



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6AR-L10-835-DIM-UNV-OW-OF-CS_45 DEGREE TILT.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20391.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 04/30/2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 6"SHORT HEATSINK 6"RND ADJ DOWNLIGHT @ 45 TILT

[MORE] ACRYLIC WIDE TIR OPTIC & 6"OPEN ASYM SEMI-SPEC TRIM

[LUMCAT] 6AR-L10-835-DIM-UNV-OW-OF-CS_45 DEG TILT

[LAMPCAT] BXRE-35E2000

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	884
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	10.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	3.08
Spacing Criterion (90-270)	1.00
Spacing Criterion (Diagonal)	1.52
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.50 ft (Diameter)
Luminous Width (90-270)	0.50 ft (Diameter)
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	93706	32164	1239
55	95146	3006	239
65	1748	0	0
75	0	0	0
85	0	0	0

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0	229.870	229.870	229.870	229.870	229.870	229.870	229.870	229.870	229.870
5	194.390	200.886	201.386	229.370	279.842	338.309	377.287	399.774	412.267
10	334.811	309.825	276.843	309.825	365.793	387.281	376.787	362.795	363.794
15	603.659	539.195	418.263	380.785	348.303	303.328	275.844	258.854	258.854
20	920.979	839.026	566.680	333.312	258.854	217.377	187.394	174.401	164.407
25	1199.822	1113.870	608.156	260.353	176.900	143.419	107.439	92.448	88.450
30	1363.229	1252.292	621.648	185.895	109.438	75.457	57.967	48.473	45.974
35	1373.723	1290.270	593.165	123.430	63.464	41.976	30.483	27.484	26.485
40	1292.269	1270.282	525.203	75.457	33.981	21.988	16.990	16.491	15.491
45	1209.816	1216.312	415.265	39.977	15.991	11.494	9.994	9.994	9.994
50	1168.839	1115.869	216.378	13.492	8.495	6.496	5.997	5.497	6.496
55	996.437	580.672	31.482	3.498	2.499	1.999	1.499	2.499	2.998
60	213.879	2.998	3.498	0.000	0.000	0.000	0.000	0.500	0.999
65	13.492	3.498	0.000	0.000	0.000	0.000	0.000	0.000	0.500
70	1.999	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
75	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6AR-L10-835-DIM-UNV-OW-OF-CS_45 DEGREE TILT.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	133.71	N.A.	15.10
0-30	313.98	N.A.	35.50
0-40	537.44	N.A.	60.80
0-60	879.77	N.A.	99.50
0-80	883.97	N.A.	100.00
0-90	883.97	N.A.	100.00
10-90	855.07	N.A.	96.70
20-40	403.74	N.A.	45.70
20-50	626.47	N.A.	70.90
40-70	346.49	N.A.	39.20
60-80	4.19	N.A.	0.50
70-80	0.03	N.A.	0.00
80-90	0.00	N.A.	0.00
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	883.97	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	28.90
10-20	104.81
20-30	180.27
30-40	223.47
40-50	222.74
50-60	119.59
60-70	4.16
70-80	0.03
80-90	0.00
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	89	86	83	87	84	81	80
3	96	88	81	76	94	87	80	76	84	79	74	81	77	73	79	75	72	70
4	89	79	72	66	87	78	71	66	76	70	65	74	69	64	72	67	64	62
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	65	57	52	75	64	57	51	62	56	51	61	55	51	59	54	50	48
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	39
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	40	36	35
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31

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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

