H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HETLG-S24-L57-840-FA-LDE5-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] 08/18/2020
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 4-72LED 22"ARRAYS 2x4'RECESSED WHITE REFL LUMINAIRE
[MORE] ARRAYS ON INTERNAL WHITE REFLS w/DUAL FROSTED ACRYLIC LENS
[MORE] CLEAR ACRYLIC LENS IN DOOR
[LUMCAT] HETLG-S24-L57-840-FA-LDE5-UNV
[LAMPCAT] HLM 80 CRI 4000K CCT
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Direct
[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5897
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	47
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	3242	3432	3550
55	2688	2971	2902
65	2062	2256	1740
75	1233	1107	798
85	434	352	352

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2538.086	2538.086	2538.086	2538.086	2538.086
5	2509.497	2508.226	2508.226	2508.226	2505.050
10	2489.167	2489.167	2490.438	2490.438	2490.438
15	2370.998	2372.904	2376.716	2379.257	2382.434
20	2311.279	2315.090	2320.808	2330.338	2332.879
25	2128.943	2134.661	2151.179	2167.697	2171.509
30	1992.350	2003.150	2027.928	2046.987	2052.705
35	1782.061	1792.861	1828.439	1854.487	1864.016
40	1625.773	1644.832	1690.575	1721.706	1732.506
45	1423.743	1453.602	1506.969	1546.994	1559.065
50	1180.417	1215.994	1273.173	1311.292	1311.292
55	957.421	994.269	1058.436	1060.977	1033.659
60	733.154	767.461	820.828	754.755	710.918
65	541.289	576.867	592.114	498.088	456.792
70	360.859	388.178	364.036	284.621	258.573
75	198.219	214.737	177.888	141.040	128.334
80	90.215	94.662	72.426	62.896	57.178
85	23.507	21.601	19.059	19.059	19.059
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	915.01	N.A.	15.50
0-30	1912.63	N.A.	32.40
0-40	3064.96	N.A.	52.00
0-60	5124.69	N.A.	86.90
0-80	5865.45	N.A.	99.50
0-90	5897.12	N.A.	100.00
10-90	5658.01	N.A.	95.90
20-40	2149.95	N.A.	36.50
20-50	3297.43	N.A.	55.90
40-70	2600.02	N.A.	44.10
60-80	740.75	N.A.	12.60
70-80	200.47	N.A.	3.40
80-90	31.68	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	5897.12	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	239.12
10-20	675.89
20-30	997.62
30-40	1152.33
40-50	1147.47
50-60	912.26
60-70	540.29
70-80	200.47
80-90	31.68
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	15.3	16.8	15.7	17.1	17.5	15.5	17.0	15.8	17.3	17.6
	3H	16.5	17.9	16.9	18.2	18.6	16.2	17.5	16.6	17.9	18.2
	4H	16.8	18.1	17.2	18.4	18.8	16.3	17.6	16.7	17.9	18.3
	6H	16.9	18.1	17.3	18.5	18.9	16.3	17.5	16.7	17.9	18.3
	8H	16.9	18.1	17.4	18.4	18.8	16.3	17.4	16.7	17.8	18.2
	12H	16.9	18.0	17.4	18.4	18.8	16.3	17.4	16.7	17.7	18.2
4H	2H	15.8	17.1	16.2	17.4	17.8	16.0	17.3	16.4	17.6	18.0
	3H	17.2	18.2	17.6	18.6	19.0	16.8	17.9	17.2	18.3	18.7
	4H	17.5	18.5	18.0	18.9	19.3	16.9	17.9	17.4	18.3	18.8
	6H	17.7	18.6	18.2	19.0	19.5	17.0	17.8	17.5	18.3	18.7
	8H	17.8	18.5	18.2	19.0	19.4	17.0	17.8	17.5	18.2	18.7
	12H	17.8	18.4	18.2	18.9	19.4	17.0	17.7	17.5	18.2	18.6
8H	4H	17.6	18.4	18.1	18.8	19.3	17.1	17.8	17.5	18.3	18.7
	6H	17.8	18.5	18.3	18.9	19.4	17.1	17.8	17.6	18.3	18.7
	8H	17.9	18.4	18.4	18.9	19.4	17.1	17.7	17.6	18.2	18.7
	12H	17.9	18.4	18.4	18.9	19.4	17.2	17.6	17.7	18.1	18.7
12H	4H	17.6	18.3	18.1	18.7	19.2	17.0	17.7	17.5	18.2	18.7
	6H	17.8	18.4	18.3	18.8	19.4	17.1	17.7	17.6	18.2	18.7
	8H	17.9	18.4	18.4	18.9	19.4	17.2	17.7	17.7	18.1	18.7

