



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13257153.18 and #13257153.25

[TESTLAB]

[ISSUE DATE] 8-FEB-2021

[MANUFAC] H E Williams Inc

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

[MORE]

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

[MORE] narrow spot 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

[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	2562
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	75
Total Luminaire Watts	34.2978
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
Luminous Length (0-180)	0.21 ft
Luminous Width (90-270)	0.21 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	26716	31285	27067
55	19501	21668	19934
65	16468	16468	16468
75	11524	12485	12485
85	8556	8556	8556

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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>
0.0	14140.000	14140.000	14140.000	14140.000	14140.000	14140.000	14140.000	14140.000	14140.000
2.5	12630.000	12690.000	12840.000	12980.000	13020.000	12980.000	12840.000	12690.000	12630.000
5.0	9394.000	9529.000	9686.000	9798.000	9865.000	9798.000	9686.000	9529.000	9394.000
7.5	5877.000	6045.000	6150.000	6218.000	6290.000	6218.000	6150.000	6045.000	5877.000
10.0	3225.000	3370.000	3426.000	3469.000	3501.000	3469.000	3426.000	3370.000	3225.000
12.5	1694.000	1783.000	1805.000	1832.000	1822.000	1832.000	1805.000	1783.000	1694.000
15.0	964.000	1010.000	1026.000	1028.000	1013.000	1028.000	1026.000	1010.000	964.000
17.5	636.000	665.000	684.000	666.000	644.000	666.000	684.000	665.000	636.000
20.0	470.000	495.000	523.000	500.000	469.000	500.000	523.000	495.000	470.000
22.5	373.000	397.000	429.000	397.000	362.000	397.000	429.000	397.000	373.000
25.0	294.000	322.000	360.000	321.000	292.000	321.000	360.000	322.000	294.000
27.5	234.000	262.000	304.000	262.000	231.000	262.000	304.000	262.000	234.000
30.0	192.000	213.000	254.000	210.000	188.000	210.000	254.000	213.000	192.000
32.5	160.000	175.000	210.000	175.000	161.000	175.000	210.000	175.000	160.000
35.0	139.000	149.000	171.000	149.000	139.000	149.000	171.000	149.000	139.000
37.5	122.000	129.000	142.000	129.000	121.000	129.000	142.000	129.000	122.000
40.0	105.000	113.000	120.000	113.000	105.000	113.000	120.000	113.000	105.000
42.5	89.000	98.000	103.000	98.000	90.000	98.000	103.000	98.000	89.000
45.0	76.000	84.000	89.000	85.000	77.000	85.000	89.000	84.000	76.000
47.5	65.000	72.000	76.000	72.000	67.000	72.000	76.000	72.000	65.000
50.0	57.000	63.000	66.000	63.000	58.000	63.000	66.000	63.000	57.000
52.5	50.000	55.000	57.000	56.000	52.000	56.000	57.000	55.000	50.000
55.0	45.000	48.000	50.000	49.000	46.000	49.000	50.000	48.000	45.000
57.5	40.000	43.000	43.000	43.000	41.000	43.000	43.000	43.000	40.000
60.0	37.000	38.000	38.000	39.000	37.000	39.000	38.000	38.000	37.000
62.5	32.000	34.000	33.000	33.000	32.000	33.000	33.000	34.000	32.000
65.0	28.000	29.000	28.000	29.000	28.000	29.000	28.000	29.000	28.000
67.5	23.000	25.000	24.000	25.000	24.000	25.000	24.000	25.000	23.000
70.0	19.000	21.000	20.000	21.000	20.000	21.000	20.000	21.000	19.000
72.5	16.000	16.000	16.000	17.000	17.000	17.000	16.000	16.000	16.000
75.0	12.000	13.000	13.000	13.000	13.000	13.000	13.000	13.000	12.000
77.5	9.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000	9.000
80.0	7.000	7.000	7.000	8.000	8.000	8.000	7.000	7.000	7.000
82.5	4.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	4.000
85.0	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000
87.5	1.000	1.000	1.000	2.000	1.000	2.000	1.000	1.000	1.000
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
95.0	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
97.5	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199
100.0	0.199	0.199	0.199	0.199	0.299	0.199	0.199	0.199	0.199
102.5	0.299	0.299	0.299	0.299	0.398	0.299	0.299	0.299	0.299
105.0	0.498	0.498	0.498	0.498	0.498	0.498	0.498	0.498	0.498
107.5	0.597	0.597	0.597	0.597	0.697	0.597	0.597	0.597	0.597
110.0	0.896	0.796	1.095	0.896	0.896	0.896	1.095	0.796	0.896
112.5	1.194	1.095	3.682	1.194	1.294	1.194	3.682	1.095	1.194
115.0	1.592	4.975	11.642	5.373	1.692	5.373	11.642	4.975	1.592
117.5	11.144	19.701	23.681	20.000	10.348	20.000	23.681	19.701	11.144
120.0	29.950	37.014	37.213	38.407	30.149	38.407	37.213	37.014	29.950
122.5	49.153	53.233	51.740	55.720	51.044	55.720	51.740	53.233	49.153
125.0	68.854	69.750	66.964	73.232	71.740	73.232	66.964	69.750	68.854
127.5	90.147	86.963	82.784	91.341	93.829	91.341	82.784	86.963	90.147
130.0	111.938	105.868	99.600	110.744	116.813	110.744	99.600	105.868	111.938
132.5	134.126	126.863	118.803	132.236	140.594	132.236	118.803	126.863	134.126

