

IES INDOOR REPORT

PHOTOMETRIC FILENAME : DIG-S24-L50-835-WPR-(L30)-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

[ISSUE DATE] 08-21-2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4'RECESSED LED TROFFER

[MORE] WITH WHITE PERFORATED DIFFUSER

[LUMCAT] DIG-S24-L50-835-WPR-(L30)-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	2387
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	21.57
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)	3.91 ft
Luminous Width (90-270)	1.88 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1083	1198	1271
55	941	1101	1201
65	847	1100	1317
75	694	942	848
85	581	643	705

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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	867.527	867.527	867.527	867.527	867.527
5	857.251	857.007	857.007	857.496	857.496
10	849.178	849.667	850.891	853.092	854.071
15	815.661	816.884	821.533	825.202	826.426
20	800.004	800.737	808.811	815.661	817.863
25	719.514	724.652	735.905	744.957	749.116
30	611.134	655.171	706.303	690.401	673.275
35	612.113	624.101	645.630	663.734	670.095
40	558.535	573.458	602.327	624.101	631.440
45	521.348	541.164	577.128	603.550	611.868
50	443.549	464.345	502.755	529.177	537.250
55	367.463	390.216	430.094	459.207	468.993
60	296.026	319.512	359.145	394.619	406.852
65	243.915	269.848	316.576	361.592	378.962
70	182.508	209.420	260.307	277.432	256.393
75	122.325	147.524	166.117	150.704	149.481
80	75.841	95.903	94.924	89.052	88.074
85	34.496	39.633	38.165	39.633	41.835
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	315.26	N.A.	13.20
0-30	655.39	N.A.	27.50
0-40	1056.63	N.A.	44.30
0-60	1870.1	N.A.	78.40
0-80	2340.88	N.A.	98.10
0-90	2386.69	N.A.	100.00
10-90	2304.95	N.A.	96.60
20-40	741.37	N.A.	31.10
20-50	1174.12	N.A.	49.20
40-70	1117.51	N.A.	46.80
60-80	470.79	N.A.	19.70
70-80	166.74	N.A.	7.00
80-90	45.80	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	2386.69	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	81.74
10-20	233.52
20-30	340.13
30-40	401.24
40-50	432.75
50-60	380.72
60-70	304.05
70-80	166.74
80-90	45.80
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	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	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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UGR TABLE - CORRECTED

