



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CRDI-XX-L12-835U-L12-835D-XXX-DIM1-UNV-LW-CSU-RM-WHD-WM_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13537338.10 and #13257153.07

[TESTLAB]

[ISSUE DATE] 18-DEC-2024

[MANUFAC] H E Williams Inc

[LUMCAT] 4CRDI-xx-L12-835U-L12-835D-xxx-DIM1-UNV-LW-CSU-RM-WHD-WM

[MORE]

[LUMINAIRE] White formed aluminum housing, wide distrib white painted flush prismatic lens trim up,

[MORE] medium distrib white painted regressed prismatic lens trim down

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

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2648
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
Total Luminaire Watts	28.5
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)	0.31 ft (Diameter)
Luminous Width (90-270)	0.31 ft (Diameter)
Luminous Height	1.44 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3721	3721	3721
55	1997	1997	1997
65	1010	1010	1010
75	295	295	295
85	59	59	59

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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>
0.0	3163.550	3163.550	3163.550	3163.550	3163.550	3163.550	3163.550	3163.550	3163.550	3163.550
2.5	3108.742	3108.742	3108.742	3108.742	3108.742	3108.742	3108.742	3108.742	3108.742	3108.742
5.0	2953.990	2953.990	2953.990	2953.990	2953.990	2953.990	2953.990	2953.990	2953.990	2953.990
7.5	2708.160	2708.160	2708.160	2708.160	2708.160	2708.160	2708.160	2708.160	2708.160	2708.160
10.0	2368.028	2368.028	2368.028	2368.028	2368.028	2368.028	2368.028	2368.028	2368.028	2368.028
12.5	1938.430	1938.430	1938.430	1938.430	1938.430	1938.430	1938.430	1938.430	1938.430	1938.430
15.0	1470.144	1470.144	1470.144	1470.144	1470.144	1470.144	1470.144	1470.144	1470.144	1470.144
17.5	1052.636	1052.636	1052.636	1052.636	1052.636	1052.636	1052.636	1052.636	1052.636	1052.636
20.0	754.577	754.577	754.577	754.577	754.577	754.577	754.577	754.577	754.577	754.577
22.5	574.517	574.517	574.517	574.517	574.517	574.517	574.517	574.517	574.517	574.517
25.0	465.868	465.868	465.868	465.868	465.868	465.868	465.868	465.868	465.868	465.868
27.5	385.832	385.832	385.832	385.832	385.832	385.832	385.832	385.832	385.832	385.832
30.0	315.630	315.630	315.630	315.630	315.630	315.630	315.630	315.630	315.630	315.630
32.5	255.663	255.663	255.663	255.663	255.663	255.663	255.663	255.663	255.663	255.663
35.0	215.283	215.283	215.283	215.283	215.283	215.283	215.283	215.283	215.283	215.283
37.5	188.120	188.120	188.120	188.120	188.120	188.120	188.120	188.120	188.120	188.120
40.0	166.197	166.197	166.197	166.197	166.197	166.197	166.197	166.197	166.197	166.197
42.5	146.531	146.531	146.531	146.531	146.531	146.531	146.531	146.531	146.531	146.531
