



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : V50G-S24-L117-835-FPC12187-CA040-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 21039.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 23-APR-2020

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

[LUMINAIRE] 4-56 LED 22" ARRAYS 2X4' RECESSED LUMINAIRE

[MORE] WHITE REFL w/.187" PRISMATIC PAT12 POLYCARB LENS & CA040 OVERLAY

[LUMCAT] V50G-S24-L117/835-FPC12187/CA040-DIM-UNV

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	9762
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	96
Total Luminaire Watts	101.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.76 ft
Luminous Width (90-270)	1.77 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5291	5159	5111
55	4412	4301	4224
65	3611	3403	3454
75	3020	2928	3209
85	2402	2598	2911

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	4192.269	4192.269	4192.269	4192.269	4192.269
<b>5</b>	4209.884	4185.224	4156.336	4144.358	4147.176
<b>10</b>	4136.607	4115.470	4083.059	4075.309	4076.718
<b>15</b>	4020.351	3999.214	3969.621	3955.530	3958.348
<b>20</b>	3851.251	3832.932	3803.340	3785.725	3789.248
<b>25</b>	3634.944	3611.693	3582.805	3565.895	3570.123
<b>30</b>	3360.861	3340.429	3309.427	3300.972	3296.744
<b>35</b>	3045.208	3033.230	3000.115	2986.728	2983.909
<b>40</b>	2692.917	2681.643	2646.414	2617.526	2628.095
<b>45</b>	2316.669	2277.917	2258.893	2225.073	2237.756
<b>50</b>	1936.194	1915.761	1882.646	1857.281	1850.940
<b>55</b>	1566.993	1557.129	1527.536	1490.193	1500.057
<b>60</b>	1236.543	1216.815	1182.995	1181.586	1169.608
<b>65</b>	944.846	915.958	890.593	904.685	903.980
<b>70</b>	692.605	682.036	663.013	686.264	692.605
<b>75</b>	484.049	477.003	469.252	503.777	514.346
<b>80</b>	305.084	302.266	304.380	333.972	344.541
<b>85</b>	129.643	126.825	140.212	167.691	157.122
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	1516.29	N.A.	15.50
0-30	3167.1	N.A.	32.40
0-40	5043.38	N.A.	51.70
0-60	8162.6	N.A.	83.60
0-80	9597.32	N.A.	98.30
0-90	9762.12	N.A.	100.00
10-90	9366.67	N.A.	95.90
20-40	3527.09	N.A.	36.10
20-50	5274.44	N.A.	54.00
40-70	4033.52	N.A.	41.30
60-80	1434.72	N.A.	14.70
70-80	520.41	N.A.	5.30
80-90	164.81	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	9762.12	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	395.45
10-20	1120.84
20-30	1650.81
30-40	1876.28
40-50	1747.35
50-60	1371.87
60-70	914.31
70-80	520.41
80-90	164.81
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	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42
7	67	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	29	28

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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	16.7	18.2	17.1	18.6	18.9	16.4	18.0	16.8	18.3	18.6
	3H	18.1	19.5	18.5	19.9	20.2	18.0	19.4	18.3	19.7	20.0
	4H	18.7	20.0	19.1	20.4	20.8	18.6	19.9	19.0	20.3	20.7
	6H	19.2	20.4	19.6	20.7	21.1	19.2	20.4	19.6	20.8	21.2
	8H	19.3	20.5	19.8	20.9	21.3	19.4	20.5	19.8	20.9	21.3
	12H	19.4	20.5	19.8	20.9	21.3	19.5	20.6	20.0	21.0	21.5

