



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 192_168_37_234-9_43_30-MERGED.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13537338.04 & #12326812.07

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 2-MAR-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CRDI-TL-P29-835U-P29-835D-xxx-PoE PR-LW-CSU-LW-WHD-WM

[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	4889
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	98
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	3889	3889	3889
55	2404	2404	2404
65	1276	1276	1276
75	555	555	555
85	123	123	123

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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	1560.537	1560.537	1560.537	1560.537	1560.537
2.5	1551.582	1551.582	1551.582	1551.582	1551.582
5.0	1535.871	1535.871	1535.871	1535.871	1535.871
7.5	1525.345	1525.345	1525.345	1525.345	1525.345
10.0	1516.390	1516.390	1516.390	1516.390	1516.390
12.5	1511.206	1511.206	1511.206	1511.206	1511.206
15.0	1499.265	1499.265	1499.265	1499.265	1499.265
17.5	1478.999	1478.999	1478.999	1478.999	1478.999
20.0	1449.620	1449.620	1449.620	1449.620	1449.620
22.5	1391.491	1391.491	1391.491	1391.491	1391.491
25.0	1292.828	1292.828	1292.828	1292.828	1292.828
27.5	1158.816	1158.816	1158.816	1158.816	1158.816
30.0	989.770	989.770	989.770	989.770	989.770
32.5	804.856	804.856	804.856	804.856	804.856
35.0	660.475	660.475	660.475	660.475	660.475
37.5	572.810	572.810	572.810	572.810	572.810
40.0	517.979	517.979	517.979	517.979	517.979
42.5	477.446	477.446	477.446	477.446	477.446
45.0	441.783	441.783	441.783	441.783	441.783
47.5	407.220	407.220	407.220	407.220	407.220
50.0	371.556	371.556	371.556	371.556	371.556
52.5	334.951	334.951	334.951	334.951	334.951
55.0	298.345	298.345	298.345	298.345	298.345
57.5	262.525	262.525	262.525	262.525	262.525
60.0	227.804	227.804	227.804	227.804	227.804
62.5	196.069	196.069	196.069	196.069	196.069
65.0	167.004	167.004	167.004	167.004	167.004
67.5	140.092	140.092	140.092	140.092	140.092
70.0	115.127	115.127	115.127	115.127	115.127
72.5	93.195	93.195	93.195	93.195	93.195
75.0	74.170	74.170	74.170	74.170	74.170
77.5	57.344	57.344	57.344	57.344	57.344
80.0	42.387	42.387	42.387	42.387	42.387
82.5	28.798	28.798	28.798	28.798	28.798
85.0	16.276	16.276	16.276	16.276	16.276
87.5	5.672	5.672	5.672	5.672	5.672
90.0	6.655	6.655	6.655	6.655	6.655
92.5	8.894	8.894	8.894	8.894	8.894
95.0	15.541	15.541	15.541	15.541	15.541
97.5	26.359	26.359	26.359	26.359	26.359
100.0	39.240	39.240	39.240	39.240	39.240
102.5	52.764	52.764	52.764	52.764	52.764
105.0	67.343	67.343	67.343	67.343	67.343
107.5	83.799	83.799	83.799	83.799	83.799
110.0	102.961	102.961	102.961	102.961	102.961
112.5	124.507	124.507	124.507	124.507	124.507
115.0	148.895	148.895	148.895	148.895	148.895
117.5	176.218	176.218	176.218	176.218	176.218
120.0	206.793	206.793	206.793	206.793	206.793
122.5	240.809	240.809	240.809	240.809	240.809
125.0	278.399	278.399	278.399	278.399	278.399
127.5	318.511	318.511	318.511	318.511	318.511
130.0	360.227	360.227	360.227	360.227	360.227
132.5	402.173	402.173	402.173	402.173	402.173

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135.0	444.073	444.073	444.073	444.073	444.073
137.5	487.761	487.761	487.761	487.761	487.761
140.0	538.187	538.187	538.187	538.187	538.187
142.5	602.824	602.824	602.824	602.824	602.824
145.0	689.924	689.924	689.924	689.924	689.924
147.5	802.696	802.696	802.696	802.696	802.696
150.0	942.515	942.515	942.515	942.515	942.515
152.5	1088.293	1088.293	1088.293	1088.293	1088.293
155.0	1236.363	1236.363	1236.363	1236.363	1236.363
157.5	1368.388	1368.388	1368.388	1368.388	1368.388
160.0	1471.533	1471.533	1471.533	1471.533	1471.533
162.5	1540.755	1540.755	1540.755	1540.755	1540.755
165.0	1580.179	1580.179	1580.179	1580.179	1580.179
167.5	1601.266	1601.266	1601.266	1601.266	1601.266
170.0	1613.185	1613.185	1613.185	1613.185	1613.185
172.5	1621.895	1621.895	1621.895	1621.895	1621.895
175.0	1629.689	1629.689	1629.689	1629.689	1629.689
177.5	1633.356	1633.356	1633.356	1633.356	1633.356
180.0	1632.542	1632.542	1632.542	1632.542	1632.542

