



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CRDI-L12-835U-L12-835D-XXX-DIM1-UNV-LM-CSU-OM-CSD-WM_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13257153.06 and #13131414.06

[TESTLAB]

[ISSUE DATE] 9-FEB-2021

[MANUFAC] H E Williams Inc

[LUMCAT] 4CRDI-L12-835U-L12-835D-xxx-DIM1-UNV-LM-CSU-OM-CSD-WM

[MORE]

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

[MORE] medium distrib anodized alum open reflector trim down

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

[BALLAST] (2) ERP PHB30W-0700-42 Drivers

[OTHER]

[OTHER] This test was performed using the calibrated photodetector met

[MORE] hod of absolute photometry.

[CONVERT] Photometric web converted from original test data

[CONVERT] Luminaire test position and photometric web converted from original test data

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2603
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
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
Luminous Length (0-180)	0.21 ft (Diameter)
Luminous Width (90-270)	0.21 ft (Diameter)
Luminous Height	0.00 ft

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4CRDI-L12-835U-L12-835D-XXX-DIM1-UNV-LM-CSU-OM-CSD-WM_.IES****LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8439	8439	8439
55	2538	2538	2538
65	842	842	842
75	375	375	375
85	185	185	185

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CRDI-L12-835U-L12-835D-XXX-DIM1-UNV-LM-CSU-OM-CSD-WM_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>
0.0	2761.955	2761.955	2761.955	2761.955	2761.955	2761.955	2761.955	2761.955	2761.955	2761.955
2.5	2756.845	2756.845	2756.845	2756.845	2756.845	2756.845	2756.845	2756.845	2756.845	2756.845
5.0	2714.943	2714.943	2714.943	2714.943	2714.943	2714.943	2714.943	2714.943	2714.943	2714.943
7.5	2592.814	2592.814	2592.814	2592.814	2592.814	2592.814	2592.814	2592.814	2592.814	2592.814
10.0	2386.881	2386.881	2386.881	2386.881	2386.881	2386.881	2386.881	2386.881	2386.881	2386.881
12.5	2134.447	2134.447	2134.447	2134.447	2134.447	2134.447	2134.447	2134.447	2134.447	2134.447
15.0	1885.590	1885.590	1885.590	1885.590	1885.590	1885.590	1885.590	1885.590	1885.590	1885.590
17.5	1649.508	1649.508	1649.508	1649.508	1649.508	1649.508	1649.508	1649.508	1649.508	1649.508
20.0	1414.448	1414.448	1414.448	1414.448	1414.448	1414.448	1414.448	1414.448	1414.448	1414.448
22.5	1154.860	1154.860	1154.860	1154.860	1154.860	1154.860	1154.860	1154.860	1154.860	1154.860
25.0	855.925	855.925	855.925	855.925	855.925	855.925	855.925	855.925	855.925	855.925
27.5	541.149	541.149	541.149	541.149	541.149	541.149	541.149	541.149	541.149	541.149
30.0	284.934	284.934	284.934	284.934	284.934	284.934	284.934	284.934	284.934	284.934
32.5	129.027	129.027	129.027	129.027	129.027	129.027	129.027	129.027	129.027	129.027
35.0	63.160	63.160	63.160	63.160	63.160	63.160	63.160	63.160	63.160	63.160
37.5	42.157	42.157	42.157	42.157	42.157	42.157	42.157	42.157	42.157	42.157
40.0	31.426	31.426	31.426	31.426	31.426	31.426	31.426	31.426	31.426	31.426
42.5	24.375	24.375	24.375	24.375	24.375	24.375	24.375	24.375	24.375	24.375
45.0	18.856	18.856	18.856	18.856	18.856	18.856	18.856	18.856	18.856	18.856
47.5	13.950	13.950	13.950	13.950	13.950	13.950	13.950	13.950	13.950	13.950
50.0	10.067	10.067	10.067	10.067	10.067	10.067	10.067	10.067	10.067	10.067
52.5	6.745	6.745	6.745	6.745	6.745	6.745	6.745	6.745	6.745	6.745
55.0	4.599	4.599	4.599	4.599	4.599	4.599	4.599	4.599	4.599	4.599
57.5	3.066	3.066	3.066	3.066	3.066	3.066	3.066	3.066	3.066	3.066
60.0	2.146	2.146	2.146	2.146	2.146	2.146	2.146	2.146	2.146	2.146
62.5	1.584	1.584	1.584	1.584	1.584	1.584	1.584	1.584	1.584	1.584
65.0	1.124	1.124	1.124	1.124	1.124	1.124	1.124	1.124	1.124	1.124
67.5	0.818	0.818	0.818	0.818	0.818	0.818	0.818	0.818	0.818	0.818
70.0	0.613	0.613	0.613	0.613	0.613	0.613	0.613	0.613	0.613	0.613
72.5	0.460	0.460	0.460	0.460	0.460	0.460	0.460	0.460	0.460	0.460
75.0	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307	0.307
77.5	0.204	0.204	0.204	0.204	0.204	0.204	0.204	0.204	0.204	0.204
80.0	0.153	0.153	0.153	0.153	0.153	0.153	0.153	0.153	0.153	0.153
82.5	0.102	0.102	0.102	0.102	0.102	0.102	0.102	0.102	0.102	0.102
85.0	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051
87.5	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014	1.014
95.0	5.239	5.239	5.239	5.239	5.239	5.239	5.239	5.239	5.239	5.239
97.5	10.478	10.478	10.478	10.478	10.478	10.478	10.478	10.478	10.478	10.478
100.0	15.886	15.886	15.886	15.886	15.886	15.886	15.886	15.886	15.886	15.886
102.5	21.717	21.717	21.717	21.717	21.717	21.717	21.717	21.717	21.717	21.717
105.0	27.970	27.970	27.970	27.970	27.970	27.970	27.970	27.970	27.970	27.970
107.5	34.730	34.730	34.730	34.730	34.730	34.730	34.730	34.730	34.730	34.730
110.0	41.912	41.912	41.912	41.912	41.912	41.912	41.912	41.912	41.912	41.912
112.5	49.517	49.517	49.517	49.517	49.517	49.517	49.517	49.517	49.517	49.517
115.0	57.629	57.629	57.629	57.629	57.629	57.629	57.629	57.629	57.629	57.629
117.5	66.502	66.502	66.502	66.502	66.502	66.502	66.502	66.502	66.502	66.502
120.0	75.797	75.797	75.797	75.797	75.797	75.797	75.797	75.797	75.797	75.797
122.5	85.261	85.261	85.261	85.261	85.261	85.261	85.261	85.261	85.261	85.261
125.0	95.147	95.147	95.147	95.147	95.147	95.147	95.147	95.147	95.147	95.147
127.5	105.456	105.456	105.456	105.456	105.456	105.456	105.456	105.456	105.456	105.456
130.0	116.864	116.864	116.864	116.864	116.864	116.864	116.864	116.864	116.864	116.864
132.5	129.792	129.792	129.792	129.792	129.792	129.792	129.792	129.792	129.792	129.792