45.0	128.960	128.960	128.960	128.960	128.960	128.960	128.960	128.960	128.960	128.960
47.5	113.162	113.162	113.162	113.162	113.162	113.162	113.162	113.162	113.162	113.162
50.0	99.138	99.138	99.138	99.138	99.138	99.138	99.138	99.138	99.138	99.138
52.5	87.129	87.129	87.129	87.129	87.129	87.129	87.129	87.129	87.129	87.129
55.0	76.651	76.651	76.651	76.651	76.651	76.651	76.651	76.651	76.651	76.651
57.5	67.140	67.140	67.140	67.140	67.140	67.140	67.140	67.140	67.140	67.140
60.0	58.193	58.193	58.193	58.193	58.193	58.193	58.193	58.193	58.193	58.193
62.5	49.569	49.569	49.569	49.569	49.569	49.569	49.569	49.569	49.569	49.569
65.0	41.348	41.348	41.348	41.348	41.348	41.348	41.348	41.348	41.348	41.348
67.5	33.610	33.610	33.610	33.610	33.610	33.610	33.610	33.610	33.610	33.610
70.0	26.195	26.195	26.195	26.195	26.195	26.195	26.195	26.195	26.195	26.195
72.5	19.183	19.183	19.183	19.183	19.183	19.183	19.183	19.183	19.183	19.183
75.0	12.493	12.493	12.493	12.493	12.493	12.493	12.493	12.493	12.493	12.493
77.5	7.818	7.818	7.818	7.818	7.818	7.818	7.818	7.818	7.818	7.818
80.0	5.803	5.803	5.803	5.803	5.803	5.803	5.803	5.803	5.803	5.803
82.5	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030	4.030
85.0	2.499	2.499	2.499	2.499	2.499	2.499	2.499	2.499	2.499	2.499
87.5	1.048	1.048	1.048	1.048	1.048	1.048	1.048	1.048	1.048	1.048
90.0	2.395	2.395	2.395	2.395	2.395	2.395	2.395	2.395	2.395	2.395
92.5	2.824	2.824	2.824	2.824	2.824	2.824	2.824	2.824	2.824	2.824
95.0	4.789	4.789	4.789	4.789	4.789	4.789	4.789	4.789	4.789	4.789
97.5	7.798	7.798	7.798	7.798	7.798	7.798	7.798	7.798	7.798	7.798
100.0	11.850	11.850	11.850	11.850	11.850	11.850	11.850	11.850	11.850	11.850
102.5	16.332	16.332	16.332	16.332	16.332	16.332	16.332	16.332	16.332	16.332
105.0	21.244	21.244	21.244	21.244	21.244	21.244	21.244	21.244	21.244	21.244
107.5	26.525	26.525	26.525	26.525	26.525	26.525	26.525	26.525	26.525	26.525
110.0	32.296	32.296	32.296	32.296	32.296	32.296	32.296	32.296	32.296	32.296
112.5	38.498	38.498	38.498	38.498	38.498	38.498	38.498	38.498	38.498	38.498
115.0	45.129	45.129	45.129	45.129	45.129	45.129	45.129	45.129	45.129	45.129
117.5	52.129	52.129	52.129	52.129	52.129	52.129	52.129	52.129	52.129	52.129
120.0	59.128	59.128	59.128	59.128	59.128	59.128	59.128	59.128	59.128	59.128
122.5	65.882	65.882	65.882	65.882	65.882	65.882	65.882	65.882	65.882	65.882
125.0	72.145	72.145	72.145	72.145	72.145	72.145	72.145	72.145	72.145	72.145
127.5	78.285	78.285	78.285	78.285	78.285	78.285	78.285	78.285	78.285	78.285
130.0	84.978	84.978	84.978	84.978	84.978	84.978	84.978	84.978	84.978	84.978
132.5	93.267	93.267	93.267	93.267	93.267	93.267	93.267	93.267	93.267	93.267

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CANDELA TABULATION - (Cont.)