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	568.39	N.A.	11.60
0-30	1147.99	N.A.	23.50
0-40	1580.72	N.A.	32.30
0-60	2189.03	N.A.	44.80
0-80	2435.71	N.A.	49.80
0-90	2456.19	N.A.	50.20
10-90	2310.1	N.A.	47.30
20-40	1012.34	N.A.	20.70
20-50	1353.74	N.A.	27.70
40-70	775.01	N.A.	15.90
60-80	246.68	N.A.	5.00
70-80	79.98	N.A.	1.60
80-90	20.48	N.A.	0.40
90-110	92.56	N.A.	1.90
90-120	241.91	N.A.	4.90
90-130	492.07	N.A.	10.10
90-150	1275.89	N.A.	26.10
90-180	2432.6	N.A.	49.80
110-180	2340.04	N.A.	47.90
0-180	4888.79	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	146.09
10-20	422.30
20-30	579.60
30-40	432.73
40-50	341.41
50-60	266.90
60-70	166.70
70-80	79.98
80-90	20.48
90-100	20.07
100-110	72.49
110-120	149.35
120-130	250.16
130-140	343.40
140-150	440.43
150-160	559.69
160-170	442.03
170-180	154.99

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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	83	83	83	69	69	69	56	56	56	50
1	99	95	91	88	91	88	85	82	75	73	71	63	61	60	51	50	50	44
2	91	84	79	74	84	78	73	69	67	63	60	56	54	52	47	45	43	39
3	84	75	68	63	77	70	64	59	60	56	52	51	48	45	42	40	38	34
4	77	67	60	54	71	63	56	51	54	49	46	46	43	40	39	36	34	31
5	71	61	53	48	66	57	50	45	49	44	40	42	38	35	36	33	31	28
6	66	55	47	42	61	52	45	40	45	40	36	39	35	32	33	30	28	25
7	62	50	43	38	57	47	40	36	41	36	32	36	32	29	30	27	25	23
8	58	46	39	34	53	43	37	32	38	33	29	33	29	26	28	25	23	21
9	54	42	35	30	50	40	33	29	35	30	26	31	27	24	26	23	21	19
10	51	39	32	28	47	37	31	27	33	28	24	29	25	22	25	22	20	18

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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

X=2H	Y=2H	8.6	9.4	9.6	10.4	11.7	8.6	9.4	9.6	10.4	11.7
	3H	9.4	10.1	10.4	11.1	12.4	9.4	10.1	10.4	11.1	12.4
	4H	9.6	10.3	10.6	11.3	12.6	9.6	10.3	10.6	11.3	12.6
	6H	9.7	10.3	10.7	11.3	12.6	9.7	10.3	10.7	11.3	12.6
	8H	9.7	10.2	10.7	11.3	12.6	9.7	10.2	10.7	11.3	12.6
	12H	9.6	10.2	10.6	11.2	12.5	9.6	10.2	10.6	11.2	12.5

