



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-L20-8TWU-L20-8TWD-XXX-DALI-UNV-OW-CSU-RN-WHD-WM 4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13537338.03 & #12326812.15

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 24-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CRDI-TL-L20-8TWU-L20-8TWD-xxx-DALI-UNV-OW-CSU-RN-WHD-WM 4000k

[LUMINAIRE] White formed aluminum housing, wide distribution reflector

[MORE] trims, clear uplight glass lens enclosure, no downlight enclosure

[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	4281
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	89
Total Luminaire Watts	48
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 w/ Sides
Luminous Length (0-180)	0.65 ft (Diameter)
Luminous Width (90-270)	0.65 ft (Diameter)
Luminous Height	2.17 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	709	709	709
55	344	344	344
65	164	164	164
75	63	63	63
85	17	17	17

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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	7705.667	7705.667	7705.667	7705.667	7705.667	7705.667	7705.667	7705.667	7705.667
5	6985.372	6985.372	6985.372	6985.372	6985.372	6985.372	6985.372	6985.372	6985.372
10	5163.450	5163.450	5163.450	5163.450	5163.450	5163.450	5163.450	5163.450	5163.450
15	3048.371	3048.371	3048.371	3048.371	3048.371	3048.371	3048.371	3048.371	3048.371
20	1555.104	1555.104	1555.104	1555.104	1555.104	1555.104	1555.104	1555.104	1555.104
25	748.694	748.694	748.694	748.694	748.694	748.694	748.694	748.694	748.694
30	365.644	365.644	365.644	365.644	365.644	365.644	365.644	365.644	365.644
35	197.194	197.194	197.194	197.194	197.194	197.194	197.194	197.194	197.194
40	119.209	119.209	119.209	119.209	119.209	119.209	119.209	119.209	119.209
45	80.504	80.504	80.504	80.504	80.504	80.504	80.504	80.504	80.504
50	57.715	57.715	57.715	57.715	57.715	57.715	57.715	57.715	57.715
55	42.714	42.714	42.714	42.714	42.714	42.714	42.714	42.714	42.714
60	31.377	31.377	31.377	31.377	31.377	31.377	31.377	31.377	31.377
65	21.414	21.414	21.414	21.414	21.414	21.414	21.414	21.414	21.414
70	13.742	13.742	13.742	13.742	13.742	13.742	13.742	13.742	13.742
75	8.474	8.474	8.474	8.474	8.474	8.474	8.474	8.474	8.474
80	5.153	5.153	5.153	5.153	5.153	5.153	5.153	5.153	5.153
85	2.290	2.290	2.290	2.290	2.290	2.290	2.290	2.290	2.290
90	4.559	4.559	4.559	4.559	4.559	4.559	4.559	4.559	4.559
95	4.785	4.785	4.785	4.785	4.785	4.785	4.785	4.785	4.785
100	5.789	5.789	5.789	5.789	5.789	5.789	5.789	5.789	5.789
105	7.162	7.162	7.162	7.162	7.162	7.162	7.162	7.162	7.162
110	9.035	9.035	9.035	9.035	9.035	9.035	9.035	9.035	9.035
115	11.846	11.846	11.846	11.846	11.846	11.846	11.846	11.846	11.846
120	16.397	16.397	16.397	16.397	16.397	16.397	16.397	16.397	16.397
125	24.830	24.830	24.830	24.830	24.830	24.830	24.830	24.830	24.830
130	39.453	39.453	39.453	39.453	39.453	39.453	39.453	39.453	39.453
135	62.843	62.843	62.843	62.843	62.843	62.843	62.843	62.843	62.843
140	250.337	250.337	250.337	250.337	250.337	250.337	250.337	250.337	250.337
145	889.783	889.783	889.783	889.783	889.783	889.783	889.783	889.783	889.783
150	1574.772	1574.772	1574.772	1574.772	1574.772	1574.772	1574.772	1574.772	1574.772
155	1867.574	1867.574	1867.574	1867.574	1867.574	1867.574	1867.574	1867.574	1867.574
160	1829.761	1829.761	1829.761	1829.761	1829.761	1829.761	1829.761	1829.761	1829.761
165	1731.714	1731.714	1731.714	1731.714	1731.714	1731.714	1731.714	1731.714	1731.714
170	1659.434	1659.434	1659.434	1659.434	1659.434	1659.434	1659.434	1659.434	1659.434
175	1514.538	1514.538	1514.538	1514.538	1514.538	1514.538	1514.538	1514.538	1514.538
180	1404.506	1404.506	1404.506	1404.506	1404.506	1404.506	1404.506	1404.506	1404.506

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 8CRDI-TL-L20-8TWU-L20-8TWD-XXX-DALI-UNV-OW-CSU-RN-WHD-WM 4000K_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1476.74	N.A.	34.50
0-30	1859.39	N.A.	43.40
0-40	1995.06	N.A.	46.60
0-60	2098.93	N.A.	49.00
0-80	2130.12	N.A.	49.80
0-90	2134.01	N.A.	49.80
10-90	1523.78	N.A.	35.60
20-40	518.32	N.A.	12.10
20-50	583.23	N.A.	13.60
40-70	125.61	N.A.	2.90
60-80	31.19	N.A.	0.70
70-80	9.45	N.A.	0.20
80-90	3.90	N.A.	0.10
90-110	13.13	N.A.	0.30
90-120	25.28	N.A.	0.60
90-130	48.79	N.A.	1.10
90-150	680.59	N.A.	15.90
90-180	2147.12	N.A.	50.20
110-180	2133.99	N.A.	49.80
0-180	4281.14	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	610.23
10-20	866.51
20-30	382.65
30-40	135.67
40-50	64.91
50-60	38.96
60-70	21.74
70-80	9.45
80-90	3.90
90-100	5.43
100-110	7.70
110-120	12.15
120-130	23.51
130-140	78.66
140-150	553.14
150-160	823.41
160-170	494.68
170-180	148.44

