



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V50G-S14-L39-835-FVLF-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18123.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 23-APR-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 1x4' RECESSED LED TROFFER LUMINAIRE

[MORE] WHITE REFLECTOR w/CLEAR POLYCARB LENS & PAT12 PRISMATIC OVERLAY

[LUMCAT] 50G-S14-L39-835-FVLF-DIM-UNV

[_SEARCH_SOURCETYPE]LED

[_SEARCH_APPLICATION]INDOOR,DIRECT

[_SEARCH_MOUNTING]RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3856
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	33.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.77 ft
Luminous Width (90-270)	0.77 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5019	4763	4468
55	4025	3657	3296
65	3228	2842	2626
75	2572	2379	2379
85	2621	2372	2621

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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	1774.172	1774.172	1774.172	1774.172	1774.172
5	1769.466	1768.877	1769.466	1768.877	1770.642
10	1740.053	1740.053	1738.876	1738.876	1738.876
15	1672.404	1672.404	1669.463	1669.463	1668.874
20	1620.049	1618.873	1615.343	1612.990	1612.402
25	1477.692	1474.163	1470.045	1464.162	1464.162
30	1362.394	1357.688	1346.512	1333.570	1329.452
35	1244.156	1238.273	1220.037	1196.507	1187.683
40	1087.680	1077.680	1052.385	1021.796	1007.678
45	959.441	943.558	910.616	868.850	854.144
50	782.377	763.553	727.081	682.962	670.020
55	624.137	606.489	567.076	526.487	511.192
60	479.426	461.779	428.837	397.659	385.306
65	368.835	354.128	324.716	305.303	300.009
70	264.126	254.125	232.360	226.477	227.066
75	180.005	174.711	166.476	162.358	166.476
80	120.004	116.474	111.180	114.121	115.886
85	61.767	58.825	55.884	61.178	61.767
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	640.99	N.A.	16.60
0-30	1320.95	N.A.	34.30
0-40	2076.79	N.A.	53.90
0-60	3280.43	N.A.	85.10
0-80	3792.17	N.A.	98.30
0-90	3855.81	N.A.	100.00
10-90	3687.93	N.A.	95.60
20-40	1435.8	N.A.	37.20
20-50	2128.07	N.A.	55.20
40-70	1532.49	N.A.	39.70
60-80	511.74	N.A.	13.30
70-80	182.89	N.A.	4.70
80-90	63.64	N.A.	1.70
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	3855.81	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	167.88
10-20	473.11
20-30	679.97
30-40	755.84
40-50	692.27
50-60	511.37
60-70	328.86
70-80	182.89
80-90	63.64
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	106	106	106	102	102	102	100
1	110	105	102	98	107	103	100	96	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	76	73
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	73	69	65	63
4	86	74	66	60	83	73	66	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39
8	64	51	43	37	62	50	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	58	47	39	34	45	39	34	44	38	34	43	38	33	32
10	56	44	36	31	55	43	36	31	42	35	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

X=2H	Y=2H	16.3	17.8	16.6	18.1	18.4	15.2	16.7	15.5	17.0	17.3
	3H	17.7	19.0	18.1	19.4	19.7	16.6	18.0	17.0	18.3	18.7
	4H	18.2	19.5	18.6	19.8	20.2	17.2	18.5	17.6	18.8	19.2
	6H	18.7	19.8	19.1	20.2	20.6	17.8	18.9	18.2	19.3	19.7
	8H	18.8	20.0	19.3	20.3	20.7	18.0	19.1	18.4	19.5	19.9
	12H	19.0	20.1	19.4	20.4	20.9	18.2	19.3	18.6	19.6	20.1

