



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S22-L43-930-SAF12125-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM BALLABS TEST NO. 18124.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 13-MARCH-2020  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMINAIRE] 2x2' RECESSED LED TROFFER  
 [MORE] WHITE REFLECTOR w/PAT 12 LENS PRISM  
 [LUMCAT] 50G-S22-L43-930-SAF12125-DIM-UNV  
 [LAMPCAT] HLM 90 CRI 3000K CCT  
 [ \_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	3615
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
Total Luminaire Watts	37
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.77 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	4010	4093	4262
55	3304	3331	3430
65	2629	2573	2685
75	2302	2218	2211
85	2271	2091	2136

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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>	1577.455	1577.455	1577.455	1577.455	1577.455
<b>5</b>	1575.168	1574.025	1570.596	1567.167	1566.024
<b>10</b>	1543.162	1544.305	1544.305	1541.447	1546.591
<b>15</b>	1515.156	1517.443	1525.444	1524.301	1532.303
<b>20</b>	1397.990	1411.707	1416.851	1423.138	1436.284
<b>25</b>	1331.692	1348.838	1356.839	1366.556	1384.845
<b>30</b>	1227.671	1239.102	1256.820	1265.964	1291.684
<b>35</b>	1099.074	1106.504	1128.794	1149.370	1173.375
<b>40</b>	964.762	968.763	988.767	1009.342	1035.062
<b>45</b>	827.021	826.449	844.167	853.883	879.031
<b>50</b>	687.564	688.136	701.281	698.424	724.715
<b>55</b>	552.681	553.824	557.253	554.967	573.828
<b>60</b>	426.941	425.798	425.798	420.083	437.801
<b>65</b>	324.064	318.920	317.206	315.491	330.923
<b>70</b>	241.762	236.618	233.189	233.760	238.333
<b>75</b>	173.749	170.319	167.462	165.747	166.890
<b>80</b>	113.737	113.165	111.451	107.450	108.021
<b>85</b>	57.726	60.012	53.153	53.153	54.296
<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	573.24	N.A.	15.90
0-30	1194.94	N.A.	33.10
0-40	1900.27	N.A.	52.60
0-60	3052.35	N.A.	84.40
0-80	3554.75	N.A.	98.30
0-90	3615.16	N.A.	100.00
10-90	3466.12	N.A.	95.90
20-40	1327.03	N.A.	36.70
20-50	1978.76	N.A.	54.70
40-70	1474.08	N.A.	40.80
60-80	502.41	N.A.	13.90
70-80	180.40	N.A.	5.00
80-90	60.41	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	3615.16	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	149.04
10-20	424.19
20-30	621.71
30-40	705.32
40-50	651.73
50-60	500.35
60-70	322.01
70-80	180.40
80-90	60.41
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	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50	48
6	73	60	52	46	71	59	51	46	58	50	45	56	50	45	54	49	44	42
7	68	55	47	41	66	54	46	41	53	46	40	51	45	40	50	44	40	38
8	63	50	42	37	62	50	42	37	48	41	36	47	41	36	46	40	36	34
9	59	46	39	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	56	43	35	30	54	42	35	30	41	35	30	41	34	30	40	34	30	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	15.6	17.1	16.0	17.4	17.7	15.6	17.1	16.0	17.4	17.8
	3H	17.0	18.4	17.4	18.7	19.1	17.0	18.4	17.4	18.7	19.1
	4H	17.6	18.9	18.0	19.2	19.6	17.5	18.8	17.9	19.2	19.6
	6H	18.1	19.3	18.5	19.6	20.0	18.0	19.2	18.4	19.6	19.9
	8H	18.3	19.4	18.7	19.8	20.2	18.2	19.3	18.6	19.7	20.1
	12H	18.4	19.5	18.8	19.9	20.3	18.3	19.4	18.7	19.8	20.2

