



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6AR-L20-935-DIM-UNV-AW-OF-WH-AD_0 DEGREE TILT.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]BALLABS TEST NO. 20407.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUE DATE] 10-20-2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] GEN7 V13 LED 6"SHORT HEATSINK 6"RND ADJ DOWNLIGHT @ 0 TILT
 [MORE] ACRYLIC WIDE TIR OPTIC & 6"WHITE ASYM TRIM w/ANGLED SOLITE
 [MORE] LENS ADVANCE #XI025C070V054DSM5 @ 530mA
 [LUMCAT] 6AR-L20-935-DIM-UNV-AW-OF-WH-AD_0 DEG TILT
 [LAMPCAT] BXRE-35E2000
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Classroom, Industrial, Office, Direct, Downlight
 [_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1037
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	49
Total Luminaire Watts	21
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.82
Spacing Criterion (90-270)	0.82
Spacing Criterion (Diagonal)	0.74
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	2915	3131	3617
55	2396	2728	2795
65	2800	2800	1987
75	3097	2507	1032
85	1314	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	1494.172	1494.172	1494.172	1494.172	1494.172	1494.172	1494.172	1494.172	1494.172
5	1485.809	1483.021	1483.718	1490.687	1501.838	1508.807	1514.382	1513.685	1506.019
10	1457.933	1455.842	1460.720	1472.568	1490.687	1496.263	1493.475	1476.749	1456.539
15	1339.458	1354.093	1354.790	1363.850	1376.394	1370.122	1337.368	1300.431	1252.345
20	1092.753	1103.206	1097.631	1103.903	1101.812	1105.994	1049.544	1002.155	951.977
25	684.364	714.331	719.907	732.451	727.573	733.148	698.302	639.065	613.280
30	357.514	362.392	366.574	372.149	367.271	369.362	360.999	350.545	333.819
35	166.561	176.318	169.349	167.258	167.955	173.530	180.499	172.833	164.470
40	77.357	82.932	85.023	82.235	85.023	89.901	93.386	92.689	91.295
45	37.633	39.027	40.421	43.208	46.693	49.481	52.965	52.965	49.481
50	27.876	29.270	32.058	34.845	36.239	35.542	34.845	32.755	32.058
55	25.089	25.786	28.573	30.664	29.270	25.786	22.998	20.210	19.513
60	24.392	25.089	26.483	25.089	21.604	18.120	13.938	12.544	11.151
65	21.604	21.604	21.604	19.513	15.332	11.847	8.363	4.181	3.485
70	19.513	18.817	16.726	13.938	9.757	6.272	2.091	2.091	1.394
75	14.635	13.938	11.847	6.969	4.878	2.091	1.394	2.091	1.394
80	8.363	6.969	6.272	3.485	0.697	0.000	0.000	0.000	0.000
85	2.091	1.394	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-L20-935-DIM-UNV-AW-OF-WH-AD_0 DEGREE TILT.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	508.67	N.A.	49.00
0-30	829.44	N.A.	80.00
0-40	951.15	N.A.	91.70
0-60	1015.17	N.A.	97.90
0-80	1036.44	N.A.	99.90
0-90	1037.35	N.A.	100.00
10-90	895.16	N.A.	86.30
20-40	442.47	N.A.	42.70
20-50	483.11	N.A.	46.60
40-70	78.57	N.A.	7.60
60-80	21.28	N.A.	2.10
70-80	6.73	N.A.	0.60
80-90	0.90	N.A.	0.10
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	1037.35	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	142.19
10-20	366.49
20-30	320.76
30-40	121.71
40-50	40.63
50-60	23.39
60-70	14.55
70-80	6.73
80-90	0.90
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	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	97	96	94
2	108	104	100	96	106	102	98	95	99	96	93	96	93	91	93	91	89	88
3	103	97	92	88	101	96	91	88	93	89	86	91	88	85	88	86	84	82
4	98	91	86	82	97	90	85	81	88	84	80	86	82	79	84	81	79	77
5	94	86	80	76	92	85	80	76	83	79	75	82	78	75	80	77	74	73
6	90	81	76	72	88	80	75	71	79	74	71	78	73	70	76	73	70	68
7	86	77	71	67	84	76	71	67	75	70	67	74	70	66	73	69	66	65
8	82	73	67	64	81	73	67	63	71	67	63	70	66	63	70	66	63	61
9	79	70	64	60	77	69	64	60	68	63	60	67	63	60	66	62	60	58
10	75	66	61	57	74	66	61	57	65	60	57	64	60	57	64	60	57	55

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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	8.8	9.8	9.2	10.1	10.4	UGR Viewed Endwise				
	3H	11.3	12.2	11.7	12.5	12.9	8.7	9.7	9.0	10.0	10.3
	4H	12.3	13.1	12.7	13.5	13.9	9.7	10.6	10.1	10.9	11.3
	6H	12.9	13.7	13.4	14.0	14.4	9.9	10.7	10.3	11.1	11.4
	8H	13.1	13.8	13.5	14.2	14.6	9.9	10.6	10.3	11.0	11.4
	12H	13.1	13.8	13.5	14.2	14.6	9.8	10.5	10.2	10.9	11.3

