



IES INDOOR REPORT

PHOTOMETRIC FILENAME : V50G-S14-L24-835-FVL-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-L24-835-FVL-DIM-UNV

[_SEARCH_SOURCE]TYPE]LED

[_SEARCH_APPLICATION]INDOOR,DIRECT

[_SEARCH_MOUNTING]RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2291
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	20.1
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	2982	2830	2655
55	2391	2173	1959
65	1918	1688	1560
75	1528	1414	1414
85	1557	1409	1557

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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	1054.104	1054.104	1054.104	1054.104	1054.104
5	1051.308	1050.959	1051.308	1050.959	1052.007
10	1033.833	1033.833	1033.134	1033.134	1033.134
15	993.640	993.640	991.893	991.893	991.543
20	962.534	961.835	959.738	958.340	957.991
25	877.954	875.857	873.411	869.916	869.916
30	809.452	806.655	800.015	792.326	789.879
35	739.201	735.706	724.872	710.891	705.649
40	646.233	640.292	625.263	607.089	598.701
45	570.041	560.605	541.032	516.218	507.480
50	464.840	453.656	431.987	405.774	398.085
55	370.824	360.339	336.922	312.806	303.719
60	284.846	274.361	254.788	236.265	228.925
65	219.139	210.401	192.926	181.393	178.247
70	156.927	150.986	138.054	134.559	134.909
75	106.948	103.803	98.910	96.463	98.910
80	71.299	69.202	66.056	67.804	68.852
85	36.698	34.950	33.203	36.348	36.698
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	380.83	N.A.	16.60
0-30	784.83	N.A.	34.30
0-40	1233.9	N.A.	53.90
0-60	1949.03	N.A.	85.10
0-80	2253.08	N.A.	98.30
0-90	2290.89	N.A.	100.00
10-90	2191.15	N.A.	95.60
20-40	853.07	N.A.	37.20
20-50	1264.37	N.A.	55.20
40-70	910.51	N.A.	39.70
60-80	304.05	N.A.	13.30
70-80	108.66	N.A.	4.70
80-90	37.81	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	2290.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	99.74
10-20	281.09
20-30	403.99
30-40	449.07
40-50	411.30
50-60	303.83
60-70	195.39
70-80	108.66
80-90	37.81
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	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

