



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 192\_168\_39\_135-13\_24\_32-MERGED.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.05 & BALLABS #20687.0

[TESTLAB] UL Verification Services Inc.

[ISSUEDATE] 15-MAR-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CRDI-L25-9DWU-L25-9DWD-xxx-DIM-UNV-ON-CSU-OW-CSD-WM

[LUMINAIRE] 8" DIA. ALUMINUM CYLINDER

[LAMP] Two white LEDs, one up/ one down

[BALLAST]

[OTHER]

[OTHER] This test was performed using the calibrated photodetector met

[MORE] hod of absolute photometry.

[\_ CONVERT] Photometric web converted from original test data

[\_ CONVERT] Luminaire test position and photometric web converted from original test data for upright orientation and clear glass

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4902
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	65
Total Luminaire Watts	75.4
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
Luminous Length (0-180)	0.50 ft (Diameter)
Luminous Width (90-270)	0.50 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	4200	4200	4200
55	1463	1463	1463
65	306	306	306
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>	<u>202.5</u>
<b>0</b>	1971.141	1971.141	1971.141	1971.141	1971.141	1971.141	1971.141	1971.141	1971.141	1971.141
<b>5</b>	1861.502	1861.502	1861.502	1861.502	1861.502	1861.502	1861.502	1861.502	1861.502	1861.502
<b>10</b>	2048.949	2048.949	2048.949	2048.949	2048.949	2048.949	2048.949	2048.949	2048.949	2048.949
<b>15</b>	2045.412	2045.412	2045.412	2045.412	2045.412	2045.412	2045.412	2045.412	2045.412	2045.412
<b>20</b>	2136.189	2136.189	2136.189	2136.189	2136.189	2136.189	2136.189	2136.189	2136.189	2136.189
<b>25</b>	2336.604	2336.604	2336.604	2336.604	2336.604	2336.604	2336.604	2336.604	2336.604	2336.604
<b>30</b>	2295.342	2295.342	2295.342	2295.342	2295.342	2295.342	2295.342	2295.342	2295.342	2295.342
<b>35</b>	712.063	712.063	712.063	712.063	712.063	712.063	712.063	712.063	712.063	712.063
<b>40</b>	97.850	97.850	97.850	97.850	97.850	97.850	97.850	97.850	97.850	97.850
<b>45</b>	54.230	54.230	54.230	54.230	54.230	54.230	54.230	54.230	54.230	54.230
<b>50</b>	31.831	31.831	31.831	31.831	31.831	31.831	31.831	31.831	31.831	31.831
<b>55</b>	15.326	15.326	15.326	15.326	15.326	15.326	15.326	15.326	15.326	15.326
<b>60</b>	8.252	8.252	8.252	8.252	8.252	8.252	8.252	8.252	8.252	8.252
<b>65</b>	2.358	2.358	2.358	2.358	2.358	2.358	2.358	2.358	2.358	2.358
<b>70</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>75</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>80</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>85</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>95</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>100</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>105</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>110</b>	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112
<b>115</b>	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112	1.112
<b>120</b>	2.224	2.224	2.224	2.224	2.224	2.224	2.224	2.224	2.224	2.224
<b>125</b>	4.448	4.448	4.448	4.448	4.448	4.448	4.448	4.448	4.448	4.448
<b>130</b>	8.897	8.897	8.897	8.897	8.897	8.897	8.897	8.897	8.897	8.897
<b>135</b>	14.457	14.457	14.457	14.457	14.457	14.457	14.457	14.457	14.457	14.457
<b>140</b>	23.354	23.354	23.354	23.354	23.354	23.354	23.354	23.354	23.354	23.354
<b>145</b>	269.123	269.123	269.123	269.123	269.123	269.123	269.123	269.123	269.123	269.123
<b>150</b>	839.620	839.620	839.620	839.620	839.620	839.620	839.620	839.620	839.620	839.620
<b>155</b>	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434
<b>160</b>	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621
<b>165</b>	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747
<b>170</b>	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194
<b>175</b>	10931.768	10931.768	10931.768	10931.768	10931.768	10931.768	10931.768	10931.768	10931.768	10931.768
<b>180</b>	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761