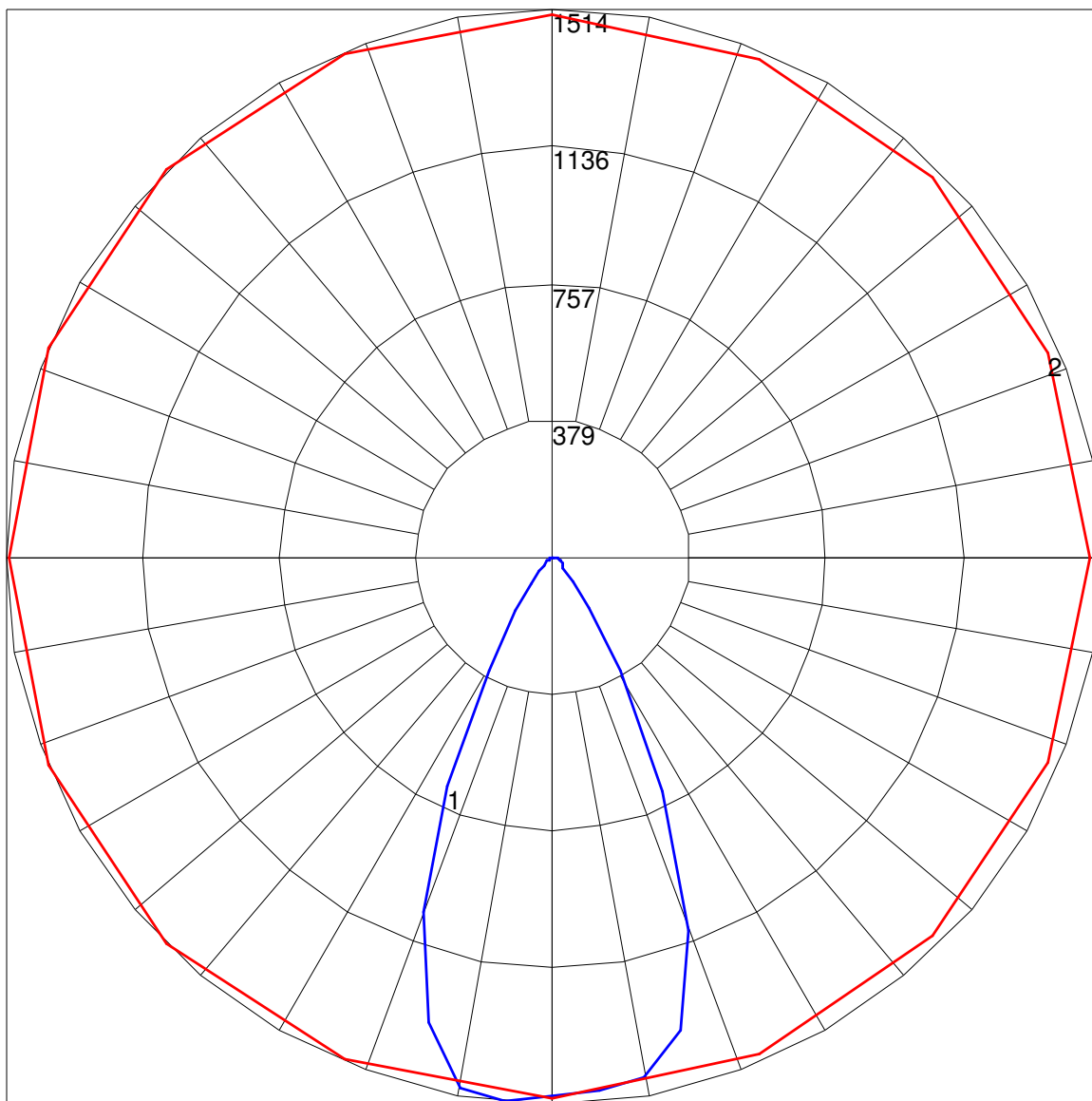
4H	2H	9.5	10.4	9.9	10.7	11.1	9.0	9.9	9.4	10.2	10.6
	3H	12.2	12.8	12.6	13.3	13.7	10.3	10.9	10.7	11.3	11.7
	4H	13.3	13.9	13.7	14.3	14.7	10.5	11.1	10.9	11.5	12.0
	6H	14.0	14.5	14.4	14.9	15.4	10.5	11.0	11.0	11.5	11.9
	8H	14.1	14.6	14.6	15.1	15.5	10.4	10.9	10.9	11.4	11.8
	12H	14.2	14.6	14.7	15.1	15.5	10.4	10.8	10.9	11.3	11.8

8H	4H	13.4	13.9	13.9	14.4	14.8	10.7	11.2	11.2	11.6	12.1
	6H	14.2	14.6	14.7	15.1	15.6	10.8	11.2	11.3	11.7	12.2
	8H	14.4	14.8	15.0	15.3	15.8	10.7	11.1	11.3	11.6	12.1
	12H	14.5	14.8	15.0	15.3	15.9	10.7	11.0	11.2	11.5	12.1

12H	4H	13.4	13.8	13.9	14.3	14.8	10.7	11.1	11.2	11.6	12.1
	6H	14.2	14.5	14.7	15.0	15.6	10.8	11.1	11.3	11.6	12.2
	8H	14.4	14.7	15.0	15.2	15.8	10.8	11.1	11.3	11.6	12.2

Maximum UGR = 15.9

POLAR GRAPH



Maximum Candela = 1514.382 Located At Horizontal Angle = 135, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (135 - 315) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)