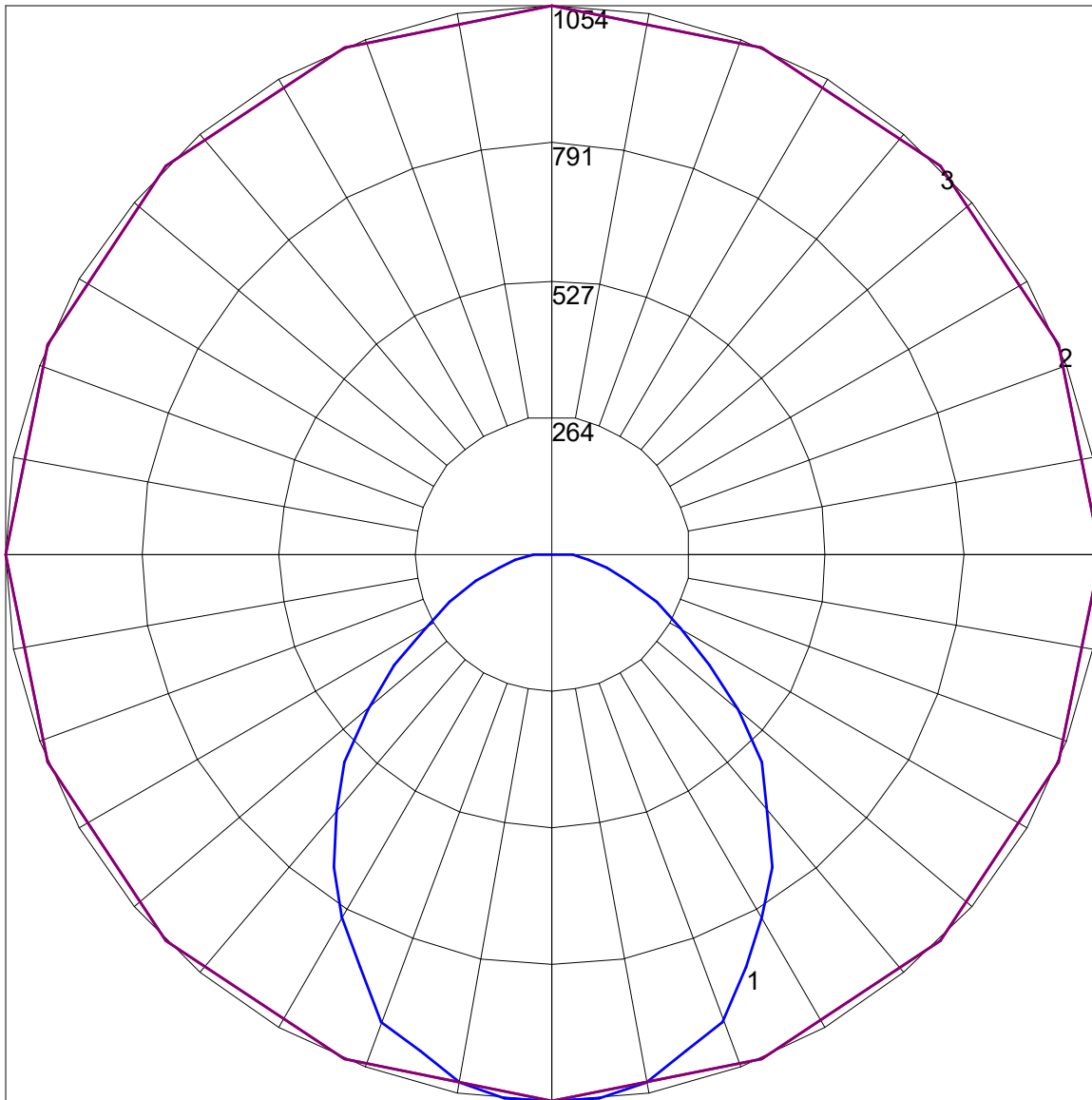
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	14.5	16.0	14.8	16.3	16.6	13.4	14.9	13.7	15.2	15.5
	3H	15.9	17.2	16.3	17.6	17.9	14.8	16.2	15.2	16.5	16.9
	4H	16.4	17.7	16.8	18.0	18.4	15.4	16.7	15.8	17.0	17.4
	6H	16.9	18.0	17.3	18.4	18.8	16.0	17.1	16.4	17.5	17.9
	8H	17.0	18.2	17.5	18.5	18.9	16.2	17.3	16.6	17.7	18.1
	12H	17.2	18.3	17.6	18.6	19.1	16.4	17.5	16.8	17.8	18.3
4H	2H	14.8	16.1	15.2	16.5	16.8	13.9	15.2	14.3	15.6	15.9
	3H	16.5	17.5	16.9	17.9	18.3	15.6	16.7	16.0	17.1	17.5
	4H	17.1	18.1	17.6	18.5	18.9	16.3	17.3	16.7	17.7	18.1
	6H	17.7	18.6	18.2	19.0	19.5	17.0	17.8	17.5	18.3	18.7
	8H	18.0	18.8	18.4	19.2	19.7	17.3	18.1	17.8	18.5	19.0
	12H	18.2	18.9	18.7	19.4	19.8	17.6	18.3	18.0	18.7	19.2
8H	4H	17.3	18.1	17.8	18.6	19.0	16.6	17.4	17.1	17.8	18.3
	6H	18.1	18.7	18.6	19.2	19.7	17.5	18.1	17.9	18.6	19.1
	8H	18.4	19.0	18.9	19.5	20.0	17.9	18.4	18.4	18.9	19.4
	12H	18.7	19.2	19.2	19.7	20.3	18.2	18.7	18.7	19.2	19.8
12H	4H	17.4	18.1	17.8	18.5	19.0	16.6	17.4	17.1	17.8	18.3
	6H	18.2	18.7	18.7	19.2	19.7	17.6	18.1	18.1	18.6	19.1
	8H	18.5	19.1	19.0	19.5	20.1	18.0	18.5	18.5	19.0	19.6

Maximum UGR = 20.3

POLAR GRAPH



Maximum Candela = 1054.104 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)