135.0	104.564	104.564	104.564	104.564	104.564	104.564	104.564	104.564	104.564	104.564
137.5	120.160	120.160	120.160	120.160	120.160	120.160	120.160	120.160	120.160	120.160
140.0	141.957	141.957	141.957	141.957	141.957	141.957	141.957	141.957	141.957	141.957
142.5	173.087	173.087	173.087	173.087	173.087	173.087	173.087	173.087	173.087	173.087
145.0	217.417	217.417	217.417	217.417	217.417	217.417	217.417	217.417	217.417	217.417
147.5	282.194	282.194	282.194	282.194	282.194	282.194	282.194	282.194	282.194	282.194
150.0	381.908	381.908	381.908	381.908	381.908	381.908	381.908	381.908	381.908	381.908
152.5	528.286	528.286	528.286	528.286	528.286	528.286	528.286	528.286	528.286	528.286
155.0	728.818	728.818	728.818	728.818	728.818	728.818	728.818	728.818	728.818	728.818
157.5	979.330	979.330	979.330	979.330	979.330	979.330	979.330	979.330	979.330	979.330
160.0	1254.402	1254.402	1254.402	1254.402	1254.402	1254.402	1254.402	1254.402	1254.402	1254.402
162.5	1523.334	1523.334	1523.334	1523.334	1523.334	1523.334	1523.334	1523.334	1523.334	1523.334
165.0	1762.794	1762.794	1762.794	1762.794	1762.794	1762.794	1762.794	1762.794	1762.794	1762.794
167.5	1956.204	1956.204	1956.204	1956.204	1956.204	1956.204	1956.204	1956.204	1956.204	1956.204
170.0	2094.968	2094.968	2094.968	2094.968	2094.968	2094.968	2094.968	2094.968	2094.968	2094.968
172.5	2183.998	2183.998	2183.998	2183.998	2183.998	2183.998	2183.998	2183.998	2183.998	2183.998
175.0	2230.662	2230.662	2230.662	2230.662	2230.662	2230.662	2230.662	2230.662	2230.662	2230.662
177.5	2246.012	2246.012	2246.012	2246.012	2246.012	2246.012	2246.012	2246.012	2246.012	2246.012
180.0	2249.000	2249.000	2249.000	2249.000	2249.000	2249.000	2249.000	2249.000	2249.000	2249.000

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>
0.0	3163.550	3163.550	3163.550	3163.550	3163.550	3163.550	3163.550
2.5	3108.742	3108.742	3108.742	3108.742	3108.742	3108.742	3108.742
5.0	2953.990	2953.990	2953.990	2953.990	2953.990	2953.990	2953.990
7.5	2708.160	2708.160	2708.160	2708.160	2708.160	2708.160	2708.160
10.0	2368.028	2368.028	2368.028	2368.028	2368.028	2368.028	2368.028
12.5	1938.430	1938.430	1938.430	1938.430	1938.430	1938.430	1938.430
15.0	1470.144	1470.144	1470.144	1470.144	1470.144	1470.144	1470.144
17.5	1052.636	1052.636	1052.636	1052.636	1052.636	1052.636	1052.636
20.0	754.577	754.577	754.577	754.577	754.577	754.577	754.577
22.5	574.517	574.517	574.517	574.517	574.517	574.517	574.517
25.0	465.868	465.868	465.868	465.868	465.868	465.868	465.868
27.5	385.832	385.832	385.832	385.832	385.832	385.832	385.832
30.0	315.630	315.630	315.630	315.630	315.630	315.630	315.630
32.5	255.663	255.663	255.663	255.663	255.663	255.663	255.663
35.0	215.283	215.283	215.283	215.283	215.283	215.283	215.283
37.5	188.120	188.120	188.120	188.120	188.120	188.120	188.120
40.0	166.197	166.197	166.197	166.197	166.197	166.197	166.197
42.5	146.531	146.531	146.531	146.531	146.531	146.531	146.531
45.0	128.960	128.960	128.960	128.960	128.960	128.960	128.960
47.5	113.162	113.162	113.162	113.162	113.162	113.162	113.162
50.0	99.138	99.138	99.138	99.138	99.138	99.138	99.138
52.5	87.129	87.129	87.129	87.129	87.129	87.129	87.129
55.0	76.651	76.651	76.651	76.651	76.651	76.651	76.651
57.5	67.140	67.140	67.140	67.140	67.140	67.140	67.140
60.0	58.193	58.193	58.193	58.193	58.193	58.193	58.193
62.5	49.569	49.569	49.569	49.569	49.569	49.569	49.569
65.0	41.348	41.348	41.348	41.348	41.348	41.348	41.348
67.5	33.610	33.610	33.610	33.610	33.610	33.610	33.610
70.0	26.195	26.195	26.195	26.195	26.195	26.195	26.195
72.5	19.183	19.183	19.183	19.183	19.183	19.183	19.183
75.0	12.493	12.493	12.493	12.493	12.493	12.493	12.493
77.5	7.818	7.818	7.818	7.818	7.818	7.818	7.818
80.0	5.803	5.803	5.803	5.803	5.803	5.803	5.803

