



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 192_168_37_234-16_24_13-MERGED.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13537338.04 & #12326812.10

[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-DIM1-UNV-LW-CSU-LN-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	4091
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	85
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	764	764	764
55	415	415	415
65	236	236	236
75	115	115	115
85	25	25	25

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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	7962.877	7962.877	7962.877	7962.877	7962.877
2.5	7765.747	7765.747	7765.747	7765.747	7765.747
5.0	7206.827	7206.827	7206.827	7206.827	7206.827
7.5	6356.850	6356.850	6356.850	6356.850	6356.850
10.0	5300.468	5300.468	5300.468	5300.468	5300.468
12.5	4166.392	4166.392	4166.392	4166.392	4166.392
15.0	3094.935	3094.935	3094.935	3094.935	3094.935
17.5	2215.969	2215.969	2215.969	2215.969	2215.969
20.0	1558.484	1558.484	1558.484	1558.484	1558.484
22.5	1076.908	1076.908	1076.908	1076.908	1076.908
25.0	735.641	735.641	735.641	735.641	735.641
27.5	503.956	503.956	503.956	503.956	503.956
30.0	352.746	352.746	352.746	352.746	352.746
32.5	254.877	254.877	254.877	254.877	254.877
35.0	190.868	190.868	190.868	190.868	190.868
37.5	148.775	148.775	148.775	148.775	148.775
40.0	120.597	120.597	120.597	120.597	120.597
42.5	101.116	101.116	101.116	101.116	101.116
45.0	86.737	86.737	86.737	86.737	86.737
47.5	75.489	75.489	75.489	75.489	75.489
50.0	66.096	66.096	66.096	66.096	66.096
52.5	58.211	58.211	58.211	58.211	58.211
55.0	51.486	51.486	51.486	51.486	51.486
57.5	45.572	45.572	45.572	45.572	45.572
60.0	40.238	40.238	40.238	40.238	40.238
62.5	35.367	35.367	35.367	35.367	35.367
65.0	30.845	30.845	30.845	30.845	30.845
67.5	26.555	26.555	26.555	26.555	26.555
70.0	22.496	22.496	22.496	22.496	22.496
72.5	18.785	18.785	18.785	18.785	18.785
75.0	15.422	15.422	15.422	15.422	15.422
77.5	12.060	12.060	12.060	12.060	12.060
80.0	9.045	9.045	9.045	9.045	9.045
82.5	6.146	6.146	6.146	6.146	6.146
85.0	3.363	3.363	3.363	3.363	3.363
87.5	1.276	1.276	1.276	1.276	1.276
90.0	4.854	4.854	4.854	4.854	4.854
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	1486.43	N.A.	36.30
0-30	1849.04	N.A.	45.20
0-40	1976.83	N.A.	48.30
0-60	2091.85	N.A.	51.10
0-80	2138.9	N.A.	52.30
0-90	2143.73	N.A.	52.40
10-90	1517.01	N.A.	37.10
20-40	490.40	N.A.	12.00
20-50	558.89	N.A.	13.70
40-70	145.72	N.A.	3.60
60-80	47.05	N.A.	1.20
70-80	16.36	N.A.	0.40
80-90	4.83	N.A.	0.10
90-110	74.01	N.A.	1.80
90-120	193.54	N.A.	4.70
90-130	393.75	N.A.	9.60
90-150	1021.07	N.A.	25.00
90-180	1946.81	N.A.	47.60
110-180	1872.8	N.A.	45.80
0-180	4090.54	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	626.72
10-20	859.71
20-30	362.61
30-40	127.79
40-50	68.50
50-60	46.53
60-70	30.69
70-80	16.36
80-90	4.83
90-100	16.00
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	100	100	100	100	85	85	85	71	71	71	58	58	58	52
1	101	98	95	92	94	91	89	87	78	77	75	67	66	65	56	55	55	50
2	95	90	85	81	88	84	80	77	73	70	68	63	61	60	53	52	51	47
3	89	82	77	73	83	77	73	69	68	65	62	59	57	55	51	50	49	45
4	84	76	70	66	79	72	67	63	64	60	57	56	54	52	49	48	46	43
5	80	71	65	61	75	67	62	58	60	56	53	54	51	49	47	46	44	41
6	76	67	60	56	71	63	58	54	57	53	50	51	48	46	46	44	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	65	56	51	48	52	48	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	38	36
10	63	53	48	44	59	51	46	43	47	43	41	43	41	38	40	38	36	35

