



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 192\_168\_37\_234-14\_7\_26-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.

[ISSUE DATE] 3-MAR-2021

[MANUFAC] WILLIAMS INDOOR

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

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

[LUMINAIRE] White formed aluminum housing, specular reflector, clear glass cover

[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	5583
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
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	5010	5010	5010
55	1745	1745	1745
65	364	364	364
75	0	0	0
85	0	0	0

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 192\_168\_37\_234-14\_7\_26-MERGED.IES**

**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>	2350.850	2350.850	2350.850	2350.850	2350.850	2350.850	2350.850	2350.850	2350.850	2350.850
<b>5</b>	2220.091	2220.091	2220.091	2220.091	2220.091	2220.091	2220.091	2220.091	2220.091	2220.091
<b>10</b>	2443.647	2443.647	2443.647	2443.647	2443.647	2443.647	2443.647	2443.647	2443.647	2443.647
<b>15</b>	2439.429	2439.429	2439.429	2439.429	2439.429	2439.429	2439.429	2439.429	2439.429	2439.429
<b>20</b>	2547.692	2547.692	2547.692	2547.692	2547.692	2547.692	2547.692	2547.692	2547.692	2547.692
<b>25</b>	2786.714	2786.714	2786.714	2786.714	2786.714	2786.714	2786.714	2786.714	2786.714	2786.714
<b>30</b>	2737.503	2737.503	2737.503	2737.503	2737.503	2737.503	2737.503	2737.503	2737.503	2737.503
<b>35</b>	849.231	849.231	849.231	849.231	849.231	849.231	849.231	849.231	849.231	849.231
<b>40</b>	116.699	116.699	116.699	116.699	116.699	116.699	116.699	116.699	116.699	116.699
<b>45</b>	64.677	64.677	64.677	64.677	64.677	64.677	64.677	64.677	64.677	64.677
<b>50</b>	37.962	37.962	37.962	37.962	37.962	37.962	37.962	37.962	37.962	37.962
<b>55</b>	18.278	18.278	18.278	18.278	18.278	18.278	18.278	18.278	18.278	18.278
<b>60</b>	9.842	9.842	9.842	9.842	9.842	9.842	9.842	9.842	9.842	9.842
<b>65</b>	2.812	2.812	2.812	2.812	2.812	2.812	2.812	2.812	2.812	2.812
<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>	1.206	1.206	1.206	1.206	1.206	1.206	1.206	1.206	1.206	1.206
<b>115</b>	1.206	1.206	1.206	1.206	1.206	1.206	1.206	1.206	1.206	1.206
<b>120</b>	2.412	2.412	2.412	2.412	2.412	2.412	2.412	2.412	2.412	2.412
<b>125</b>	4.824	4.824	4.824	4.824	4.824	4.824	4.824	4.824	4.824	4.824
<b>130</b>	9.649	9.649	9.649	9.649	9.649	9.649	9.649	9.649	9.649	9.649
<b>135</b>	15.679	15.679	15.679	15.679	15.679	15.679	15.679	15.679	15.679	15.679
<b>140</b>	25.328	25.328	25.328	25.328	25.328	25.328	25.328	25.328	25.328	25.328
<b>145</b>	291.873	291.873	291.873	291.873	291.873	291.873	291.873	291.873	291.873	291.873
<b>150</b>	910.595	910.595	910.595	910.595	910.595	910.595	910.595	910.595	910.595	910.595
<b>155</b>	1231.413	1231.413	1231.413	1231.413	1231.413	1231.413	1231.413	1231.413	1231.413	1231.413
<b>160</b>	1879.081	1879.081	1879.081	1879.081	1879.081	1879.081	1879.081	1879.081	1879.081	1879.081
<b>165</b>	2450.766	2450.766	2450.766	2450.766	2450.766	2450.766	2450.766	2450.766	2450.766	2450.766
<b>170</b>	4252.657	4252.657	4252.657	4252.657	4252.657	4252.657	4252.657	4252.657	4252.657	4252.657
<b>175</b>	11855.844	11855.844	11855.844	11855.844	11855.844	11855.844	11855.844	11855.844	11855.844	11855.844
<b>180</b>	26533.88	26533.88	26533.88	26533.88	26533.88	26533.88	26533.88	26533.88	26533.88	26533.88