Maximum UGR = 19.5

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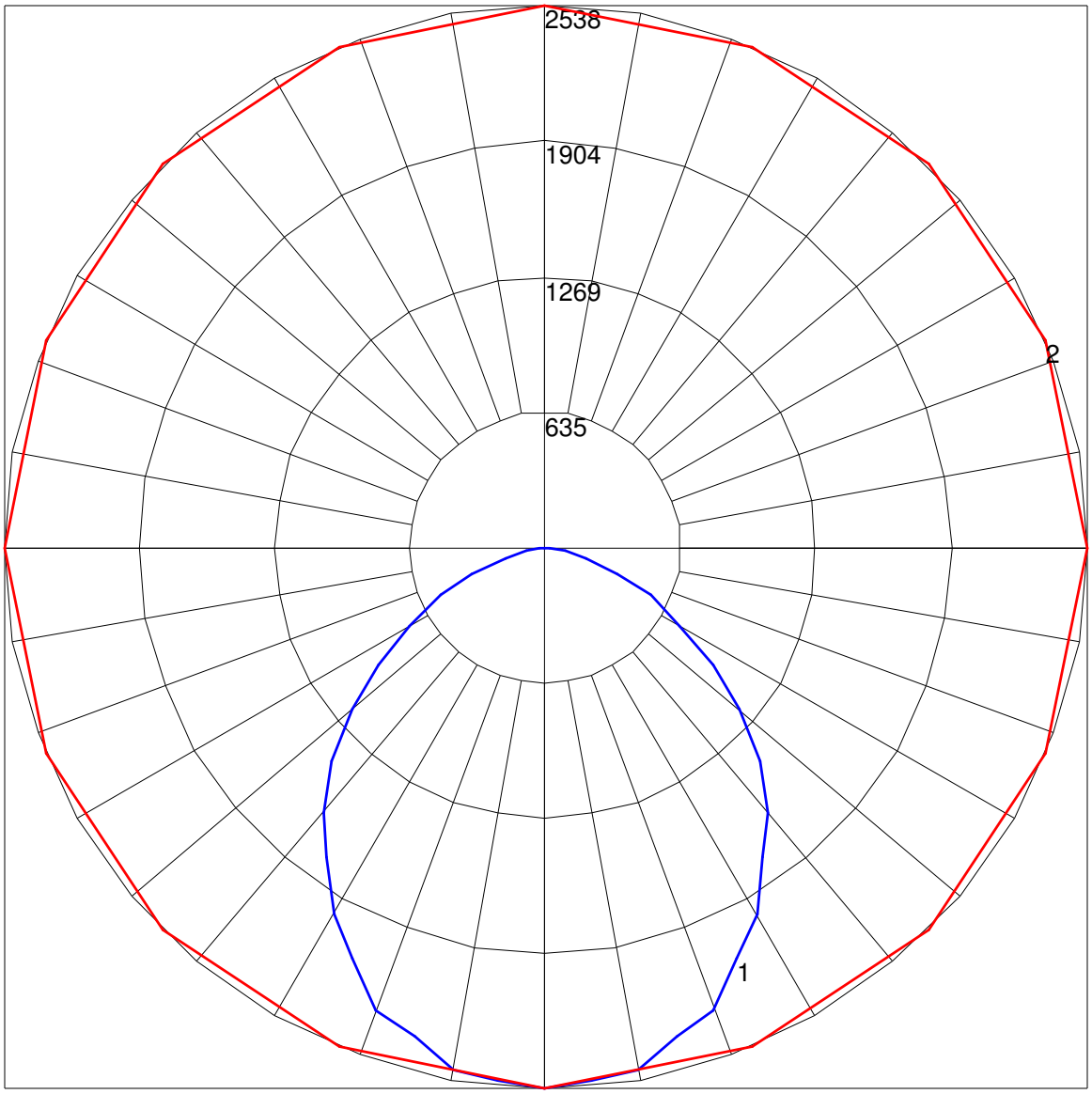
POLAR GRAPH



Maximum Candela = 2538.086 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.)

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