

IES INDOOR REPORT

PHOTOMETRIC FILENAME : AHTG-24-L300-835-A-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 18091.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUE DATE] 27-JUN-2023
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
[LUMINAIRE] 2'x4' RECESSED LED TROFFER
[MORE] FROSTED ACRYLIC DIFFUSER
[LUMCAT] AHTG-24-L300-835-A-DIM-UNV
[LAMPCAT] HLM 80 CRI, 3500K CCT
[SEARCH_SOURCETYPE] LED
[SEARCH_APPLICATION] INDOOR, DIRECT
[SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	30059
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	256.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 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	14457	14802	14731
55	12261	13197	12984
65	10239	11264	8968
75	7794	7096	5073
85	5947	4452	3934

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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	12698.068	12698.068	12698.068	12698.068	12698.068
5	12644.247	12644.247	12634.968	12629.400	12629.400
10	12414.115	12399.268	12376.997	12349.159	12341.735
15	11903.743	11875.904	11822.083	11771.974	11758.983
20	11640.205	11614.223	11536.275	11447.192	11419.353
25	10754.941	10738.238	10656.578	10569.351	10502.538
30	9929.065	9901.227	9815.855	9702.645	9630.265
35	9119.893	9110.613	9053.080	8939.871	8902.753
40	8149.257	8167.816	8175.240	8095.436	8067.598
45	7137.792	7232.442	7308.534	7308.534	7273.272
50	5966.719	6076.217	6237.680	6310.060	6265.519
55	4910.712	5049.904	5285.603	5330.145	5200.232
60	3884.399	4038.439	4305.688	4019.880	3843.569
65	3021.405	3203.283	3323.917	2900.772	2646.513
70	2199.242	2403.391	2280.901	1811.358	1622.057
75	1408.628	1540.397	1282.427	998.474	916.815
80	835.155	853.714	668.124	551.202	532.643
85	361.901	321.071	270.961	243.123	239.411
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4558.19	N.A.	15.20
0-30	9472.19	N.A.	31.50
0-40	15108.76	N.A.	50.30
0-60	25284.17	N.A.	84.10
0-80	29716.81	N.A.	98.90
0-90	30059.00	N.A.	100.00
10-90	28861.37	N.A.	96.00
20-40	10550.57	N.A.	35.10
20-50	16119.62	N.A.	53.60
40-70	13215.24	N.A.	44.00
60-80	4432.64	N.A.	14.70
70-80	1392.82	N.A.	4.60
80-90	342.19	N.A.	1.10
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	30059.00	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1197.63
10-20	3360.56
20-30	4914.00
30-40	5636.57
40-50	5569.05
50-60	4606.37
60-70	3039.82
70-80	1392.82
80-90	342.19
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	142	142	142	142	139	139	139	139	133	133	133	127	127	127	122	122	122	119
1	131	126	121	117	128	123	119	115	118	114	111	113	110	108	109	107	105	102
2	120	111	103	97	117	108	102	96	104	98	93	100	96	91	97	93	89	87
3	110	98	89	82	107	96	88	81	93	85	79	89	83	78	86	81	77	74
4	101	87	77	70	98	86	77	69	83	75	68	80	73	68	78	72	67	64
5	93	78	68	61	91	77	68	60	75	66	60	72	65	59	70	64	58	56
6	86	71	61	53	84	70	60	53	68	59	53	66	58	52	64	57	52	49
7	80	65	54	47	78	64	54	47	62	53	47	60	52	47	59	52	46	44
8	75	59	49	43	73	58	49	42	57	48	42	55	48	42	54	47	42	39
9	70	54	45	38	68	54	45	38	52	44	38	51	43	38	50	43	38	36
10	66	50	41	35	64	50	41	35	48	40	35	47	40	35	46	39	34	32

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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

