



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 192_168_37_234-16_45_30-MERGED.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from UL #13537338.04
 [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-DALI-UNV-LW-CSU-RM-WHD-WM 4000k
 [LUMINAIRE] White formed aluminum housing, wide distribution reflector
 [MORE] trims, flush upright frosted lens 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	4015
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
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	772	772	772
55	385	385	385
65	200	200	200
75	83	83	83
85	24	24	24

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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	4983.426	4983.426	4983.426	4983.426	4983.426
2.5	4926.809	4926.809	4926.809	4926.809	4926.809
5.0	4773.135	4773.135	4773.135	4773.135	4773.135
7.5	4527.026	4527.026	4527.026	4527.026	4527.026
10.0	4167.683	4167.683	4167.683	4167.683	4167.683
12.5	3681.241	3681.241	3681.241	3681.241	3681.241
15.0	3083.877	3083.877	3083.877	3083.877	3083.877
17.5	2449.539	2449.539	2449.539	2449.539	2449.539
20.0	1854.486	1854.486	1854.486	1854.486	1854.486
22.5	1358.801	1358.801	1358.801	1358.801	1358.801
25.0	977.967	977.967	977.967	977.967	977.967
27.5	701.469	701.469	701.469	701.469	701.469
30.0	504.004	504.004	504.004	504.004	504.004
32.5	362.000	362.000	362.000	362.000	362.000
35.0	259.397	259.397	259.397	259.397	259.397
37.5	187.413	187.413	187.413	187.413	187.413
40.0	139.346	139.346	139.346	139.346	139.346
42.5	108.381	108.381	108.381	108.381	108.381
45.0	87.698	87.698	87.698	87.698	87.698
47.5	73.371	73.371	73.371	73.371	73.371
50.0	62.856	62.856	62.856	62.856	62.856
52.5	54.652	54.652	54.652	54.652	54.652
55.0	47.835	47.835	47.835	47.835	47.835
57.5	41.827	41.827	41.827	41.827	41.827
60.0	36.281	36.281	36.281	36.281	36.281
62.5	31.081	31.081	31.081	31.081	31.081
65.0	26.229	26.229	26.229	26.229	26.229
67.5	21.722	21.722	21.722	21.722	21.722
70.0	17.563	17.563	17.563	17.563	17.563
72.5	13.865	13.865	13.865	13.865	13.865
75.0	11.092	11.092	11.092	11.092	11.092
77.5	8.781	8.781	8.781	8.781	8.781
80.0	6.817	6.817	6.817	6.817	6.817
82.5	4.968	4.968	4.968	4.968	4.968
85.0	3.120	3.120	3.120	3.120	3.120
87.5	1.502	1.502	1.502	1.502	1.502
90.0	5.084	5.084	5.084	5.084	5.084
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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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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PHOTOMETRIC FILENAME : 192_168_37_234-16_45_30-MERGED.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1268.81	N.A.	31.60
0-30	1738.72	N.A.	43.30
0-40	1911.87	N.A.	47.60
0-60	2026.09	N.A.	50.50
0-80	2064.37	N.A.	51.40
0-90	2068.6	N.A.	51.50
10-90	1631.94	N.A.	40.60
20-40	643.06	N.A.	16.00
20-50	714.02	N.A.	17.80
40-70	140.40	N.A.	3.50
60-80	38.28	N.A.	1.00
70-80	12.11	N.A.	0.30
80-90	4.23	N.A.	0.10
90-110	74.04	N.A.	1.80
90-120	193.57	N.A.	4.80
90-130	393.78	N.A.	9.80
90-150	1021.1	N.A.	25.40
90-180	1946.84	N.A.	48.50
110-180	1872.8	N.A.	46.60
0-180	4015.45	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	436.66
10-20	832.15
20-30	469.91
30-40	173.15
40-50	70.96
50-60	43.26
60-70	26.17
70-80	12.11
80-90	4.23
90-100	16.03
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	99	99	99	99	84	84	84	70	70	70	58	58	58	52
1	101	97	95	92	93	91	88	86	78	76	74	66	65	64	55	54	54	49
2	94	89	84	80	88	83	79	76	72	69	67	62	60	58	52	51	50	46
3	89	81	76	72	82	76	72	68	67	63	61	58	56	54	50	48	47	43
4	83	75	69	65	78	71	66	62	62	59	56	55	52	50	48	46	44	41
5	79	70	63	59	73	66	60	56	59	55	52	52	49	47	45	44	42	39
6	74	65	59	54	69	61	56	52	55	51	48	49	46	44	44	42	40	37
7	70	61	54	50	66	58	52	48	52	48	45	47	44	41	42	40	38	36
8	67	57	51	47	63	54	49	45	49	45	42	45	41	39	40	38	36	34
9	63	54	48	44	60	51	46	42	47	43	40	43	39	37	38	36	35	33
10	60	51	45	41	57	49	44	40	45	41	38	41	38	36	37	35	33	32