**Vert. Horizontal Angles**

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
<b>0</b>	1971.141	1971.141	1971.141	1971.141	1971.141	1971.141	1971.141
<b>5</b>	1861.502	1861.502	1861.502	1861.502	1861.502	1861.502	1861.502
<b>10</b>	2048.949	2048.949	2048.949	2048.949	2048.949	2048.949	2048.949
<b>15</b>	2045.412	2045.412	2045.412	2045.412	2045.412	2045.412	2045.412
<b>20</b>	2136.189	2136.189	2136.189	2136.189	2136.189	2136.189	2136.189
<b>25</b>	2336.604	2336.604	2336.604	2336.604	2336.604	2336.604	2336.604
<b>30</b>	2295.342	2295.342	2295.342	2295.342	2295.342	2295.342	2295.342
<b>35</b>	712.063	712.063	712.063	712.063	712.063	712.063	712.063
<b>40</b>	97.850	97.850	97.850	97.850	97.850	97.850	97.850
<b>45</b>	54.230	54.230	54.230	54.230	54.230	54.230	54.230
<b>50</b>	31.831	31.831	31.831	31.831	31.831	31.831	31.831
<b>55</b>	15.326	15.326	15.326	15.326	15.326	15.326	15.326
<b>60</b>	8.252	8.252	8.252	8.252	8.252	8.252	8.252

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**CANDELA TABULATION - (Cont.)**

<b>65</b>	2.358	2.358	2.358	2.358	2.358	2.358	2.358
<b>70</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>75</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>80</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>85</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>95</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>100</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>105</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>110</b>	1.112	1.112	1.112	1.112	1.112	1.112	1.112
<b>115</b>	1.112	1.112	1.112	1.112	1.112	1.112	1.112
<b>120</b>	2.224	2.224	2.224	2.224	2.224	2.224	2.224
<b>125</b>	4.448	4.448	4.448	4.448	4.448	4.448	4.448
<b>130</b>	8.897	8.897	8.897	8.897	8.897	8.897	8.897
<b>135</b>	14.457	14.457	14.457	14.457	14.457	14.457	14.457
<b>140</b>	23.354	23.354	23.354	23.354	23.354	23.354	23.354
<b>145</b>	269.123	269.123	269.123	269.123	269.123	269.123	269.123
<b>150</b>	839.620	839.620	839.620	839.620	839.620	839.620	839.620
<b>155</b>	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434	1135.434
<b>160</b>	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621	1732.621
<b>165</b>	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747	2259.747
<b>170</b>	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194	3921.194
<b>175</b>	10931.766	10931.766	10931.768	10931.768	10931.768	10931.768	10931.768
<b>180</b>	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761	24465.761

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	773.20	N.A.	15.80
0-30	1828.49	N.A.	37.30
0-40	2406.48	N.A.	49.10
0-60	2467.74	N.A.	50.30
0-80	2470.91	N.A.	50.40
0-90	2470.91	N.A.	50.40
10-90	2285.21	N.A.	46.60
20-40	1633.28	N.A.	33.30
20-50	1678.83	N.A.	34.20
40-70	64.43	N.A.	1.30
60-80	3.18	N.A.	0.10
70-80	0.00	N.A.	0.00
80-90	0.00	N.A.	0.00
90-110	0.29	N.A.	0.00
90-120	1.66	N.A.	0.00
90-130	6.11	N.A.	0.10
90-150	229.90	N.A.	4.70
90-180	2430.83	N.A.	49.60
110-180	2430.54	N.A.	49.60
0-180	4901.74	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	185.71
10-20	587.50
20-30	1055.29
30-40	577.99
40-50	45.55
50-60	15.70
60-70	3.18
70-80	0.00
80-90	0.00
90-100	0.00
100-110	0.29
110-120	1.37
120-130	4.44
130-140	11.72
140-150	212.07
150-160	550.75
160-170	695.68
170-180	954.50

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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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	50
1	100	97	94	91	93	90	87	85	77	75	73	65	64	62	54	53	52	47
2	93	88	83	79	87	82	78	74	70	68	65	60	58	56	50	49	48	44
3	87	80	74	69	81	75	70	66	65	61	58	56	53	51	47	46	45	41
4	81	73	66	62	76	68	63	59	60	56	53	52	49	47	45	43	41	38
5	76	67	60	55	71	63	57	53	55	51	48	48	45	43	42	40	38	35
6	71	61	55	50	66	58	52	48	51	47	44	45	42	39	39	37	35	33
7	67	57	50	45	62	54	48	43	48	43	40	42	39	36	37	35	33	31
8	63	52	46	41	59	50	44	40	44	40	37	40	36	34	35	32	31	29
9	59	49	42	38	55	46	40	37	41	37	34	37	34	31	33	30	29	27
10	56	45	39	35	52	43	37	34	39	34	31	35	31	29	31	29	27	25

