TROFFER

[MORE] WITH FROSTED ACRYLIC LENS

[LUMCAT] LL6G-5-L85-835-SWF-AF125-DIM-UNV

[LAMPCAT] HLM 80 CRI, 3500K CCT

[\_SEARCH\_SOURCETYPE]LED

[\_SEARCH\_APPLICATION]INDOOR,OFFICE,CLASSROOM,ARCHITECTURAL,DIRECT,LINEAR

[\_SEARCH\_MOUNTING]RECESSED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8535
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	80.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.04
Spacing Criterion (Diagonal)	1.18
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.84 ft
Luminous Width (90-270)	0.34 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	19417	17473	15838
55	16339	14433	12935
65	13786	12160	10903
75	11165	9716	8811
85	9319	8065	7527

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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>	4158.086	4158.086	4158.086	4158.086	4158.086
<b>5</b>	4133.883	4131.462	4124.201	4119.361	4119.361
<b>10</b>	4024.969	4012.867	3991.085	3976.563	3964.461
<b>15</b>	3850.707	3833.765	3792.619	3763.576	3744.213
<b>20</b>	3678.865	3649.821	3579.633	3509.444	3477.980
<b>25</b>	3337.602	3301.297	3216.587	3124.615	3090.731
<b>30</b>	3066.528	3015.701	2894.686	2778.511	2732.525
<b>35</b>	2759.149	2696.221	2567.945	2444.509	2386.422
<b>40</b>	2408.204	2345.276	2212.160	2076.623	2030.637
<b>45</b>	2127.449	2057.260	1914.462	1783.765	1735.359
<b>50</b>	1771.664	1711.156	1578.039	1464.285	1418.299
<b>55</b>	1452.184	1398.937	1282.762	1188.370	1149.645
<b>60</b>	1154.486	1108.500	1018.949	939.079	912.455
<b>65</b>	902.774	873.730	796.281	733.353	713.990
<b>70</b>	663.164	636.540	578.453	539.728	522.786
<b>75</b>	447.757	428.394	389.669	367.887	353.365
<b>80</b>	268.654	258.973	237.190	220.248	215.407
<b>85</b>	125.856	118.595	108.914	106.493	101.653
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1459.51	N.A.	17.10
0-30	2945.41	N.A.	34.50
0-40	4548.67	N.A.	53.30
0-60	7185.24	N.A.	84.20
0-80	8408.86	N.A.	98.50
0-90	8535.04	N.A.	100.00
10-90	8145.56	N.A.	95.40
20-40	3089.15	N.A.	36.20
20-50	4563.81	N.A.	53.50
40-70	3432.87	N.A.	40.20
60-80	1223.62	N.A.	14.30
70-80	427.32	N.A.	5.00
80-90	126.17	N.A.	1.50
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	8535.04	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	389.48
10-20	1070.04
20-30	1485.9
30-40	1603.25
40-50	1474.66
50-60	1161.92
60-70	796.30
70-80	427.32
80-90	126.17
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

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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	239	239	239	239	233	233	233	233	223	223	223	213	213	213	205	205	205	201
1	220	212	204	197	215	207	200	193	199	193	187	191	186	182	184	180	176	172
2	202	187	174	164	197	183	172	162	176	166	158	170	162	155	164	157	151	147
3	186	166	151	139	181	163	149	138	157	145	135	152	142	133	147	138	131	127
4	171	149	132	120	167	146	131	119	141	128	118	137	125	116	133	123	114	110
5	158	134	117	105	154	132	116	104	128	114	103	124	112	102	120	110	101	97
6	147	122	105	93	143	120	104	93	117	102	92	113	101	91	110	99	90	86
7	137	111	95	83	134	110	94	83	107	93	82	104	91	82	101	90	81	77
8	128	102	86	75	125	101	85	75	98	84	74	96	83	74	94	82	73	70
9	120	94	79	68	117	93	78	68	91	77	68	89	76	67	87	75	67	63
10	113	88	72	62	110	87	72	62	85	71	62	83	70	62	81	70	61	58

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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

X=2H	Y=2H	18.9	20.4	19.3	20.8	21.1	17.7	19.2	18.0	19.5	19.8
	3H	20.5	21.9	20.8	22.2	22.5	19.2	20.6	19.5	20.9	21.2
	4H	21.0	22.3	21.4	22.7	23.1	19.7	21.0	20.1	21.4	21.7
	6H	21.4	22.6	21.9	23.0	23.4	20.1	21.3	20.5	21.7	22.1
	8H	21.6	22.7	22.0	23.1	23.5	20.3	21.4	20.7	21.8	22.2
	12H	21.7	22.8	22.1	23.2	23.6	20.3	21.4	20.8	21.8	22.3

