



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-L20-9DW-DIM-UNV-LM-OF-WH_25 DEGREE TILT.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN from BALLABS TEST NO. 20458.0

[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"WHITE ASYM FLUSH REFL w/SOLITE

[MORE] ADVANCE # XI025C070V054DSM1 @ 610mA

[LUMCAT] 4AR-L20-9DW-DIM-UNV-LM-OF-WH_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	1618
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	43
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	2.14
Spacing Criterion (90-270)	0.56
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	166511	31838	8853
55	36731	11754	8396
65	12249	6552	6837
75	7442	4186	4652
85	2763	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	494.325	494.325	494.325	494.325	494.325	494.325	494.325	494.325	494.325
5	1223.625	1163.175	938.925	675.675	464.100	323.700	253.500	214.500	205.725
10	2333.175	2115.750	1348.425	735.150	377.325	225.225	159.900	132.600	128.700
15	3979.950	3285.750	1722.825	696.150	285.675	152.100	113.100	100.425	97.500
20	4955.925	4200.300	1878.825	555.750	191.100	107.250	86.775	82.875	84.825
25	5193.825	4274.400	1668.225	403.650	133.575	85.800	78.975	80.925	84.825
30	4633.200	3711.825	1206.075	245.700	90.675	71.175	76.050	84.825	89.700
35	3407.625	2585.700	736.125	142.350	69.225	67.275	78.000	87.750	95.550
40	1989.000	1445.925	388.050	85.800	59.475	67.275	82.875	95.550	102.375
45	953.550	679.575	182.325	60.450	50.700	64.350	80.925	95.550	103.350
50	410.475	320.775	88.725	40.950	44.850	58.500	74.100	87.750	98.475
55	170.625	149.175	54.600	34.125	39.000	51.675	66.300	79.950	84.825
60	85.800	71.175	34.125	25.350	30.225	43.875	55.575	67.275	72.150
65	41.925	34.125	22.425	19.500	23.400	33.150	43.875	53.625	57.525
70	23.400	19.500	14.625	13.650	16.575	24.375	34.125	39.000	43.875
