



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L59-940-SPC12187-(L47)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 18125.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 02-24-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836
 [LUMINAIRE] 2x4' LED TROFFER
 [MORE] POLYCARBONATE.187 LENS
 [LUMCAT] 50G-S24-L59-940-SPC12187-(L47)-DIM-UNV
 [LAMPCAT] HLM 90 CRI, 4000K CCT
 [_SEARCH_SOURCETYPE]LED
 [_SEARCH_APPLICATION]INDOOR,CLASSROOM, COMMERCIAL, EDUCATIONAL,OFFICE, DIRECT
 [_SEARCH_MOUNTING]RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4169
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	36.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.77 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	2261	2230	2199
55	1866	1804	1749
65	1500	1410	1392
75	1216	1165	1229
85	1215	1215	1433

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	1877.292	1877.292	1877.292	1877.292	1877.292
5	1858.813	1857.601	1856.086	1855.178	1855.178
10	1825.187	1823.066	1824.581	1825.187	1825.187
15	1750.665	1750.665	1750.665	1752.785	1753.694
20	1685.534	1685.534	1687.654	1690.684	1687.654
25	1543.457	1541.942	1546.486	1549.213	1548.607
30	1421.980	1420.465	1423.494	1423.494	1426.524
35	1279.297	1278.691	1276.268	1275.662	1281.418
40	1132.070	1129.344	1123.285	1118.438	1122.679
45	993.023	989.388	979.088	970.303	965.456
50	816.714	809.444	801.265	787.633	779.453
55	664.641	653.432	642.526	625.865	622.836
60	514.385	505.600	491.664	478.638	477.124
65	393.816	386.546	370.187	365.340	365.340
70	286.880	282.639	268.704	273.854	274.460
75	195.393	192.364	187.214	193.879	197.514
80	131.777	129.656	129.656	135.412	139.653
85	65.737	63.616	65.737	74.522	77.552
90	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	671.88	N.A.	16.10
0-30	1386.73	N.A.	33.30
0-40	2185.24	N.A.	52.40
0-60	3509.63	N.A.	84.20
0-80	4095.34	N.A.	98.20
0-90	4168.95	N.A.	100.00
10-90	3992.64	N.A.	95.80
20-40	1513.36	N.A.	36.30
20-50	2262.34	N.A.	54.30
40-70	1700.54	N.A.	40.80
60-80	585.71	N.A.	14.00
70-80	209.56	N.A.	5.00
80-90	73.61	N.A.	1.80
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	4168.95	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	176.32
10-20	495.57
20-30	714.85
30-40	798.51
40-50	748.99
50-60	575.40
60-70	376.15
70-80	209.56
80-90	73.61
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	92	90	91	89	88	86
2	101	93	87	81	98	91	85	80	88	83	78	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	54
5	79	66	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	55	43	35	30	42	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	13.7	15.2	14.0	15.5	15.8	13.3	14.8	13.7	15.1	15.5
	3H	15.1	16.5	15.5	16.8	17.2	14.7	16.1	15.1	16.5	16.8
	4H	15.6	16.9	16.0	17.3	17.7	15.3	16.6	15.7	17.0	17.4
	6H	16.1	17.3	16.5	17.7	18.1	15.9	17.1	16.3	17.4	17.8
	8H	16.3	17.4	16.7	17.8	18.2	16.1	17.3	16.5	17.6	18.0
	12H	16.4	17.5	16.8	17.9	18.3	16.3	17.4	16.7	17.8	18.2

