



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-ON-CSU-OW-CSD-WM_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] MADE FROM 12316380.05 and 20685.0
 [TESTLAB]
 [ISSUE DATE] 02/10/2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6CRDI-TL-L20-835U-L20-835D-xxx-DIM1-UNV-ON-CSU-OW-CSD-WM
 [LUMINAIRE] White formed aluminum housing, narrow 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	3953
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	102
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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	0.848	0.848	0.848	0.848	0.848	0.848	0.848	0.848	0.848	0.848
120	0.848	0.848	0.848	0.848	0.848	0.848	0.848	0.848	0.848	0.848
125	1.696	1.696	1.696	1.696	1.696	1.696	1.696	1.696	1.696	1.696
130	4.240	4.240	4.240	4.240	4.240	4.240	4.240	4.240	4.240	4.240
135	8.480	8.480	8.480	8.480	8.480	8.480	8.480	8.480	8.480	8.480
140	14.416	14.416	14.416	14.416	14.416	14.416	14.416	14.416	14.416	14.416
145	75.472	75.472	75.472	75.472	75.472	75.472	75.472	75.472	75.472	75.472
150	525.760	525.760	525.760	525.760	525.760	525.760	525.760	525.760	525.760	525.760
155	773.376	773.376	773.376	773.376	773.376	773.376	773.376	773.376	773.376	773.376
160	1318.640	1318.640	1318.640	1318.640	1318.640	1318.640	1318.640	1318.640	1318.640	1318.640
165	2011.456	2011.456	2011.456	2011.456	2011.456	2011.456	2011.456	2011.456	2011.456	2011.456
170	3204.592	3204.592	3204.592	3204.592	3204.592	3204.592	3204.592	3204.592	3204.592	3204.592
175	9065.120	9065.120	9065.120	9065.120	9065.120	9065.120	9065.120	9065.120	9065.120	9065.120
180	18070.000	18070.000	18070.000	18070.000	18070.000	18070.000	18070.000	18070.000	18070.000	18070.000

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	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115	0.848	0.848	0.848	0.848	0.848	0.848	0.848
120	0.848	0.848	0.848	0.848	0.848	0.848	0.848
125	1.696	1.696	1.696	1.696	1.696	1.696	1.696
130	4.240	4.240	4.240	4.240	4.240	4.240	4.240
135	8.480	8.480	8.480	8.480	8.480	8.480	8.480
140	14.416	14.416	14.416	14.416	14.416	14.416	14.416
145	75.472	75.472	75.472	75.472	75.472	75.472	75.472
150	525.760	525.760	525.760	525.760	525.760	525.760	525.760
155	773.376	773.376	773.376	773.376	773.376	773.376	773.376
160	1318.640	1318.640	1318.640	1318.640	1318.640	1318.640	1318.640
165	2011.456	2011.456	2011.456	2011.456	2011.456	2011.456	2011.456
170	3204.592	3204.592	3204.592	3204.592	3204.592	3204.592	3204.592
175	9065.120	9065.120	9065.120	9065.120	9065.120	9065.120	9065.120
180	18070.000	18070.000	18070.000	18070.000	18070.000	18070.000	18070.000

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Zone	Lumens	%Lamp	%Fixt
0-20	739.68	N.A.	18.70
0-30	1691.91	N.A.	42.80
0-40	2059.09	N.A.	52.10
0-60	2106.68	N.A.	53.30
0-80	2108.9	N.A.	53.40
0-90	2108.91	N.A.	53.40
10-90	1929.62	N.A.	48.80
20-40	1319.41	N.A.	33.40
20-50	1355.91	N.A.	34.30
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	0.00	N.A.	0.00
90-120	0.63	N.A.	0.00
90-130	2.51	N.A.	0.10
90-150	112.85	N.A.	2.90
90-180	1843.85	N.A.	46.60
110-180	1843.85	N.A.	46.60
0-180	3952.75	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	0.00
100-110	0.00
110-120	0.63
120-130	1.88
130-140	6.81
140-150	103.53
150-160	383.82
160-170	583.86
170-180	763.32

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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	100	100	100	100	85	85	85	72	72	72	59	59	59	53
1	101	98	95	92	94	91	89	86	78	77	75	67	66	65	56	56	55	50
2	95	89	84	80	88	83	79	76	72	70	67	62	61	59	53	52	51	47
3	88	81	75	71	82	76	71	67	67	63	60	58	56	54	50	49	47	44
4	83	74	68	63	77	70	65	61	62	58	55	54	52	49	47	46	44	41
5	78	68	62	57	73	65	59	55	58	53	50	51	48	45	45	43	41	38
6	73	63	57	52	68	60	54	50	54	49	46	48	45	42	42	40	38	36
7	69	58	52	47	64	56	50	46	50	46	42	45	41	39	40	38	36	33
8	65	54	48	43	61	52	46	42	47	42	39	42	39	36	38	35	33	31
9	61	51	44	40	57	48	43	39	44	39	36	40	36	34	36	33	31	29
10	58	47	41	37	54	45	40	36	41	37	34	37	34	32	34	31	29	28

