



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN from BALLABS TEST NO. 20446.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 21-MAY-2018

[MANUFAC] WILLIAMS INDOOR

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

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

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

[MORE] ACRYLIC WIDE 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	1355
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	36
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.92
Spacing Criterion (90-270)	0.40
Spacing Criterion (Diagonal)	1.06
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	101643	5278	851
55	1259	0	0
65	285	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	787.800	787.800	787.800	787.800	787.800	787.800	787.800	787.800	787.800
5	2388.750	2150.850	1675.050	1123.200	653.250	401.700	270.075	212.550	195.000
10	3591.900	3155.100	2199.600	1141.725	446.550	202.800	131.625	101.400	90.675
15	4321.200	3331.575	2360.475	969.150	252.525	104.325	61.425	39.000	39.975
20	3939.000	3145.350	2320.500	689.325	147.225	40.950	25.350	25.350	25.350
25	3254.550	3057.600	2149.875	393.900	64.350	18.525	16.575	13.650	14.625
30	2880.150	2982.525	1755.000	230.100	21.450	13.650	11.700	13.650	13.650
35	2816.775	2810.925	990.600	86.775	11.700	5.850	7.800	8.775	10.725
40	2426.775	1775.475	330.525	21.450	7.800	5.850	4.875	5.850	5.850
45	582.075	317.850	30.225	10.725	4.875	2.925	3.900	2.925	2.925
50	34.125	17.550	9.750	5.850	5.850	2.925	2.925	3.900	3.900
55	5.850	0.975	0.000	0.000	0.000	0.000	0.000	2.925	2.925
60	1.950	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
65	0.975	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70	2.925	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-OW-OF-CS_25 DEGREE TILT.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	416.46	N.A.	30.70
0-30	841.30	N.A.	62.10
0-40	1240.24	N.A.	91.60
0-60	1354.47	N.A.	100.00
0-80	1354.63	N.A.	100.00
0-90	1354.63	N.A.	100.00
10-90	1257.57	N.A.	92.80
20-40	823.78	N.A.	60.80
20-50	935.68	N.A.	69.10
40-70	114.34	N.A.	8.40
60-80	0.15	N.A.	0.00
70-80	0.05	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	1354.63	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	97.05
10-20	319.40
20-30	424.84
30-40	398.94
40-50	111.90
50-60	2.33
60-70	0.11
70-80	0.05
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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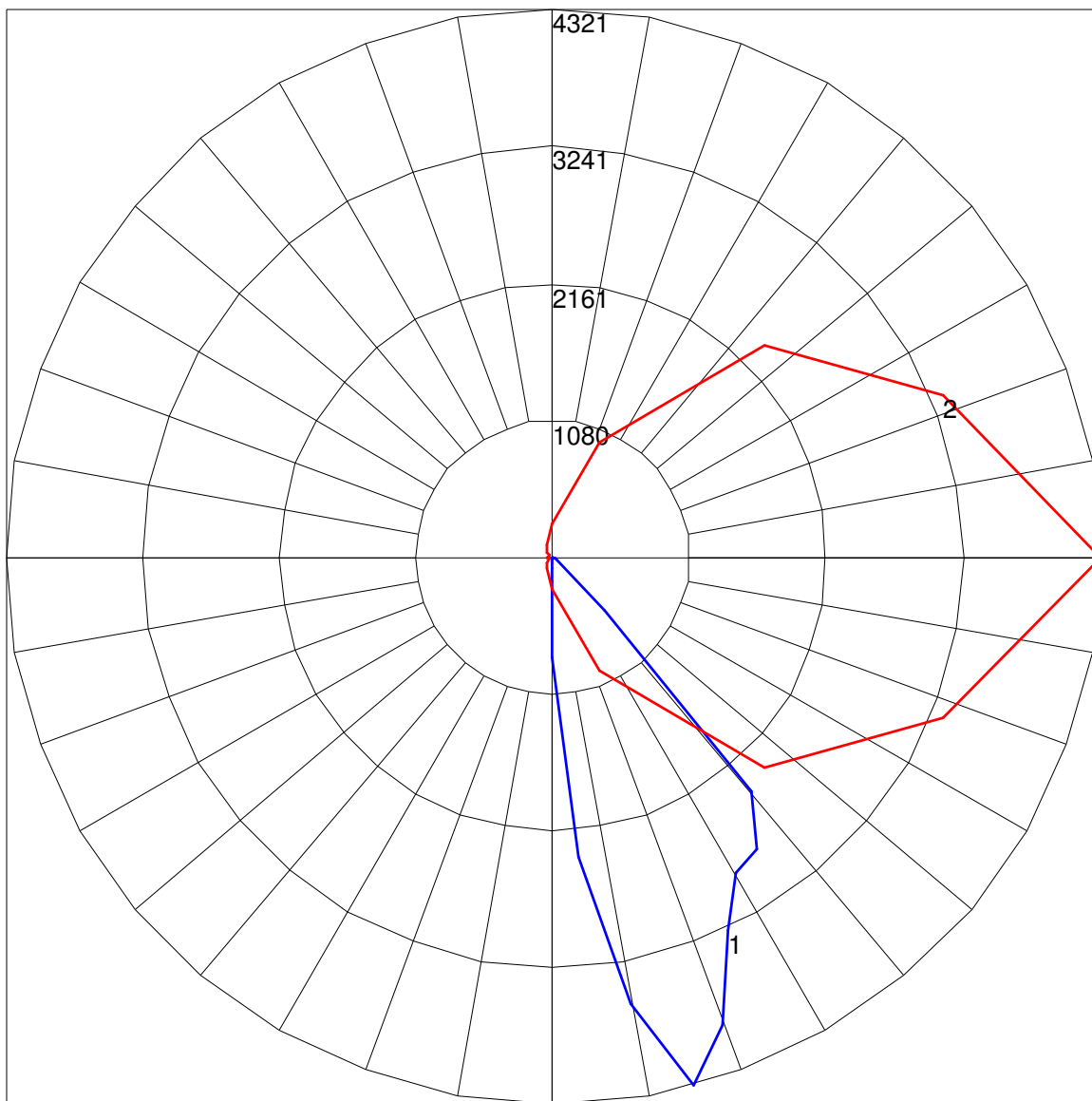
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	108	105	103	108	106	103	101	102	100	98	98	97	95	95	94	92	91
2	105	100	96	92	103	98	94	91	95	92	89	92	89	87	89	87	85	84
3	99	93	87	83	97	91	86	83	89	85	81	86	83	80	84	81	79	77
4	94	86	80	76	92	85	80	75	83	78	75	81	77	74	79	76	73	71
5	88	80	74	69	87	79	73	69	77	72	69	76	71	68	74	70	67	66
6	84	74	68	64	82	74	68	64	72	67	63	71	66	63	69	65	62	61
7	79	69	63	59	78	69	63	59	68	62	58	66	62	58	65	61	58	56
8	75	65	59	55	74	64	58	54	63	58	54	62	57	54	61	57	54	52
9	71	61	55	51	70	60	55	51	59	54	50	58	54	50	58	53	50	49
10	67	57	51	47	66	57	51	47	56	51	47	55	50	47	54	50	47	45

POLAR GRAPH



Maximum Candela = 4321.2 Located At Horizontal Angle = 0, Vertical Angle = 15
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (15) (Through Max. Cd.)