



IES INDOOR REPORT

PHOTOMETRIC FILENAME : HETLG-S24-L57-835-FA-(L50)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]GEN FROM BALLABS TEST NO. 18752.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 03-07-2022
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
 [LUMINAIRE] 2x4' LED TROFFER
 [MORE] WITH FROSTED ACRYLIC LENS
 [MORE] CLEAR ACRYLIC LENS IN DOOR
 [LUMCAT] HETLG-S24-L57-835-FA-(L50)-DIM-UNV
 [LAMPCAT] HLM 80 CRI 3500K 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	5126
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	41.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.32
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	2818	2983	3086
55	2336	2583	2522
65	1793	1961	1513
75	1072	962	694
85	378	306	306

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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	2206.246	2206.246	2206.246	2206.246	2206.246
5	2181.394	2180.290	2180.290	2180.290	2177.528
10	2163.722	2163.722	2164.827	2164.827	2164.827
15	2061.003	2062.660	2065.974	2068.183	2070.944
20	2009.092	2012.405	2017.375	2025.659	2027.868
25	1850.595	1855.566	1869.924	1884.283	1887.596
30	1731.861	1741.250	1762.787	1779.355	1784.325
35	1549.066	1558.454	1589.380	1612.023	1620.306
40	1413.212	1429.780	1469.542	1496.602	1505.990
45	1237.596	1263.552	1309.941	1344.733	1355.226
50	1026.084	1057.010	1106.712	1139.848	1139.848
55	832.243	864.274	920.051	922.260	898.514
60	637.298	667.120	713.509	656.075	617.970
65	470.518	501.445	514.699	432.965	397.069
70	313.679	337.426	316.440	247.409	224.766
75	172.303	186.661	154.630	122.600	111.555
80	78.420	82.286	62.957	54.673	49.703
85	20.433	18.777	16.568	16.568	16.568
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	795.37	N.A.	15.50
0-30	1662.57	N.A.	32.40
0-40	2664.23	N.A.	52.00
0-60	4454.67	N.A.	86.90
0-80	5098.57	N.A.	99.50
0-90	5126.11	N.A.	100.00
10-90	4918.25	N.A.	95.90
20-40	1868.86	N.A.	36.50
20-50	2866.31	N.A.	55.90
40-70	2260.08	N.A.	44.10
60-80	643.90	N.A.	12.60
70-80	174.26	N.A.	3.40
80-90	27.54	N.A.	0.50
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	5126.11	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	207.85
10-20	587.52
20-30	867.19
30-40	1001.67
40-50	997.45
50-60	792.99
60-70	469.65
70-80	174.26
80-90	27.54
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	106	102	99	108	104	101	97	100	97	94	96	94	92	92	90	89	87
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	70	66	64
4	86	74	66	60	83	73	66	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	52	77	66	58	52	64	57	51	62	56	51	60	55	50	48
6	73	61	52	46	71	60	52	46	58	51	45	56	50	45	55	49	45	43
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	38	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	40	34	30	40	34	30	28

