



IES INDOOR REPORT

PHOTOMETRIC FILENAME : LL6G-4-L34-835-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] 4' LED TROFFER
 [MORE] WITH FROSTED ACRYLIC LENS
 [LUMCAT] LL6G-4-L34-835-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	3411
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	32.1
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)	3.84 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	9780	8801	7977
55	8230	7270	6515
65	6944	6124	5492
75	5623	4894	4438
85	4694	4062	3791

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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	1661.968	1661.968	1661.968	1661.968	1661.968
5	1652.294	1651.326	1648.424	1646.489	1646.489
10	1608.761	1603.925	1595.218	1589.414	1584.577
15	1539.110	1532.338	1515.892	1504.284	1496.545
20	1470.425	1458.817	1430.763	1402.708	1390.132
25	1334.024	1319.513	1285.655	1248.894	1235.351
30	1225.677	1205.362	1156.993	1110.558	1092.178
35	1102.819	1077.667	1026.396	977.059	953.842
40	962.548	937.396	884.190	830.016	811.636
45	850.332	822.277	765.202	712.963	693.615
50	708.126	683.941	630.735	585.268	566.888
55	580.431	559.149	512.714	474.986	459.508
60	461.443	443.062	407.269	375.345	364.704
65	360.835	349.226	318.270	293.118	285.379
70	265.064	254.422	231.205	215.727	208.955
75	178.966	171.227	155.749	147.043	141.238
80	107.380	103.510	94.804	88.032	86.097
85	50.304	47.402	43.532	42.565	40.630
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	583.36	N.A.	17.10
0-30	1177.27	N.A.	34.50
0-40	1818.08	N.A.	53.30
0-60	2871.91	N.A.	84.20
0-80	3360.98	N.A.	98.50
0-90	3411.42	N.A.	100.00
10-90	3255.74	N.A.	95.40
20-40	1234.72	N.A.	36.20
20-50	1824.13	N.A.	53.50
40-70	1372.1	N.A.	40.20
60-80	489.08	N.A.	14.30
70-80	170.80	N.A.	5.00
80-90	50.43	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	3411.42	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	155.67
10-20	427.69
20-30	593.91
30-40	640.81
40-50	589.41
50-60	464.41
60-70	318.28
70-80	170.80
80-90	50.43
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	119	119	119	119	116	116	116	116	111	111	111	107	107	107	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	93	83	75	69	90	81	74	69	78	72	68	76	71	66	73	69	65	63
4	85	74	66	60	83	73	65	59	71	64	59	68	63	58	66	61	57	55
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	50	48
6	73	61	52	46	72	60	52	46	58	51	46	57	50	45	55	49	45	43
7	68	56	47	41	67	55	47	41	53	46	41	52	45	41	51	45	40	39
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37	35
9	60	47	39	34	59	47	39	34	45	39	34	44	38	34	43	38	33	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29