### UGR Viewed Endwise

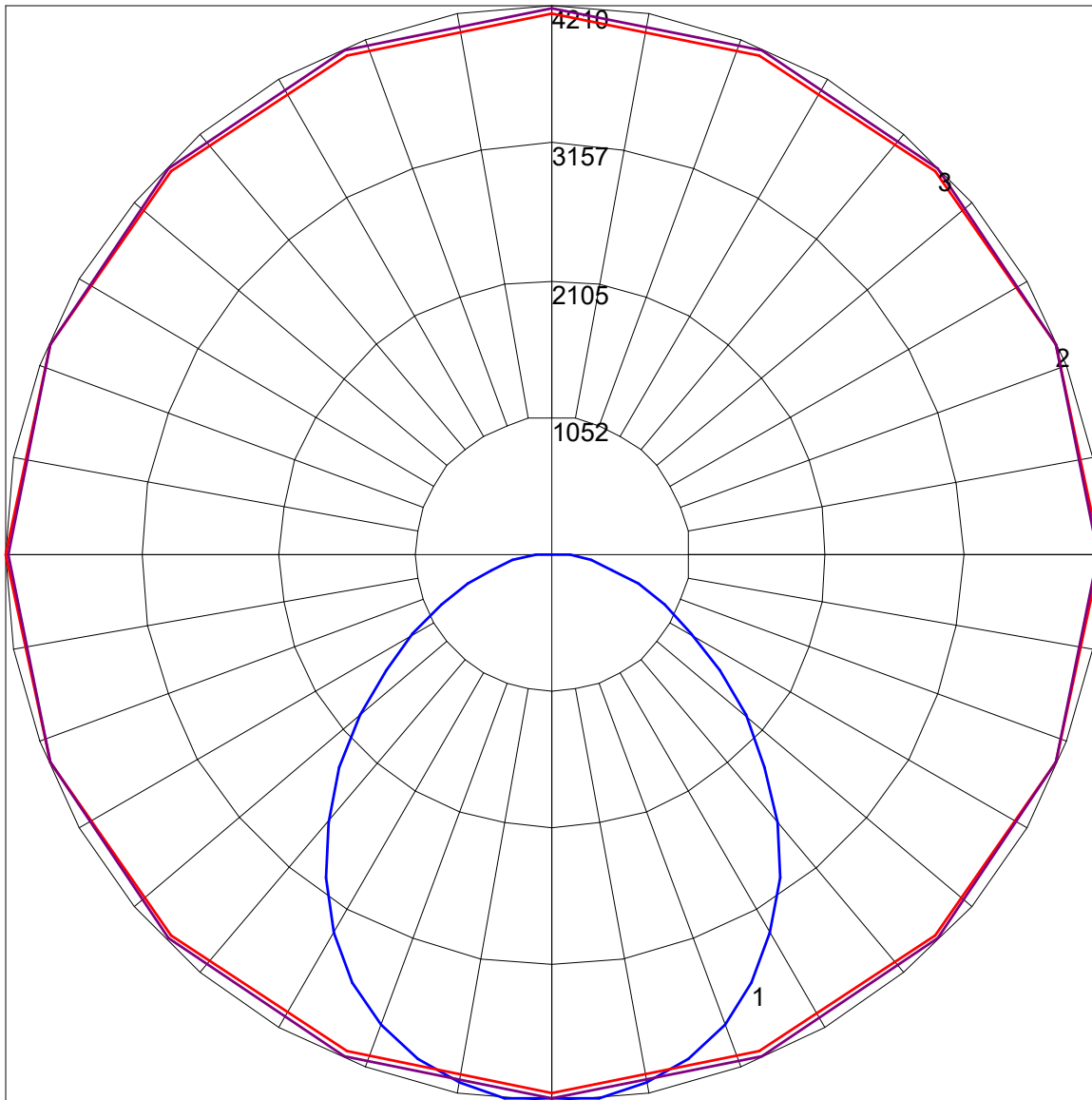
4H	2H	17.1	18.5	17.5	18.8	19.2	16.9	18.2	17.3	18.6	19.0
	3H	18.8	19.9	19.2	20.3	20.7	18.7	19.8	19.1	20.2	20.6
	4H	19.5	20.5	20.0	20.9	21.4	19.5	20.5	19.9	20.9	21.3
	6H	20.1	21.0	20.6	21.4	21.9	20.2	21.1	20.7	21.5	22.0
	8H	20.3	21.1	20.8	21.6	22.0	20.5	21.3	20.9	21.7	22.2
	12H	20.5	21.2	21.0	21.7	22.1	20.7	21.4	21.2	21.9	22.4

8H	4H	19.8	20.6	20.2	21.0	21.5	19.8	20.6	20.2	21.0	21.5
	6H	20.5	21.2	21.0	21.7	22.2	20.6	21.3	21.1	21.8	22.3
	8H	20.8	21.4	21.3	21.9	22.4	21.0	21.6	21.5	22.1	22.6
	12H	21.0	21.5	21.5	22.0	22.6	21.3	21.8	21.8	22.3	22.9

12H	4H	19.8	20.6	20.3	21.0	21.5	19.8	20.5	20.3	21.0	21.5
	6H	20.6	21.2	21.1	21.7	22.2	20.7	21.3	21.2	21.8	22.3
	8H	20.9	21.4	21.4	21.9	22.5	21.1	21.6	21.6	22.1	22.7

Maximum UGR = 22.9

POLAR GRAPH



Maximum Candela = 4209.884 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.)  
# 3 - Horizontal Cone Through Vertical Angle (0)