



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-OM-CSU-OW-CSD-WM_IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] MADE FROM 12316380.04 and 20685.0

[TESTLAB]

[ISSUEDATE] 02/09/2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 6CRDI-TL-L20-835U-L20-835D-xxx-DIM1-UNV-OM-CSU-OW-CSD-WM

[LUMINAIRE] White formed aluminum housing, medium distrib anodized aluminum reflector trim w/clear cover glass up,
[MORE] wide distrib anodized alum open reflector trim down

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

[BALLAST] (2) Osram Optotronic OTi25W/120-277/2A0 DIM-1 Drivers

[_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	3831
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	38.8
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)	0.38 ft (Diameter)
Luminous Width (90-270)	0.38 ft (Diameter)
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6059	6059	6059
55	1867	1867	1867
65	230	230	230
75	0	0	0
85	0	0	0

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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	1810.000	1810.000	1810.000	1810.000	1810.000	1810.000	1810.000	1810.000	1810.000	1810.000
5	1864.000	1864.000	1864.000	1864.000	1864.000	1864.000	1864.000	1864.000	1864.000	1864.000
10	1920.000	1920.000	1920.000	1920.000	1920.000	1920.000	1920.000	1920.000	1920.000	1920.000
15	1960.000	1960.000	1960.000	1960.000	1960.000	1960.000	1960.000	1960.000	1960.000	1960.000
20	2047.000	2047.000	2047.000	2047.000	2047.000	2047.000	2047.000	2047.000	2047.000	2047.000
25	2231.000	2231.000	2231.000	2231.000	2231.000	2231.000	2231.000	2231.000	2231.000	2231.000
30	1748.000	1748.000	1748.000	1748.000	1748.000	1748.000	1748.000	1748.000	1748.000	1748.000
35	307.000	307.000	307.000	307.000	307.000	307.000	307.000	307.000	307.000	307.000
40	80.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000
45	44.000	44.000	44.000	44.000	44.000	44.000	44.000	44.000	44.000	44.000
50	23.000	23.000	23.000	23.000	23.000	23.000	23.000	23.000	23.000	23.000
55	11.000	11.000	11.000	11.000	11.000	11.000	11.000	11.000	11.000	11.000
60	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000
65	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
70	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
75	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085	0.085
100	0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170
105	0.509	0.509	0.509	0.509	0.509	0.509	0.509	0.509	0.509	0.509
110	0.933	0.933	0.933	0.933	0.933	0.933	0.933	0.933	0.933	0.933
115	1.866	1.866	1.866	1.866	1.866	1.866	1.866	1.866	1.866	1.866
120	3.562	3.562	3.562	3.562	3.562	3.562	3.562	3.562	3.562	3.562
125	7.208	7.208	7.208	7.208	7.208	7.208	7.208	7.208	7.208	7.208
130	15.858	15.858	15.858	15.858	15.858	15.858	15.858	15.858	15.858	15.858
135	30.613	30.613	30.613	30.613	30.613	30.613	30.613	30.613	30.613	30.613
140	52.067	52.067	52.067	52.067	52.067	52.067	52.067	52.067	52.067	52.067
145	133.136	133.136	133.136	133.136	133.136	133.136	133.136	133.136	133.136	133.136
150	858.176	858.176	858.176	858.176	858.176	858.176	858.176	858.176	858.176	858.176
155	1517.920	1517.920	1517.920	1517.920	1517.920	1517.920	1517.920	1517.920	1517.920	1517.920
160	1737.552	1737.552	1737.552	1737.552	1737.552	1737.552	1737.552	1737.552	1737.552	1737.552
165	1960.576	1960.576	1960.576	1960.576	1960.576	1960.576	1960.576	1960.576	1960.576	1960.576
170	2564.352	2564.352	2564.352	2564.352	2564.352	2564.352	2564.352	2564.352	2564.352	2564.352
175	3399.632	3399.632	3399.632	3399.632	3399.632	3399.632	3399.632	3399.632	3399.632	3399.632
180	3435.000	3435.000	3435.000	3435.000	3435.000	3435.000	3435.000	3435.000	3435.000	3435.000