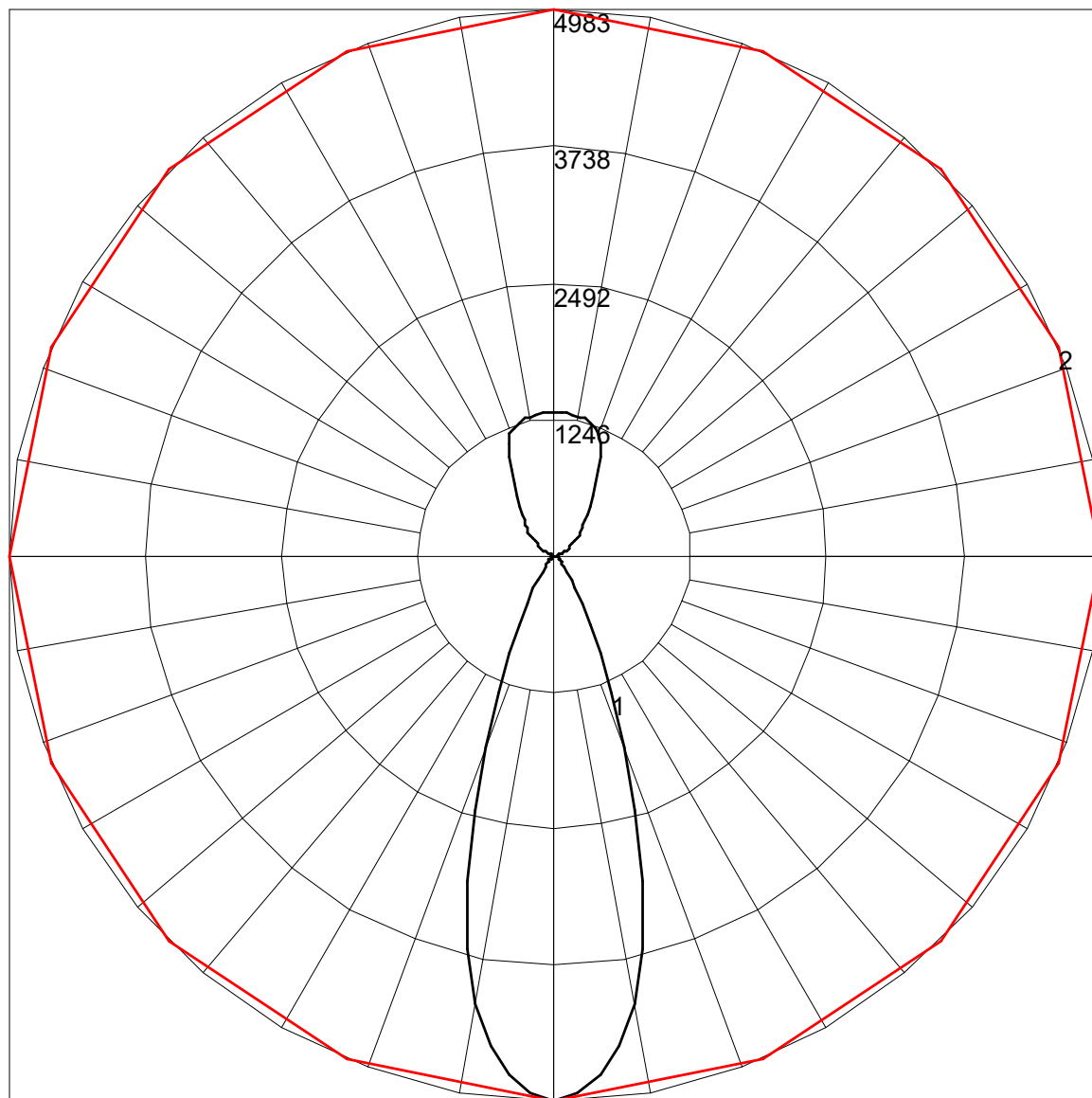
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UGR TABLE - CORRECTED

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 = 4983.426 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.)