



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13537338.03 & #12326812.12

[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-RW-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	4058
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	85
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	2676	2676	2676
55	1657	1657	1657
65	817	817	817
75	300	300	300
85	80	80	80

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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	1405.606	1405.606	1405.606	1405.606	1405.606	1405.606	1405.606	1405.606	1405.606
5	1371.419	1371.419	1371.419	1371.419	1371.419	1371.419	1371.419	1371.419	1371.419
10	1316.194	1316.194	1316.194	1316.194	1316.194	1316.194	1316.194	1316.194	1316.194
15	1253.080	1253.080	1253.080	1253.080	1253.080	1253.080	1253.080	1253.080	1253.080
20	1198.907	1198.907	1198.907	1198.907	1198.907	1198.907	1198.907	1198.907	1198.907
25	1099.765	1099.765	1099.765	1099.765	1099.765	1099.765	1099.765	1099.765	1099.765
30	860.983	860.983	860.983	860.983	860.983	860.983	860.983	860.983	860.983
35	518.325	518.325	518.325	518.325	518.325	518.325	518.325	518.325	518.325
40	361.460	361.460	361.460	361.460	361.460	361.460	361.460	361.460	361.460
45	304.000	304.000	304.000	304.000	304.000	304.000	304.000	304.000	304.000
50	257.848	257.848	257.848	257.848	257.848	257.848	257.848	257.848	257.848
55	205.647	205.647	205.647	205.647	205.647	205.647	205.647	205.647	205.647
60	153.052	153.052	153.052	153.052	153.052	153.052	153.052	153.052	153.052
65	106.900	106.900	106.900	106.900	106.900	106.900	106.900	106.900	106.900
70	68.242	68.242	68.242	68.242	68.242	68.242	68.242	68.242	68.242
75	40.104	40.104	40.104	40.104	40.104	40.104	40.104	40.104	40.104
80	23.799	23.799	23.799	23.799	23.799	23.799	23.799	23.799	23.799
85	10.650	10.650	10.650	10.650	10.650	10.650	10.650	10.650	10.650
90	5.531	5.531	5.531	5.531	5.531	5.531	5.531	5.531	5.531
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-RW-WHD-WM 4000K_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	483.83	N.A.	11.90
0-30	973.05	N.A.	24.00
0-40	1322.95	N.A.	32.60
0-60	1743.39	N.A.	43.00
0-80	1896.35	N.A.	46.70
0-90	1910.14	N.A.	47.10
10-90	1780.79	N.A.	43.90
20-40	839.12	N.A.	20.70
20-50	1075.87	N.A.	26.50
40-70	527.98	N.A.	13.00
60-80	152.96	N.A.	3.80
70-80	45.42	N.A.	1.10
80-90	13.79	N.A.	0.30
90-110	13.40	N.A.	0.30
90-120	25.55	N.A.	0.60
90-130	49.06	N.A.	1.20
90-150	680.86	N.A.	16.80
90-180	2147.39	N.A.	52.90
110-180	2133.99	N.A.	52.60
0-180	4057.53	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	129.34
10-20	354.49
20-30	489.22
30-40	349.90
40-50	236.74
50-60	183.69
60-70	107.54
70-80	45.42
80-90	13.79
90-100	5.70
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	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	106	106	106	106	98	98	98	98	82	82	82	67	67	67	53	53	53	47
1	98	94	91	88	90	87	84	82	73	71	69	61	59	58	49	48	47	42
2	91	84	79	74	83	78	73	69	66	62	60	55	53	51	45	43	42	37
3	84	75	69	63	77	70	64	59	59	55	52	50	47	44	41	39	37	33
4	77	67	60	55	71	63	56	52	54	49	45	45	42	39	38	35	33	30
5	71	61	54	48	66	57	50	46	49	44	40	42	38	35	35	32	30	27
6	66	55	48	43	61	52	45	40	45	40	36	38	35	32	32	30	27	25
7	62	51	43	38	57	47	41	36	41	36	32	35	32	29	30	27	25	23
8	58	46	39	34	53	43	37	33	38	33	29	33	29	26	28	25	23	21
9	54	43	36	31	50	40	34	30	35	30	27	30	27	24	26	23	21	19
10	51	40	33	28	47	37	31	27	33	28	25	28	25	22	24	22	20	18

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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	6.6	7.4	7.6	8.4	9.7	6.6	7.4	7.6	8.4	9.7
	3H	7.3	7.9	8.3	8.9	10.3	7.3	7.9	8.3	8.9	10.3
	4H	7.4	8.0	8.4	9.0	10.4	7.4	8.0	8.4	9.0	10.4
	6H	7.4	8.0	8.4	9.0	10.3	7.4	8.0	8.4	9.0	10.3
	8H	7.4	7.9	8.4	8.9	10.3	7.4	7.9	8.4	8.9	10.3
	12H	7.3	7.8	8.4	8.9	10.2	7.3	7.8	8.4	8.9	10.2