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	1810.000	1810.000	1810.000	1810.000	1810.000	1810.000	1810.000
5	1864.000	1864.000	1864.000	1864.000	1864.000	1864.000	1864.000
10	1920.000	1920.000	1920.000	1920.000	1920.000	1920.000	1920.000
15	1960.000	1960.000	1960.000	1960.000	1960.000	1960.000	1960.000
20	2047.000	2047.000	2047.000	2047.000	2047.000	2047.000	2047.000
25	2231.000	2231.000	2231.000	2231.000	2231.000	2231.000	2231.000
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45	44.000	44.000	44.000	44.000	44.000	44.000	44.000
50	23.000	23.000	23.000	23.000	23.000	23.000	23.000
55	11.000	11.000	11.000	11.000	11.000	11.000	11.000
60	5.000	5.000	5.000	5.000	5.000	5.000	5.000

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65	1.000	1.000	1.000	1.000	1.000	1.000	1.000
70	1.000	1.000	1.000	1.000	1.000	1.000	1.000
75	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85	0.000	0.000	0.000	0.000	0.000	0.000	0.000
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95	0.085	0.085	0.085	0.085	0.085	0.085	0.085
100	0.170	0.170	0.170	0.170	0.170	0.170	0.170
105	0.509	0.509	0.509	0.509	0.509	0.509	0.509
110	0.933	0.933	0.933	0.933	0.933	0.933	0.933
115	1.866	1.866	1.866	1.866	1.866	1.866	1.866
120	3.562	3.562	3.562	3.562	3.562	3.562	3.562
125	7.208	7.208	7.208	7.208	7.208	7.208	7.208
130	15.858	15.858	15.858	15.858	15.858	15.858	15.858
135	30.613	30.613	30.613	30.613	30.613	30.613	30.613
140	52.067	52.067	52.067	52.067	52.067	52.067	52.067
145	133.136	133.136	133.136	133.136	133.136	133.136	133.136
150	858.176	858.176	858.176	858.176	858.176	858.176	858.176
155	1517.920	1517.920	1517.920	1517.920	1517.920	1517.920	1517.920
160	1737.552	1737.552	1737.552	1737.552	1737.552	1737.552	1737.552
165	1960.576	1960.576	1960.576	1960.576	1960.576	1960.576	1960.576
170	2564.352	2564.352	2564.352	2564.352	2564.352	2564.352	2564.352
175	3399.632	3399.632	3399.632	3399.632	3399.632	3399.632	3399.632
180	3435.000	3435.000	3435.000	3435.000	3435.000	3435.000	3435.000

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Zone	Lumens	%Lamp	%Fixt
0-20	739.68	N.A.	19.30
0-30	1691.91	N.A.	44.20
0-40	2059.09	N.A.	53.70
0-60	2106.68	N.A.	55.00
0-80	2108.9	N.A.	55.00
0-90	2108.91	N.A.	55.00
10-90	1929.62	N.A.	50.40
20-40	1319.41	N.A.	34.40
20-50	1355.91	N.A.	35.40
40-70	49.55	N.A.	1.30
60-80	2.23	N.A.	0.10
70-80	0.26	N.A.	0.00
80-90	0.00	N.A.	0.00
90-110	0.65	N.A.	0.00
90-120	2.68	N.A.	0.10
90-130	10.18	N.A.	0.30
90-150	211.76	N.A.	5.50
90-180	1722.15	N.A.	45.00
110-180	1721.5	N.A.	44.90
0-180	3831.05	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	179.29
10-20	560.39
20-30	952.23
30-40	367.18
40-50	36.50
50-60	11.09
60-70	1.97
70-80	0.26
80-90	0.00
90-100	0.09
100-110	0.56
110-120	2.03
120-130	7.50
130-140	24.70
140-150	176.88
150-160	642.14
160-170	573.19
170-180	295.06

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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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	102	98	95	93	94	92	89	87	79	78	76	68	67	66	58	57	56	52
2	95	89	85	81	89	84	80	76	73	71	68	64	62	60	55	53	52	48
3	89	82	76	72	83	77	72	68	68	64	61	59	57	55	52	50	49	45
4	83	75	69	64	78	71	65	61	63	59	56	56	53	50	49	47	45	42
5	78	69	63	58	73	65	60	55	58	54	51	52	49	46	46	44	42	39
6	73	64	57	53	69	61	55	51	54	50	47	49	46	43	43	41	39	37
7	69	59	53	48	65	56	50	46	51	46	43	46	42	40	41	39	37	35
8	65	55	49	44	61	52	47	43	48	43	40	43	40	37	39	36	34	32
9	61	51	45	41	58	49	43	39	45	40	37	41	37	35	37	34	32	30
10	58	48	42	38	55	46	40	37	42	38	34	38	35	32	35	32	30	29

