



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-L10-840-DIM1-UNV-OW-OF-CS_0 DEGREE TILT_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST]GEN FROM BALLABS TEST NO. 20445.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 08-04-2020

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO.64836

[LUMINAIRE] GEN7 V13 LED 4"SHORT HEATSINK 4"RND ADJ DOWNLIGHT @ 0 TILT

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

[LUMCAT] 4AR-L10-840-DIM1-UNV-OW-OF-CS_0 DEGREE TILT

[LAMPCAT]LAMP CODE : BXRE-402000

[_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	697
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	58
Total Luminaire Watts	12.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.76
Spacing Criterion (90-270)	0.76
Spacing Criterion (Diagonal)	0.64
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	441	353	705
55	435	435	435
65	443	148	148
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	1354.410	1354.410	1354.410	1354.410	1354.410	1354.410	1354.410	1354.410	1354.410
5	1396.830	1393.800	1391.780	1389.255	1388.245	1390.265	1392.285	1397.335	1394.305
10	1443.795	1438.240	1434.200	1435.715	1438.745	1449.855	1455.915	1461.470	1462.480
15	1353.905	1338.250	1331.180	1333.705	1340.775	1368.550	1387.740	1390.770	1395.315
20	914.555	876.680	885.770	842.340	895.870	868.095	941.320	961.015	1002.930
25	341.380	331.785	347.440	365.620	368.650	361.580	350.470	347.945	344.410
30	90.900	93.930	86.860	73.225	90.900	96.455	82.315	74.740	87.365
35	10.605	10.100	10.605	12.120	16.160	17.170	15.150	14.645	15.150
40	4.040	4.040	4.040	6.060	7.070	7.575	6.565	6.565	6.565
45	2.525	2.525	2.020	2.020	4.040	4.545	3.535	3.535	3.535
50	3.535	2.020	1.515	2.525	2.525	3.535	2.020	2.525	2.525
55	2.020	2.020	2.020	1.010	2.020	1.515	1.515	1.515	1.515
60	1.515	1.010	0.505	1.010	1.010	0.505	0.505	0.505	1.010
65	1.515	1.515	0.505	0.505	0.505	0.000	0.000	0.000	0.000
70	1.010	0.505	1.010	0.000	0.505	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-L10-840-DIM1-UNV-OW-OF-CS_0 DEGREE TILT_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	487.12	N.A.	69.90
0-30	674.26	N.A.	96.70
0-40	692.17	N.A.	99.30
0-60	696.45	N.A.	99.90
0-80	697.04	N.A.	100.00
0-90	697.04	N.A.	100.00
10-90	562.67	N.A.	80.70
20-40	205.05	N.A.	29.40
20-50	207.86	N.A.	29.80
40-70	4.79	N.A.	0.70
60-80	0.59	N.A.	0.10
70-80	0.08	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	697.04	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	134.37
10-20	352.75
20-30	187.14
30-40	17.91
40-50	2.81
50-60	1.47
60-70	0.51
70-80	0.08
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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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

