



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 192\_168\_37\_234-15\_30\_35-MERGED.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13537338.03 & #12326812.04

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 3-MAR-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CRDI-TL-P29-835U-P29-835D-xxx-PoE PR-OW-CSU-OM-CSD-WM

[LUMINAIRE] White formed aluminum housing, wide distribution reflector

[MORE] trims, clear uplight glass lens enclosure, no downlight enclosure

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

[\_SEARCH\_SOURCE TYPE] LED

[\_SEARCH\_APPLICATION] INDOOR, DIRECT, INDIRECT

[\_SEARCH\_MOUNTING] WALL

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5582
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	50
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	583	583	583
55	160	160	160
65	44	44	44
75	12	12	12
85	3	3	3

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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>
0	5757.343	5757.343	5757.343	5757.343	5757.343	5757.343	5757.343	5757.343	5757.343	5757.343
5	5698.521	5698.521	5698.521	5698.521	5698.521	5698.521	5698.521	5698.521	5698.521	5698.521
10	4293.976	4293.976	4293.976	4293.976	4293.976	4293.976	4293.976	4293.976	4293.976	4293.976
15	3335.615	3335.615	3335.615	3335.615	3335.615	3335.615	3335.615	3335.615	3335.615	3335.615
20	2743.095	2743.095	2743.095	2743.095	2743.095	2743.095	2743.095	2743.095	2743.095	2743.095
25	2025.758	2025.758	2025.758	2025.758	2025.758	2025.758	2025.758	2025.758	2025.758	2025.758
30	1438.977	1438.977	1438.977	1438.977	1438.977	1438.977	1438.977	1438.977	1438.977	1438.977
35	567.413	567.413	567.413	567.413	567.413	567.413	567.413	567.413	567.413	567.413
40	166.135	166.135	166.135	166.135	166.135	166.135	166.135	166.135	166.135	166.135
45	66.282	66.282	66.282	66.282	66.282	66.282	66.282	66.282	66.282	66.282
50	38.449	38.449	38.449	38.449	38.449	38.449	38.449	38.449	38.449	38.449
55	19.798	19.798	19.798	19.798	19.798	19.798	19.798	19.798	19.798	19.798
60	10.473	10.473	10.473	10.473	10.473	10.473	10.473	10.473	10.473	10.473
65	5.739	5.739	5.739	5.739	5.739	5.739	5.739	5.739	5.739	5.739
70	3.156	3.156	3.156	3.156	3.156	3.156	3.156	3.156	3.156	3.156
75	1.578	1.578	1.578	1.578	1.578	1.578	1.578	1.578	1.578	1.578
80	0.861	0.861	0.861	0.861	0.861	0.861	0.861	0.861	0.861	0.861
85	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430	0.430
90	5.413	5.413	5.413	5.413	5.413	5.413	5.413	5.413	5.413	5.413
95	5.981	5.981	5.981	5.981	5.981	5.981	5.981	5.981	5.981	5.981
100	7.236	7.236	7.236	7.236	7.236	7.236	7.236	7.236	7.236	7.236
105	8.952	8.952	8.952	8.952	8.952	8.952	8.952	8.952	8.952	8.952
110	11.294	11.294	11.294	11.294	11.294	11.294	11.294	11.294	11.294	11.294
115	14.808	14.808	14.808	14.808	14.808	14.808	14.808	14.808	14.808	14.808
120	20.496	20.496	20.496	20.496	20.496	20.496	20.496	20.496	20.496	20.496
125	31.037	31.037	31.037	31.037	31.037	31.037	31.037	31.037	31.037	31.037
130	49.317	49.317	49.317	49.317	49.317	49.317	49.317	49.317	49.317	49.317
135	78.554	78.554	78.554	78.554	78.554	78.554	78.554	78.554	78.554	78.554
140	312.921	312.921	312.921	312.921	312.921	312.921	312.921	312.921	312.921	312.921
145	1112.229	1112.229	1112.229	1112.229	1112.229	1112.229	1112.229	1112.229	1112.229	1112.229
150	1968.466	1968.466	1968.466	1968.466	1968.466	1968.466	1968.466	1968.466	1968.466	1968.466
155	2334.468	2334.468	2334.468	2334.468	2334.468	2334.468	2334.468	2334.468	2334.468	2334.468
160	2287.202	2287.202	2287.202	2287.202	2287.202	2287.202	2287.202	2287.202	2287.202	2287.202
165	2164.643	2164.643	2164.643	2164.643	2164.643	2164.643	2164.643	2164.643	2164.643	2164.643
170	2074.293	2074.293	2074.293	2074.293	2074.293	2074.293	2074.293	2074.293	2074.293	2074.293
175	1893.174	1893.174	1893.174	1893.174	1893.174	1893.174	1893.174	1893.174	1893.174	1893.174
180	1755.634	1755.634	1755.634	1755.634	1755.634	1755.634	1755.634	1755.634	1755.634	1755.634