UGR Viewed Endwise

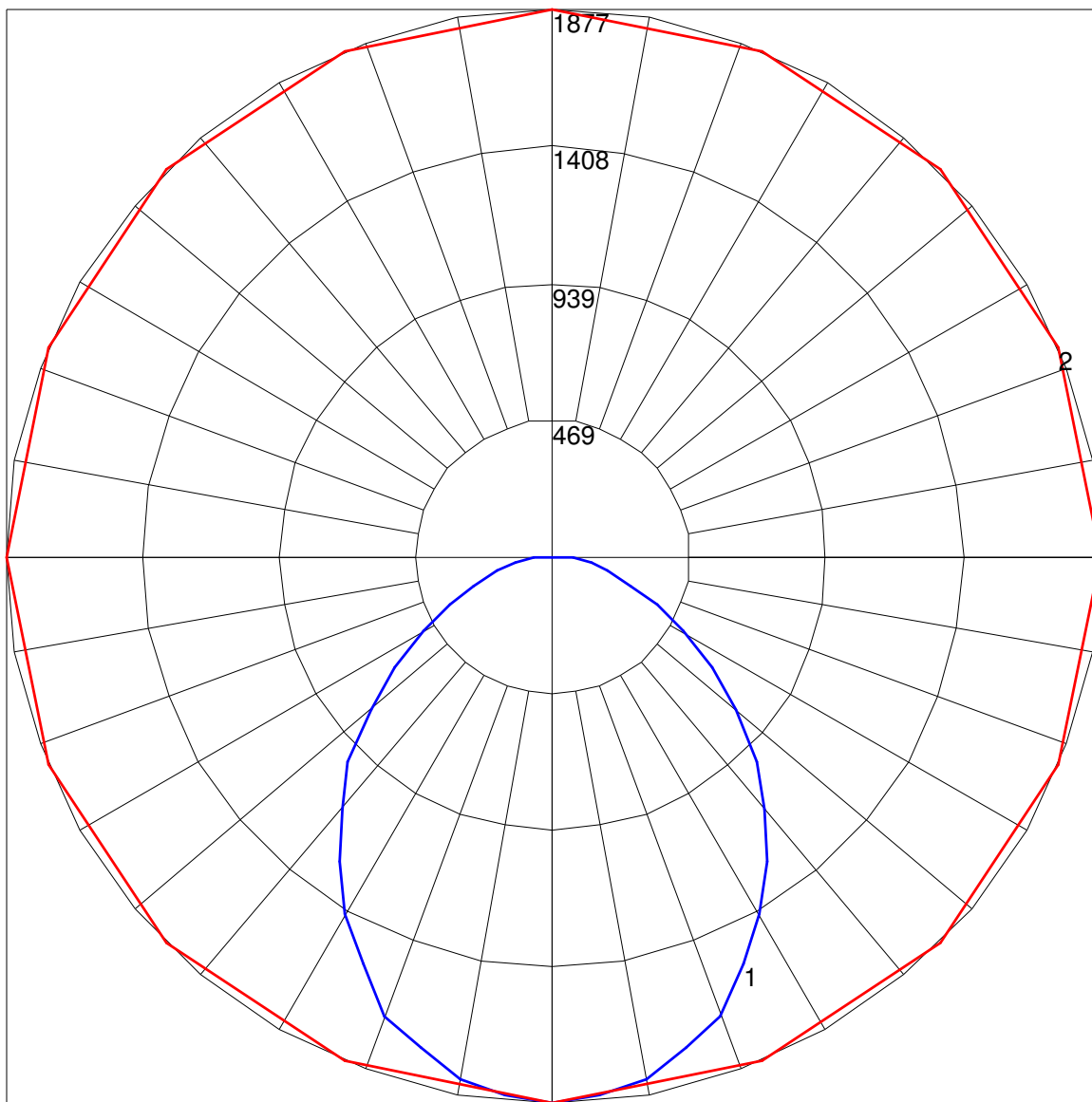
4H	2H	14.1	15.4	14.5	15.7	16.1	13.8	15.1	14.2	15.4	15.8
	3H	15.7	16.8	16.2	17.2	17.6	15.5	16.6	15.9	17.0	17.4
	4H	16.4	17.4	16.8	17.8	18.2	16.2	17.2	16.6	17.6	18.0
	6H	17.0	17.9	17.5	18.3	18.8	16.9	17.7	17.4	18.2	18.6
	8H	17.3	18.1	17.7	18.5	19.0	17.2	18.0	17.7	18.4	18.9
	12H	17.5	18.2	18.0	18.7	19.1	17.5	18.2	18.0	18.7	19.1

8H	4H	16.7	17.5	17.1	17.9	18.4	16.5	17.3	16.9	17.7	18.2
	6H	17.4	18.1	17.9	18.6	19.0	17.3	18.0	17.8	18.5	18.9
	8H	17.7	18.3	18.3	18.9	19.3	17.7	18.3	18.2	18.8	19.3
	12H	18.0	18.6	18.5	19.1	19.6	18.1	18.6	18.6	19.1	19.7

12H	4H	16.7	17.4	17.2	17.9	18.4	16.5	17.2	17.0	17.7	18.2
	6H	17.5	18.1	18.0	18.6	19.1	17.4	18.0	17.9	18.5	19.0
	8H	17.9	18.4	18.4	18.9	19.5	17.8	18.4	18.4	18.9	19.4

Maximum UGR = 19.7

POLAR GRAPH



Maximum Candela = 1877.292 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.)