



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from BALLABS TEST NO. 20470.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 18-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 NARROW TIR OPTIC & 4"ASYM TRIM w/SOLITE LENS
 [MORE] ADVANCE # XI025C070V054DSM1 @ 610mA
 [LUMCAT] 4AR-L20-9DW-DIM-UNV-AN-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	1666
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)	2.42
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	1.22
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	286031	24006	2894
55	46386	3778	2099
65	5128	1709	1139
75	1861	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	297.375	297.375	297.375	297.375	297.375	297.375	297.375	297.375	297.375
5	759.525	761.475	621.075	425.100	285.675	195.975	148.200	123.825	118.950
10	1755.000	1508.325	966.225	473.850	231.075	133.575	90.675	77.025	71.175
15	3521.700	2932.800	1260.675	455.325	167.700	87.750	60.450	51.675	50.700
20	5708.625	4061.850	1452.750	368.550	110.175	58.500	44.850	39.975	40.950
25	7094.100	4890.600	1332.825	245.700	70.200	42.900	36.075	34.125	36.075
30	7054.125	4639.050	992.550	148.200	44.850	32.175	29.250	28.275	29.250
35	5685.225	3568.500	624.000	83.850	31.200	24.375	25.350	24.375	26.325
40	3632.850	2088.450	341.250	42.900	21.450	18.525	20.475	20.475	25.350
45	1638.000	882.375	137.475	24.375	16.575	17.550	19.500	21.450	23.400
50	589.875	362.700	54.600	15.600	12.675	16.575	16.575	18.525	22.425
55	215.475	100.425	17.550	9.750	9.750	12.675	13.650	15.600	16.575
60	54.600	28.275	8.775	5.850	5.850	7.800	8.775	10.725	12.675
65	17.550	9.750	5.850	4.875	3.900	3.900	5.850	5.850	5.850
