



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 192_168_37_234-16_48_15-MERGED.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13537338.04 & #1236812.15

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 19-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CRDI-TL-L20-8TWU-L20-8TWD-xxx-DALI-UNV-LW-CSU-RN-WHD-WM 4000k

[LUMINAIRE] White formed aluminum housing, wide distribution reflector

[MORE] trims, flush upright frosted lens enclosure, no downlight enclosure

[LAMP] Two white LEDs (one up/one down)

[SEARCH_SOURCETYPE] LED

[SEARCH_APPLICATION] INDOOR, DIRECT, INDIRECT

[SEARCH_MOUNTING] WALL

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4037
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	48
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	0.65 ft (Diameter)
Luminous Width (90-270)	0.65 ft (Diameter)
Luminous Height	2.17 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	709	709	709
55	344	344	344
65	164	164	164
75	63	63	63
85	17	17	17

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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>
0.0	7705.667	7705.667	7705.667	7705.667	7705.667
2.5	7517.864	7517.864	7517.864	7517.864	7517.864
5.0	6985.372	6985.372	6985.372	6985.372	6985.372
7.5	6174.611	6174.611	6174.611	6174.611	6174.611
10.0	5163.450	5163.450	5163.450	5163.450	5163.450
12.5	4076.709	4076.709	4076.709	4076.709	4076.709
15.0	3048.371	3048.371	3048.371	3048.371	3048.371
17.5	2198.675	2198.675	2198.675	2198.675	2198.675
20.0	1555.104	1555.104	1555.104	1555.104	1555.104
22.5	1083.992	1083.992	1083.992	1083.992	1083.992
25.0	748.694	748.694	748.694	748.694	748.694
27.5	518.406	518.406	518.406	518.406	518.406
30.0	365.644	365.644	365.644	365.644	365.644
32.5	264.872	264.872	264.872	264.872	264.872
35.0	197.194	197.194	197.194	197.194	197.194
37.5	150.930	150.930	150.930	150.930	150.930
40.0	119.209	119.209	119.209	119.209	119.209
42.5	96.879	96.879	96.879	96.879	96.879
45.0	80.504	80.504	80.504	80.504	80.504
47.5	67.792	67.792	67.792	67.792	67.792
50.0	57.715	57.715	57.715	57.715	57.715
52.5	49.470	49.470	49.470	49.470	49.470
55.0	42.714	42.714	42.714	42.714	42.714
57.5	36.759	36.759	36.759	36.759	36.759
60.0	31.377	31.377	31.377	31.377	31.377
62.5	26.224	26.224	26.224	26.224	26.224
65.0	21.414	21.414	21.414	21.414	21.414
67.5	17.292	17.292	17.292	17.292	17.292
70.0	13.742	13.742	13.742	13.742	13.742
72.5	10.764	10.764	10.764	10.764	10.764
75.0	8.474	8.474	8.474	8.474	8.474
77.5	6.642	6.642	6.642	6.642	6.642
80.0	5.153	5.153	5.153	5.153	5.153
82.5	3.664	3.664	3.664	3.664	3.664
85.0	2.290	2.290	2.290	2.290	2.290
87.5	1.145	1.145	1.145	1.145	1.145
90.0	4.966	4.966	4.966	4.966	4.966
92.5	7.118	7.118	7.118	7.118	7.118
95.0	12.438	12.438	12.438	12.438	12.438
97.5	21.096	21.096	21.096	21.096	21.096
100.0	31.405	31.405	31.405	31.405	31.405
102.5	42.228	42.228	42.228	42.228	42.228
105.0	53.896	53.896	53.896	53.896	53.896
107.5	67.067	67.067	67.067	67.067	67.067
110.0	82.403	82.403	82.403	82.403	82.403
112.5	99.646	99.646	99.646	99.646	99.646
115.0	119.165	119.165	119.165	119.165	119.165
117.5	141.032	141.032	141.032	141.032	141.032
120.0	165.503	165.503	165.503	165.503	165.503
122.5	192.726	192.726	192.726	192.726	192.726
125.0	222.811	222.811	222.811	222.811	222.811
127.5	254.913	254.913	254.913	254.913	254.913
130.0	288.300	288.300	288.300	288.300	288.300
132.5	321.870	321.870	321.870	321.870	321.870

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CANDELA TABULATION - (Cont.)

