



IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S22-L32-835-AD-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN FROM BALLABS TEST NO. 19231.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 05-19-2020

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836

[LUMINAIRE] 2x2' RECESSED LED TROFFER

[MORE] WITH FROST ACRYLIC DIFFUSER

[LUMCAT] DIG-S22-L32-835-AD-DIM-UNV

[LAMPCAT] HLM 80 CRI, 3500K CCT

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Educational, Office, Direct, Indirect

[_SEARCH_MOUNTING] Ceiling, Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3286
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	25.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.10
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2961	3278	3475
55	2573	3012	3284
65	2318	3008	3601
75	1898	2578	2320
85	1590	1759	1928

IES INDOOR REPORT
 PHOTOMETRIC FILENAME : DIG-S22-L32-835-AD-DIM-UNV_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	1194.358	1194.358	1194.358	1194.358	1194.358
5	1180.212	1179.875	1179.875	1180.548	1180.548
10	1169.097	1169.770	1171.454	1174.486	1175.833
15	1122.953	1124.637	1131.036	1136.088	1137.773
20	1101.396	1102.407	1113.522	1122.953	1125.984
25	990.583	997.656	1013.150	1025.612	1031.338
30	841.372	902.000	972.395	950.502	926.924
35	842.720	859.224	888.864	913.788	922.546
40	768.956	789.502	829.247	859.224	869.328
45	717.760	745.042	794.555	830.931	842.383
50	610.652	639.281	692.162	728.538	739.653
55	505.901	537.225	592.127	632.208	645.681
60	407.550	439.885	494.449	543.288	560.129
65	335.808	371.511	435.843	497.818	521.732
70	251.267	288.317	358.375	381.952	352.986
75	168.409	203.101	228.700	207.480	205.796
80	104.414	132.033	130.686	122.602	121.255
85	47.491	54.565	52.544	54.565	57.596
90	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT
PHOTOMETRIC FILENAME : DIG-S22-L32-835-AD-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	434.03	N.A.	13.20
0-30	902.30	N.A.	27.50
0-40	1454.7	N.A.	44.30
0-60	2574.63	N.A.	78.40
0-80	3222.79	N.A.	98.10
0-90	3285.84	N.A.	100.00
10-90	3173.31	N.A.	96.60
20-40	1020.67	N.A.	31.10
20-50	1616.46	N.A.	49.20
40-70	1538.52	N.A.	46.80
60-80	648.15	N.A.	19.70
70-80	229.56	N.A.	7.00
80-90	63.06	N.A.	1.90
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	3285.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	112.53
10-20	321.50
20-30	468.27
30-40	552.40
40-50	595.79
50-60	524.15
60-70	418.59
70-80	229.56
80-90	63.06
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : DIG-S22-L32-835-AD-DIM-UNV_.IES

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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	80	75	82	77	73	79	75	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