### UGR Viewed Endwise

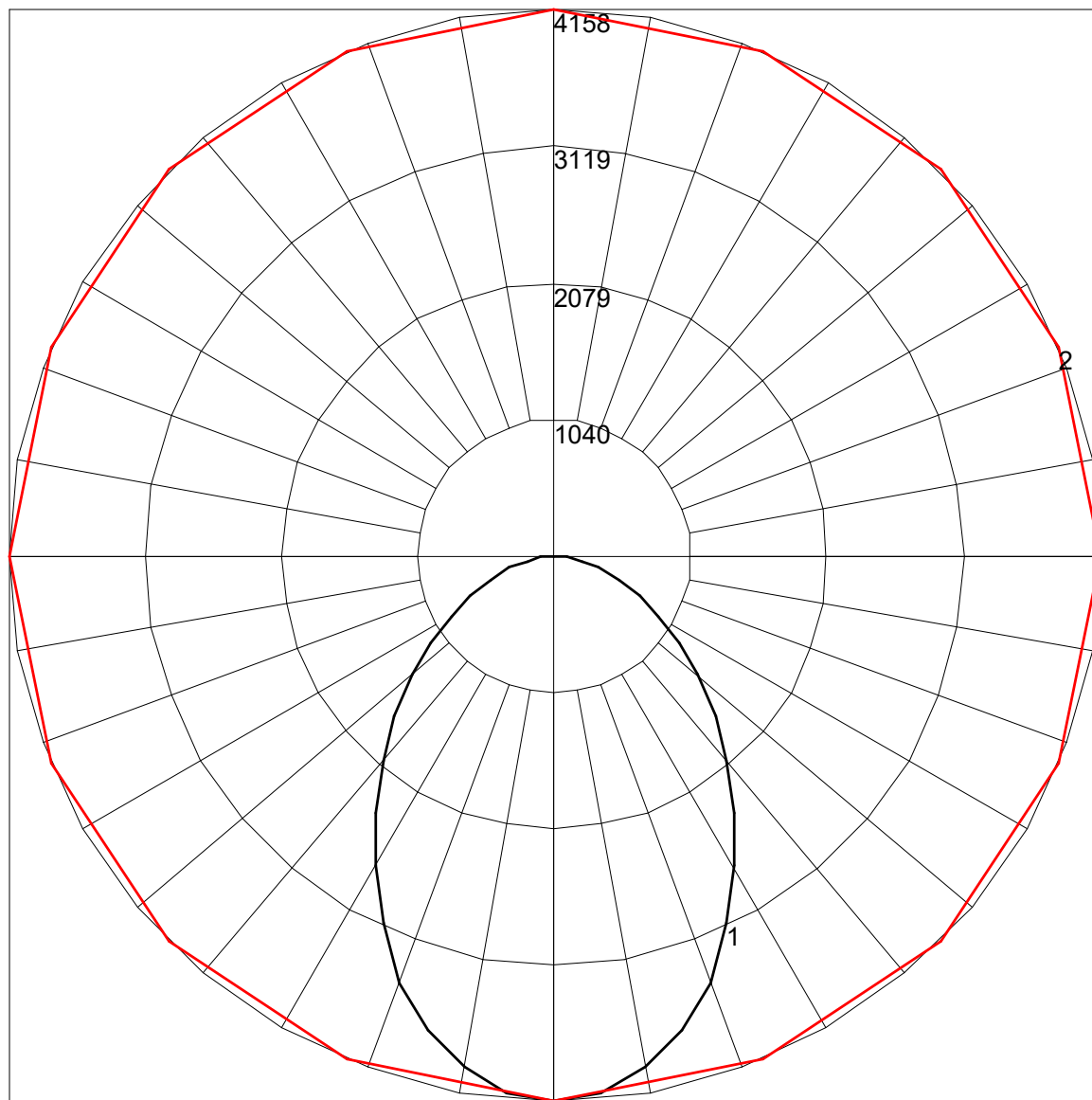
4H	2H	19.3	20.6	19.7	21.0	21.3	18.3	19.6	18.7	20.0	20.3
	3H	21.1	22.2	21.5	22.6	23.0	20.0	21.1	20.4	21.5	21.9
	4H	21.8	22.8	22.2	23.2	23.6	20.7	21.6	21.1	22.1	22.5
	6H	22.3	23.2	22.8	23.6	24.1	21.2	22.0	21.6	22.5	22.9
	8H	22.5	23.3	23.0	23.8	24.2	21.4	22.2	21.8	22.6	23.1
	12H	22.7	23.4	23.2	23.9	24.4	21.5	22.2	22.0	22.7	23.2

8H	4H	22.0	22.8	22.4	23.2	23.7	21.0	21.8	21.4	22.2	22.7
	6H	22.6	23.3	23.1	23.8	24.3	21.6	22.3	22.1	22.8	23.2
	8H	22.9	23.5	23.4	24.0	24.5	21.9	22.5	22.4	23.0	23.4
	12H	23.2	23.7	23.7	24.2	24.7	22.1	22.6	22.6	23.1	23.7

12H	4H	22.0	22.7	22.5	23.2	23.7	21.0	21.7	21.5	22.2	22.7
	6H	22.7	23.3	23.2	23.7	24.3	21.7	22.3	22.2	22.7	23.3
	8H	23.0	23.5	23.5	24.0	24.6	22.0	22.5	22.5	23.0	23.6

Maximum UGR = 24.7

POLAR GRAPH



Maximum Candela = 4158.086 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)