70	7.800	5.850	2.925	0.000	0.975	0.975	0.975	2.925	3.900
75	3.900	2.925	0.000	0.000	0.000	0.000	0.000	0.000	2.925
80	2.925	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.975
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-AN-OF-WH_25 DEGREE TILT.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	287.04	N.A.	17.20
0-30	850.34	N.A.	51.00
0-40	1399.96	N.A.	84.00
0-60	1657.65	N.A.	99.50
0-80	1665.99	N.A.	100.00
0-90	1666.05	N.A.	100.00
10-90	1624.95	N.A.	97.50
20-40	1112.93	N.A.	66.80
20-50	1329.04	N.A.	79.80
40-70	264.87	N.A.	15.90
60-80	8.34	N.A.	0.50
70-80	1.15	N.A.	0.10
80-90	0.07	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	1666.05	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	41.10
10-20	245.93
20-30	563.31
30-40	549.62
40-50	216.11
50-60	41.57
60-70	7.19
70-80	1.15
80-90	0.07
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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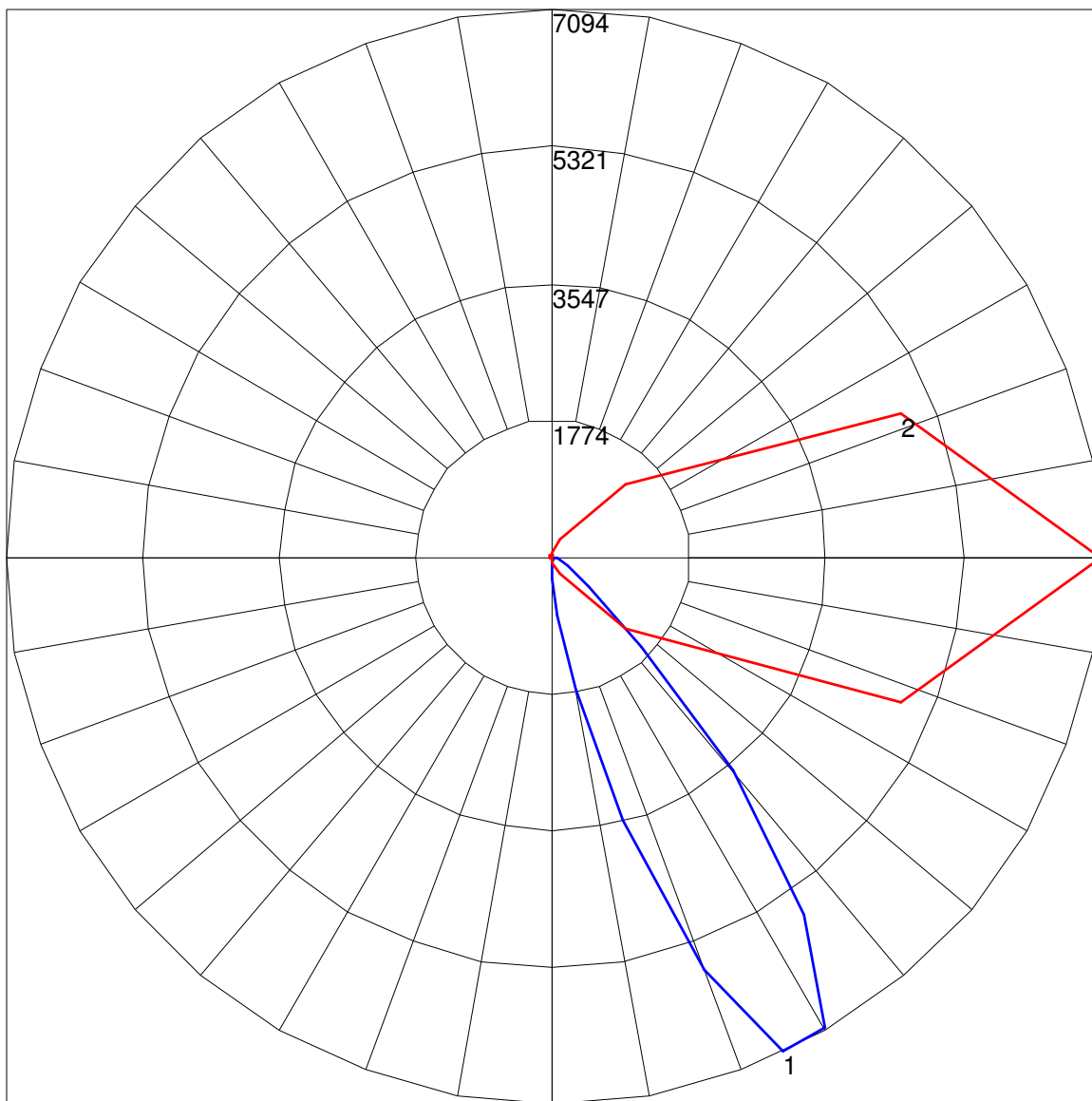
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	107	105	102	100	101	99	97	97	95	94	94	92	91	89
2	103	98	93	90	101	96	92	89	93	89	87	90	87	85	87	85	83	81
3	97	90	84	80	95	88	83	79	86	81	78	83	79	76	81	78	75	73
4	91	82	76	71	89	81	75	71	79	74	70	77	72	69	75	71	68	66
5	85	75	69	64	83	74	68	64	73	67	63	71	66	62	69	65	62	60
6	80	69	63	58	78	69	62	57	67	61	57	66	60	57	64	60	56	55
7	75	64	57	52	73	63	57	52	62	56	52	61	55	51	59	55	51	50
8	70	59	52	47	69	58	52	47	57	51	47	56	51	47	55	50	47	45
9	66	55	48	43	64	54	48	43	53	47	43	52	47	43	51	46	43	41
10	62	51	44	40	61	50	44	39	49	43	39	48	43	39	48	43	39	38

POLAR GRAPH



Maximum Candela = 7094.1 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.)