



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CSDI-L12-835U-L12-835D-XXX-DIM1-UNV-OW-CSU-LN-WHD-WM_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13537338.12 and #13257153.22

[TESTLAB]

[ISSUE DATE] 9-FEB-2021

[MANUFAC] H E Williams Inc

[LUMCAT] 4CSDI-L12-835U-L12-835D-xxx-DIM1-UNV-OW-CSU-LN-WHD-WM

[MORE]

[LUMINAIRE] White formed aluminum housing, wide distrib anodized aluminum reflector trim w/clear cover glass up,

[MORE] narrow distrib white painted flush prismatic lens 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

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2375
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	28.2
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	Rectangular w/Sides
Luminous Length (0-180)	0.33 ft
Luminous Width (90-270)	0.33 ft
Luminous Height	1.42 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2814	2396	2770
55	1525	1190	1473
65	866	625	862
75	394	269	381
85	79	49	74

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CSDI-L12-835U-L12-835D-XXX-DIM1-UNV-OW-CSU-LN-WHD-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>
0.0	4545.840	4545.840	4545.840	4545.840	4545.840	4545.840	4545.840	4545.840	4545.840
2.5	4381.416	4378.192	4382.222	4389.476	4390.282	4389.476	4382.222	4378.192	4381.416
5.0	3951.818	3942.952	3944.564	3943.758	3940.534	3943.758	3944.564	3942.952	3951.818
7.5	3296.540	3292.510	3284.450	3277.196	3273.166	3277.196	3284.450	3292.510	3296.540
10.0	2555.826	2549.378	2539.706	2524.392	2521.168	2524.392	2539.706	2549.378	2555.826
12.5	1863.472	1852.188	1842.516	1822.366	1816.724	1822.366	1842.516	1852.188	1863.472
15.0	1308.138	1301.690	1292.824	1267.838	1253.330	1267.838	1292.824	1301.690	1308.138
17.5	922.064	923.676	921.258	892.242	874.510	892.242	921.258	923.676	922.064
20.0	681.151	692.273	700.172	669.141	650.523	669.141	700.172	692.273	681.151
22.5	528.494	550.417	574.436	538.650	513.906	538.650	574.436	550.417	528.494
25.0	421.296	452.085	494.803	446.202	411.785	446.202	494.803	452.085	421.296
27.5	333.442	370.357	427.180	365.279	326.269	365.279	427.180	370.357	333.442
30.0	270.091	299.510	360.121	294.190	263.078	294.190	360.121	299.510	270.091
32.5	227.131	246.958	294.835	241.236	221.247	241.236	294.835	246.958	227.131
35.0	195.374	209.802	238.576	205.772	193.118	205.772	238.576	209.802	195.374
37.5	170.711	181.431	197.067	179.819	170.308	179.819	197.067	181.431	170.711
40.0	148.143	157.895	166.600	157.573	147.579	157.573	166.600	157.895	148.143
42.5	126.542	136.617	142.501	136.295	125.575	136.295	142.501	136.617	126.542
45.0	107.843	117.354	122.593	116.548	106.150	116.548	122.593	117.354	107.843
47.5	92.529	100.750	105.425	99.299	89.869	99.299	105.425	100.750	92.529
50.0	80.519	87.048	90.433	85.033	77.537	85.033	90.433	87.048	80.519
52.5	71.250	76.086	77.860	73.991	68.510	73.991	77.860	76.086	71.250
55.0	63.835	67.140	67.543	65.367	61.659	65.367	67.543	67.140	63.835
57.5	57.387	59.402	58.838	58.113	55.936	58.113	58.838	59.402	57.387
60.0	51.020	52.309	51.262	51.584	50.053	51.584	51.262	52.309	51.020
62.5	44.330	45.539	44.330	45.378	44.169	45.378	44.330	45.539	44.330
65.0	38.204	39.010	37.882	39.091	38.043	39.091	37.882	39.010	38.204
67.5	32.643	33.046	31.918	32.885	32.240	32.885	31.918	33.046	32.643
70.0	27.243	27.485	26.517	27.243	26.840	27.243	26.517	27.485	27.243
72.5	22.326	22.246	21.520	22.084	21.762	22.084	21.520	22.246	22.326
75.0	17.732	17.490	16.845	17.329	17.168	17.329	16.845	17.490	17.732
77.5	13.541	13.299	12.735	13.057	12.977	13.057	12.735	13.299	13.541
80.0	9.753	9.511	9.108	9.350	9.350	9.350	9.108	9.511	9.753
82.5	6.448	6.126	5.803	6.045	6.126	6.045	5.803	6.126	6.448
85.0	3.546	3.224	3.063	3.224	3.305	3.224	3.063	3.224	3.546
87.5	0.564	0.887	1.048	1.209	1.290	1.209	1.048	0.887	0.564
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	0.738	0.984	1.599	3.014	2.891	3.014	1.599	0.984	0.738
95.0	0.861	1.169	1.722	3.075	3.014	3.075	1.722	1.169	0.861
97.5	0.984	1.292	1.907	3.198	3.075	3.198	1.907	1.292	0.984
100.0	1.107	1.476	2.091	3.321	3.198	3.321	2.091	1.476	1.107
102.5	1.230	1.599	2.276	3.444	3.383	3.444	2.276	1.599	1.230
105.0	1.415	1.845	2.460	3.629	3.506	3.629	2.460	1.845	1.415
107.5	1.661	2.091	2.706	3.813	3.752	3.813	2.706	2.091	1.661
110.0	1.907	2.399	3.137	3.998	3.998	3.998	3.137	2.399	1.907
112.5	2.276	2.768	4.305	4.305	4.305	4.305	4.305	2.768	2.276
115.0	2.706	4.428	7.749	7.073	4.797	7.073	7.749	4.428	2.706
117.5	4.367	8.733	14.760	12.792	10.025	12.792	14.760	8.733	4.367
120.0	12.485	18.512	25.092	22.632	16.913	22.632	25.092	18.512	12.485
122.5	23.309	32.718	38.807	35.363	29.520	35.363	38.807	32.718	23.309
125.0	40.467	50.123	53.874	50.922	44.711	50.922	53.874	50.123	40.467
127.5	61.070	68.634	69.680	68.019	63.222	68.019	69.680	68.634	61.070
130.0	82.103	86.838	86.838	86.100	83.763	86.100	86.838	86.838	82.103
132.5	105.596	106.149	105.842	105.719	107.195	105.719	105.842	106.149	105.596