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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	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	3H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	4H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	6H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	8H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	12H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8

UGR Viewed Endwise

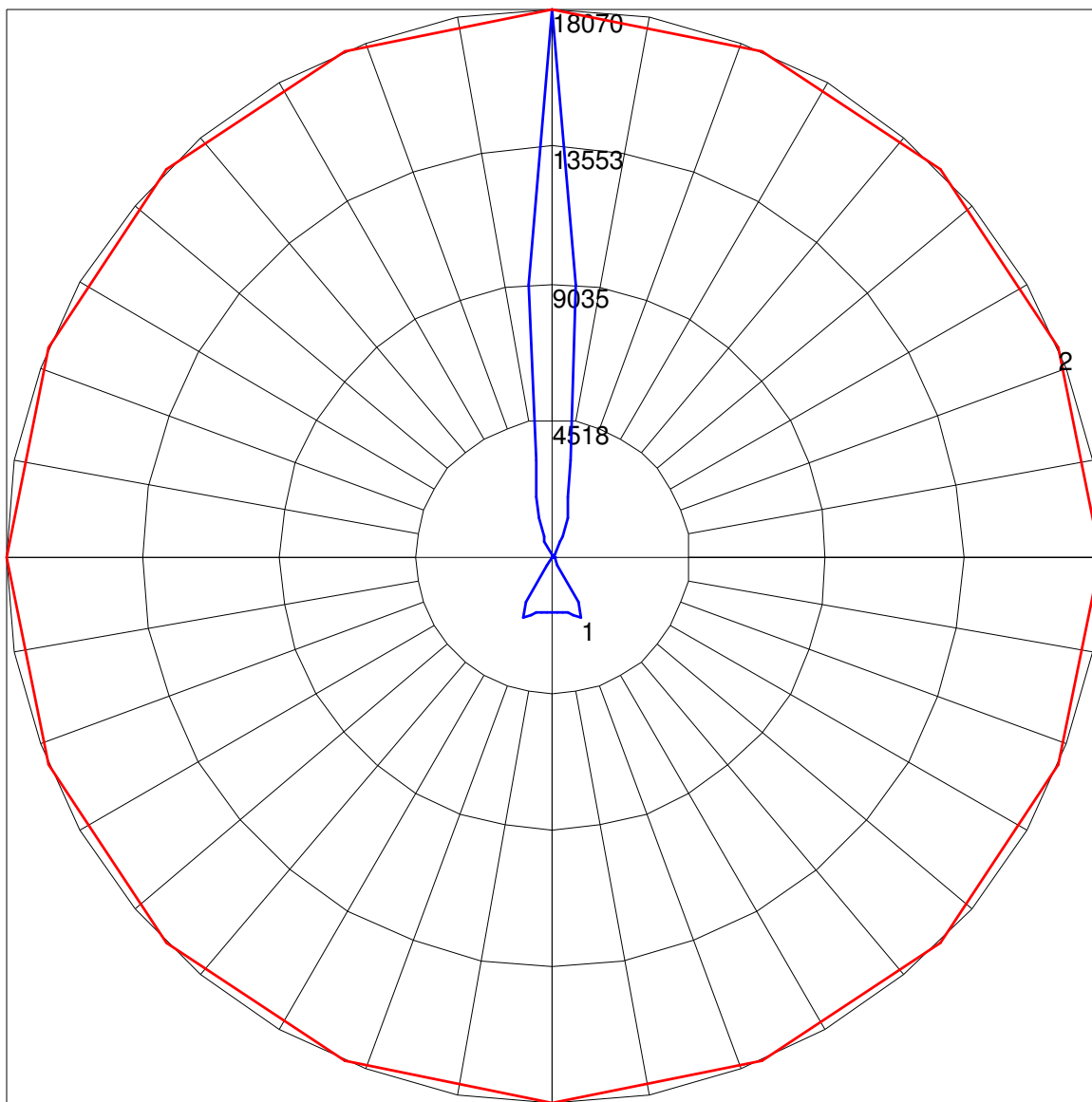
4H	2H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	3H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	4H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	6H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	8H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	12H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
8H	4H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	6H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	8H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	12H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
12H	4H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	6H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	8H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8

Maximum UGR = 4.8

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POLAR GRAPH



Maximum Candela = 18070 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.)