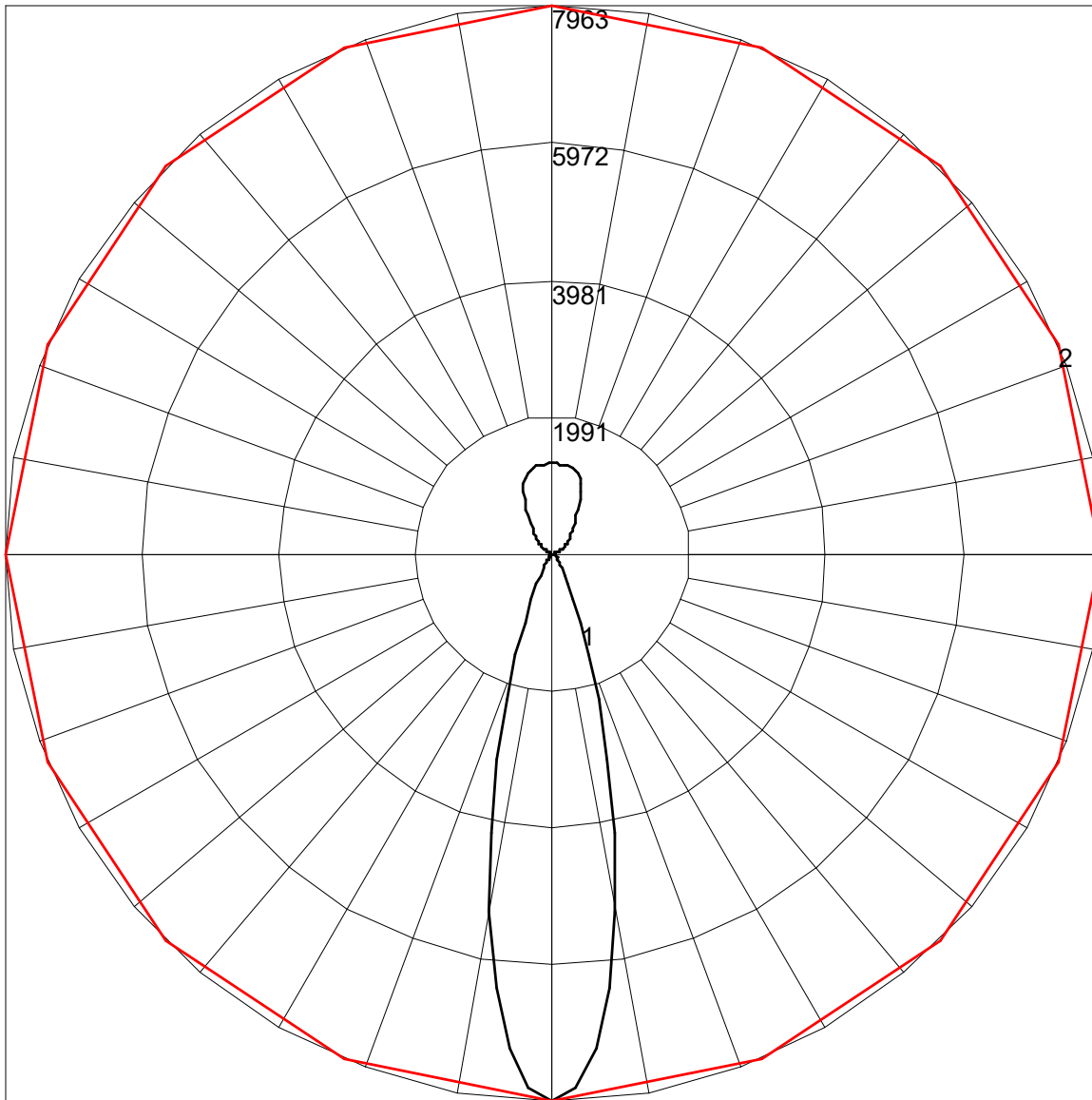
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UGR TABLE - CORRECTED

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 = 7962.877 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.)