**Vert. Angles**      **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>	2350.850	2350.850	2350.850	2350.850	2350.850	2350.850	2350.850
<b>5</b>	2220.091	2220.091	2220.091	2220.091	2220.091	2220.091	2220.091
<b>10</b>	2443.647	2443.647	2443.647	2443.647	2443.647	2443.647	2443.647
<b>15</b>	2439.429	2439.429	2439.429	2439.429	2439.429	2439.429	2439.429
<b>20</b>	2547.692	2547.692	2547.692	2547.692	2547.692	2547.692	2547.692
<b>25</b>	2786.714	2786.714	2786.714	2786.714	2786.714	2786.714	2786.714
<b>30</b>	2737.503	2737.503	2737.503	2737.503	2737.503	2737.503	2737.503
<b>35</b>	849.231	849.231	849.231	849.231	849.231	849.231	849.231
<b>40</b>	116.699	116.699	116.699	116.699	116.699	116.699	116.699
<b>45</b>	64.677	64.677	64.677	64.677	64.677	64.677	64.677
<b>50</b>	37.962	37.962	37.962	37.962	37.962	37.962	37.962
<b>55</b>	18.278	18.278	18.278	18.278	18.278	18.278	18.278
<b>60</b>	9.842	9.842	9.842	9.842	9.842	9.842	9.842

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 192\_168\_37\_234-14\_7\_26-MERGED.IES**

**CANDELA TABULATION - (Cont.)**

<b>65</b>	2.812	2.812	2.812	2.812	2.812	2.812	2.812
<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>	1.206	1.206	1.206	1.206	1.206	1.206	1.206
<b>115</b>	1.206	1.206	1.206	1.206	1.206	1.206	1.206
<b>120</b>	2.412	2.412	2.412	2.412	2.412	2.412	2.412
<b>125</b>	4.824	4.824	4.824	4.824	4.824	4.824	4.824
<b>130</b>	9.649	9.649	9.649	9.649	9.649	9.649	9.649
<b>135</b>	15.679	15.679	15.679	15.679	15.679	15.679	15.679
<b>140</b>	25.328	25.328	25.328	25.328	25.328	25.328	25.328
<b>145</b>	291.873	291.873	291.873	291.873	291.873	291.873	291.873
<b>150</b>	910.595	910.595	910.595	910.595	910.595	910.595	910.595
<b>155</b>	1231.413	1231.413	1231.413	1231.413	1231.413	1231.413	1231.413
<b>160</b>	1879.081	1879.081	1879.081	1879.081	1879.081	1879.081	1879.081
<b>165</b>	2450.766	2450.766	2450.766	2450.766	2450.766	2450.766	2450.766
<b>170</b>	4252.657	4252.657	4252.657	4252.657	4252.657	4252.657	4252.657
<b>175</b>	11855.841	11855.841	11855.844	11855.844	11855.844	11855.844	11855.844
<b>180</b>	26533.881	26533.881	26533.881	26533.881	26533.881	26533.881	26533.881

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 192\_168\_37\_234-14\_7\_26-MERGED.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	922.15	N.A.	16.50
0-30	2180.73	N.A.	39.10
0-40	2870.06	N.A.	51.40
0-60	2943.11	N.A.	52.70
0-80	2946.89	N.A.	52.80
0-90	2946.9	N.A.	52.80
10-90	2725.41	N.A.	48.80
20-40	1947.9	N.A.	34.90
20-50	2002.23	N.A.	35.90
40-70	76.84	N.A.	1.40
60-80	3.79	N.A.	0.10
70-80	0.00	N.A.	0.00
80-90	0.00	N.A.	0.00
90-110	0.32	N.A.	0.00
90-120	1.81	N.A.	0.00
90-130	6.62	N.A.	0.10
90-150	249.33	N.A.	4.50
90-180	2636.31	N.A.	47.20
110-180	2635.99	N.A.	47.20
0-180	5583.2	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	221.48
10-20	700.67
20-30	1258.58
30-40	689.33
40-50	54.32
50-60	18.73
60-70	3.79
70-80	0.00
80-90	0.00
90-100	0.00
100-110	0.32
110-120	1.49
120-130	4.82
130-140	12.71
140-150	229.99
150-160	597.31
160-170	754.48
170-180	1035.19

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 192\_168\_37\_234-14\_7\_26-MERGED.IES**