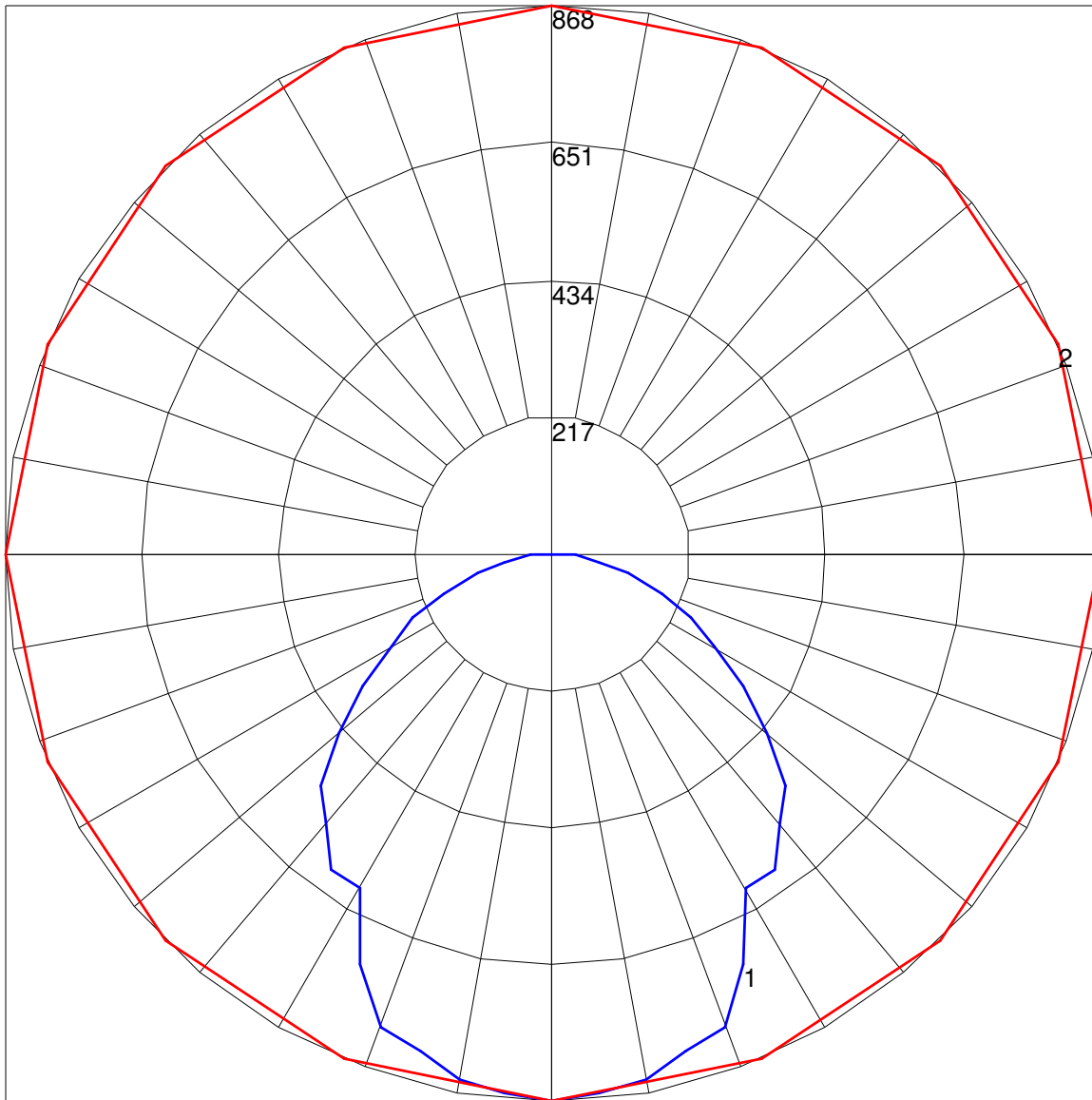
Reflectances

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	11.6	13.2	11.9	13.5	13.9	13.0	14.6	13.3	14.9	15.3
	3H	13.3	14.8	13.7	15.2	15.5	15.1	16.6	15.5	17.0	17.3
	4H	13.9	15.4	14.3	15.7	16.1	15.7	17.1	16.1	17.4	17.8
	6H	14.4	15.7	14.8	16.1	16.5	16.0	17.3	16.4	17.7	18.1
	8H	14.6	15.8	15.0	16.2	16.6	16.1	17.4	16.5	17.8	18.2
	12H	14.7	15.9	15.1	16.2	16.7	16.2	17.4	16.6	17.8	18.2
4H	2H	12.5	13.9	12.9	14.3	14.7	13.6	15.0	14.0	15.4	15.7
	3H	14.5	15.7	14.9	16.1	16.5	16.0	17.2	16.4	17.6	18.0
	4H	15.3	16.3	15.7	16.7	17.2	16.6	17.6	17.0	18.1	18.5
	6H	15.9	16.8	16.3	17.2	17.7	17.0	18.0	17.5	18.4	18.9
	8H	16.0	16.9	16.5	17.4	17.8	17.2	18.1	17.7	18.5	19.0
	12H	16.2	17.0	16.7	17.4	17.9	17.3	18.1	17.8	18.6	19.1
8H	4H	15.7	16.6	16.2	17.0	17.5	16.8	17.7	17.3	18.2	18.6
	6H	16.4	17.2	16.9	17.6	18.1	17.4	18.1	17.9	18.6	19.1
	8H	16.7	17.4	17.2	17.9	18.4	17.6	18.3	18.2	18.8	19.3
	12H	16.9	17.5	17.4	18.0	18.6	17.8	18.4	18.3	18.9	19.4
12H	4H	15.7	16.5	16.2	17.0	17.5	16.9	17.7	17.3	18.1	18.6
	6H	16.5	17.2	17.0	17.6	18.2	17.5	18.1	18.0	18.6	19.1
	8H	16.8	17.4	17.4	17.9	18.5	17.7	18.3	18.2	18.8	19.4

Maximum UGR = 19.4

POLAR GRAPH



Maximum Candela = 867.527 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.)