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82.5	4.030	4.030	4.030	4.030	4.030	4.030	4.030
85.0	2.499	2.499	2.499	2.499	2.499	2.499	2.499
87.5	1.048	1.048	1.048	1.048	1.048	1.048	1.048
90.0	2.395	2.395	2.395	2.395	2.395	2.395	2.395
92.5	2.824	2.824	2.824	2.824	2.824	2.824	2.824
95.0	4.789	4.789	4.789	4.789	4.789	4.789	4.789
97.5	7.798	7.798	7.798	7.798	7.798	7.798	7.798
100.0	11.850	11.850	11.850	11.850	11.850	11.850	11.850
102.5	16.332	16.332	16.332	16.332	16.332	16.332	16.332
105.0	21.244	21.244	21.244	21.244	21.244	21.244	21.244
107.5	26.525	26.525	26.525	26.525	26.525	26.525	26.525
110.0	32.296	32.296	32.296	32.296	32.296	32.296	32.296
112.5	38.498	38.498	38.498	38.498	38.498	38.498	38.498
115.0	45.129	45.129	45.129	45.129	45.129	45.129	45.129
117.5	52.129	52.129	52.129	52.129	52.129	52.129	52.129
120.0	59.128	59.128	59.128	59.128	59.128	59.128	59.128
122.5	65.882	65.882	65.882	65.882	65.882	65.882	65.882
125.0	72.145	72.145	72.145	72.145	72.145	72.145	72.145
127.5	78.285	78.285	78.285	78.285	78.285	78.285	78.285
130.0	84.978	84.978	84.978	84.978	84.978	84.978	84.978
132.5	93.267	93.267	93.267	93.267	93.267	93.267	93.267
135.0	104.564	104.564	104.564	104.564	104.564	104.564	104.564
137.5	120.160	120.160	120.160	120.160	120.160	120.160	120.160
140.0	141.957	141.957	141.957	141.957	141.957	141.957	141.957
142.5	173.087	173.087	173.087	173.087	173.087	173.087	173.087
145.0	217.417	217.417	217.417	217.417	217.417	217.417	217.417
147.5	282.194	282.194	282.194	282.194	282.194	282.194	282.194
150.0	381.908	381.908	381.908	381.908	381.908	381.908	381.908
152.5	528.286	528.286	528.286	528.286	528.286	528.286	528.286
155.0	728.818	728.818	728.818	728.818	728.818	728.818	728.818
157.5	979.330	979.330	979.330	979.330	979.330	979.330	979.330
160.0	1254.402	1254.402	1254.402	1254.402	1254.402	1254.402	1254.402
162.5	1523.334	1523.334	1523.334	1523.334	1523.334	1523.334	1523.334
165.0	1762.794	1762.794	1762.794	1762.794	1762.794	1762.794	1762.794
167.5	1956.204	1956.204	1956.204	1956.204	1956.204	1956.204	1956.204
170.0	2094.968	2094.968	2094.968	2094.968	2094.968	2094.968	2094.968
172.5	2183.998	2183.998	2183.998	2183.998	2183.998	2183.998	2183.998
175.0	2230.662	2230.662	2230.662	2230.662	2230.662	2230.662	2230.662
177.5	2246.012	2246.012	2246.012	2246.012	2246.012	2246.012	2246.012
180.0	2249.000	2249.000	2249.000	2249.000	2249.000	2249.000	2249.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4CRDI-XX-L12-835U-L12-835D-XXX-DIM1-UNV-LW-CSU-RM-WHD-WM_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	666.03	N.A.	25.10
0-30	887.37	N.A.	33.50
0-40	1026.95	N.A.	38.80
0-60	1196.26	N.A.	45.20
0-80	1252.03	N.A.	47.30
0-90	1255.2	N.A.	47.40
10-90	991.76	N.A.	37.40
20-40	360.92	N.A.	13.60
20-50	461.14	N.A.	17.40
40-70	210.49	N.A.	7.90
60-80	55.76	N.A.	2.10
70-80	14.59	N.A.	0.60
80-90	3.18	N.A.	0.10
90-110	28.85	N.A.	1.10
90-120	73.71	N.A.	2.80
90-130	138.17	N.A.	5.20
90-150	365.06	N.A.	13.80
90-180	1393.12	N.A.	52.60
110-180	1364.28	N.A.	51.50
0-180	2648.33	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	263.44
10-20	402.59
20-30	221.34
30-40	139.58
40-50	100.23
50-60	69.09
60-70	41.17
70-80	14.59
80-90	3.18
90-100	6.13
100-110	22.71
110-120	44.86
120-130	64.46
130-140	82.95
140-150	143.95
150-160	341.48
160-170	477.91
170-180	208.67