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CRDI-L12-835U-L12-835D-XXX-DIM1-UNV-LM-CSU-OM-CSD-WM_IES

CANDELA TABULATION - (Cont.)

135.0	144.242	144.242	144.242	144.242	144.242	144.242	144.242	144.242	144.242	144.242
137.5	160.635	160.635	160.635	160.635	160.635	160.635	160.635	160.635	160.635	160.635
140.0	179.225	179.225	179.225	179.225	179.225	179.225	179.225	179.225	179.225	179.225
142.5	199.843	199.843	199.843	199.843	199.843	199.843	199.843	199.843	199.843	199.843
145.0	224.686	224.686	224.686	224.686	224.686	224.686	224.686	224.686	224.686	224.686
147.5	257.894	257.894	257.894	257.894	257.894	257.894	257.894	257.894	257.894	257.894
150.0	305.045	305.045	305.045	305.045	305.045	305.045	305.045	305.045	305.045	305.045
152.5	372.814	372.814	372.814	372.814	372.814	372.814	372.814	372.814	372.814	372.814
155.0	465.426	465.426	465.426	465.426	465.426	465.426	465.426	465.426	465.426	465.426
157.5	592.261	592.261	592.261	592.261	592.261	592.261	592.261	592.261	592.261	592.261
160.0	791.681	791.681	791.681	791.681	791.681	791.681	791.681	791.681	791.681	791.681
162.5	1123.005	1123.005	1123.005	1123.005	1123.005	1123.005	1123.005	1123.005	1123.005	1123.005
165.0	1588.600	1588.600	1588.600	1588.600	1588.600	1588.600	1588.600	1588.600	1588.600	1588.600
167.5	2112.500	2112.500	2112.500	2112.500	2112.500	2112.500	2112.500	2112.500	2112.500	2112.500
170.0	2578.095	2578.095	2578.095	2578.095	2578.095	2578.095	2578.095	2578.095	2578.095	2578.095
172.5	2915.251	2915.251	2915.251	2915.251	2915.251	2915.251	2915.251	2915.251	2915.251	2915.251
175.0	3138.330	3138.330	3138.330	3138.330	3138.330	3138.330	3138.330	3138.330	3138.330	3138.330
177.5	3274.375	3274.375	3274.375	3274.375	3274.375	3274.375	3274.375	3274.375	3274.375	3274.375
180.0	3318.000	3318.000	3318.000	3318.000	3318.000	3318.000	3318.000	3318.000	3318.000	3318.000