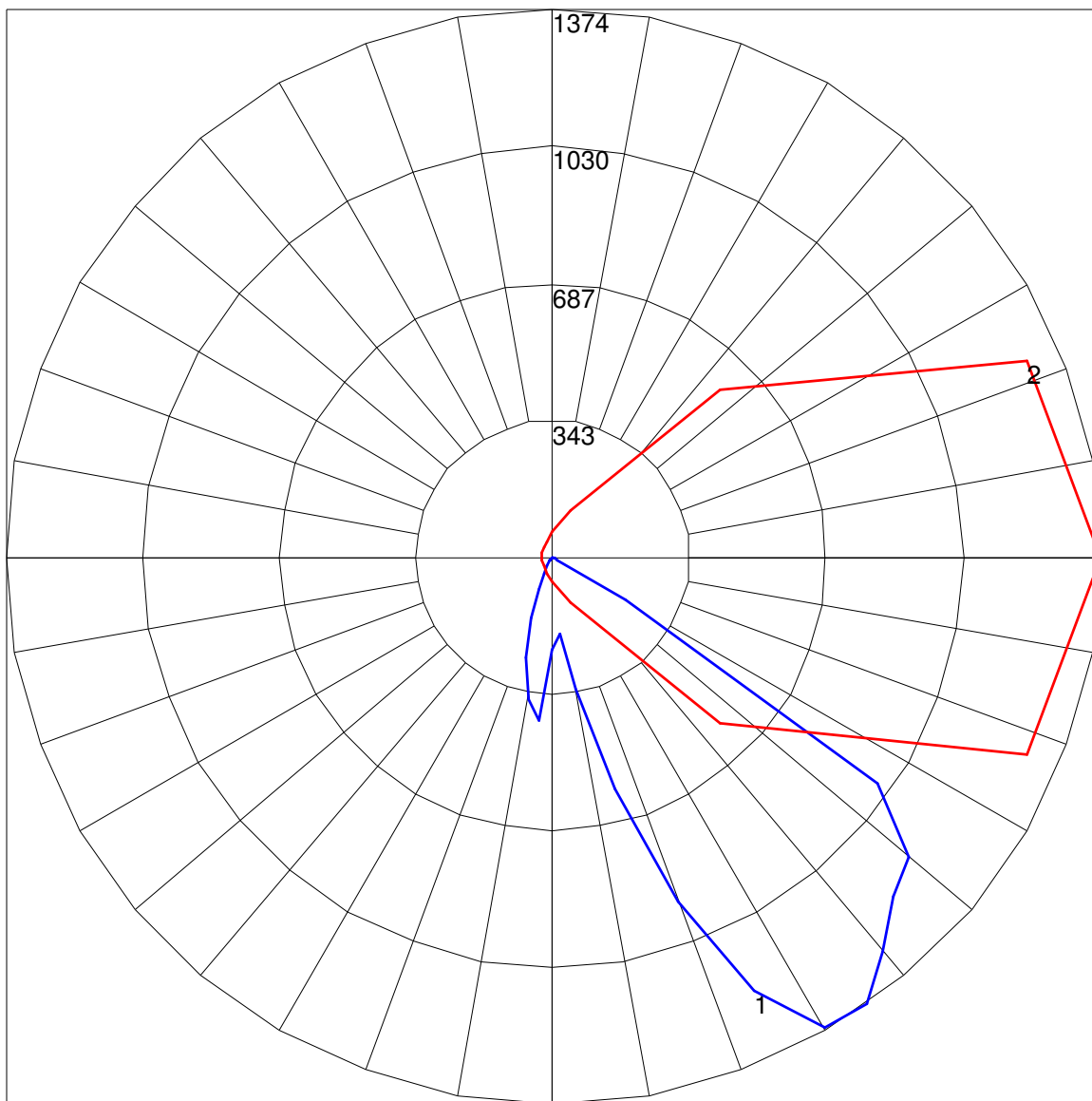
X=2H	Y=2H	26.7	28.1	27.1	28.4	28.7	0.0	0.0	0.0	0.0	0.0
	3H	26.6	27.8	27.0	28.1	28.5	0.0	0.0	0.0	0.0	0.0
	4H	26.5	27.6	26.9	28.0	28.4	0.0	0.0	0.0	0.0	0.0
	6H	26.5	27.5	26.9	27.8	28.2	0.0	0.0	0.0	0.0	0.0
	8H	26.4	27.4	26.8	27.8	28.2	0.0	0.0	0.0	0.0	0.0
	12H	26.4	27.3	26.8	27.7	28.1	0.0	0.0	0.0	0.0	0.0

UGR Viewed Endwise

4H	2H	26.5	27.6	26.9	28.0	28.4	0.0	0.0	0.0	0.0	0.0
	3H	26.4	27.3	26.8	27.7	28.1	0.0	0.0	0.0	0.0	0.0
	4H	26.3	27.1	26.8	27.5	28.0	0.0	0.0	0.0	0.0	0.0
	6H	26.2	26.9	26.7	27.4	27.8	0.0	0.0	0.0	0.0	0.0
	8H	26.2	26.8	26.6	27.3	27.7	0.0	0.0	0.0	0.0	0.0
	12H	26.1	26.7	26.6	27.2	27.7	0.0	0.0	0.0	0.0	0.0
8H	4H	26.2	26.8	26.6	27.3	27.7	0.0	0.0	0.0	0.0	0.0
	6H	26.1	26.6	26.6	27.1	27.6	0.0	0.0	0.0	0.0	0.0
	8H	26.0	26.5	26.5	27.0	27.5	0.0	0.0	0.0	0.0	0.0
	12H	26.0	26.4	26.5	26.9	27.4	0.0	0.0	0.0	0.0	0.0
12H	4H	26.1	26.7	26.6	27.2	27.7	0.0	0.0	0.0	0.0	0.0
	6H	26.0	26.5	26.5	27.0	27.5	0.0	0.0	0.0	0.0	0.0
	8H	26.0	26.4	26.5	26.9	27.4	0.0	0.0	0.0	0.0	0.0

Maximum UGR = 28.7

POLAR GRAPH



Maximum Candela = 1373.723 Located At Horizontal Angle = 0, Vertical Angle = 35
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (35) (Through Max. Cd.)