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135.0	157.509	150.444	141.887	156.016	165.170	156.016	141.887	150.444	157.509
137.5	183.478	178.006	171.837	183.777	191.836	183.777	171.837	178.006	183.478
140.0	214.821	212.134	211.836	217.408	222.880	217.408	211.836	212.134	214.821
142.5	253.228	254.919	263.476	258.999	260.193	258.999	263.476	254.919	253.228
145.0	300.888	308.550	324.967	310.938	306.560	310.938	324.967	308.550	300.888
147.5	362.280	376.409	395.115	377.006	366.558	377.006	395.115	376.409	362.280
150.0	441.084	459.491	473.322	458.098	443.074	458.098	473.322	459.491	441.084
152.5	536.504	552.225	557.897	549.539	534.614	549.539	557.897	552.225	536.504
155.0	638.094	647.646	649.636	645.059	633.915	645.059	649.636	647.646	638.094
157.5	735.206	742.867	745.255	740.877	731.027	740.877	745.255	742.867	735.206
160.0	831.223	839.084	843.263	838.288	829.532	838.288	843.263	839.084	831.223
162.5	930.126	937.489	943.260	936.793	930.226	936.793	943.260	937.489	930.126
165.0	1028.830	1033.805	1040.770	1033.805	1027.835	1033.805	1040.770	1033.805	1028.830
167.5	1122.360	1125.345	1129.325	1124.350	1121.365	1124.350	1129.325	1125.345	1122.360
170.0	1206.935	1207.930	1206.935	1206.935	1205.940	1206.935	1206.935	1207.930	1206.935
172.5	1276.585	1276.585	1274.595	1274.595	1275.590	1274.595	1274.595	1276.585	1276.585
175.0	1330.315	1331.310	1329.320	1329.320	1330.315	1329.320	1329.320	1331.310	1330.315
177.5	1368.125	1368.125	1365.140	1366.135	1367.130	1366.135	1365.140	1368.125	1368.125
180.0	1379.000	1379.000	1379.000	1379.000	1379.000	1379.000	1379.000	1379.000	1379.000