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>
0.0	2761.955	2761.955	2761.955	2761.955	2761.955	2761.955	2761.955
2.5	2756.845	2756.845	2756.845	2756.845	2756.845	2756.845	2756.845
5.0	2714.943	2714.943	2714.943	2714.943	2714.943	2714.943	2714.943
7.5	2592.814	2592.814	2592.814	2592.814	2592.814	2592.814	2592.814
10.0	2386.881	2386.881	2386.881	2386.881	2386.881	2386.881	2386.881
12.5	2134.447	2134.447	2134.447	2134.447	2134.447	2134.447	2134.447
15.0	1885.590	1885.590	1885.590	1885.590	1885.590	1885.590	1885.590
17.5	1649.508	1649.508	1649.508	1649.508	1649.508	1649.508	1649.508
20.0	1414.448	1414.448	1414.448	1414.448	1414.448	1414.448	1414.448
22.5	1154.860	1154.860	1154.860	1154.860	1154.860	1154.860	1154.860
25.0	855.925	855.925	855.925	855.925	855.925	855.925	855.925
27.5	541.149	541.149	541.149	541.149	541.149	541.149	541.149
30.0	284.934	284.934	284.934	284.934	284.934	284.934	284.934
32.5	129.027	129.027	129.027	129.027	129.027	129.027	129.027
35.0	63.160	63.160	63.160	63.160	63.160	63.160	63.160
37.5	42.157	42.157	42.157	42.157	42.157	42.157	42.157
40.0	31.426	31.426	31.426	31.426	31.426	31.426	31.426
42.5	24.375	24.375	24.375	24.375	24.375	24.375	24.375
45.0	18.856	18.856	18.856	18.856	18.856	18.856	18.856
47.5	13.950	13.950	13.950	13.950	13.950	13.950	13.950
50.0	10.067	10.067	10.067	10.067	10.067	10.067	10.067
52.5	6.745	6.745	6.745	6.745	6.745	6.745	6.745
55.0	4.599	4.599	4.599	4.599	4.599	4.599	4.599
57.5	3.066	3.066	3.066	3.066	3.066	3.066	3.066
60.0	2.146	2.146	2.146	2.146	2.146	2.146	2.146
62.5	1.584	1.584	1.584	1.584	1.584	1.584	1.584
65.0	1.124	1.124	1.124	1.124	1.124	1.124	1.124
67.5	0.818	0.818	0.818	0.818	0.818	0.818	0.818
70.0	0.613	0.613	0.613	0.613	0.613	0.613	0.613
72.5	0.460	0.460	0.460	0.460	0.460	0.460	0.460
75.0	0.307	0.307	0.307	0.307	0.307	0.307	0.307
77.5	0.204	0.204	0.204	0.204	0.204	0.204	0.204
80.0	0.153	0.153	0.153	0.153	0.153	0.153	0.153

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4CRDI-L12-835U-L12-835D-XXX-DIM1-UNV-LM-CSU-OM-CSD-WM_.IES****CANDELA TABULATION - (Cont.)**

