



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-OM-CSU-OW-CSD-WM_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #12326812.04 AND #20687

[TESTLAB]

[ISSUE DATE] 16-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CRDI-TL-L20-835U-L20-835D-xxx-DIM1-UNV-OM-CSU-OW-CSD-WM

[LUMINAIRE] White formed aluminum housing, medium distribution reflector

[MORE] trim, clear uplight glass lens enclosure, wide distr open reflector trim down

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

[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	3935
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	36.9
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)	0.50 ft (Diameter)
Luminous Width (90-270)	0.50 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	3563	3563	3563
55	1241	1241	1241
65	259	259	259
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	1672.000	1672.000	1672.000	1672.000	1672.000	1672.000	1672.000	1672.000	1672.000	1672.000
5	1579.000	1579.000	1579.000	1579.000	1579.000	1579.000	1579.000	1579.000	1579.000	1579.000
10	1738.000	1738.000	1738.000	1738.000	1738.000	1738.000	1738.000	1738.000	1738.000	1738.000
15	1735.000	1735.000	1735.000	1735.000	1735.000	1735.000	1735.000	1735.000	1735.000	1735.000
20	1812.000	1812.000	1812.000	1812.000	1812.000	1812.000	1812.000	1812.000	1812.000	1812.000
25	1982.000	1982.000	1982.000	1982.000	1982.000	1982.000	1982.000	1982.000	1982.000	1982.000
30	1947.000	1947.000	1947.000	1947.000	1947.000	1947.000	1947.000	1947.000	1947.000	1947.000
35	604.000	604.000	604.000	604.000	604.000	604.000	604.000	604.000	604.000	604.000
40	83.000	83.000	83.000	83.000	83.000	83.000	83.000	83.000	83.000	83.000
45	46.000	46.000	46.000	46.000	46.000	46.000	46.000	46.000	46.000	46.000
50	27.000	27.000	27.000	27.000	27.000	27.000	27.000	27.000	27.000	27.000
55	13.000	13.000	13.000	13.000	13.000	13.000	13.000	13.000	13.000	13.000
60	7.000	7.000	7.000	7.000	7.000	7.000	7.000	7.000	7.000	7.000
65	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000
70	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.091
95	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273	0.273
100	0.547	0.547	0.547	0.547	0.547	0.547	0.547	0.547	0.547	0.547
105	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002
110	2.004	2.004	2.004	2.004	2.004	2.004	2.004	2.004	2.004	2.004
115	3.644	3.644	3.644	3.644	3.644	3.644	3.644	3.644	3.644	3.644
120	6.650	6.650	6.650	6.650	6.650	6.650	6.650	6.650	6.650	6.650
125	12.572	12.572	12.572	12.572	12.572	12.572	12.572	12.572	12.572	12.572
130	24.415	24.415	24.415	24.415	24.415	24.415	24.415	24.415	24.415	24.415
135	42.088	42.088	42.088	42.088	42.088	42.088	42.088	42.088	42.088	42.088
140	105.494	105.494	105.494	105.494	105.494	105.494	105.494	105.494	105.494	105.494
145	360.301	360.301	360.301	360.301	360.301	360.301	360.301	360.301	360.301	360.301
150	913.733	913.733	913.733	913.733	913.733	913.733	913.733	913.733	913.733	913.733
155	1286.332	1286.332	1286.332	1286.332	1286.332	1286.332	1286.332	1286.332	1286.332	1286.332
160	1741.832	1741.832	1741.832	1741.832	1741.832	1741.832	1741.832	1741.832	1741.832	1741.832
165	2118.075	2118.075	2118.075	2118.075	2118.075	2118.075	2118.075	2118.075	2118.075	2118.075
170	2726.623	2726.623	2726.623	2726.623	2726.623	2726.623	2726.623	2726.623	2726.623	2726.623
175	3618.493	3618.493	3618.493	3618.493	3618.493	3618.493	3618.493	3618.493	3618.493	3618.493
180	3655.000	3655.000	3655.000	3655.000	3655.000	3655.000	3655.000	3655.000	3655.000	3655.000

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	1672.000	1672.000	1672.000	1672.000	1672.000	1672.000	1672.000
5	1579.000	1579.000	1579.000	1579.000	1579.000	1579.000	1579.000
10	1738.000	1738.000	1738.000	1738.000	1738.000	1738.000	1738.000
15	1735.000	1735.000	1735.000	1735.000	1735.000	1735.000	1735.000
20	1812.000	1812.000	1812.000	1812.000	1812.000	1812.000	1812.000
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45	46.000	46.000	46.000	46.000	46.000	46.000	46.000
50	27.000	27.000	27.000	27.000	27.000	27.000	27.000
55	13.000	13.000	13.000	13.000	13.000	13.000	13.000
60	7.000	7.000	7.000	7.000	7.000	7.000	7.000

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CANDELA TABULATION - (Cont.)