UGR Viewed Endwise

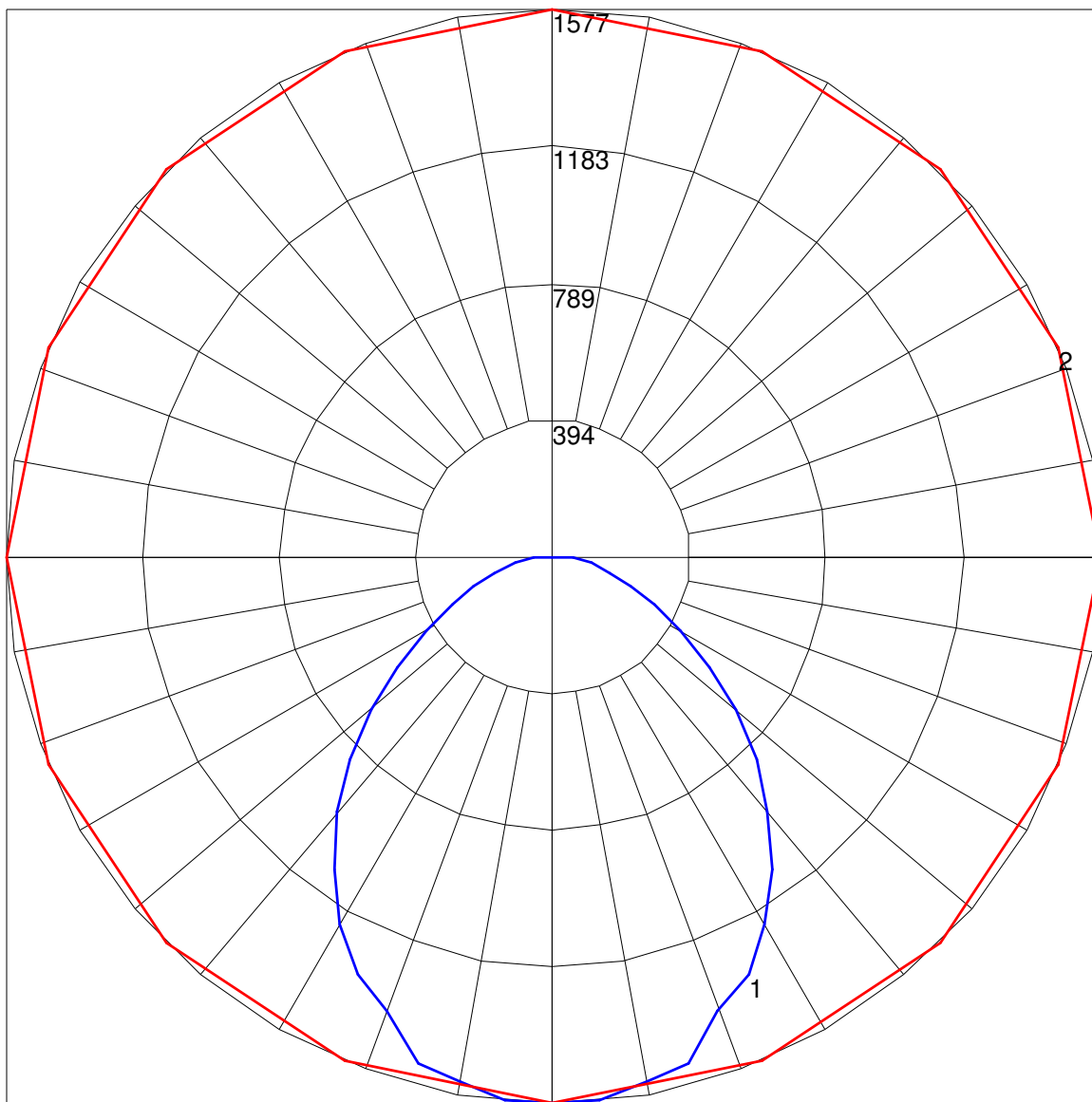
4H	2H	16.0	17.3	16.4	17.7	18.1	16.0	17.3	16.4	17.7	18.1
	3H	17.7	18.8	18.1	19.2	19.6	17.7	18.8	18.1	19.2	19.6
	4H	18.4	19.4	18.8	19.8	20.2	18.4	19.3	18.8	19.7	20.2
	6H	19.1	19.9	19.5	20.3	20.8	19.0	19.8	19.4	20.2	20.7
	8H	19.3	20.1	19.8	20.6	21.0	19.2	20.0	19.7	20.4	20.9
	12H	19.5	20.2	20.0	20.7	21.2	19.4	20.1	19.9	20.6	21.0

8H	4H	18.7	19.5	19.1	19.9	20.4	18.6	19.4	19.1	19.9	20.3
	6H	19.5	20.1	20.0	20.6	21.1	19.4	20.0	19.9	20.5	21.0
	8H	19.8	20.4	20.3	20.9	21.4	19.7	20.3	20.2	20.8	21.3
	12H	20.1	20.7	20.7	21.2	21.7	20.0	20.5	20.5	21.0	21.5

12H	4H	18.7	19.4	19.2	19.9	20.4	18.7	19.4	19.1	19.8	20.3
	6H	19.5	20.1	20.1	20.6	21.1	19.4	20.0	20.0	20.5	21.0
	8H	20.0	20.5	20.5	21.0	21.5	19.8	20.3	20.3	20.8	21.4

Maximum UGR = 21.7

POLAR GRAPH



Maximum Candela = 1577.455 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.)