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Zone	Lumens	%Lamp	%Fixt
0-20	1062.6	N.A.	41.50
0-30	1214.35	N.A.	47.40
0-40	1311.61	N.A.	51.20
0-60	1420.49	N.A.	55.40
0-80	1462.9	N.A.	57.10
0-90	1466.38	N.A.	57.20
10-90	749.80	N.A.	29.30
20-40	249.01	N.A.	9.70
20-50	314.27	N.A.	12.30
40-70	137.32	N.A.	5.40
60-80	42.41	N.A.	1.70
70-80	13.97	N.A.	0.50
80-90	3.49	N.A.	0.10
90-110	0.66	N.A.	0.00
90-120	11.49	N.A.	0.40
90-130	74.28	N.A.	2.90
90-150	392.69	N.A.	15.30
90-180	1095.83	N.A.	42.80
110-180	1095.17	N.A.	42.70
0-180	2562.22	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	716.58
10-20	346.01
20-30	151.76
30-40	97.26
40-50	65.25
50-60	43.62
60-70	28.44
70-80	13.97
80-90	3.49
90-100	0.14
100-110	0.52
110-120	10.83
120-130	62.79
130-140	119.48
140-150	198.92
150-160	293.61
160-170	286.51
170-180	123.03

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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	109	109	109	109	101	101	101	101	87	87	87	75	75	75	63	63	63	57
1	103	99	97	94	96	93	91	89	81	80	78	70	69	68	60	60	59	55
2	97	92	87	84	91	86	83	79	76	74	71	67	65	64	58	57	56	52
3	91	85	80	76	86	80	76	72	72	68	66	63	61	60	56	55	53	50
4	87	79	74	69	82	75	70	67	68	64	61	61	58	56	54	53	51	48
5	82	74	69	64	78	71	66	62	64	61	58	58	56	53	52	51	49	47
6	79	70	64	60	74	67	62	59	61	58	55	56	53	51	51	49	48	45
7	75	67	61	57	71	64	59	55	59	55	52	54	51	49	50	48	46	44
8	72	64	58	54	69	61	56	53	57	53	50	52	50	48	48	46	45	43
9	70	61	55	52	66	59	54	51	55	51	48	51	48	46	47	45	44	42
10	67	58	53	50	64	56	52	49	53	49	47	49	47	45	46	44	43	41

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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	13.6	14.3	14.5	15.2	16.4	13.6	14.3	14.6	15.2	16.4
	3H	14.9	15.5	15.8	16.4	17.6	14.9	15.6	15.9	16.5	17.7
	4H	15.2	15.8	16.2	16.8	18.0	15.4	15.9	16.3	16.9	18.1
	6H	15.5	16.0	16.4	17.0	18.2	15.6	16.2	16.6	17.1	18.4
	8H	15.5	16.0	16.5	17.0	18.2	15.7	16.2	16.7	17.2	18.4
	12H	15.5	16.0	16.5	17.0	18.2	15.7	16.2	16.7	17.2	18.4

