



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-L20-9DW-DIM-UNV-OM-OF-CS_25 DEGREE TILT.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN from BALLABS TEST NO. 20449.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 21-MAY-2018

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] GEN7 V13 LED 4"SHORT HEATSINK 4"RND ADJ DOWNLIGHT @ 25 TILT

[MORE] ACRYLIC MED TIR OPTIC & 4"OPEN ASYM SEMI-SPEC TRIM

[MORE] ADVANCE # XI025C070V054DSM1 @ 610mA

[LUMCAT] 4AR-L20-9DW-DIM-UNV-OM-OF-CS_25 DEGREE TILT

[LAMPCAT] BXRE-35E2000

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Industrial, Direct, Downlight

[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1677
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	44
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	2.04
Spacing Criterion (90-270)	0.46
Spacing Criterion (Diagonal)	1.10
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.33 ft (Diameter)
Luminous Width (90-270)	0.33 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	111859	5618	0
55	1259	0	0
65	0	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	410.475	410.475	410.475	410.475	410.475	410.475	410.475	410.475	410.475
5	1166.100	1057.875	777.075	531.375	364.650	254.475	196.950	165.750	160.875
10	2940.600	2111.850	1107.600	536.250	273.975	157.950	108.225	85.800	80.925
15	5878.275	4425.525	1448.850	487.500	183.300	91.650	60.450	42.900	35.100
20	6917.625	5604.300	1639.950	369.525	117.000	47.775	23.400	18.525	18.525
25	6732.375	5759.325	1472.250	262.275	69.225	18.525	12.675	8.775	10.725
30	6355.050	5394.675	1017.900	164.775	27.300	9.750	3.900	2.925	2.925
35	5563.350	4339.725	631.800	74.100	9.750	0.975	0.000	0.000	0.000
40	3053.700	1573.650	234.975	17.550	0.000	0.000	0.000	0.000	0.000
45	640.575	268.125	32.175	0.975	0.000	0.000	0.000	0.000	0.000