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4CSDI-L12-835U-L12-835D-XXX-DIM1-UNV-OW-CSU-LN-WHD-WM_.IES****CANDELA TABULATION - (Cont.)**

135.0	130.442	127.367	127.244	127.490	132.164	127.490	127.244	127.367	130.442
137.5	157.256	152.090	153.012	152.828	159.224	152.828	153.012	152.090	157.256
140.0	187.637	183.024	187.821	185.115	190.220	185.115	187.821	183.024	187.637
142.5	225.705	223.553	235.545	228.350	230.810	228.350	235.545	223.553	225.705
145.0	274.844	280.133	299.013	284.930	282.654	284.930	299.013	280.133	274.844
147.5	342.555	356.393	377.180	359.960	351.965	359.960	377.180	356.393	342.555
150.0	434.805	452.025	468.630	453.378	441.140	453.378	468.630	452.025	434.805
152.5	554.792	563.463	568.937	555.468	545.628	555.468	568.937	563.463	554.792
155.0	685.725	686.340	677.730	664.815	655.590	664.815	677.730	686.340	685.725
157.5	816.105	814.875	797.040	784.125	775.515	784.125	797.040	814.875	816.105
160.0	940.950	939.105	923.115	910.815	902.820	910.815	923.115	939.105	940.950
162.5	1064.565	1060.260	1046.115	1033.200	1024.590	1033.200	1046.115	1060.260	1064.565
165.0	1177.725	1178.340	1167.885	1153.740	1146.360	1153.740	1167.885	1178.340	1177.725
167.5	1281.045	1281.045	1274.895	1265.055	1258.905	1265.055	1274.895	1281.045	1281.045
170.0	1381.905	1378.830	1374.525	1368.375	1364.685	1368.375	1374.525	1378.830	1381.905
172.5	1462.470	1458.780	1456.320	1452.630	1450.785	1452.630	1456.320	1458.780	1462.470
175.0	1521.510	1518.435	1515.975	1514.130	1514.130	1514.130	1515.975	1518.435	1521.510
177.5	1555.950	1553.490	1551.030	1552.260	1551.645	1552.260	1551.030	1553.490	1555.950
180.0	1563.000	1563.000	1563.000	1563.000	1563.000	1563.000	1563.000	1563.000	1563.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 4CSDI-L12-835U-L12-835D-XXX-DIM1-UNV-OW-CSU-LN-WHD-WM_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	703.77	N.A.	29.60
0-30	914.66	N.A.	38.50
0-40	1050.69	N.A.	44.20
0-60	1200.84	N.A.	50.60
0-80	1257.8	N.A.	53.00
0-90	1261.88	N.A.	53.10
10-90	931.23	N.A.	39.20
20-40	346.92	N.A.	14.60
20-50	437.51	N.A.	18.40
40-70	188.51	N.A.	7.90
60-80	56.96	N.A.	2.40
70-80	18.59	N.A.	0.80
80-90	4.08	N.A.	0.20
90-110	4.71	N.A.	0.20
90-120	12.54	N.A.	0.50
90-130	57.45	N.A.	2.40
90-150	342.26	N.A.	14.40
90-180	1112.7	N.A.	46.90
110-180	1107.99	N.A.	46.70
0-180	2374.57	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	330.64
10-20	373.12
20-30	210.90
30-40	136.03
40-50	90.59
50-60	59.56
60-70	38.36
70-80	18.59
80-90	4.08
90-100	1.93
100-110	2.78
110-120	7.83
120-130	44.91
130-140	100.48
140-150	184.34
150-160	308.42
160-170	321.81
170-180	140.19