82.5	0.102	0.102	0.102	0.102	0.102	0.102	0.102
85.0	0.051	0.051	0.051	0.051	0.051	0.051	0.051
87.5	0.051	0.051	0.051	0.051	0.051	0.051	0.051
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	1.014	1.014	1.014	1.014	1.014	1.014	1.014
95.0	5.239	5.239	5.239	5.239	5.239	5.239	5.239
97.5	10.478	10.478	10.478	10.478	10.478	10.478	10.478
100.0	15.886	15.886	15.886	15.886	15.886	15.886	15.886
102.5	21.717	21.717	21.717	21.717	21.717	21.717	21.717
105.0	27.970	27.970	27.970	27.970	27.970	27.970	27.970
107.5	34.730	34.730	34.730	34.730	34.730	34.730	34.730
110.0	41.912	41.912	41.912	41.912	41.912	41.912	41.912
112.5	49.517	49.517	49.517	49.517	49.517	49.517	49.517
115.0	57.629	57.629	57.629	57.629	57.629	57.629	57.629
117.5	66.502	66.502	66.502	66.502	66.502	66.502	66.502
120.0	75.797	75.797	75.797	75.797	75.797	75.797	75.797
122.5	85.261	85.261	85.261	85.261	85.261	85.261	85.261
125.0	95.147	95.147	95.147	95.147	95.147	95.147	95.147
127.5	105.456	105.456	105.456	105.456	105.456	105.456	105.456
130.0	116.864	116.864	116.864	116.864	116.864	116.864	116.864
132.5	129.792	129.792	129.792	129.792	129.792	129.792	129.792
135.0	144.242	144.242	144.242	144.242	144.242	144.242	144.242
137.5	160.635	160.635	160.635	160.635	160.635	160.635	160.635
140.0	179.225	179.225	179.225	179.225	179.225	179.225	179.225
142.5	199.843	199.843	199.843	199.843	199.843	199.843	199.843
145.0	224.686	224.686	224.686	224.686	224.686	224.686	224.686
147.5	257.894	257.894	257.894	257.894	257.894	257.894	257.894
150.0	305.045	305.045	305.045	305.045	305.045	305.045	305.045
152.5	372.814	372.814	372.814	372.814	372.814	372.814	372.814
155.0	465.426	465.426	465.426	465.426	465.426	465.426	465.426
157.5	592.261	592.261	592.261	592.261	592.261	592.261	592.261
160.0	791.681	791.681	791.681	791.681	791.681	791.681	791.681
162.5	1123.005	1123.005	1123.005	1123.005	1123.005	1123.005	1123.005
165.0	1588.600	1588.600	1588.600	1588.600	1588.600	1588.600	1588.600
167.5	2112.500	2112.500	2112.500	2112.500	2112.500	2112.500	2112.500
170.0	2578.095	2578.095	2578.095	2578.095	2578.095	2578.095	2578.095
172.5	2915.251	2915.251	2915.251	2915.251	2915.251	2915.251	2915.251
175.0	3138.330	3138.330	3138.330	3138.330	3138.330	3138.330	3138.330
177.5	3274.375	3274.375	3274.375	3274.375	3274.375	3274.375	3274.375
180.0	3318.000	3318.000	3318.000	3318.000	3318.000	3318.000	3318.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4CRDI-L12-835U-L12-835D-XXX-DIM1-UNV-LM-CSU-OM-CSD-WM_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	771.04	N.A.	29.60
0-30	1148.84	N.A.	44.10
0-40	1207.76	N.A.	46.40
0-60	1227.16	N.A.	47.10
0-80	1228.72	N.A.	47.20
0-90	1228.8	N.A.	47.20
10-90	980.21	N.A.	37.70
20-40	436.72	N.A.	16.80
20-50	451.58	N.A.	17.30
40-70	20.61	N.A.	0.80
60-80	1.56	N.A.	0.10
70-80	0.36	N.A.	0.00
80-90	0.08	N.A.	0.00
90-110	36.58	N.A.	1.40
90-120	94.06	N.A.	3.60
90-130	179.43	N.A.	6.90
90-150	435.30	N.A.	16.70
90-180	1374.39	N.A.	52.80
110-180	1337.81	N.A.	51.40
0-180	2603.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	248.59
10-20	522.45
20-30	377.80
30-40	58.92
40-50	14.86
50-60	4.54
60-70	1.21
70-80	0.36
80-90	0.08
90-100	6.71
100-110	29.87
110-120	57.48
120-130	85.37
130-140	112.16
140-150	143.71
150-160	222.65
160-170	434.37
170-180	282.07

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CRDI-L12-835U-L12-835D-XXX-DIM1-UNV-LM-CSU-OM-CSD-WM_.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	106	106	106	106	98	98	98	98	82	82	82	67	67	67	54	54	54	47
1	100	97	94	91	92	89	87	85	76	74	73	63	62	61	51	51	50	45
2	94	88	84	80	86	82	78	75	70	67	65	59	58	56	49	48	47	43
3	88	81	75	71	81	75	71	67	65	62	59	56	54	52	47	46	45	41
4	83	75	69	64	77	70	65	61	61	57	55	53	50	48	45	44	42	39
5	78	69	63	58	72	65	60	56	57	53	51	50	47	45	43	42	40	37
6	74	64	58	54	69	61	55	51	54	50	47	48	45	43	42	40	38	36
7	70	60	54	50	65	57	52	48	51	47	44	45	42	40	40	38	37	34
8	66	56	50	46	62	54	48	45	48	44	41	43	40	38	38	36	35	33
9	63	53	47	43	59	51	45	42	46	42	39	41	38	36	37	35	33	32
10	60	50	45	41	56	48	43	39	44	40	37	39	37	35	35	34	32	30