50	66.300	37.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55	5.850	0.975	0.000	0.000	0.000	0.000	0.000	0.000	0.000
60	1.950	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70	0.000	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 : 4AR-L20-9DW-DIM-UNV-OM-OF-CS_25 DEGREE TILT.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	386.97	N.A.	23.10
0-30	1007.48	N.A.	60.10
0-40	1565.54	N.A.	93.30
0-60	1677.16	N.A.	100.00
0-80	1677.19	N.A.	100.00
0-90	1677.19	N.A.	100.00
10-90	1622.00	N.A.	96.70
20-40	1178.57	N.A.	70.30
20-50	1288.03	N.A.	76.80
40-70	111.65	N.A.	6.70
60-80	0.03	N.A.	0.00
70-80	0.00	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	1677.19	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	55.19
10-20	331.78
20-30	620.51
30-40	558.06
40-50	109.46
50-60	2.15
60-70	0.03
70-80	0.00
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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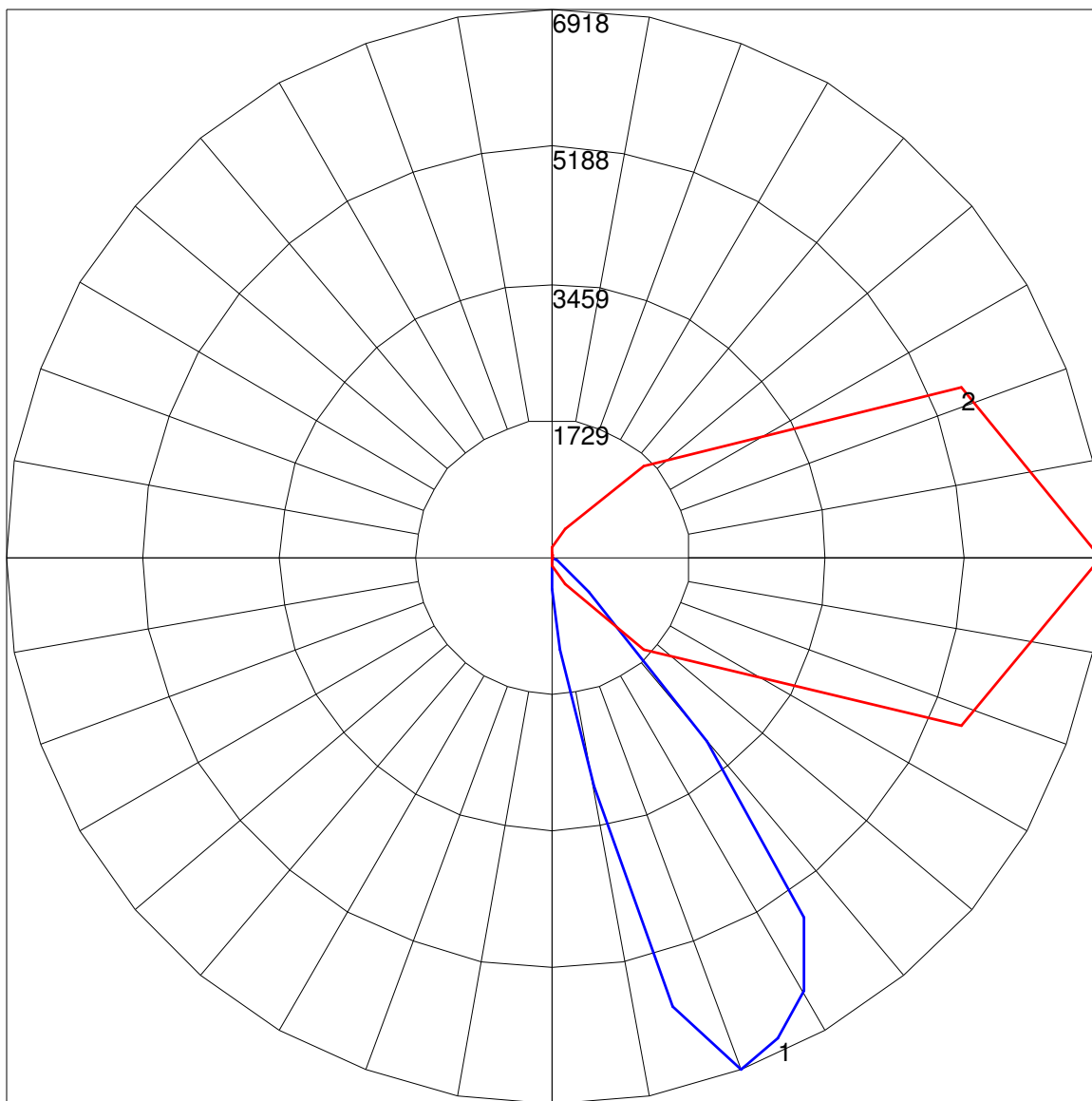
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	116	116	116	116	113	113	113	113	108	108	108	104	104	104	100	100	100	98
1	110	107	105	103	108	105	103	101	101	100	98	98	96	95	94	93	92	90
2	104	99	95	91	102	98	94	90	94	91	88	91	89	87	89	87	85	83
3	98	92	86	82	96	90	86	82	88	84	80	85	82	79	83	80	78	76
4	93	85	79	75	91	84	78	74	82	77	73	80	76	72	78	74	71	70
5	87	79	72	68	86	78	72	67	76	71	67	74	70	66	73	69	66	64
6	82	73	66	62	81	72	66	62	70	65	61	69	64	61	68	64	60	59
7	77	68	61	57	76	67	61	56	66	60	56	64	59	56	63	59	56	54
8	73	63	56	52	72	62	56	52	61	56	52	60	55	51	59	55	51	50
9	69	58	52	48	68	58	52	48	57	51	48	56	51	47	55	51	47	46
10	65	55	48	44	64	54	48	44	53	48	44	52	47	44	52	47	44	42

POLAR GRAPH



Maximum Candela = 6917.625 Located At Horizontal Angle = 0, Vertical Angle = 20
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (20) (Through Max. Cd.)