135.0	355.405	355.405	355.405	355.405	355.405
137.5	390.369	390.369	390.369	390.369	390.369
140.0	430.726	430.726	430.726	430.726	430.726
142.5	482.458	482.458	482.458	482.458	482.458
145.0	552.166	552.166	552.166	552.166	552.166
147.5	642.421	642.421	642.421	642.421	642.421
150.0	754.322	754.322	754.322	754.322	754.322
152.5	870.992	870.992	870.992	870.992	870.992
155.0	989.497	989.497	989.497	989.497	989.497
157.5	1095.160	1095.160	1095.160	1095.160	1095.160
160.0	1177.710	1177.710	1177.710	1177.710	1177.710
162.5	1233.110	1233.110	1233.110	1233.110	1233.110
165.0	1264.663	1264.663	1264.663	1264.663	1264.663
167.5	1281.539	1281.539	1281.539	1281.539	1281.539
170.0	1291.078	1291.078	1291.078	1291.078	1291.078
172.5	1298.049	1298.049	1298.049	1298.049	1298.049
175.0	1304.286	1304.286	1304.286	1304.286	1304.286
177.5	1307.222	1307.222	1307.222	1307.222	1307.222
180.0	1306.570	1306.570	1306.570	1306.570	1306.570

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1454.17	N.A.	36.00
0-30	1821.55	N.A.	45.10
0-40	1952.96	N.A.	48.40
0-60	2055.61	N.A.	50.90
0-80	2086.52	N.A.	51.70
0-90	2089.83	N.A.	51.80
10-90	1481.51	N.A.	36.70
20-40	498.79	N.A.	12.40
20-50	562.75	N.A.	13.90
40-70	124.25	N.A.	3.10
60-80	30.91	N.A.	0.80
70-80	9.31	N.A.	0.20
80-90	3.31	N.A.	0.10
90-110	74.03	N.A.	1.80
90-120	193.56	N.A.	4.80
90-130	393.77	N.A.	9.80
90-150	1021.08	N.A.	25.30
90-180	1946.83	N.A.	48.20
110-180	1872.8	N.A.	46.40
0-180	4036.66	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	608.32
10-20	845.85
20-30	367.37
30-40	131.41
40-50	63.96
50-60	38.69
60-70	21.60
70-80	9.31
80-90	3.31
90-100	16.01
100-110	58.01
110-120	119.53
120-130	200.21
130-140	274.83
140-150	352.49
150-160	447.93
160-170	353.77
170-180	124.04

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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	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	52
1	101	98	95	92	94	91	89	86	78	76	75	66	65	64	55	55	54	49
2	95	89	85	81	88	84	80	77	73	70	68	62	61	59	53	52	51	47
3	89	82	77	73	83	77	73	69	68	65	62	59	57	55	51	50	48	45
4	84	76	71	66	79	72	67	63	64	60	57	56	54	52	49	47	46	43
5	80	71	65	61	75	67	62	58	60	56	53	53	51	49	47	45	44	41
6	76	67	60	56	71	63	58	54	57	53	50	51	48	46	45	43	42	40
7	72	63	57	52	68	60	54	51	54	50	47	49	46	44	44	42	40	38
8	68	59	53	49	64	56	51	48	51	47	45	47	44	42	42	40	39	37
9	65	56	50	46	62	54	49	45	49	45	43	45	42	40	41	39	37	36
10	62	53	48	44	59	51	46	43	47	43	41	43	40	38	40	38	36	35