65	2.000	2.000	2.000	2.000	2.000	2.000	2.000
70	0.000	0.000	0.000	0.000	0.000	0.000	0.000
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	0.091	0.091	0.091	0.091	0.091	0.091	0.091
95	0.273	0.273	0.273	0.273	0.273	0.273	0.273
100	0.547	0.547	0.547	0.547	0.547	0.547	0.547
105	1.002	1.002	1.002	1.002	1.002	1.002	1.002
110	2.004	2.004	2.004	2.004	2.004	2.004	2.004
115	3.644	3.644	3.644	3.644	3.644	3.644	3.644
120	6.650	6.650	6.650	6.650	6.650	6.650	6.650
125	12.572	12.572	12.572	12.572	12.572	12.572	12.572
130	24.415	24.415	24.415	24.415	24.415	24.415	24.415
135	42.088	42.088	42.088	42.088	42.088	42.088	42.088
140	105.494	105.494	105.494	105.494	105.494	105.494	105.494
145	360.301	360.301	360.301	360.301	360.301	360.301	360.301
150	913.733	913.733	913.733	913.733	913.733	913.733	913.733
155	1286.332	1286.332	1286.332	1286.332	1286.332	1286.332	1286.332
160	1741.832	1741.832	1741.832	1741.832	1741.832	1741.832	1741.832
165	2118.075	2118.075	2118.075	2118.075	2118.075	2118.075	2118.075
170	2726.623	2726.623	2726.623	2726.623	2726.623	2726.623	2726.623
175	3618.493	3618.493	3618.493	3618.493	3618.493	3618.493	3618.493
180	3655.000	3655.000	3655.000	3655.000	3655.000	3655.000	3655.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CRDI-TL-L20-835U-L20-835D-XXX-DIM1-UNV-OM-CSU-OW-CSD-WM_IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	655.86	N.A.	16.70
0-30	1551.00	N.A.	39.40
0-40	2041.28	N.A.	51.90
0-60	2093.23	N.A.	53.20
0-80	2095.93	N.A.	53.30
0-90	2095.95	N.A.	53.30
10-90	1938.43	N.A.	49.30
20-40	1385.41	N.A.	35.20
20-50	1424.05	N.A.	36.20
40-70	54.65	N.A.	1.40
60-80	2.69	N.A.	0.10
70-80	0.00	N.A.	0.00
80-90	0.02	N.A.	0.00
90-110	1.52	N.A.	0.00
90-120	5.46	N.A.	0.10
90-130	17.94	N.A.	0.50
90-150	324.03	N.A.	8.20
90-180	1839.48	N.A.	46.70
110-180	1837.96	N.A.	46.70
0-180	3935.43	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	157.52
10-20	498.34
20-30	895.14
30-40	490.27
40-50	38.64
50-60	13.32
60-70	2.69
70-80	0.00
80-90	0.02
90-100	0.32
100-110	1.20
110-120	3.93
120-130	12.49
130-140	40.76
140-150	265.32
150-160	596.02
160-170	605.49
170-180	313.94

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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	88	86	78	77	75	67	66	65	56	55	55	50
2	94	89	84	80	88	83	79	75	72	69	67	62	60	58	53	52	51	46
3	88	81	75	70	82	76	71	67	66	63	60	58	55	53	50	48	47	43
4	82	74	67	63	77	69	64	60	61	57	54	54	51	49	47	45	43	40
5	77	68	61	56	72	64	58	54	57	52	49	50	47	45	44	42	40	37
6	72	62	56	51	68	59	53	49	53	48	45	47	44	41	41	39	37	35
7	68	58	51	46	64	55	49	45	49	45	41	44	40	38	39	36	35	32
8	64	53	47	42	60	51	45	41	46	41	38	41	38	35	37	34	32	30
9	60	50	43	39	56	47	41	38	43	38	35	39	35	33	35	32	30	28
10	57	46	40	36	53	44	38	35	40	36	32	36	33	30	33	30	28	26