Vert. Horizontal Angles  
 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>
0	5757.343	5757.343	5757.343	5757.343	5757.343	5757.343	5757.343
5	5698.521	5698.521	5698.521	5698.521	5698.521	5698.521	5698.521
10	4293.976	4293.976	4293.976	4293.976	4293.976	4293.976	4293.976
15	3335.615	3335.615	3335.615	3335.615	3335.615	3335.615	3335.615
20	2743.095	2743.095	2743.095	2743.095	2743.095	2743.095	2743.095
25	2025.758	2025.758	2025.758	2025.758	2025.758	2025.758	2025.758
30	1438.977	1438.977	1438.977	1438.977	1438.977	1438.977	1438.977
35	567.413	567.413	567.413	567.413	567.413	567.413	567.413
40	166.135	166.135	166.135	166.135	166.135	166.135	166.135
45	66.282	66.282	66.282	66.282	66.282	66.282	66.282
50	38.449	38.449	38.449	38.449	38.449	38.449	38.449
55	19.798	19.798	19.798	19.798	19.798	19.798	19.798
60	10.473	10.473	10.473	10.473	10.473	10.473	10.473

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**CANDELA TABULATION - (Cont.)**

<b>65</b>	5.739	5.739	5.739	5.739	5.739	5.739	5.739
<b>70</b>	3.156	3.156	3.156	3.156	3.156	3.156	3.156
<b>75</b>	1.578	1.578	1.578	1.578	1.578	1.578	1.578
<b>80</b>	0.861	0.861	0.861	0.861	0.861	0.861	0.861
<b>85</b>	0.430	0.430	0.430	0.430	0.430	0.430	0.430
<b>90</b>	5.413	5.413	5.413	5.413	5.413	5.413	5.413
<b>95</b>	5.981	5.981	5.981	5.981	5.981	5.981	5.981
<b>100</b>	7.236	7.236	7.236	7.236	7.236	7.236	7.236
<b>105</b>	8.952	8.952	8.952	8.952	8.952	8.952	8.952
<b>110</b>	11.294	11.294	11.294	11.294	11.294	11.294	11.294
<b>115</b>	14.808	14.808	14.808	14.808	14.808	14.808	14.808
<b>120</b>	20.496	20.496	20.496	20.496	20.496	20.496	20.496
<b>125</b>	31.037	31.037	31.037	31.037	31.037	31.037	31.037
<b>130</b>	49.317	49.317	49.317	49.317	49.317	49.317	49.317
<b>135</b>	78.554	78.554	78.554	78.554	78.554	78.554	78.554
<b>140</b>	312.921	312.921	312.921	312.921	312.921	312.921	312.921
<b>145</b>	1112.229	1112.229	1112.229	1112.229	1112.229	1112.229	1112.229
<b>150</b>	1968.466	1968.466	1968.466	1968.466	1968.466	1968.466	1968.466
<b>155</b>	2334.468	2334.468	2334.468	2334.468	2334.468	2334.468	2334.468
<b>160</b>	2287.202	2287.202	2287.202	2287.202	2287.202	2287.202	2287.202
<b>165</b>	2164.643	2164.643	2164.643	2164.643	2164.643	2164.643	2164.643
<b>170</b>	2074.293	2074.293	2074.293	2074.293	2074.293	2074.293	2074.293
<b>175</b>	1893.174	1893.174	1893.174	1893.174	1893.174	1893.174	1893.174
<b>180</b>	1755.634	1755.634	1755.634	1755.634	1755.634	1755.634	1755.634

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1447.97	N.A.	25.90
0-30	2386.6	N.A.	42.80
0-40	2804.44	N.A.	50.20
0-60	2888.3	N.A.	51.70
0-80	2896.38	N.A.	51.90
0-90	2898.33	N.A.	51.90
10-90	2403.92	N.A.	43.10
20-40	1356.47	N.A.	24.30
20-50	1420.67	N.A.	25.50
40-70	90.05	N.A.	1.60
60-80	8.08	N.A.	0.10
70-80	1.89	N.A.	0.00
80-90	1.95	N.A.	0.00
90-110	16.33	N.A.	0.30
90-120	31.53	N.A.	0.60
90-130	60.91	N.A.	1.10
90-150	850.66	N.A.	15.20
90-180	2683.82	N.A.	48.10
110-180	2667.49	N.A.	47.80
0-180	5582.16	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	494.41
10-20	953.55
20-30	938.63
30-40	417.84
40-50	64.20
50-60	19.66
60-70	6.19
70-80	1.89
80-90	1.95
90-100	6.71
100-110	9.62
110-120	15.19
120-130	29.38
130-140	98.32
140-150	691.43
150-160	1029.27
160-170	618.35
170-180	185.55