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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	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	3H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	4H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	6H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	8H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	12H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7

UGR Viewed Endwise

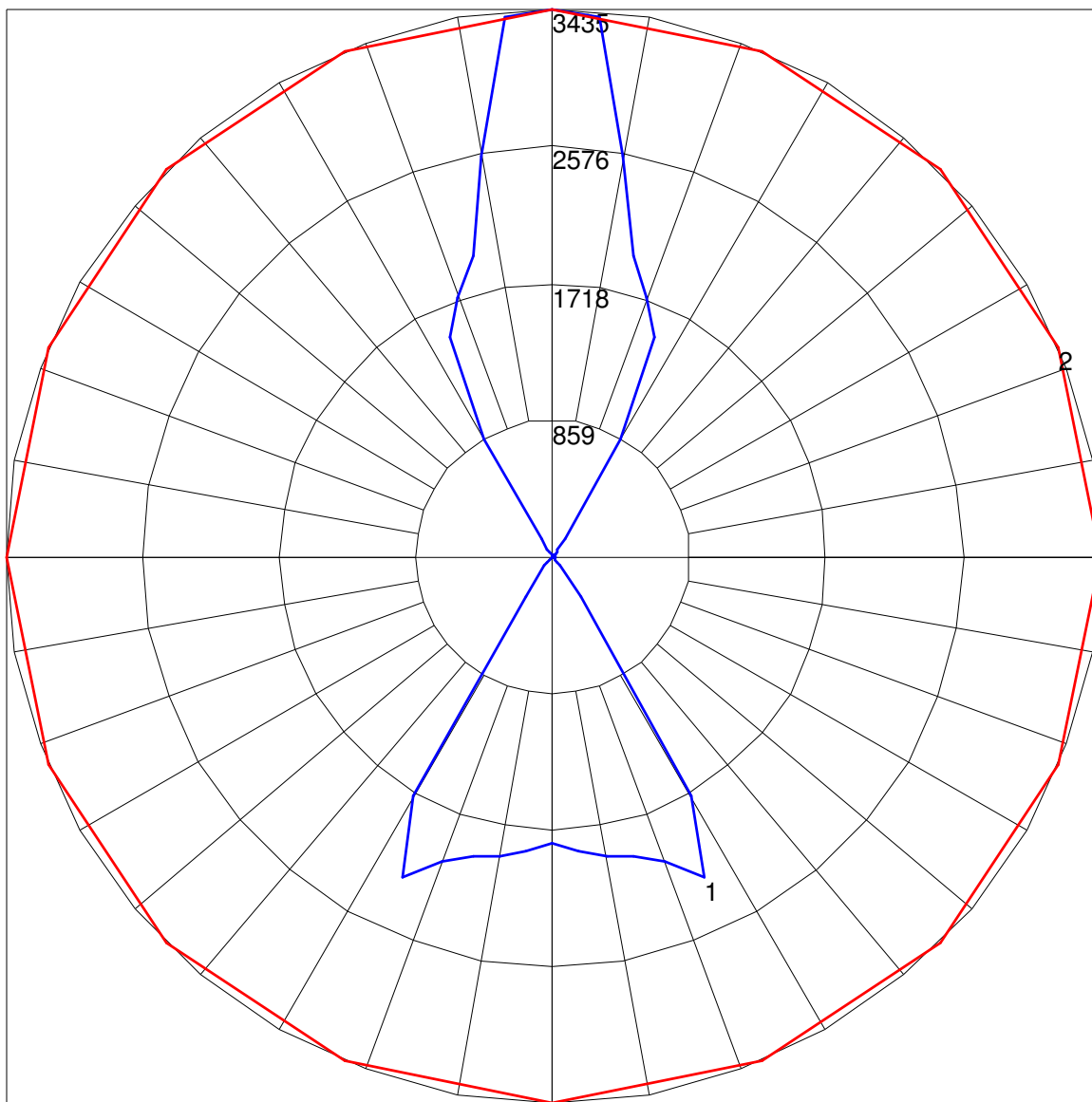
4H	2H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	3H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	4H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	6H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	8H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	12H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
8H	4H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	6H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	8H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	12H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
12H	4H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	6H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
	8H	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7

Maximum UGR = 4.7

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POLAR GRAPH



Maximum Candela = 3435 Located At Horizontal Angle = 0, Vertical Angle = 180

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

2 - Horizontal Cone Through Vertical Angle (180) (Through Max. Cd.)