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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	98	98	98	98	82	82	82	67	67	67	54	54	54	47
1	99	96	93	90	91	88	86	83	75	73	71	62	61	60	51	50	49	44
2	92	86	81	77	85	80	76	72	68	65	63	58	56	54	48	46	45	41
3	86	78	73	68	79	73	68	64	63	59	56	53	51	49	45	43	42	38
4	80	72	65	60	74	67	61	57	58	54	51	50	47	45	42	40	39	35
5	75	66	59	54	70	62	56	52	54	50	46	47	44	41	40	38	36	33
6	71	61	54	49	66	57	51	47	50	46	43	44	41	38	38	36	34	32
7	67	56	50	45	62	53	47	43	47	43	40	41	38	36	36	34	32	30
8	63	53	46	42	59	50	44	40	44	40	37	39	36	34	34	32	31	28
9	60	49	43	39	56	47	41	37	42	38	35	37	34	32	33	31	29	27
10	57	46	40	36	53	44	39	35	40	36	33	36	32	30	32	29	28	26

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CRDI-XX-L12-835U-L12-835D-XXX-DIM1-UNV-LW-CSU-RM-WHD-WM_.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

X=2H	Y=2H	5.4	6.1	6.4	7.1	8.4
	3H	6.0	6.6	7.0	7.7	9.0
	4H	6.1	6.7	7.1	7.7	9.0
	6H	6.0	6.5	7.0	7.6	8.9
	8H	6.0	6.5	7.0	7.5	8.9
	12H	5.9	6.4	7.0	7.4	8.8

UGR Viewed Endwise

5.4	6.1	6.4	7.1	8.4
6.0	6.6	7.0	7.7	9.0
6.1	6.7	7.1	7.7	9.0
6.0	6.5	7.0	7.6	8.9
6.0	6.5	7.0	7.5	8.9
5.9	6.4	7.0	7.4	8.8

4H	2H	5.5	6.1	6.5	7.1	8.4
	3H	6.2	6.7	7.3	7.8	9.1
	4H	6.3	6.7	7.3	7.8	9.2
	6H	6.3	6.6	7.3	7.7	9.1
	8H	6.2	6.6	7.3	7.6	9.0
	12H	6.2	6.5	7.2	7.5	8.9

