



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-L30-835U-L60-835D-XXX-DIM1-UNV-OW-CSU-OM-CSD-WM_IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13537338.03

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 17-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CRDI-TL-L30-835U-L60-835D-xxx-DIM1-UNV-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_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	8770
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	81.8
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.68
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	1220	1220	1220
55	333	333	333
65	92	92	92
75	25	25	25
85	7	7	7

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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	12034.987	12034.987	12034.987	12034.987	12034.987	12034.987	12034.987	12034.987	12034.987	12034.987
5	11912.028	11912.028	11912.028	11912.028	11912.028	11912.028	11912.028	11912.028	11912.028	11912.028
10	8976.007	8976.007	8976.007	8976.007	8976.007	8976.007	8976.007	8976.007	8976.007	8976.007
15	6972.675	6972.675	6972.675	6972.675	6972.675	6972.675	6972.675	6972.675	6972.675	6972.675
20	5734.088	5734.088	5734.088	5734.088	5734.088	5734.088	5734.088	5734.088	5734.088	5734.088
25	4234.588	4234.588	4234.588	4234.588	4234.588	4234.588	4234.588	4234.588	4234.588	4234.588
30	3007.997	3007.997	3007.997	3007.997	3007.997	3007.997	3007.997	3007.997	3007.997	3007.997
35	1186.104	1186.104	1186.104	1186.104	1186.104	1186.104	1186.104	1186.104	1186.104	1186.104
40	347.284	347.284	347.284	347.284	347.284	347.284	347.284	347.284	347.284	347.284
45	138.554	138.554	138.554	138.554	138.554	138.554	138.554	138.554	138.554	138.554
50	80.373	80.373	80.373	80.373	80.373	80.373	80.373	80.373	80.373	80.373
55	41.386	41.386	41.386	41.386	41.386	41.386	41.386	41.386	41.386	41.386
60	21.893	21.893	21.893	21.893	21.893	21.893	21.893	21.893	21.893	21.893
65	11.996	11.996	11.996	11.996	11.996	11.996	11.996	11.996	11.996	11.996
70	6.598	6.598	6.598	6.598	6.598	6.598	6.598	6.598	6.598	6.598
75	3.299	3.299	3.299	3.299	3.299	3.299	3.299	3.299	3.299	3.299
80	1.799	1.799	1.799	1.799	1.799	1.799	1.799	1.799	1.799	1.799
85	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
90	5.628	5.628	5.628	5.628	5.628	5.628	5.628	5.628	5.628	5.628
95	6.047	6.047	6.047	6.047	6.047	6.047	6.047	6.047	6.047	6.047
100	7.315	7.315	7.315	7.315	7.315	7.315	7.315	7.315	7.315	7.315
105	9.050	9.050	9.050	9.050	9.050	9.050	9.050	9.050	9.050	9.050
110	11.418	11.418	11.418	11.418	11.418	11.418	11.418	11.418	11.418	11.418
115	14.970	14.970	14.970	14.970	14.970	14.970	14.970	14.970	14.970	14.970
120	20.721	20.721	20.721	20.721	20.721	20.721	20.721	20.721	20.721	20.721
125	31.378	31.378	31.378	31.378	31.378	31.378	31.378	31.378	31.378	31.378
130	49.858	49.858	49.858	49.858	49.858	49.858	49.858	49.858	49.858	49.858
135	79.416	79.416	79.416	79.416	79.416	79.416	79.416	79.416	79.416	79.416
140	316.353	316.353	316.353	316.353	316.353	316.353	316.353	316.353	316.353	316.353
145	1124.427	1124.427	1124.427	1124.427	1124.427	1124.427	1124.427	1124.427	1124.427	1124.427
150	1990.054	1990.054	1990.054	1990.054	1990.054	1990.054	1990.054	1990.054	1990.054	1990.054
155	2360.071	2360.071	2360.071	2360.071	2360.071	2360.071	2360.071	2360.071	2360.071	2360.071
160	2312.286	2312.286	2312.286	2312.286	2312.286	2312.286	2312.286	2312.286	2312.286	2312.286
165	2188.383	2188.383	2188.383	2188.383	2188.383	2188.383	2188.383	2188.383	2188.383	2188.383
170	2097.042	2097.042	2097.042	2097.042	2097.042	2097.042	2097.042	2097.042	2097.042	2097.042
175	1913.937	1913.937	1913.937	1913.937	1913.937	1913.937	1913.937	1913.937	1913.937	1913.937
180	1774.888	1774.888	1774.888	1774.888	1774.888	1774.888	1774.888	1774.888	1774.888	1774.888