75	15.600	10.725	8.775	6.825	9.750	15.600	19.500	23.400	27.300
80	5.850	4.875	2.925	1.950	1.950	5.850	9.750	10.725	13.650
85	1.950	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.975
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-LM-OF-WH_25 DEGREE TILT.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	357.29	N.A.	22.10
0-30	878.51	N.A.	54.30
0-40	1307.83	N.A.	80.90
0-60	1564.26	N.A.	96.70
0-80	1615.82	N.A.	99.90
0-90	1617.54	N.A.	100.00
10-90	1555.02	N.A.	96.10
20-40	950.54	N.A.	58.80
20-50	1135.07	N.A.	70.20
40-70	292.34	N.A.	18.10
60-80	51.56	N.A.	3.20
70-80	15.66	N.A.	1.00
80-90	1.72	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	1617.54	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	62.52
10-20	294.77
20-30	521.22
30-40	429.32
40-50	184.54
50-60	71.90
60-70	35.90
70-80	15.66
80-90	1.72
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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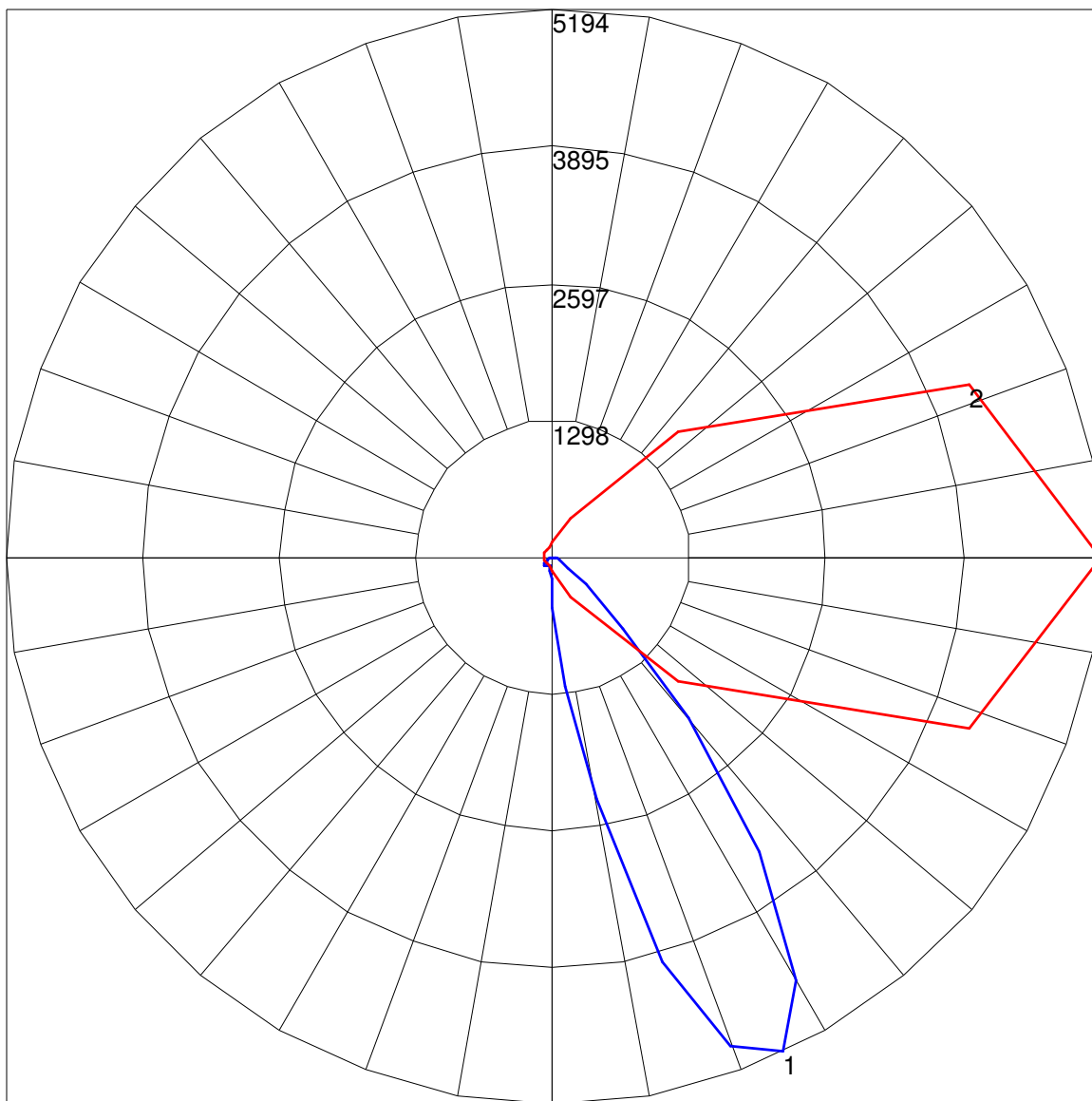
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	98
1	110	106	104	101	107	104	102	99	100	98	96	97	95	93	93	92	91	89
2	103	97	93	89	101	96	91	88	92	89	86	89	86	84	87	84	82	80
3	96	89	83	79	94	88	82	78	85	80	77	83	79	76	80	77	74	73
4	90	82	75	70	89	81	75	70	78	73	69	76	72	68	74	71	68	66
5	85	75	68	64	83	74	68	63	72	67	63	71	66	62	69	65	61	60
6	80	69	63	58	78	69	62	57	67	61	57	65	60	57	64	60	56	55
7	75	64	57	52	73	63	57	52	62	56	52	61	56	52	60	55	51	50
8	70	59	53	48	69	59	52	48	58	52	48	57	51	47	56	51	47	46
9	66	55	49	44	65	55	48	44	54	48	44	53	47	44	52	47	44	42
10	62	52	45	41	61	51	45	41	50	44	40	49	44	40	49	44	40	39

POLAR GRAPH



Maximum Candela = 5193.825 Located At Horizontal Angle = 0, Vertical Angle = 25

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

2 - Horizontal Cone Through Vertical Angle (25) (Through Max. Cd.)