



IES INDOOR REPORT

PHOTOMETRIC FILENAME : LL6G-5-L42-835-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

[ISSUE DATE] 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-L42-835-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	4253
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	36.8
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	9674	8706	7891
55	8141	7191	6445
65	6869	6058	5432
75	5563	4841	4390
85	4643	4018	3750

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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>
0	2071.734	2071.734	2071.734	2071.734	2071.734
5	2059.675	2058.470	2054.852	2052.440	2052.440
10	2005.410	1999.381	1988.527	1981.292	1975.263
15	1918.585	1910.144	1889.644	1875.173	1865.526
20	1832.966	1818.496	1783.525	1748.554	1732.877
25	1662.935	1644.846	1602.640	1556.816	1539.933
30	1527.874	1502.550	1442.255	1384.372	1361.460
35	1374.725	1343.371	1279.459	1217.958	1189.016
40	1199.870	1168.516	1102.192	1034.661	1011.749
45	1059.985	1025.014	953.866	888.748	864.630
50	882.718	852.571	786.246	729.569	706.657
55	723.539	697.010	639.126	592.096	572.802
60	575.214	552.302	507.683	467.889	454.624
65	449.800	435.330	396.741	365.387	355.740
70	330.416	317.151	288.210	268.915	260.474
75	223.091	213.444	194.150	183.297	176.061
80	133.855	129.031	118.178	109.737	107.325
85	62.707	59.089	54.265	53.060	50.648
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	727.19	N.A.	17.10
0-30	1467.53	N.A.	34.50
0-40	2266.34	N.A.	53.30
0-60	3579.99	N.A.	84.20
0-80	4189.65	N.A.	98.50
0-90	4252.52	N.A.	100.00
10-90	4058.46	N.A.	95.40
20-40	1539.15	N.A.	36.20
20-50	2273.88	N.A.	53.50
40-70	1710.4	N.A.	40.20
60-80	609.66	N.A.	14.30
70-80	212.91	N.A.	5.00
80-90	62.87	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	4252.52	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	194.05
10-20	533.14
20-30	740.34
30-40	798.81
40-50	734.74
50-60	578.92
60-70	396.75
70-80	212.91
80-90	62.87
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

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	102	102	102	102	99	99	99	99	95	95	95	91	91	91	87	87	87	85
1	94	90	87	84	91	88	85	82	84	82	80	81	79	77	78	76	75	73
2	86	79	74	70	84	78	73	69	75	71	67	72	69	66	70	67	64	63
3	79	71	64	59	77	69	63	59	67	62	58	65	60	57	62	59	56	54
4	73	63	56	51	71	62	56	51	60	54	50	58	53	49	56	52	49	47
5	67	57	50	45	66	56	49	44	54	48	44	53	48	43	51	47	43	41
6	63	52	45	40	61	51	44	39	50	44	39	48	43	39	47	42	38	37
7	58	47	40	35	57	47	40	35	45	39	35	44	39	35	43	38	34	33
8	54	43	37	32	53	43	36	32	42	36	32	41	35	31	40	35	31	30
9	51	40	33	29	50	40	33	29	39	33	29	38	32	29	37	32	28	27
10	48	37	31	26	47	37	31	26	36	30	26	35	30	26	34	30	26	25

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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	21.4	22.9	21.7	23.2	23.5	20.1	21.7	20.5	22.0	22.3
	3H	22.9	24.3	23.3	24.6	25.0	21.6	23.0	22.0	23.3	23.7
	4H	23.5	24.8	23.9	25.1	25.5	22.2	23.5	22.6	23.8	24.2
	6H	23.9	25.1	24.3	25.5	25.9	22.6	23.8	23.0	24.1	24.5
	8H	24.1	25.2	24.5	25.6	26.0	22.7	23.8	23.1	24.2	24.6
	12H	24.1	25.2	24.6	25.6	26.0	22.8	23.9	23.2	24.3	24.7