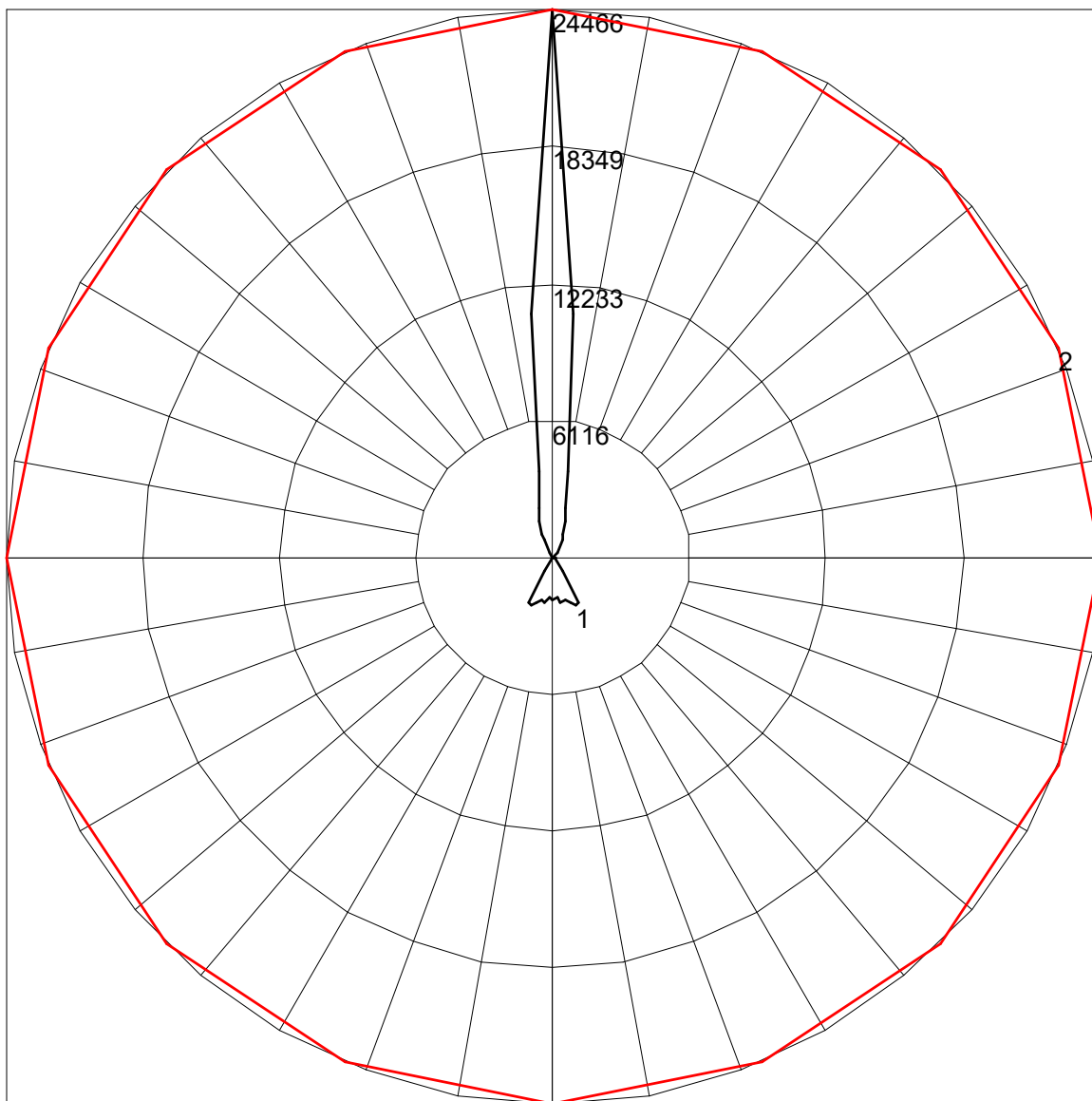
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**UGR TABLE - CORRECTED**

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	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	3H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	4H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	6H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	8H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	12H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
4H	2H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	3H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	4H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	6H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	8H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	12H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
8H	4H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	6H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	8H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	12H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
12H	4H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	6H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	8H	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5

Maximum UGR = 5.5

POLAR GRAPH



Maximum Candela = 24465.761 Located At Horizontal Angle = 0, Vertical Angle = 180  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (180) (Through Max. Cd.)