



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-L20-9DW-DIM-UNV-ON-OF-CS\_25 DEGREE TILT.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN from BALLABS TEST NO. 20452.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 18-MAY-2018

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 4AR-L20-9DW-DIM-UNV-ON-OF-CS\_25 DEGREE TILT

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

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

[MORE] ADVANCE # XI025C070V054DSM1 @ 610mA

[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	1985
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	53
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	2.30
Spacing Criterion (90-270)	0.44
Spacing Criterion (Diagonal)	1.16
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	212651	10215	0
55	6087	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>
<b>0</b>	272.025	272.025	272.025	272.025	272.025	272.025	272.025	272.025	272.025
<b>5</b>	929.175	792.675	597.675	373.425	232.050	153.075	114.075	99.450	96.525
<b>10</b>	2089.425	1778.400	961.350	412.425	171.600	93.600	63.375	52.650	52.650
<b>15</b>	4386.525	3565.575	1367.925	395.850	117.975	54.600	37.050	33.150	35.100
<b>20</b>	7828.275	5696.925	1582.425	302.250	76.050	43.875	29.250	27.300	30.225
<b>25</b>	9835.800	7091.175	1498.575	216.450	40.950	20.475	24.375	31.200	35.100
<b>30</b>	9965.475	6911.775	1137.825	106.275	18.525	13.650	21.450	27.300	24.375
<b>35</b>	7677.150	4869.150	639.600	46.800	6.825	10.725	4.875	0.000	0.000
<b>40</b>	4230.525	2186.925	230.100	11.700	0.000	0.000	0.000	0.000	0.000
<b>45</b>	1217.775	588.900	58.500	0.000	0.000	0.000	0.000	0.000	0.000
<b>50</b>	243.750	114.075	4.875	0.000	0.000	0.000	0.000	0.000	0.000
<b>55</b>	28.275	11.700	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>60</b>	0.975	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>65</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>70</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>75</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>80</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>85</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>90</b>	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-ON-OFF-CS\_25 DEGREE TILT.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	333.42	N.A.	16.80
0-30	1096.88	N.A.	55.30
0-40	1804.92	N.A.	90.90
0-60	1984.99	N.A.	100.00
0-80	1985.00	N.A.	100.00
0-90	1985.00	N.A.	100.00
10-90	1944.00	N.A.	97.90
20-40	1471.49	N.A.	74.10
20-50	1643.55	N.A.	82.80
40-70	180.08	N.A.	9.10
60-80	0.01	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	1985.00	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	41.00
10-20	292.43
20-30	763.45
30-40	708.04
40-50	172.06
50-60	8.01
60-70	0.01
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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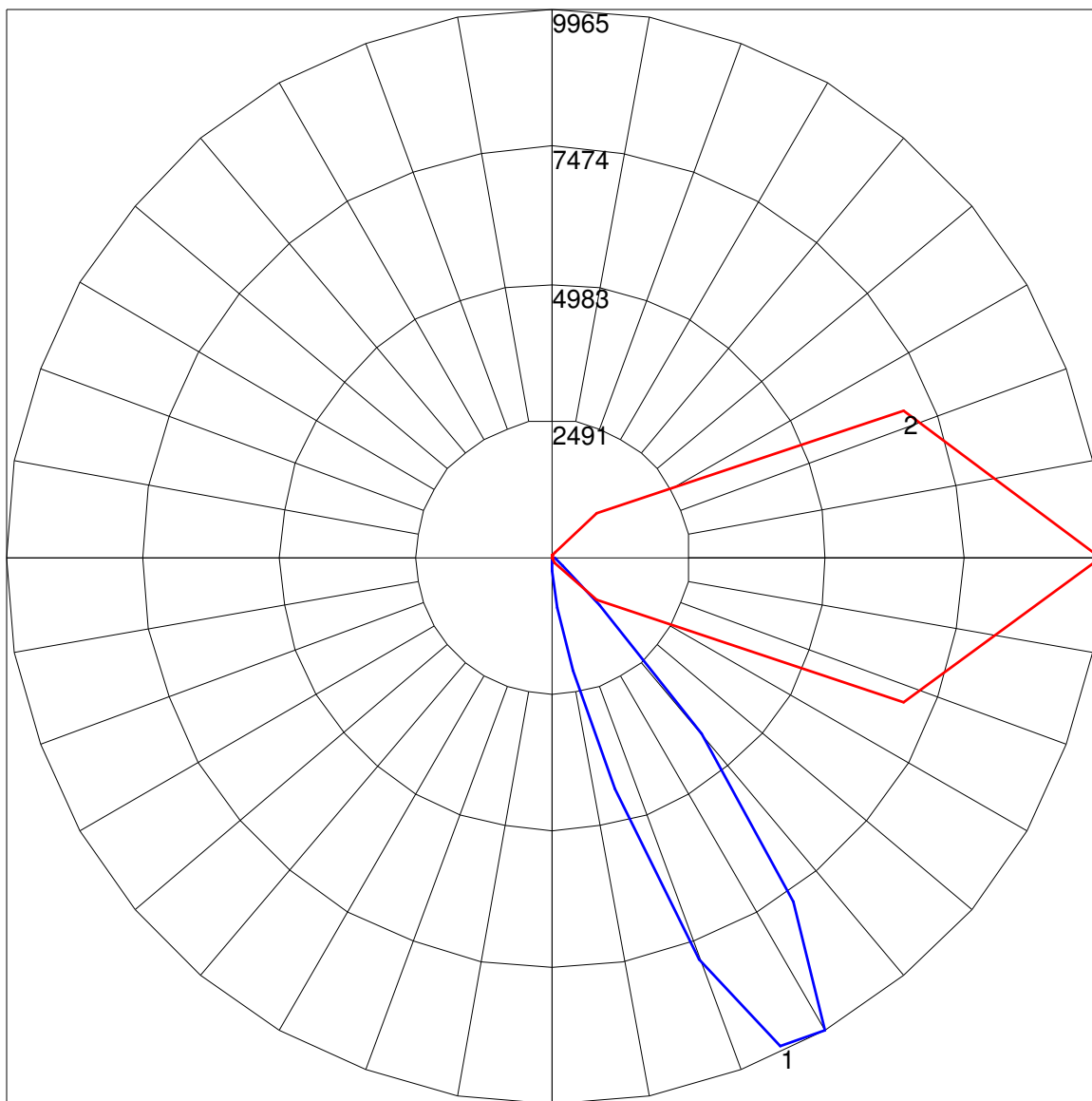
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	99	99	99	97
1	110	107	104	102	108	105	103	100	101	99	97	97	96	94	94	93	92	90
2	104	99	94	91	102	97	93	90	94	90	88	91	88	86	88	86	84	82
3	98	91	85	81	96	89	84	80	87	82	79	84	81	78	82	79	77	75
4	92	83	77	73	90	82	77	72	80	75	71	78	74	71	76	73	70	68
5	86	77	70	66	84	76	70	65	74	69	65	72	68	64	71	67	64	62
6	81	71	64	60	79	70	64	59	69	63	59	67	62	58	66	61	58	56
7	76	65	59	54	74	65	58	54	63	58	54	62	57	53	61	56	53	51
8	71	61	54	49	70	60	54	49	59	53	49	58	53	49	57	52	48	47
9	67	56	49	45	66	56	49	45	55	49	45	54	48	45	53	48	44	43
10	63	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39

POLAR GRAPH



Maximum Candela = 9965.475 Located At Horizontal Angle = 0, Vertical Angle = 30  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (30) (Through Max. Cd.)