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>
0	12034.987	12034.987	12034.987	12034.987	12034.987	12034.987	12034.987
5	11912.028	11912.028	11912.028	11912.028	11912.028	11912.028	11912.028
10	8976.007	8976.007	8976.007	8976.007	8976.007	8976.007	8976.007
15	6972.675	6972.675	6972.675	6972.675	6972.675	6972.675	6972.675
20	5734.088	5734.088	5734.088	5734.088	5734.088	5734.088	5734.088
25	4234.588	4234.588	4234.588	4234.588	4234.588	4234.588	4234.588
30	3007.997	3007.997	3007.997	3007.997	3007.997	3007.997	3007.997
35	1186.104	1186.104	1186.104	1186.104	1186.104	1186.104	1186.104
40	347.284	347.284	347.284	347.284	347.284	347.284	347.284
45	138.554	138.554	138.554	138.554	138.554	138.554	138.554
50	80.373	80.373	80.373	80.373	80.373	80.373	80.373
55	41.386	41.386	41.386	41.386	41.386	41.386	41.386
60	21.893	21.893	21.893	21.893	21.893	21.893	21.893

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65	11.996	11.996	11.996	11.996	11.996	11.996	11.996
70	6.598	6.598	6.598	6.598	6.598	6.598	6.598
75	3.299	3.299	3.299	3.299	3.299	3.299	3.299
80	1.799	1.799	1.799	1.799	1.799	1.799	1.799
85	0.900	0.900	0.900	0.900	0.900	0.900	0.900
90	5.628	5.628	5.628	5.628	5.628	5.628	5.628
95	6.047	6.047	6.047	6.047	6.047	6.047	6.047
100	7.315	7.315	7.315	7.315	7.315	7.315	7.315
105	9.050	9.050	9.050	9.050	9.050	9.050	9.050
110	11.418	11.418	11.418	11.418	11.418	11.418	11.418
115	14.970	14.970	14.970	14.970	14.970	14.970	14.970
120	20.721	20.721	20.721	20.721	20.721	20.721	20.721
125	31.378	31.378	31.378	31.378	31.378	31.378	31.378
130	49.858	49.858	49.858	49.858	49.858	49.858	49.858
135	79.416	79.416	79.416	79.416	79.416	79.416	79.416
140	316.353	316.353	316.353	316.353	316.353	316.353	316.353
145	1124.427	1124.427	1124.427	1124.427	1124.427	1124.427	1124.427
150	1990.054	1990.054	1990.054	1990.054	1990.054	1990.054	1990.054
155	2360.071	2360.071	2360.071	2360.071	2360.071	2360.071	2360.071
160	2312.286	2312.286	2312.286	2312.286	2312.286	2312.286	2312.286
165	2188.383	2188.383	2188.383	2188.383	2188.383	2188.383	2188.383
170	2097.042	2097.042	2097.042	2097.042	2097.042	2097.042	2097.042
175	1913.937	1913.937	1913.937	1913.937	1913.937	1913.937	1913.937
180	1774.888	1774.888	1774.888	1774.888	1774.888	1774.888	1774.888

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CRDI-TL-L30-835U-L60-835D-XXX-DIM1-UNV-OW-CSU-OM-CSD-WM_IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	3026.79	N.A.	34.50
0-30	4988.88	N.A.	56.90
0-40	5862.32	N.A.	66.80
0-60	6037.62	N.A.	68.80
0-80	6054.51	N.A.	69.00
0-90	6057.03	N.A.	69.10
10-90	5023.52	N.A.	57.30
20-40	2835.53	N.A.	32.30
20-50	2969.72	N.A.	33.90
40-70	188.24	N.A.	2.10
60-80	16.90	N.A.	0.20
70-80	3.95	N.A.	0.00
80-90	2.52	N.A.	0.00
90-110	16.56	N.A.	0.20
90-120	31.91	N.A.	0.40
90-130	61.62	N.A.	0.70
90-150	860.03	N.A.	9.80
90-180	2713.3	N.A.	30.90
110-180	2696.75	N.A.	30.70
0-180	8770.33	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1033.51
10-20	1993.28
20-30	1962.08
30-40	873.44
40-50	134.19
50-60	41.10
60-70	12.95
70-80	3.95
80-90	2.52
90-100	6.83
100-110	9.73
110-120	15.36
120-130	29.71
130-140	99.40
140-150	699.01
150-160	1040.56
160-170	625.13
170-180	187.58

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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	112	112	112	112	105	105	105	105	94	94	94	83	83	83	74	74	74	69
1	106	103	100	97	100	97	95	93	88	86	85	79	78	77	71	70	69	65
2	100	95	90	87	95	90	87	83	82	79	77	74	72	71	67	66	65	62
3	94	88	82	78	90	84	79	76	77	73	71	70	68	66	64	63	61	58
4	89	81	76	71	85	78	73	69	72	68	65	67	64	61	61	59	57	55
5	84	76	70	66	81	73	68	64	68	64	61	63	60	57	58	56	54	52
6	80	71	65	61	77	69	63	59	64	60	57	60	56	54	56	53	51	49
7	76	67	61	57	73	65	59	56	61	56	53	57	53	51	53	51	49	47
8	72	63	57	53	69	61	56	52	57	53	50	54	51	48	51	48	46	44
9	69	60	54	50	66	58	53	49	55	50	47	52	48	46	49	46	44	42
10	66	56	51	47	63	55	50	46	52	48	45	49	46	43	47	44	42	40