UGR Viewed Endwise

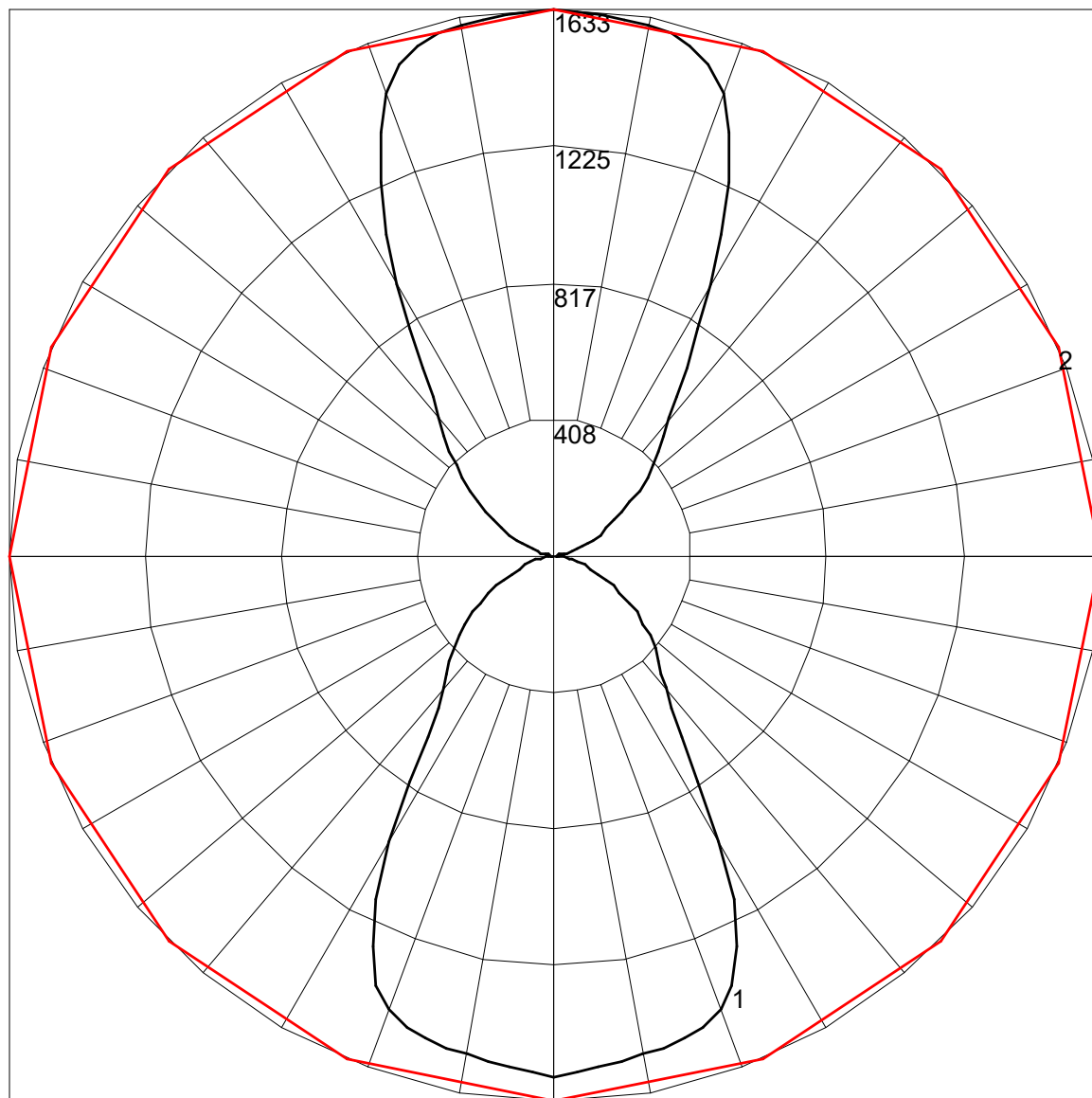
4H	2H	8.8	9.5	9.8	10.4	11.8	8.8	9.5	9.8	10.4	11.8
	3H	9.7	10.3	10.7	11.3	12.6	9.7	10.3	10.7	11.3	12.6
	4H	10.0	10.5	11.0	11.5	12.8	10.0	10.5	11.0	11.5	12.8
	6H	10.1	10.5	11.1	11.6	12.9	10.1	10.5	11.1	11.6	12.9
	8H	10.1	10.5	11.1	11.5	12.9	10.1	10.5	11.1	11.5	12.9
	12H	10.1	10.4	11.1	11.5	12.8	10.1	10.4	11.1	11.5	12.8

8H	4H	10.0	10.4	11.0	11.4	12.7	10.0	10.4	11.0	11.4	12.7
	6H	10.1	10.5	11.2	11.5	12.9	10.1	10.5	11.2	11.5	12.9
	8H	10.2	10.4	11.2	11.5	12.9	10.2	10.4	11.2	11.5	12.9
	12H	10.1	10.4	11.2	11.4	12.9	10.1	10.4	11.2	11.4	12.9

12H	4H	9.9	10.3	11.0	11.3	12.7	9.9	10.3	11.0	11.3	12.7
	6H	10.1	10.4	11.2	11.4	12.8	10.1	10.4	11.2	11.4	12.8
	8H	10.1	10.4	11.2	11.4	12.8	10.1	10.4	11.2	11.4	12.8

Maximum UGR = 12.9

POLAR GRAPH



Maximum Candela = 1633.356 Located At Horizontal Angle = 0, Vertical Angle = 177.5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (177.5) (Through Max. Cd.)