



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4AR-L16-8TW-DIM-UNV-OM-OF-CS_0 DEGREE TILT_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 20448.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 11-MAR-2020

[MANUFAC] WILLIAMS INDOOR

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

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

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

[LUMCAT] 4AR-L16-8TW-DIM-UNV-OM-OF-CS_0 DEGREE TILT

[_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	1652
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	69
Total Luminaire Watts	24
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.54
Spacing Criterion (90-270)	0.54
Spacing Criterion (Diagonal)	0.48
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	457	457	457
55	188	188	188
65	0	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	6098.954	6098.954	6098.954	6098.954	6098.954	6098.954	6098.954	6098.954	6098.954
5	6070.140	6009.892	6002.034	5997.668	5998.541	6018.624	6013.385	6009.892	5994.176
10	5373.366	5347.171	5375.112	5351.537	5326.216	5190.877	5199.609	5215.326	5081.734
15	3203.588	3228.909	3460.294	3347.658	3277.806	2973.076	2651.757	2663.108	2488.478
20	1120.252	1143.827	1190.977	1198.835	1134.222	1004.123	945.622	894.979	846.956
25	471.501	488.091	509.047	513.412	501.188	420.858	375.455	362.357	323.939
30	170.264	170.264	177.249	178.123	161.533	146.689	124.860	115.256	99.539
35	30.560	27.941	29.687	28.814	27.941	26.195	22.702	22.702	22.702
40	11.351	10.478	9.605	9.605	9.605	9.605	8.732	8.732	7.858
45	2.619	2.619	2.619	2.619	2.619	2.619	1.746	2.619	2.619
50	0.873	0.873	0.873	0.873	0.873	0.873	0.000	0.000	0.873
55	0.873	0.873	0.873	0.000	0.873	1.746	0.000	1.746	0.000
60	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
65	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
70	0.000	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

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Zone	Lumens	%Lamp	%Fixt
0-20	1382.45	N.A.	83.70
0-30	1616.18	N.A.	97.80
0-40	1648.37	N.A.	99.80
0-60	1651.74	N.A.	100.00
0-80	1651.74	N.A.	100.00
0-90	1651.74	N.A.	100.00
10-90	1103.12	N.A.	66.80
20-40	265.92	N.A.	16.10
20-50	268.78	N.A.	16.30
40-70	3.37	N.A.	0.20
60-80	0.00	N.A.	0.00
70-80	0.00	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	1651.74	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	548.62
10-20	833.83
20-30	233.73
30-40	32.18
40-50	2.86
50-60	0.51
60-70	0.00
70-80	0.00
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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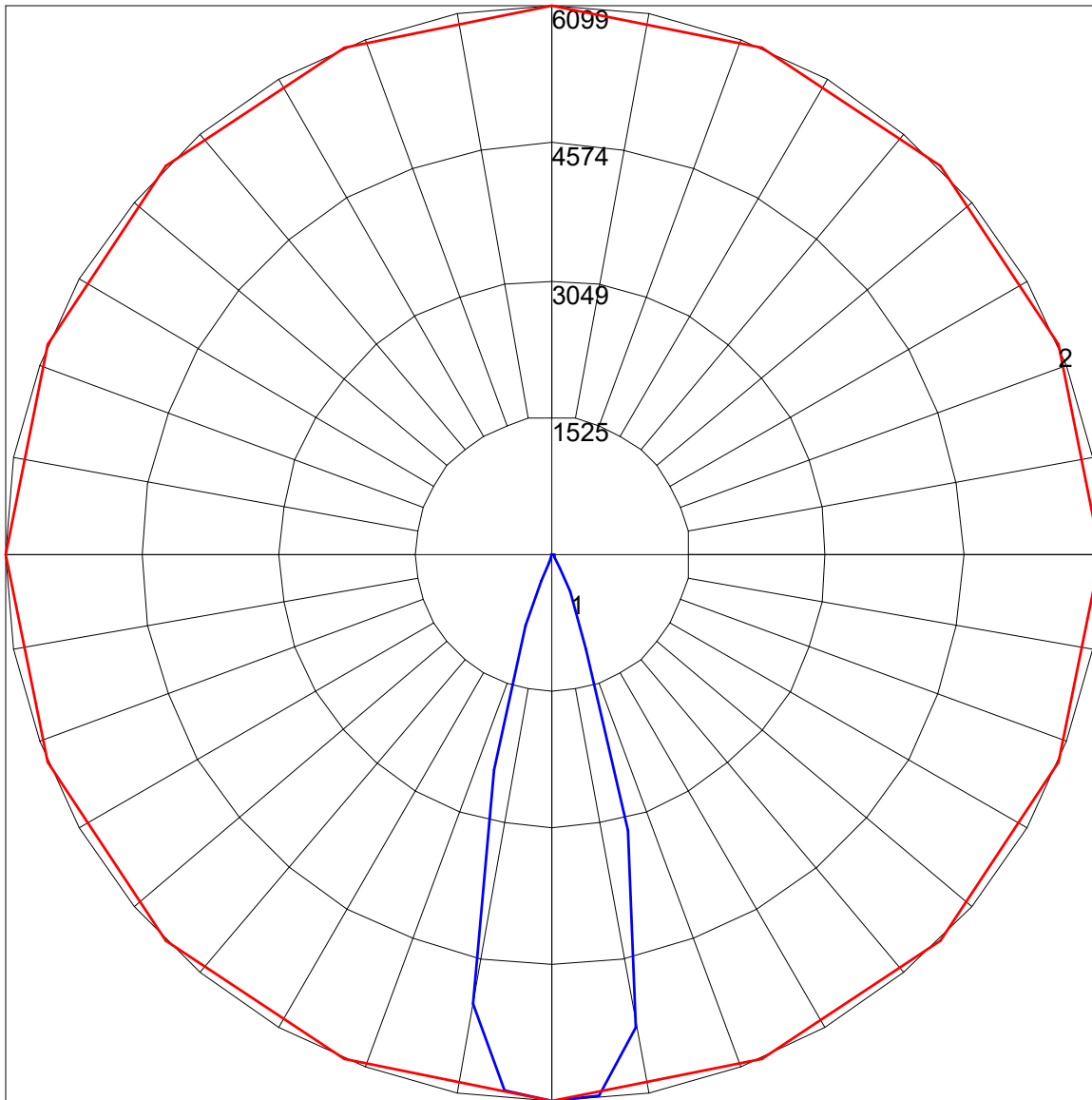
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	276	276	276	276	269	269	269	269	257	257	257	246	246	246	236	236	236	232
1	267	262	258	254	261	257	253	250	248	245	242	239	237	235	231	230	228	224
2	258	250	243	238	253	246	240	235	239	234	230	232	228	225	226	223	220	217
3	250	240	232	225	246	237	229	223	231	225	220	226	221	217	221	217	213	210
4	243	231	222	215	239	228	220	214	224	217	211	219	214	209	215	211	207	204
5	236	222	213	206	233	221	212	205	217	209	204	213	207	202	210	205	200	198
6	229	215	206	199	226	213	205	198	210	203	197	208	201	196	205	199	195	192
7	223	208	199	192	220	207	198	192	204	197	191	202	195	190	200	194	189	187
8	217	202	193	186	215	201	192	186	199	191	185	197	190	185	195	189	184	182
9	211	196	187	181	209	195	186	180	193	186	180	192	185	179	190	184	179	177
10	206	191	182	176	204	190	181	175	188	181	175	187	180	175	186	179	174	172

POLAR GRAPH



Maximum Candela = 6098.954 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)