IES INDOOR REPORT
PHOTOMETRIC FILENAME : DIG-S22-L32-835-AD-DIM-UNV_.IES

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

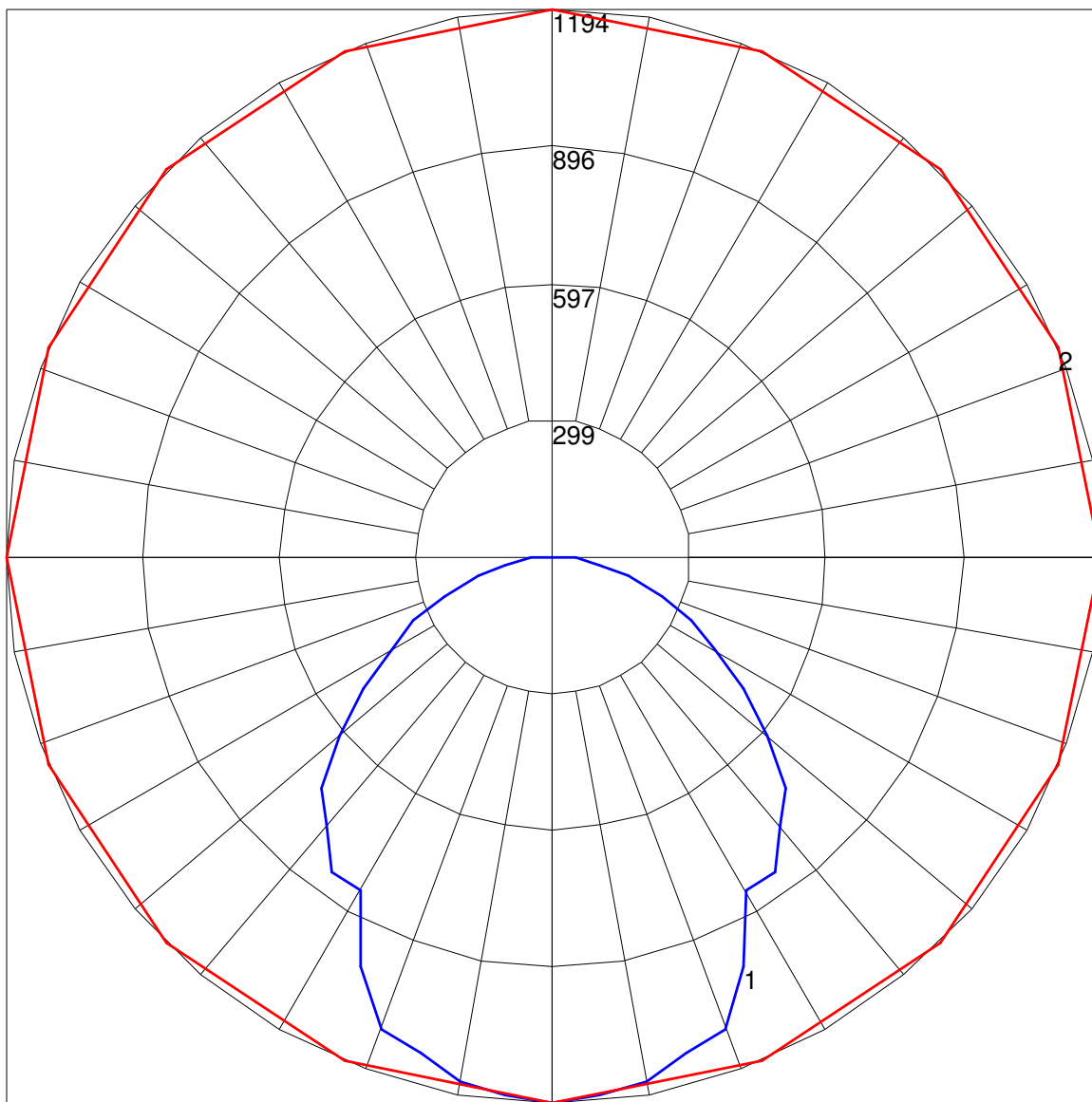
X=2H	Y=2H	15.1	16.7	15.4	17.0	17.3	16.5	18.1	16.8	18.4	18.7
	3H	16.8	18.3	17.2	18.6	19.0	18.6	20.1	19.0	20.4	20.8
	4H	17.4	18.8	17.8	19.2	19.6	19.1	20.5	19.5	20.9	21.3
	6H	17.9	19.2	18.3	19.6	20.0	19.5	20.8	19.9	21.2	21.5
	8H	18.0	19.3	18.5	19.7	20.1	19.6	20.8	20.0	21.2	21.6
	12H	18.2	19.3	18.6	19.7	20.2	19.7	20.9	20.1	21.3	21.7

UGR Viewed Endwise

4H	2H	16.0	17.4	16.4	17.8	18.2	17.1	18.5	17.5	18.8	19.2
	3H	18.0	19.2	18.4	19.6	20.0	19.5	20.6	19.9	21.0	21.4
	4H	18.7	19.8	19.2	20.2	20.7	20.1	21.1	20.5	21.5	22.0
	6H	19.3	20.3	19.8	20.7	21.2	20.5	21.5	21.0	21.9	22.4
	8H	19.5	20.4	20.0	20.8	21.3	20.7	21.6	21.1	22.0	22.5
	12H	19.7	20.5	20.1	20.9	21.4	20.8	21.6	21.3	22.1	22.5
8H	4H	19.2	20.1	19.6	20.5	21.0	20.3	21.2	20.8	21.6	22.1
	6H	19.9	20.6	20.4	21.1	21.6	20.9	21.6	21.4	22.1	22.6
	8H	20.2	20.9	20.7	21.4	21.8	21.1	21.8	21.6	22.3	22.8
	12H	20.4	21.0	20.9	21.5	22.0	21.3	21.9	21.8	22.4	22.9
12H	4H	19.2	20.0	19.7	20.5	21.0	20.4	21.1	20.8	21.6	22.1
	6H	20.0	20.7	20.5	21.1	21.7	20.9	21.6	21.5	22.1	22.6
	8H	20.3	20.9	20.8	21.4	22.0	21.2	21.8	21.7	22.3	22.8

Maximum UGR = 22.9

POLAR GRAPH



Maximum Candela = 1194.358 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.)