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CRDI-L12-835U-L12-835D-XXX-DIM1-UNV-LM-CSU-OM-CSD-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

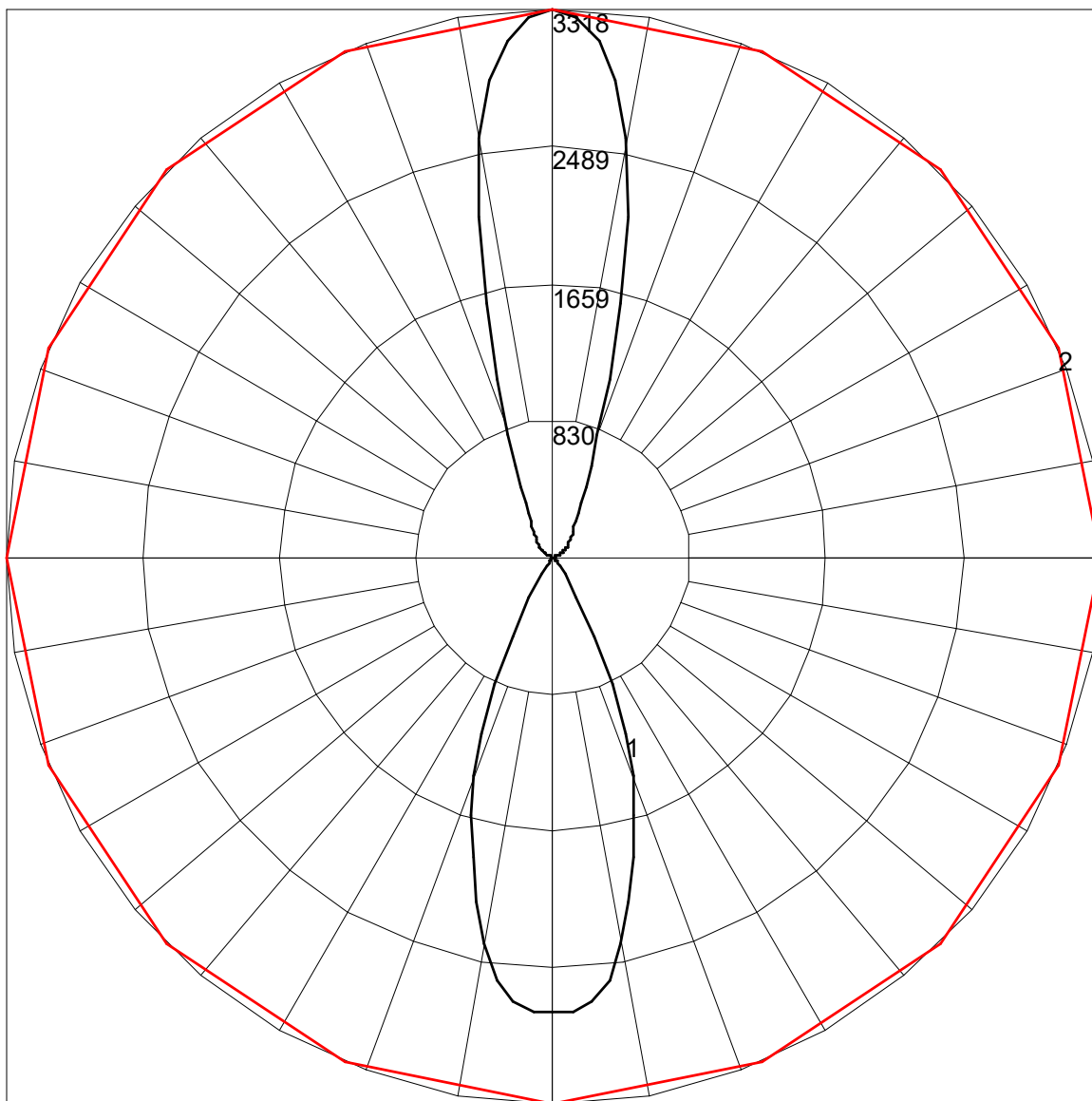
X=2H	Y=2H	3.4	3.4	3.4	3.4	3.4	UGR Viewed Endwise				
	3H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	4H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	6H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	8H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	12H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
4H	2H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	3H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	4H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	6H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	8H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	12H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
8H	4H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	6H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	8H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	12H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
12H	4H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	6H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
	8H	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4

Maximum UGR = 3.4

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CRDI-L12-835U-L12-835D-XXX-DIM1-UNV-LM-CSU-OM-CSD-WM_.IES

POLAR GRAPH



Maximum Candela = 3318 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.)