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CSDI-L12-835U-L12-835D-XXX-DIM1-UNV-OW-CSU-LN-WHD-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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	101	97	94	92	93	91	88	86	78	76	75	66	65	64	56	55	54	49
2	94	88	84	80	87	83	79	75	72	69	66	62	60	58	53	51	50	46
3	88	81	75	70	82	76	71	67	66	63	60	58	55	53	50	48	47	43
4	83	74	68	63	77	70	64	60	62	58	55	54	51	49	47	45	44	41
5	78	69	62	57	73	65	59	55	58	54	50	51	48	46	45	43	41	38
6	73	64	57	53	69	60	55	51	54	50	47	48	45	43	43	41	39	36
7	69	60	53	49	65	57	51	47	51	47	44	46	43	40	41	39	37	35
8	66	56	50	45	62	53	48	44	48	44	41	44	40	38	39	37	35	33
9	63	53	47	43	59	50	45	41	46	42	39	42	39	36	38	35	34	32
10	60	50	44	40	56	48	43	39	44	40	37	40	37	35	36	34	32	31

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CSDI-L12-835U-L12-835D-XXX-DIM1-UNV-OW-CSU-LN-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	4.9	5.6	5.9	6.6	7.8	4.7	5.4	5.7	6.4	7.7
	3H	5.8	6.4	6.7	7.4	8.6	5.6	6.3	6.6	7.2	8.5
	4H	6.0	6.6	7.0	7.5	8.8	5.8	6.4	6.8	7.4	8.7
	6H	6.0	6.6	7.0	7.6	8.8	5.9	6.4	6.9	7.4	8.7
	8H	6.0	6.5	7.0	7.5	8.8	5.9	6.4	6.9	7.4	8.7
	12H	6.0	6.5	7.0	7.4	8.8	5.8	6.3	6.8	7.3	8.6