UGR Viewed Endwise

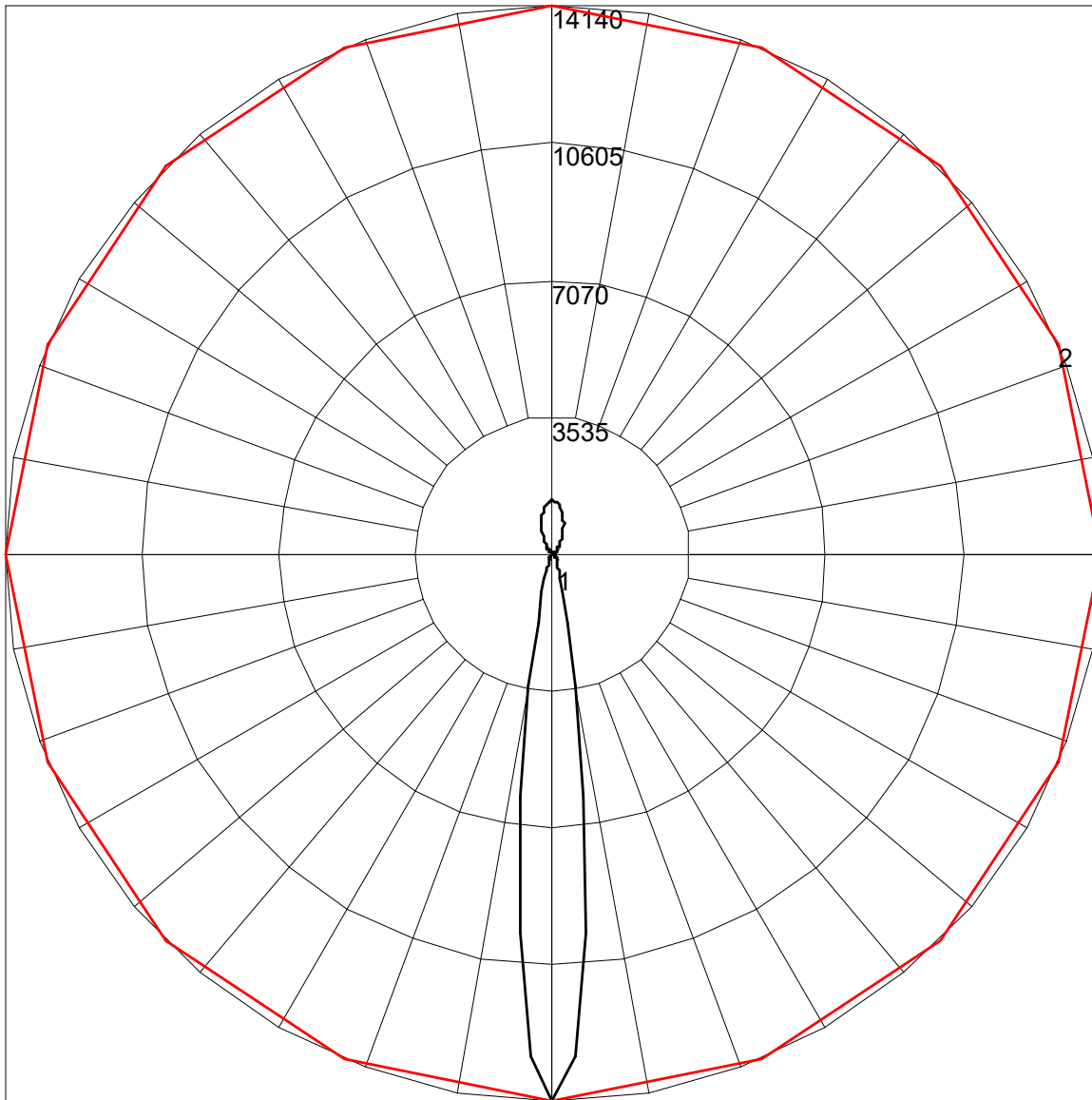
4H	2H	13.9	14.5	14.9	15.5	16.7	14.0	14.6	14.9	15.5	16.7
	3H	15.4	15.9	16.4	16.9	18.1	15.5	16.0	16.5	17.0	18.2
	4H	15.9	16.4	16.9	17.3	18.6	16.0	16.5	17.0	17.4	18.7
	6H	16.3	16.6	17.3	17.6	18.9	16.4	16.8	17.4	17.8	19.0
	8H	16.3	16.7	17.3	17.7	18.9	16.5	16.9	17.5	17.9	19.1
	12H	16.4	16.7	17.4	17.7	18.9	16.6	16.9	17.6	17.9	19.2
8H	4H	16.1	16.4	17.1	17.4	18.7	16.2	16.5	17.2	17.5	18.8
	6H	16.5	16.8	17.5	17.8	19.1	16.7	16.9	17.7	18.0	19.2
	8H	16.6	16.9	17.7	17.9	19.2	16.8	17.1	17.8	18.1	19.4
	12H	16.7	16.9	17.8	17.9	19.3	16.9	17.1	17.9	18.1	19.5
12H	4H	16.0	16.3	17.0	17.3	18.6	16.1	16.4	17.1	17.4	18.7
	6H	16.5	16.7	17.5	17.7	19.1	16.6	16.9	17.7	17.9	19.2
	8H	16.7	16.9	17.7	17.9	19.2	16.8	17.1	17.9	18.1	19.4

Maximum UGR = 19.5

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POLAR GRAPH



Maximum Candela = 14140 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.)