UGR Viewed Endwise

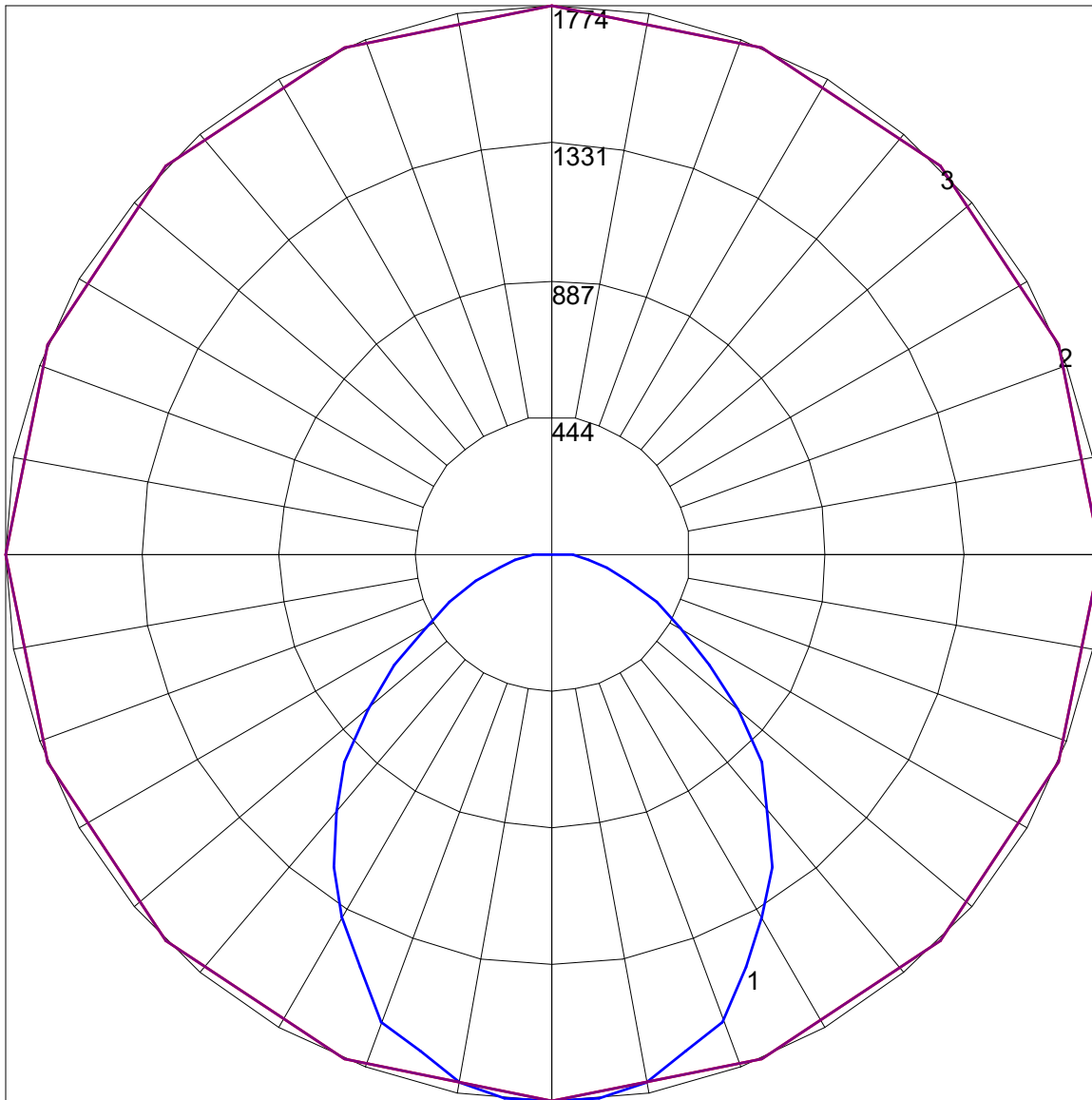
4H	2H	16.6	17.9	17.0	18.3	18.6	15.7	17.0	16.1	17.4	17.7
	3H	18.3	19.3	18.7	19.7	20.1	17.4	18.5	17.8	18.9	19.3
	4H	18.9	19.9	19.4	20.3	20.7	18.1	19.1	18.5	19.5	19.9
	6H	19.5	20.4	20.0	20.8	21.3	18.8	19.6	19.3	20.1	20.5
	8H	19.8	20.6	20.2	21.0	21.5	19.1	19.9	19.6	20.3	20.8
	12H	20.0	20.7	20.5	21.2	21.6	19.4	20.1	19.8	20.5	21.0

8H	4H	19.1	19.9	19.6	20.4	20.8	18.4	19.2	18.9	19.6	20.1
	6H	19.9	20.5	20.4	21.0	21.5	19.3	19.9	19.7	20.4	20.9
	8H	20.2	20.8	20.7	21.3	21.8	19.7	20.2	20.2	20.7	21.2
	12H	20.5	21.0	21.0	21.5	22.1	20.0	20.5	20.5	21.0	21.6

12H	4H	19.2	19.9	19.6	20.3	20.8	18.4	19.2	18.9	19.6	20.1
	6H	20.0	20.5	20.5	21.0	21.5	19.4	19.9	19.9	20.4	20.9
	8H	20.3	20.9	20.8	21.3	21.9	19.8	20.3	20.3	20.8	21.4

Maximum UGR = 22.1

POLAR GRAPH



Maximum Candela = 1774.172 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)
3 - Horizontal Cone Through Vertical Angle (0)