UGR Viewed Endwise

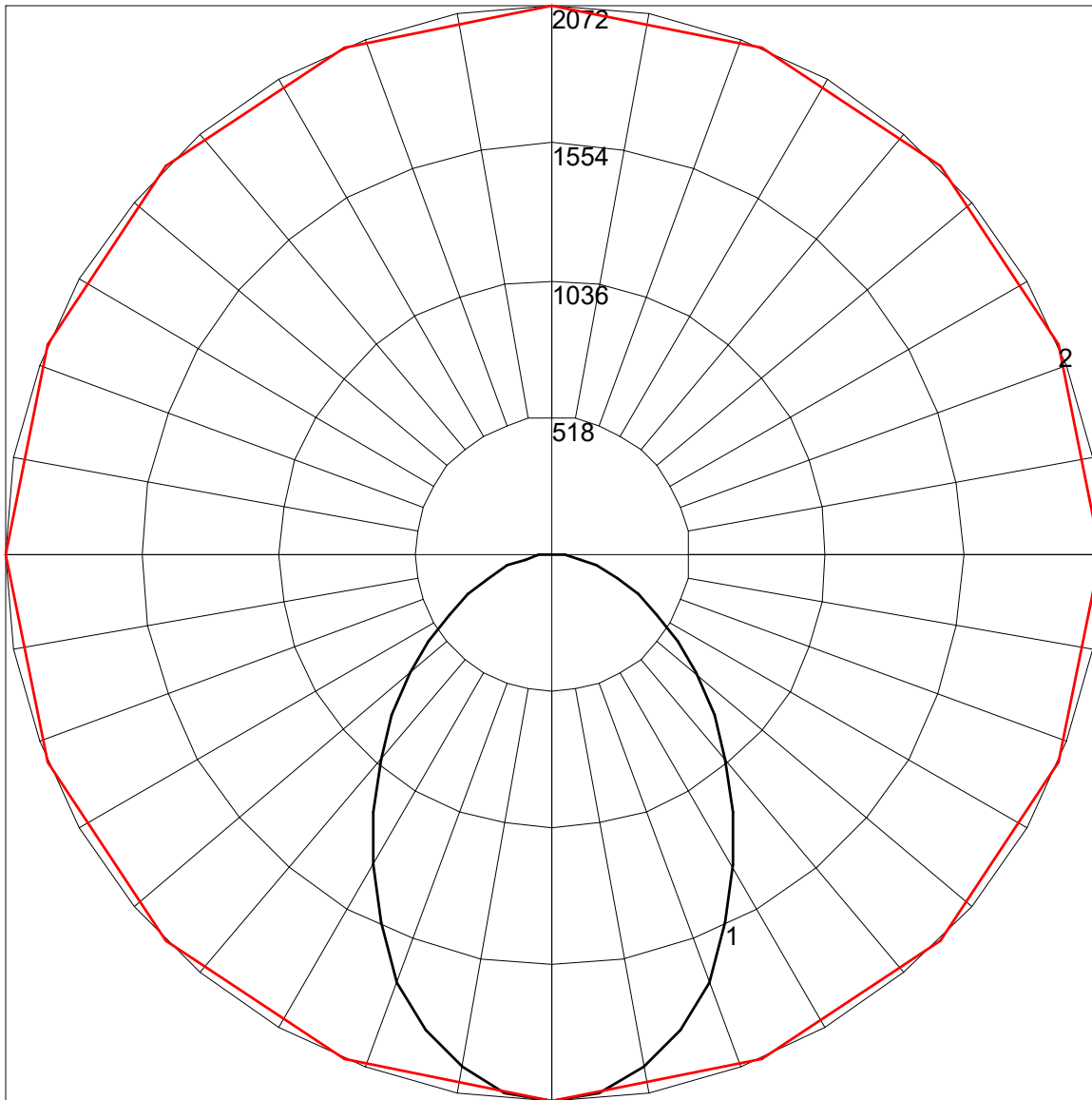
4H	2H	21.8	23.1	22.2	23.4	23.8	20.8	22.1	21.2	22.4	22.8
	3H	23.6	24.6	24.0	25.0	25.4	22.5	23.6	22.9	24.0	24.4
	4H	24.2	25.2	24.7	25.6	26.1	23.1	24.1	23.5	24.5	24.9
	6H	24.8	25.6	25.3	26.1	26.5	23.6	24.5	24.1	24.9	25.4
	8H	25.0	25.8	25.5	26.2	26.7	23.8	24.6	24.3	25.1	25.5
	12H	25.1	25.9	25.6	26.3	26.8	24.0	24.7	24.4	25.2	25.6

8H	4H	24.4	25.2	24.9	25.7	26.1	23.4	24.2	23.9	24.7	25.1
	6H	25.1	25.8	25.6	26.2	26.7	24.1	24.7	24.6	25.2	25.7
	8H	25.4	26.0	25.9	26.5	27.0	24.3	24.9	24.8	25.4	25.9
	12H	25.6	26.1	26.1	26.6	27.2	24.5	25.1	25.1	25.6	26.1

12H	4H	24.4	25.2	24.9	25.6	26.1	23.5	24.2	23.9	24.7	25.1
	6H	25.1	25.7	25.6	26.2	26.7	24.1	24.7	24.6	25.2	25.7
	8H	25.5	26.0	26.0	26.5	27.0	24.4	25.0	25.0	25.5	26.0

Maximum UGR = 27.2

POLAR GRAPH



Maximum Candela = 2071.734 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.)