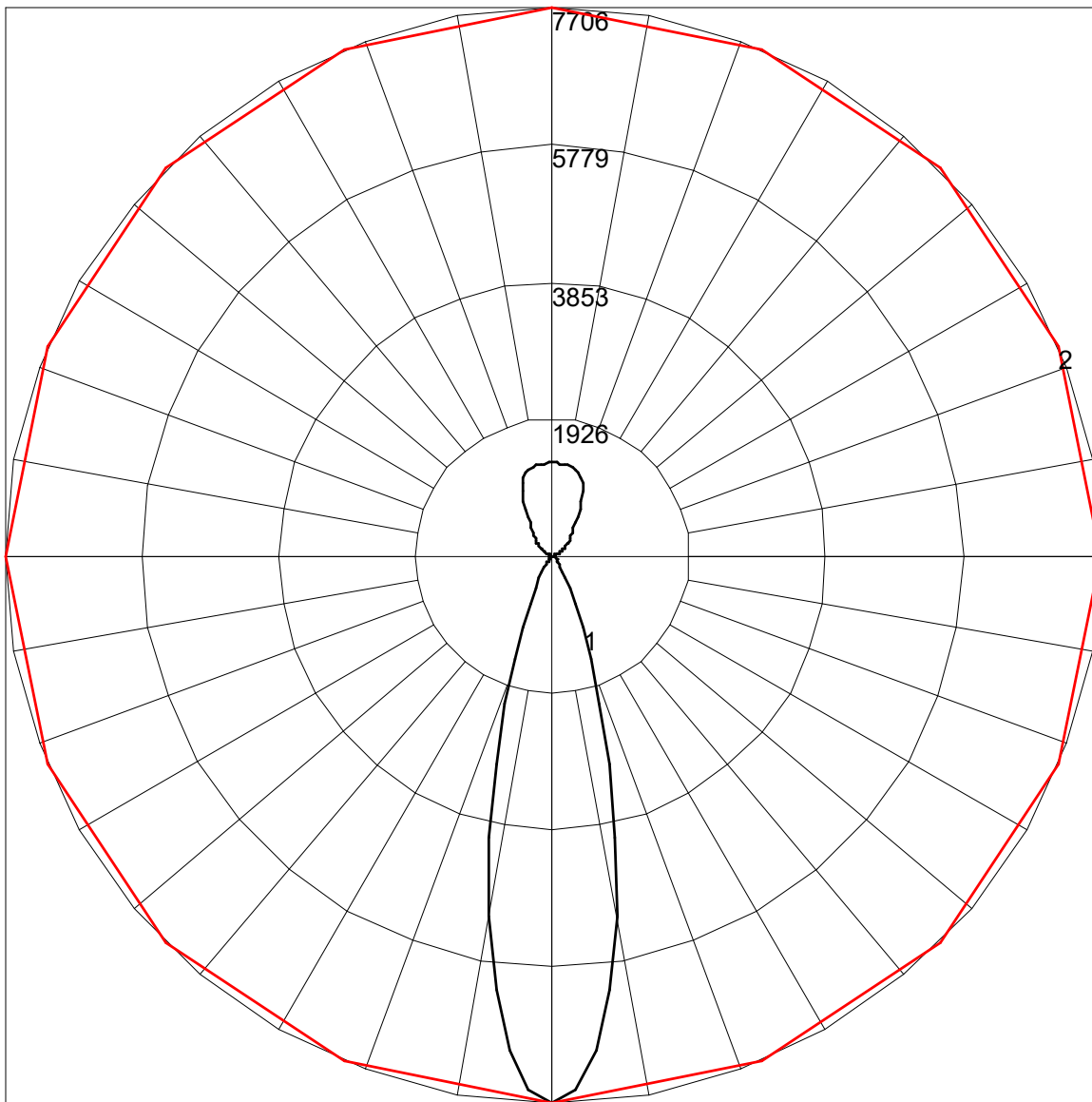
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UGR TABLE - CORRECTED

Reflectances											
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30	
Walls	50	30	50	30	30	50	30	50	30	30	
Floor Cavity	20	20	20	20	20	20	20	20	20	20	
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	3H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	4H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	6H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	8H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	12H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
4H	2H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	3H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	4H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	6H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	8H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	12H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
8H	4H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	6H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	8H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	12H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
12H	4H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	6H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
	8H	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9

Maximum UGR = 4.9

POLAR GRAPH



Maximum Candela = 7705.667 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)