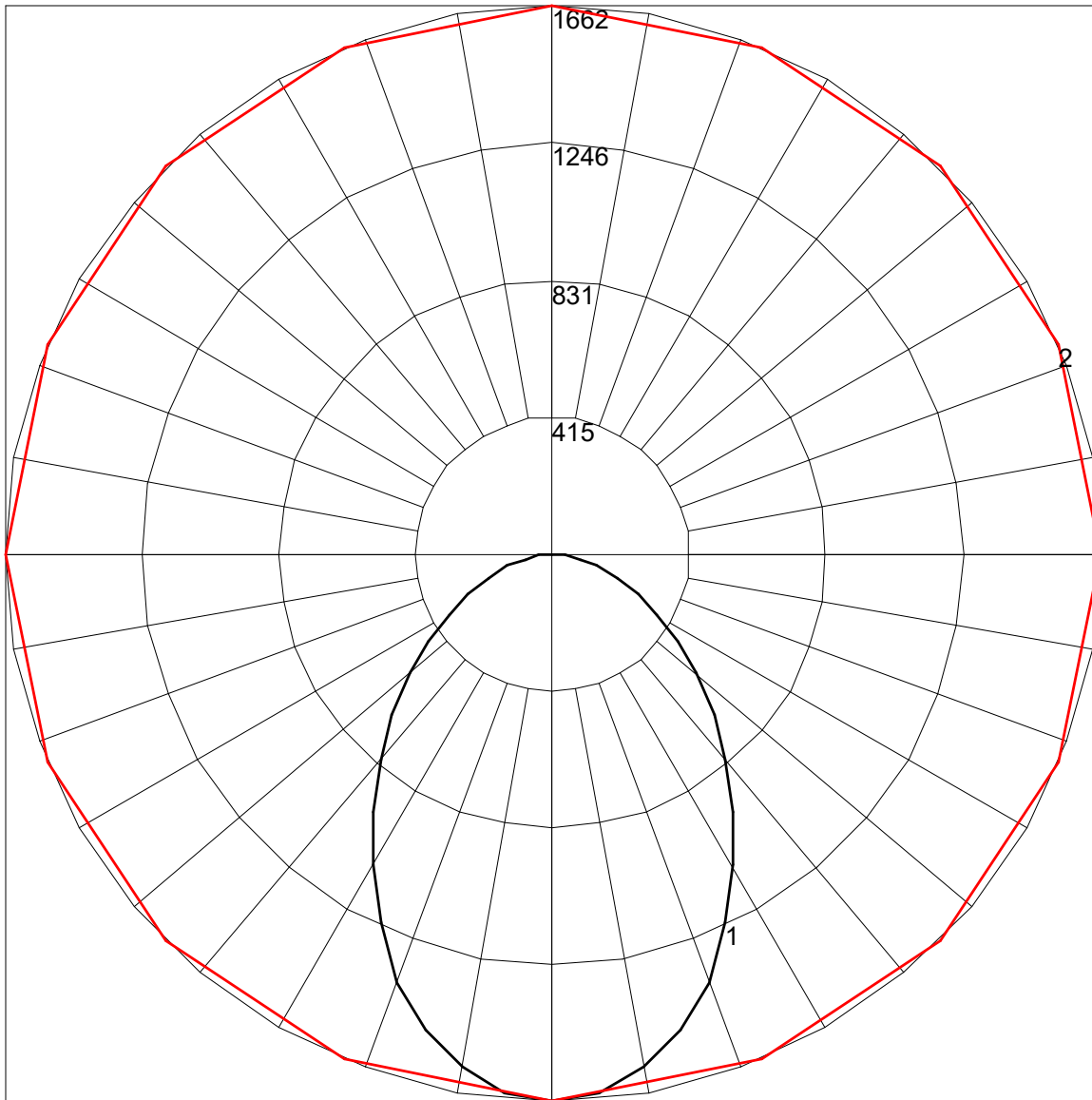
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UGR TABLE - CORRECTED

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	19.0	20.5	19.4	20.9	21.2	17.8	19.3	18.1	19.6	19.9
	3H	20.6	22.0	20.9	22.3	22.6	19.3	20.7	19.7	21.0	21.3
	4H	21.1	22.4	21.5	22.8	23.2	19.8	21.1	20.2	21.5	21.8
	6H	21.6	22.7	22.0	23.1	23.5	20.2	21.4	20.6	21.8	22.2
	8H	21.7	22.8	22.1	23.2	23.6	20.4	21.5	20.8	21.9	22.3
	12H	21.8	22.9	22.2	23.3	23.7	20.4	21.5	20.9	21.9	22.4
4H	2H	19.4	20.7	19.8	21.1	21.4	18.4	19.7	18.8	20.1	20.5
	3H	21.2	22.3	21.6	22.7	23.1	20.1	21.2	20.5	21.6	22.0
	4H	21.9	22.9	22.3	23.3	23.7	20.8	21.7	21.2	22.2	22.6
	6H	22.4	23.3	22.9	23.7	24.2	21.3	22.1	21.7	22.6	23.0
	8H	22.6	23.4	23.1	23.9	24.3	21.5	22.3	21.9	22.7	23.2
	12H	22.8	23.5	23.3	24.0	24.5	21.6	22.3	22.1	22.8	23.3
8H	4H	22.1	22.9	22.6	23.3	23.8	21.1	21.9	21.5	22.3	22.8
	6H	22.7	23.4	23.2	23.9	24.4	21.7	22.4	22.2	22.9	23.3
	8H	23.0	23.6	23.5	24.1	24.6	22.0	22.6	22.5	23.1	23.6
	12H	23.3	23.8	23.8	24.3	24.8	22.2	22.7	22.7	23.2	23.8
12H	4H	22.1	22.8	22.6	23.3	23.8	21.1	21.8	21.6	22.3	22.8
	6H	22.8	23.4	23.3	23.8	24.4	21.8	22.4	22.3	22.8	23.4
	8H	23.1	23.6	23.6	24.1	24.7	22.1	22.6	22.6	23.1	23.7

Maximum UGR = 24.8

POLAR GRAPH



Maximum Candela = 1661.968 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.)