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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	84	84	84	71	71	71	58	58	58	52
1	101	98	95	92	93	91	88	86	78	76	75	66	65	64	55	55	54	49
2	95	89	84	81	88	83	79	76	72	69	67	62	60	59	53	52	51	46
3	89	82	76	72	82	76	72	68	67	64	61	58	56	54	50	49	47	44
4	83	75	69	64	78	71	65	61	62	59	56	55	52	50	48	46	44	41
5	78	69	63	58	73	66	60	56	58	54	51	52	49	46	45	43	42	39
6	74	64	58	54	69	61	55	51	55	50	47	49	46	43	43	41	39	37
7	70	60	54	49	65	57	51	48	51	47	44	46	43	41	41	39	37	35
8	66	56	50	46	62	53	48	44	48	44	41	44	41	38	39	37	35	33
9	63	53	47	43	59	50	45	41	46	42	39	42	38	36	37	35	34	32
10	59	50	44	40	56	47	42	39	43	39	36	40	36	34	36	34	32	30

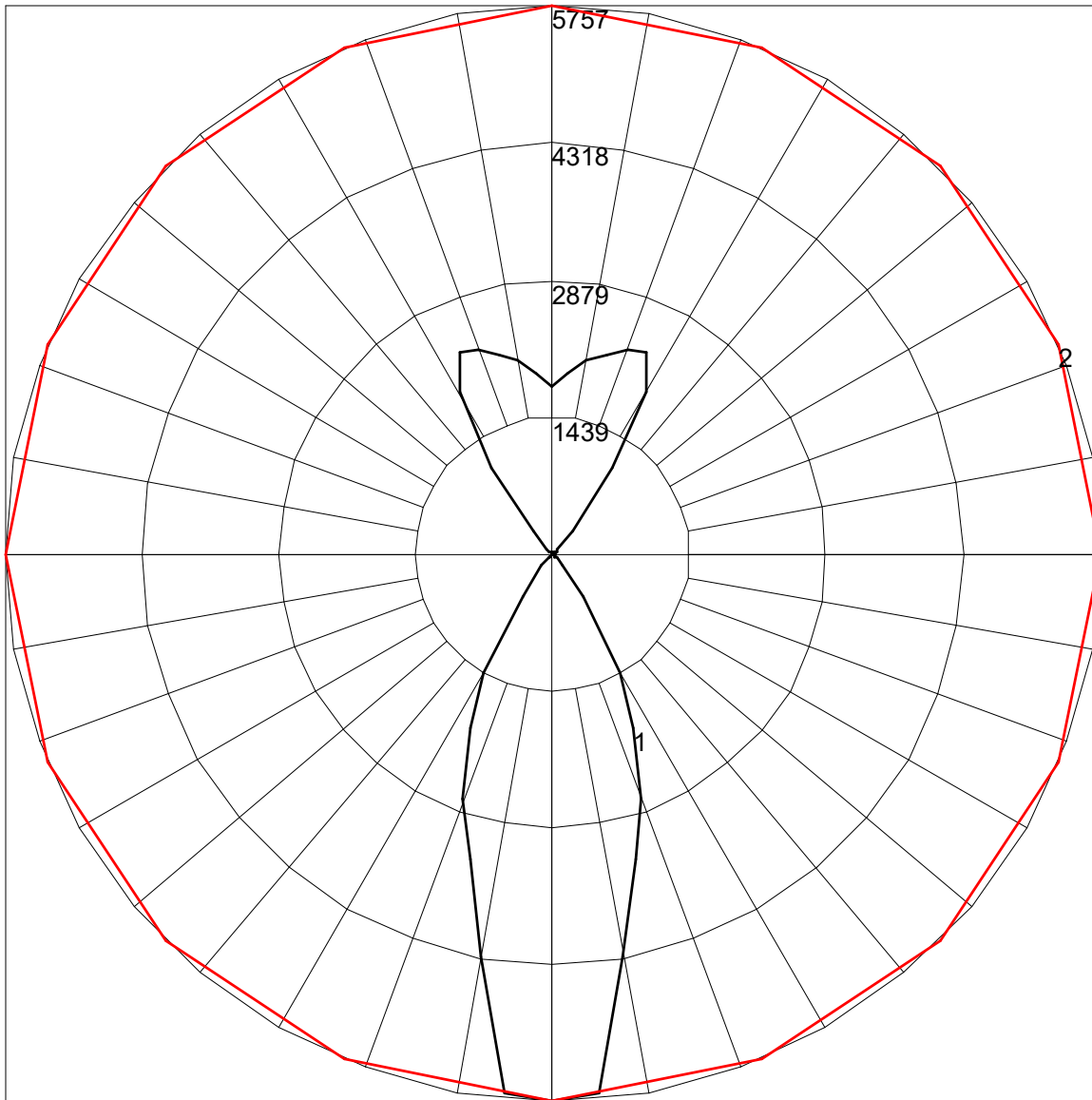
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**UGR TABLE - CORRECTED**

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	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	3H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	4H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	6H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	8H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	12H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
4H	2H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	3H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	4H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	6H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	8H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	12H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
8H	4H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	6H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	8H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	12H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
12H	4H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	6H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	8H	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0

Maximum UGR = 6.0

POLAR GRAPH



Maximum Candela = 5757.343 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.)