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UGR TABLE - CORRECTED

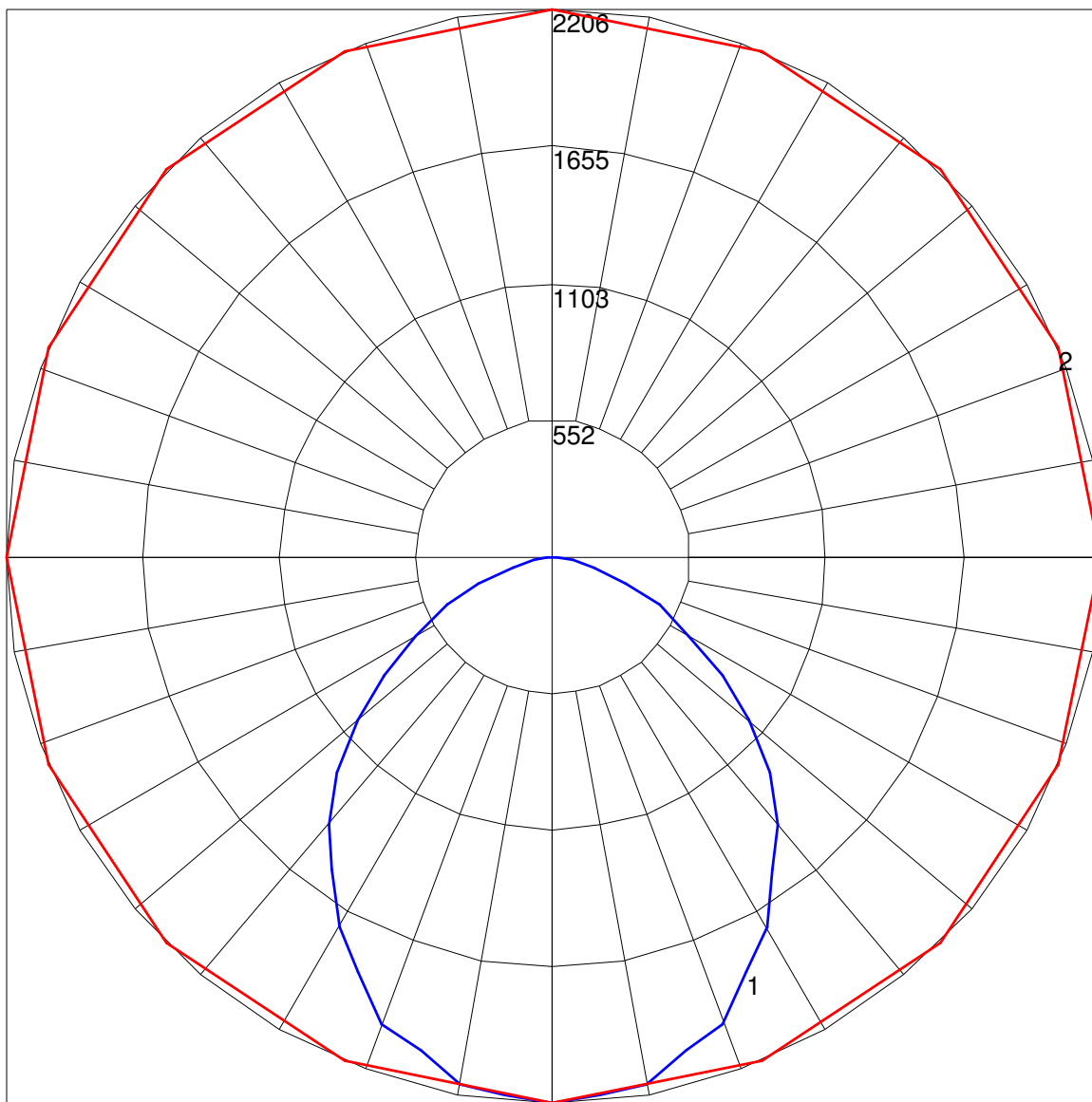
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	14.8	16.3	15.2	16.6	17.0	15.0	16.5	15.3	16.8	17.1
	3H	16.0	17.4	16.4	17.7	18.1	15.7	17.0	16.1	17.4	17.7
	4H	16.3	17.6	16.7	17.9	18.3	15.8	17.1	16.2	17.4	17.8
	6H	16.4	17.6	16.8	18.0	18.4	15.8	17.0	16.2	17.4	17.8
	8H	16.4	17.6	16.9	17.9	18.3	15.8	16.9	16.2	17.3	17.7
	12H	16.4	17.5	16.9	17.9	18.3	15.8	16.9	16.2	17.2	17.7
4H	2H	15.3	16.6	15.7	16.9	17.3	15.5	16.8	15.9	17.1	17.5
	3H	16.7	17.7	17.1	18.1	18.5	16.3	17.4	16.7	17.8	18.2
	4H	17.0	18.0	17.5	18.4	18.8	16.4	17.4	16.9	17.8	18.3
	6H	17.2	18.1	17.7	18.5	19.0	16.5	17.3	17.0	17.8	18.2
	8H	17.3	18.0	17.7	18.5	18.9	16.5	17.3	17.0	17.7	18.2
	12H	17.3	17.9	17.7	18.4	18.9	16.5	17.2	17.0	17.7	18.1
8H	4H	17.1	17.9	17.6	18.3	18.8	16.6	17.3	17.0	17.8	18.2
	6H	17.3	18.0	17.8	18.4	18.9	16.6	17.3	17.1	17.8	18.2
	8H	17.4	17.9	17.9	18.4	18.9	16.6	17.2	17.1	17.7	18.2
	12H	17.4	17.9	17.9	18.4	18.9	16.7	17.1	17.2	17.6	18.2
12H	4H	17.1	17.8	17.6	18.2	18.7	16.5	17.2	17.0	17.7	18.2
	6H	17.3	17.9	17.8	18.3	18.9	16.6	17.2	17.1	17.7	18.2
	8H	17.4	17.9	17.9	18.4	18.9	16.7	17.2	17.2	17.6	18.2

Maximum UGR = 19.0

POLAR GRAPH



Maximum Candela = 2206.246 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.)