**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	59	59	59	53
1	101	97	94	92	93	91	88	86	78	76	75	66	65	64	56	55	54	49
2	94	88	84	80	87	83	79	75	72	69	66	62	60	58	52	51	50	46
3	88	81	75	70	82	76	71	67	66	63	60	57	55	53	49	48	46	43
4	82	74	67	62	77	69	64	60	61	57	54	54	51	48	46	45	43	40
5	77	68	61	56	72	64	58	54	57	52	49	50	47	44	44	41	40	37
6	72	62	55	51	67	59	53	49	52	48	45	47	43	41	41	39	37	34
7	68	57	51	46	63	54	49	44	49	44	41	44	40	38	39	36	34	32
8	64	53	47	42	60	51	45	41	46	41	38	41	37	35	36	34	32	30
9	60	49	43	39	56	47	41	37	43	38	35	38	35	32	34	32	30	28
10	56	46	40	36	53	44	38	35	40	35	32	36	33	30	32	30	28	26

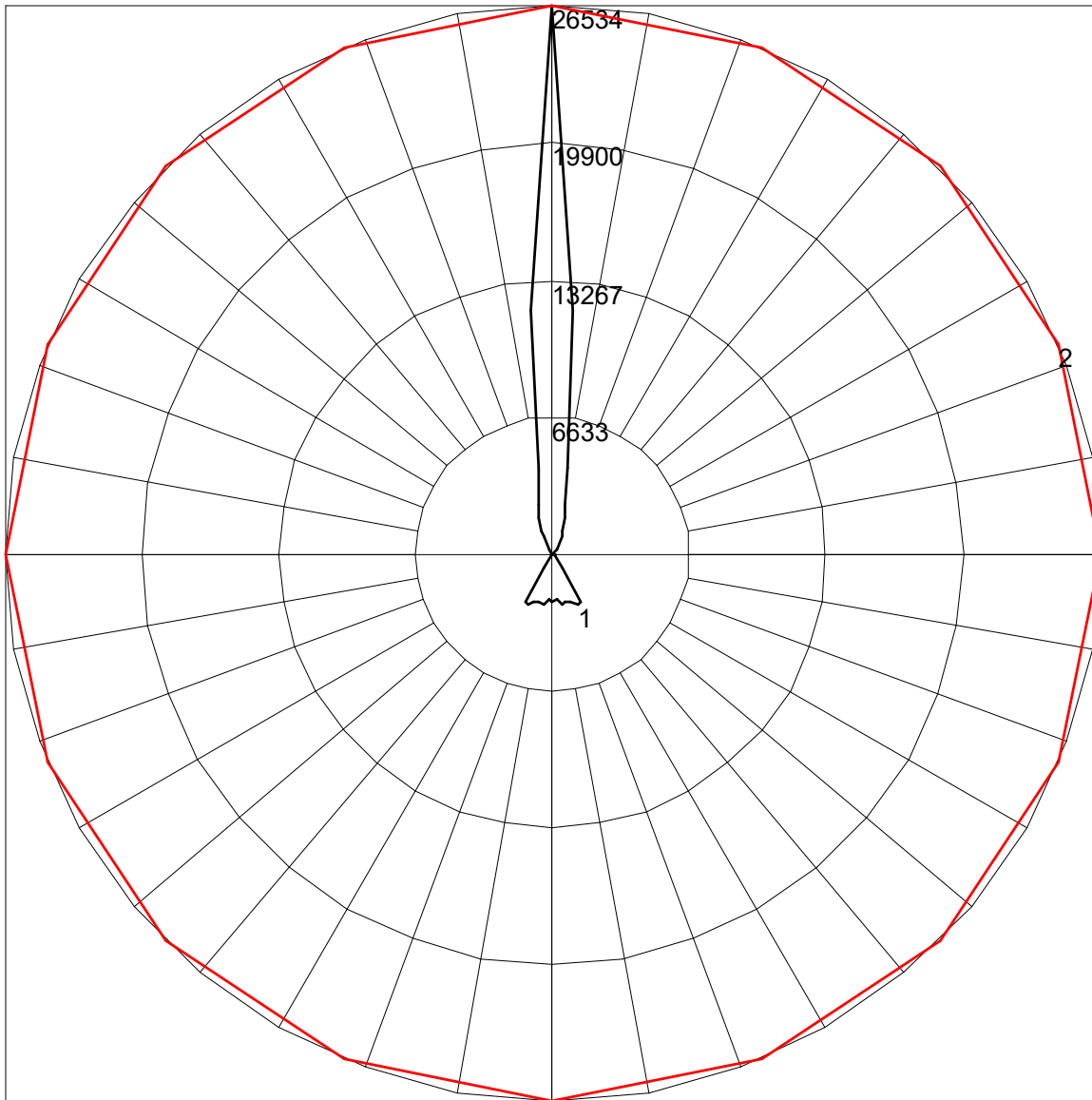
**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 192\_168\_37\_234-14\_7\_26-MERGED.IES**

**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 = 26533.881 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.)