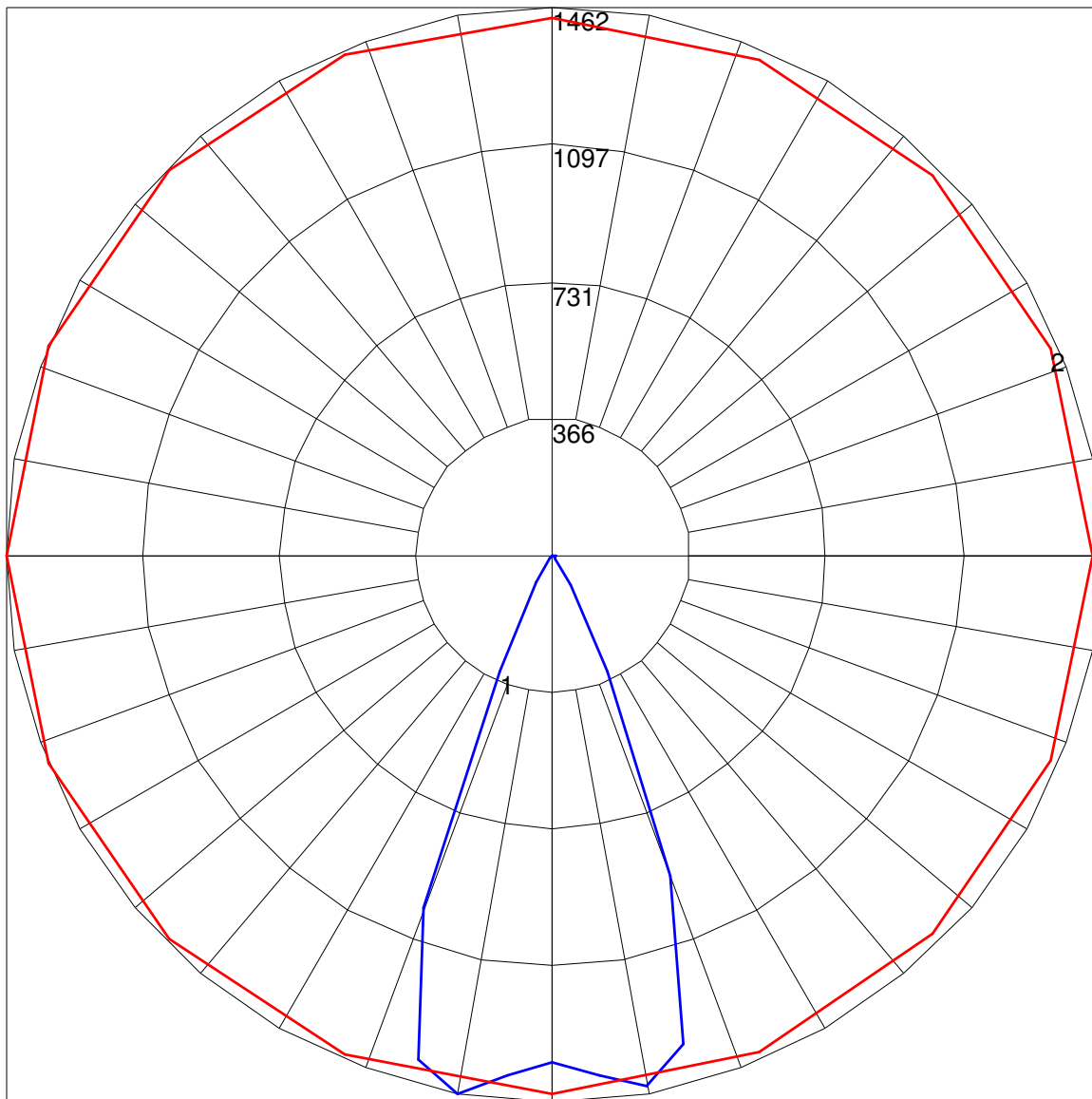
Effective Floor Cavity Reflectance 0.20

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	115	112	110	108	112	110	108	107	106	105	103	103	101	100	99	98	98	96
2	110	106	103	100	108	105	102	99	102	99	97	99	97	95	96	95	93	92
3	106	101	97	94	105	100	96	93	97	94	92	95	93	91	93	91	89	88
4	103	97	92	89	101	96	92	88	94	90	87	92	89	86	90	87	85	84
5	99	92	88	84	97	91	87	84	90	86	83	88	85	83	87	84	82	81
6	95	88	84	80	94	88	83	80	86	83	80	85	82	79	84	81	79	78
7	92	85	80	77	91	84	80	77	83	79	76	82	79	76	81	78	76	75
8	89	82	77	74	88	81	77	74	80	76	73	79	76	73	78	75	73	72
9	86	79	74	71	85	78	74	71	77	73	70	76	73	70	76	72	70	69
10	83	76	71	68	82	75	71	68	75	71	68	74	70	68	73	70	68	66

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POLAR GRAPH



Maximum Candela = 1462.48 Located At Horizontal Angle = 180, Vertical Angle = 10

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

2 - Horizontal Cone Through Vertical Angle (10) (Through Max. Cd.)