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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

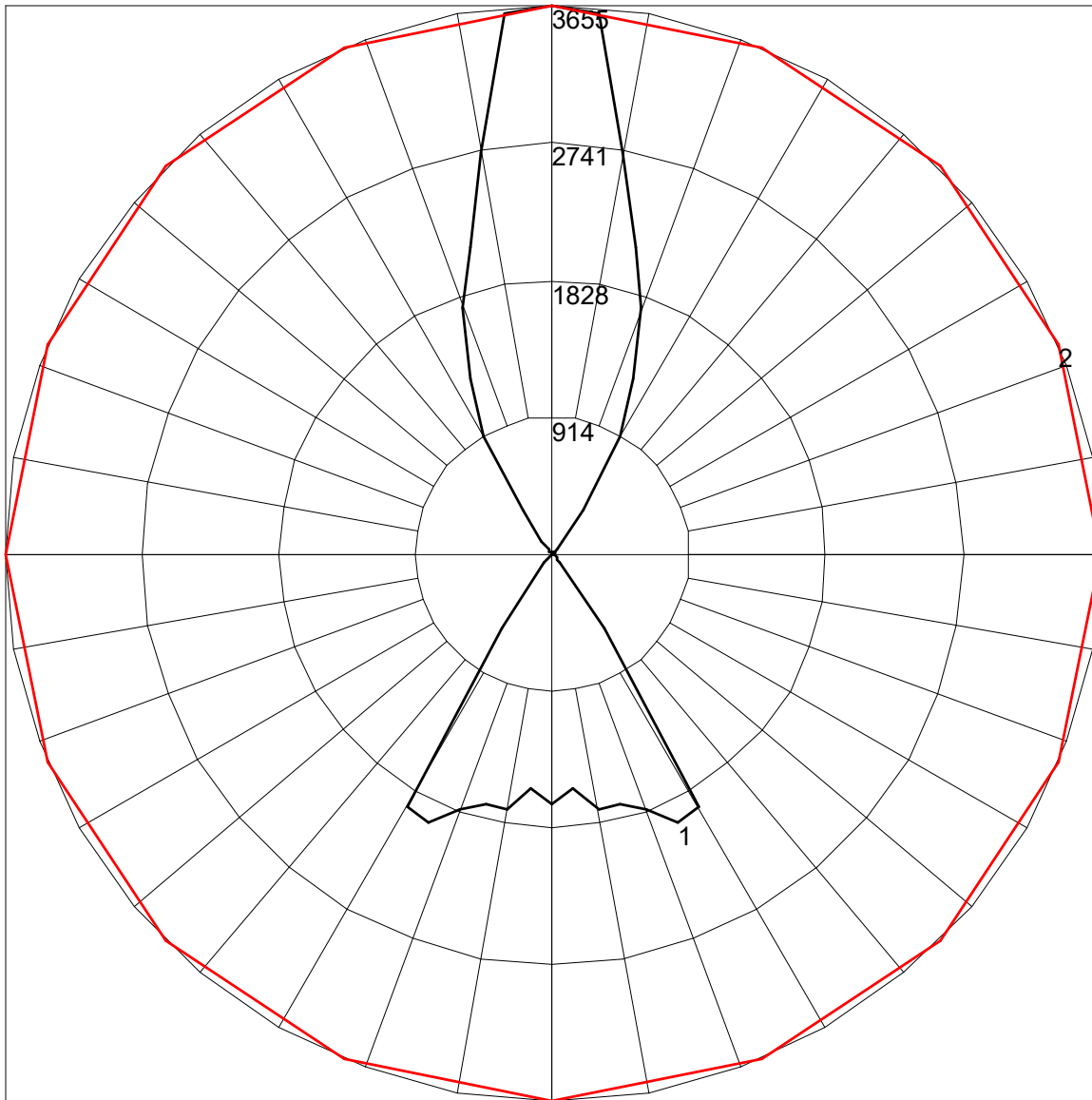
4H	2H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	3H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	4H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	6H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	8H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	12H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
8H	4H	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	6H	4.8	4.8	4.8	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 = 3655 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.)