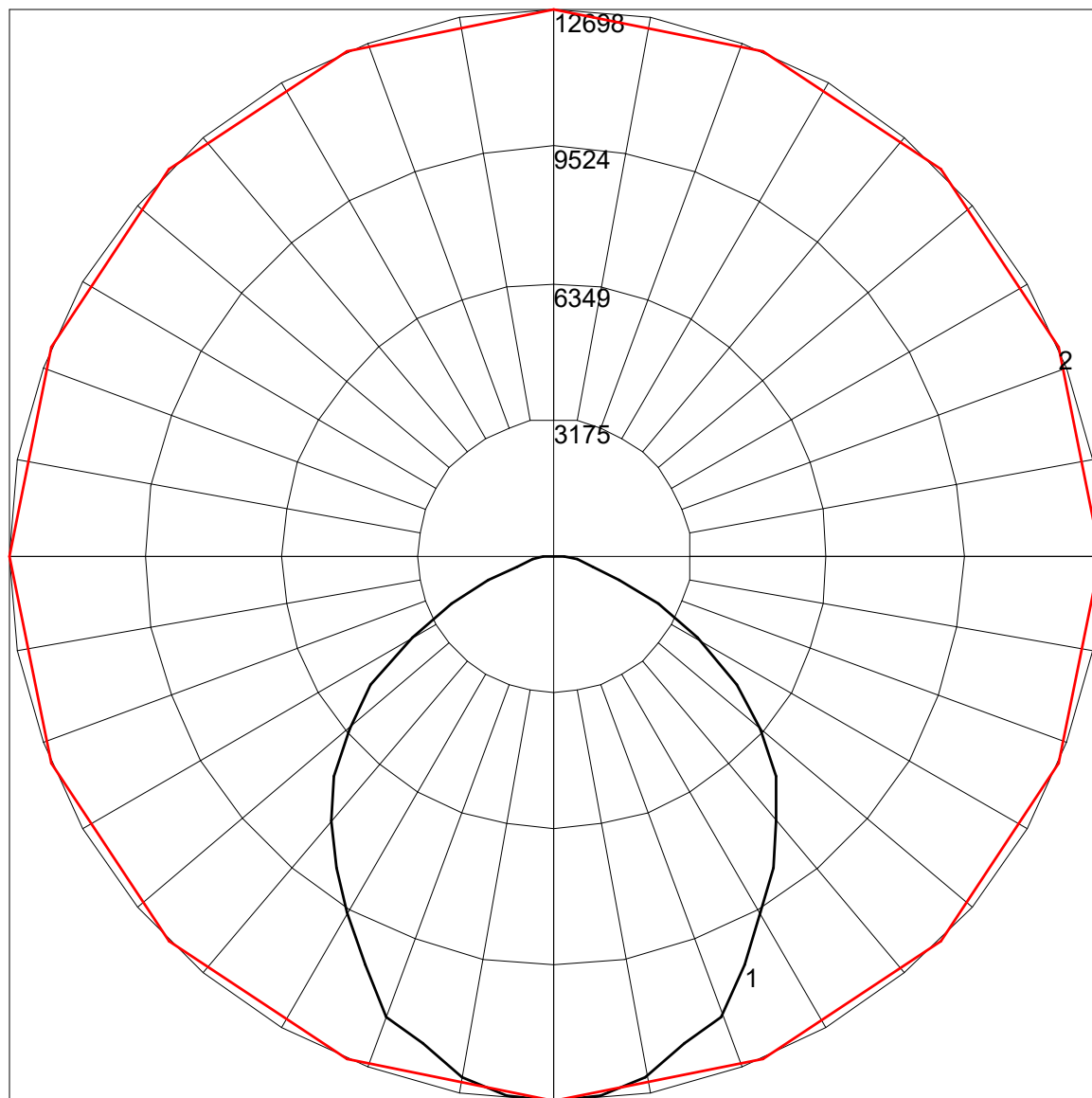
X=2H	Y=2H	19.9	21.5	20.3	21.8	22.1	20.1	21.7	20.5	22.0	22.3
	3H	21.5	22.9	21.9	23.2	23.6	21.1	22.5	21.5	22.8	23.2
	4H	22.0	23.3	22.4	23.6	24.0	21.3	22.6	21.7	23.0	23.4
	6H	22.3	23.5	22.7	23.9	24.3	21.5	22.7	21.9	23.1	23.4
	8H	22.4	23.6	22.8	24.0	24.4	21.5	22.7	21.9	23.1	23.5
	12H	22.5	23.6	22.9	24.0	24.4	21.5	22.6	22.0	23.0	23.5

UGR Viewed Endwise

4H	2H	20.6	21.9	21.0	22.2	22.6	20.7	22.0	21.1	22.4	22.8
	3H	22.3	23.4	22.7	23.8	24.2	21.9	23.0	22.3	23.4	23.8
	4H	22.9	23.9	23.4	24.3	24.8	22.2	23.1	22.6	23.6	24.0
	6H	23.4	24.2	23.8	24.7	25.1	22.4	23.2	22.8	23.7	24.1
	8H	23.5	24.3	24.0	24.7	25.2	22.4	23.2	22.9	23.7	24.1
	12H	23.6	24.3	24.1	24.8	25.3	22.5	23.2	22.9	23.7	24.1
8H	4H	23.1	23.9	23.5	24.3	24.8	22.4	23.2	22.8	23.6	24.1
	6H	23.6	24.3	24.1	24.8	25.2	22.7	23.3	23.1	23.8	24.3
	8H	23.8	24.4	24.3	24.9	25.4	22.7	23.3	23.3	23.8	24.3
	12H	24.0	24.5	24.5	25.0	25.5	22.9	23.4	23.4	23.9	24.4
12H	4H	23.0	23.8	23.5	24.2	24.7	22.4	23.1	22.9	23.6	24.1
	6H	23.6	24.2	24.1	24.7	25.2	22.7	23.3	23.2	23.7	24.3
	8H	23.9	24.4	24.4	24.9	25.4	22.8	23.3	23.3	23.8	24.4

Maximum UGR = 25.5

POLAR GRAPH



Maximum Candela = 12698.068 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)