8H	4H	6.2	6.6	7.3	7.6	9.0
	6H	6.2	6.5	7.3	7.6	9.0
	8H	6.2	6.4	7.3	7.5	8.9
	12H	6.1	6.3	7.2	7.4	8.8

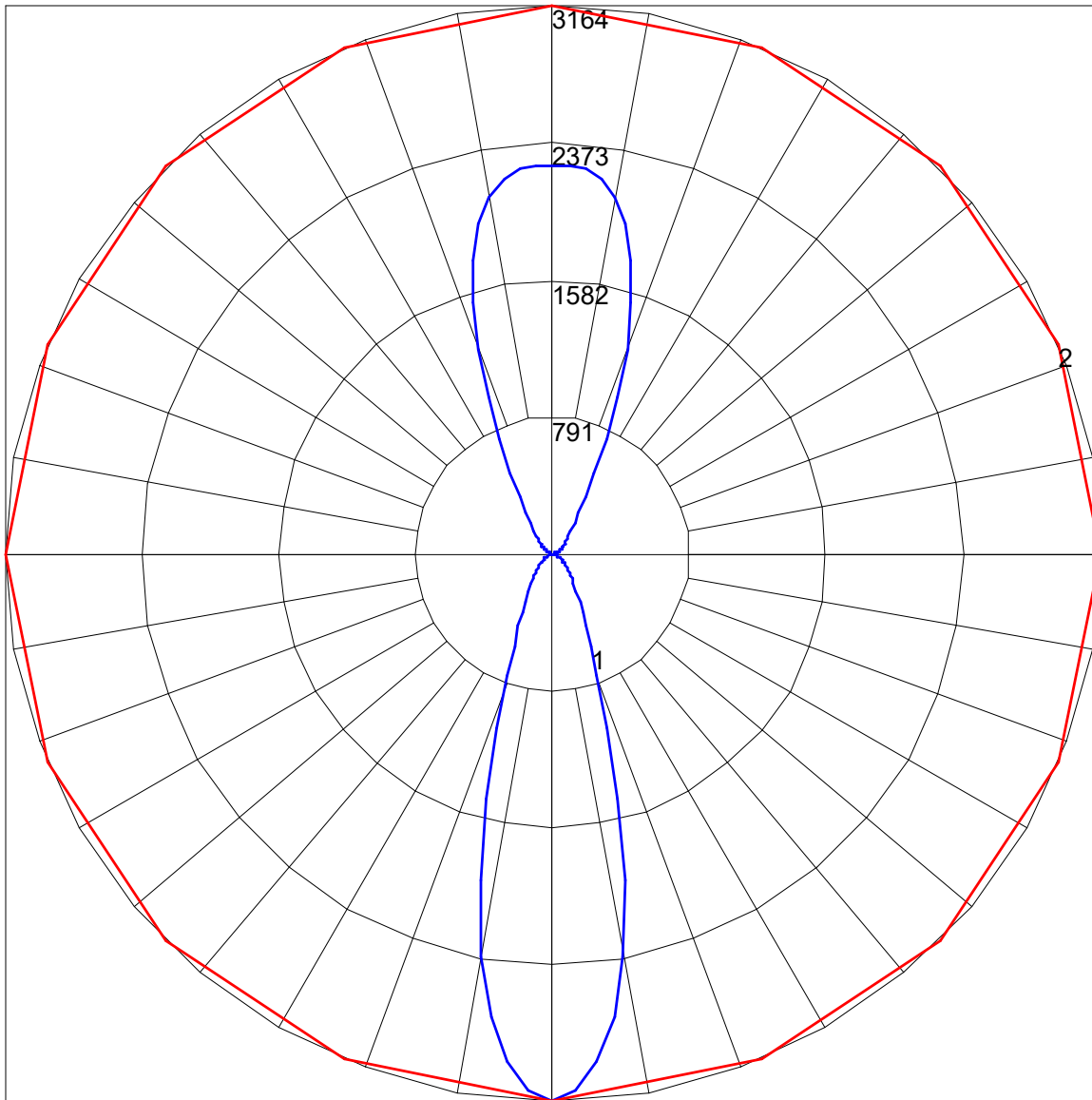
12H	4H	6.1	6.5	7.2	7.5	8.9
	6H	6.1	6.4	7.2	7.4	8.9
	8H	6.1	6.3	7.2	7.4	8.8

Maximum UGR = 9.2

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CRDI-XX-L12-835U-L12-835D-XXX-DIM1-UNV-LW-CSU-RM-WHD-WM_.IES

POLAR GRAPH



Maximum Candela = 3163.55 Located At Horizontal Angle = 0, Vertical Angle = 0

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)