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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	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	3H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	4H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	6H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	8H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	12H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5

UGR Viewed Endwise

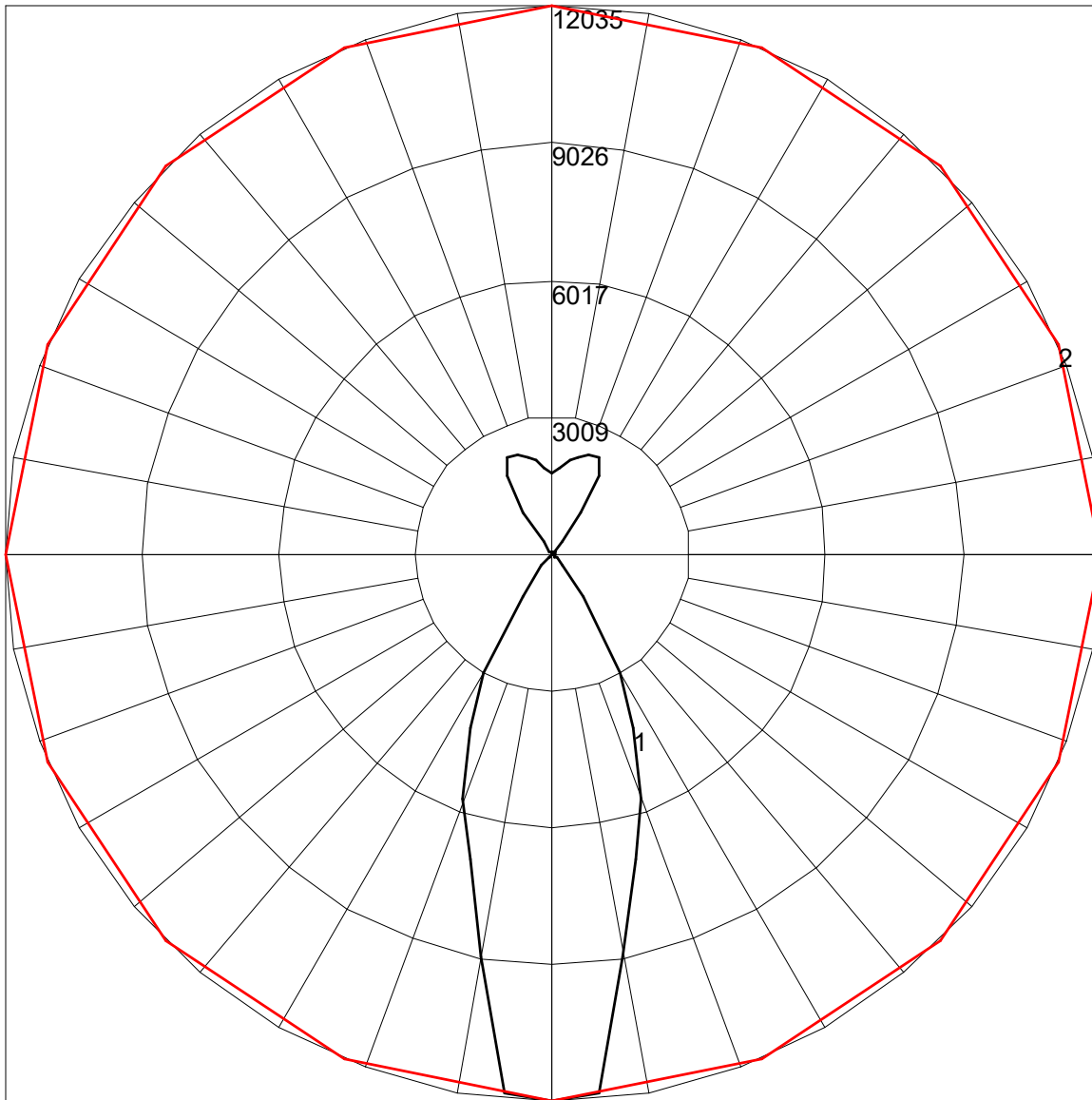
		7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
		7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
		7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
		7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
		7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
		7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
4H	2H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	3H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	4H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	6H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	8H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	12H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
8H	4H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	6H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	8H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	12H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
12H	4H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	6H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	8H	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5

Maximum UGR = 7.5

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POLAR GRAPH



Maximum Candela = 12034.987 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.)