



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN FROM BALLABS TEST NO. 20461.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 18-MAY-2018

[MANUFAC] WILLIAMS INDOOR

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

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

[MORE] ACRYLIC NARROW TIR OPTIC & 4"WHITE ASYM FLUSH REFL w/SOLITE

[MORE] LENS ADVANCE # XI025C070V054DSM1 @ 610mA

[LUMCAT] 4AR-L20-9DW-DIM-UNV-LN-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	1806
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	48
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	2.48
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	1.30
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	251749	37012	4605
55	75907	12196	3995
65	17693	6564	3710
75	8387	3728	2796
85	0	0	0

IES INDOOR REPORT

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

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	305.721	305.721	305.721	305.721	305.721	305.721	305.721	305.721	305.721
5	871.256	785.302	663.209	449.302	296.930	203.163	152.372	130.884	128.930
10	1991.581	1723.953	1063.674	516.698	243.209	134.791	99.628	84.977	83.023
15	3782.930	2934.140	1461.209	505.953	183.628	94.744	71.302	68.372	69.349
20	5843.860	4466.651	1665.349	418.047	124.047	70.326	60.558	63.488	67.395
25	6802.046	5112.279	1556.930	300.837	85.953	57.628	57.628	60.558	64.465
30	6483.628	4734.279	1192.605	189.488	56.651	49.814	54.698	55.674	58.605
35	4947.209	3477.209	786.279	107.442	42.000	41.023	44.930	50.791	54.698
40	3042.558	2152.744	427.814	60.558	32.233	35.163	42.000	48.837	54.698
45	1441.674	1165.256	211.953	37.116	26.372	33.209	41.023	50.791	55.674
50	685.674	520.605	101.581	27.349	22.465	32.233	41.023	50.791	57.628
55	352.605	216.837	56.651	18.558	18.558	26.372	36.140	44.930	51.767
60	141.628	117.209	35.163	16.605	16.605	22.465	32.233	42.000	47.860
65	60.558	46.884	22.465	11.721	12.698	17.581	25.395	34.186	40.047
70	31.256	25.395	13.674	8.791	9.767	11.721	18.558	25.395	31.256
75	17.581	13.674	7.814	3.907	5.860	8.791	11.721	17.581	21.488
80	6.837	3.907	1.953	0.000	0.000	0.977	3.907	7.814	11.721
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-LN-OF-WH_25 DEGREE TILT.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	310.50	N.A.	17.20
0-30	899.76	N.A.	49.80
0-40	1444.05	N.A.	80.00
0-60	1763.61	N.A.	97.70
0-80	1804.89	N.A.	99.90
0-90	1805.84	N.A.	100.00
10-90	1761.27	N.A.	97.50
20-40	1133.55	N.A.	62.80
20-50	1375.7	N.A.	76.20
40-70	349.32	N.A.	19.30
60-80	41.29	N.A.	2.30
70-80	11.53	N.A.	0.60
80-90	0.95	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	1805.84	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	44.56
10-20	265.94
20-30	589.26
30-40	544.29
40-50	242.15
50-60	77.41
60-70	29.76
70-80	11.53
80-90	0.95
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

IES INDOOR REPORT

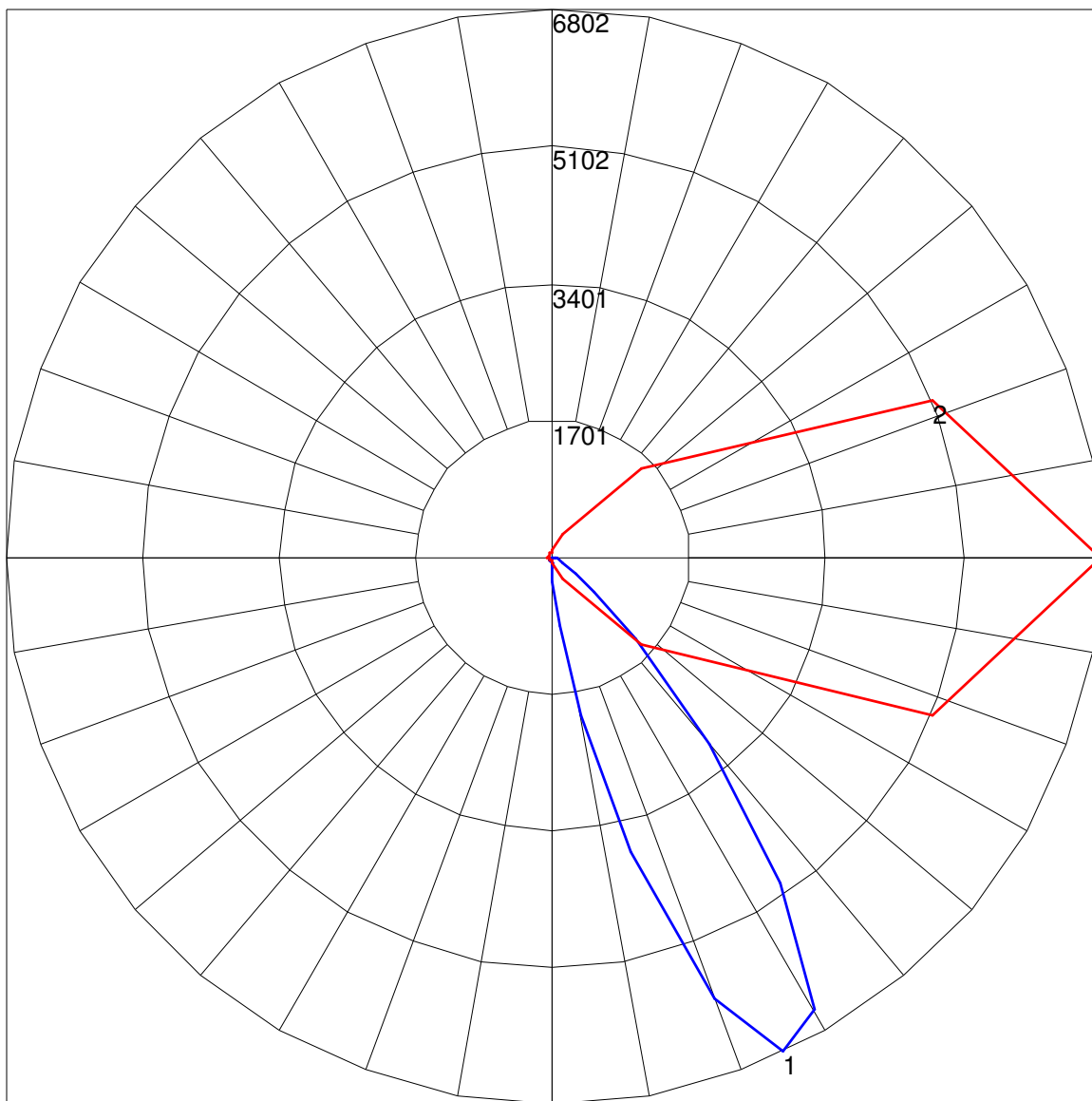
PHOTOMETRIC FILENAME : 4AR-L20-9DW-DIM-UNV-LN-OF-WH_25 DEGREE TILT.IES

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	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	91	103	98	93	90	94	91	88	91	88	86	89	86	84	82
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74
4	92	83	76	71	90	82	76	71	80	74	70	77	73	69	75	72	68	67
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	57	67	61	57	66	61	56	64	60	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	42	41
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

POLAR GRAPH



Maximum Candela = 6802.046 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.)