UGR Viewed Endwise

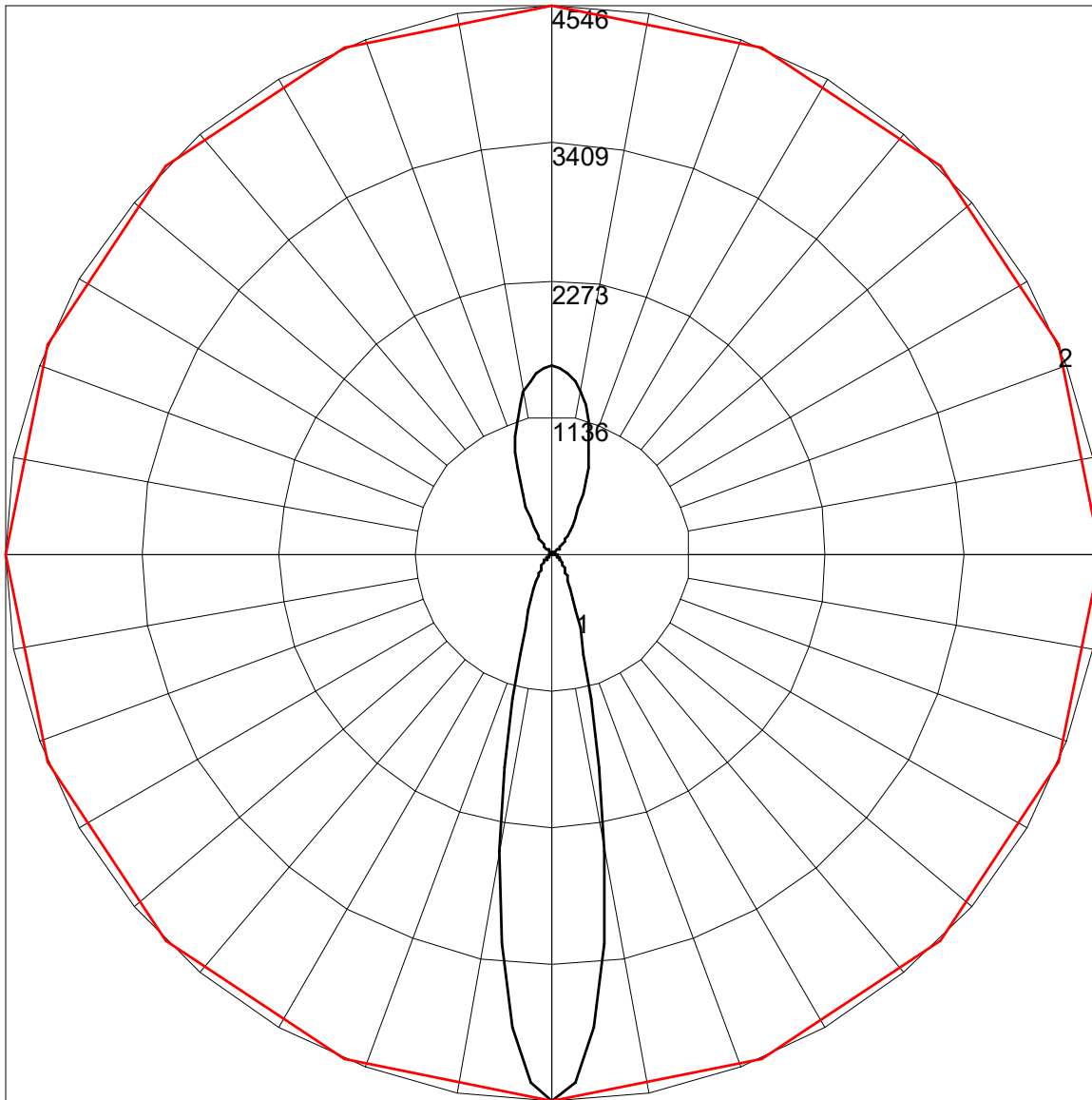
4H	2H	5.0	5.6	6.0	6.6	7.9	4.9	5.5	5.9	6.5	7.8
	3H	6.0	6.5	7.1	7.5	8.8	5.9	6.4	6.9	7.4	8.7
	4H	6.3	6.8	7.3	7.8	9.1	6.2	6.6	7.2	7.6	9.0
	6H	6.4	6.8	7.5	7.8	9.1	6.3	6.7	7.3	7.7	9.0
	8H	6.4	6.8	7.5	7.8	9.1	6.3	6.7	7.3	7.7	9.0
	12H	6.4	6.7	7.4	7.7	9.1	6.3	6.6	7.3	7.6	8.9
8H	4H	6.3	6.6	7.3	7.7	9.0	6.2	6.5	7.2	7.6	8.9
	6H	6.4	6.7	7.5	7.8	9.1	6.3	6.6	7.4	7.7	9.0
	8H	6.5	6.7	7.5	7.8	9.1	6.4	6.6	7.4	7.6	9.0
	12H	6.4	6.7	7.5	7.7	9.1	6.3	6.5	7.4	7.6	9.0
12H	4H	6.2	6.6	7.3	7.6	8.9	6.1	6.4	7.2	7.5	8.8
	6H	6.4	6.7	7.5	7.7	9.1	6.3	6.5	7.3	7.6	8.9
	8H	6.4	6.6	7.5	7.7	9.1	6.3	6.5	7.4	7.6	9.0

Maximum UGR = 9.1

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 4CSDI-L12-835U-L12-835D-XXX-DIM1-UNV-OW-CSU-LN-WHD-WM_.IES

POLAR GRAPH



Maximum Candela = 4545.84 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.)