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	100	97	94	92	93	90	88	86	77	75	74	65	64	63	54	53	53	47
2	94	89	84	81	87	83	79	76	71	69	67	61	59	58	51	50	50	45
3	89	82	76	72	82	76	72	68	67	63	61	58	56	54	49	48	47	43
4	84	76	70	65	78	71	66	62	63	59	56	55	52	50	47	46	44	41
5	79	70	64	60	74	66	61	57	59	55	52	52	49	47	45	44	42	40
6	75	66	60	55	70	62	57	53	56	52	49	49	47	45	44	42	41	38
7	71	62	56	51	67	59	53	50	53	49	46	47	44	42	42	40	39	37
8	67	58	52	48	63	55	50	47	50	46	43	45	42	40	41	39	37	35
9	64	55	49	45	61	53	47	44	48	44	41	44	41	39	39	37	36	34
10	62	52	47	43	58	50	45	42	46	42	39	42	39	37	38	36	35	33

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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	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	3H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	4H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	6H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	8H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	12H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1

UGR Viewed Endwise

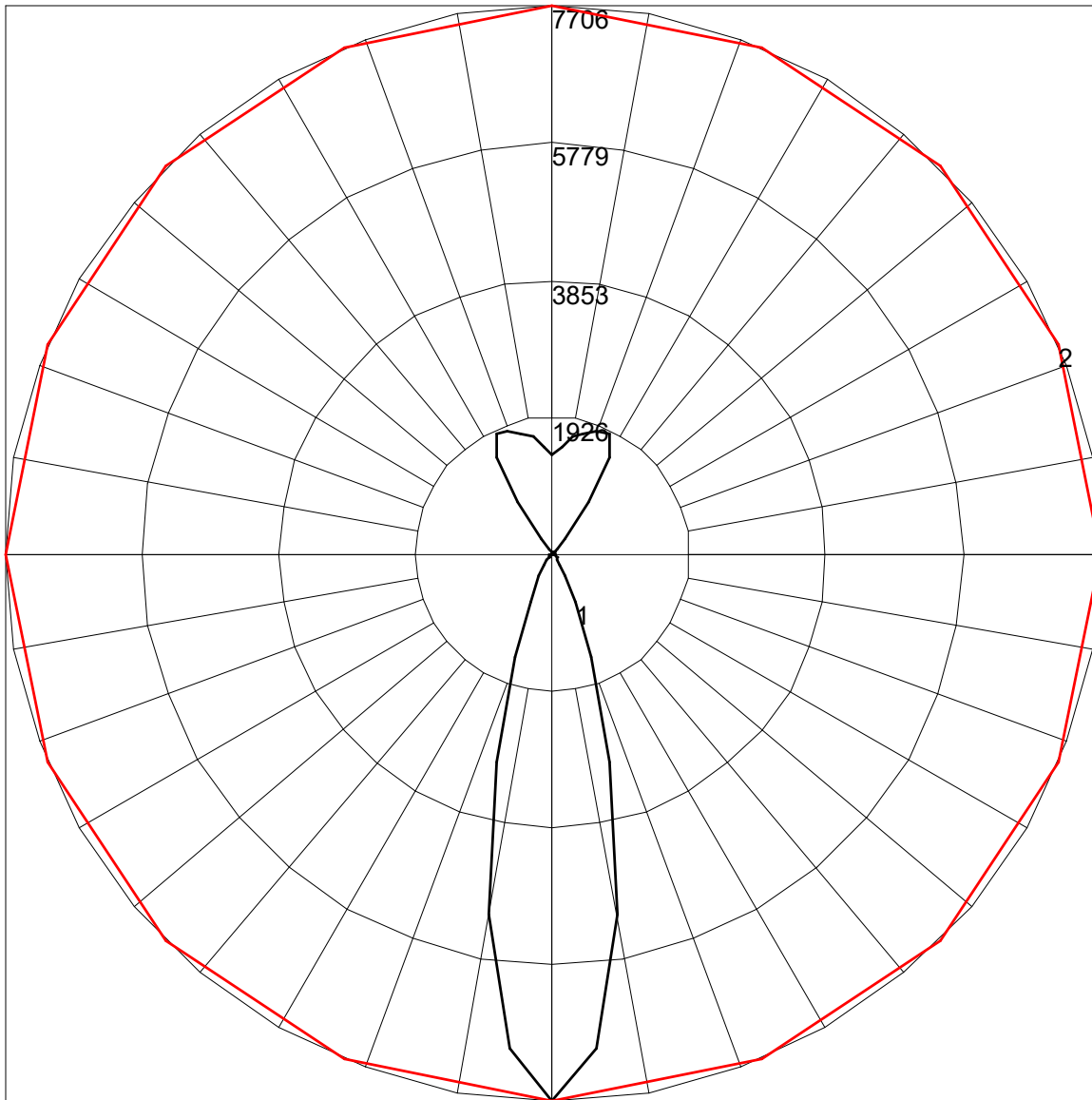
4H	2H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	3H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	4H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	6H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	8H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	12H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
8H	4H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	6H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	8H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	12H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
12H	4H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	6H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
	8H	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1

Maximum UGR = 5.1

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POLAR GRAPH



Maximum Candela = 7705.667 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.)