UGR Viewed Endwise

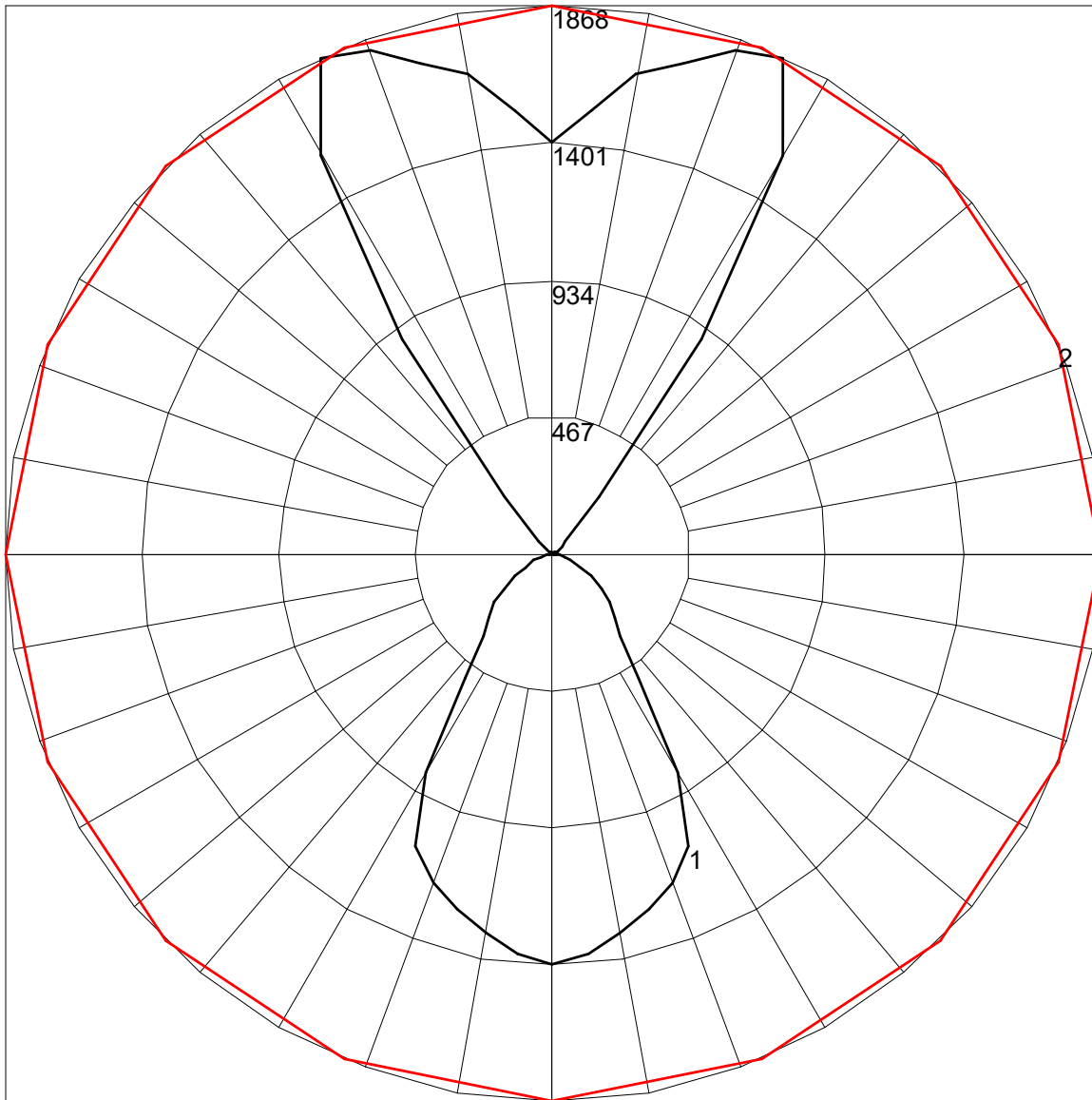
4H	2H	6.7	7.4	7.8	8.4	9.7	6.7	7.4	7.8	8.4	9.7
	3H	7.5	8.0	8.5	9.0	10.4	7.5	8.0	8.5	9.0	10.4
	4H	7.6	8.1	8.7	9.1	10.5	7.6	8.1	8.7	9.1	10.5
	6H	7.7	8.1	8.7	9.1	10.5	7.7	8.1	8.7	9.1	10.5
	8H	7.7	8.1	8.7	9.1	10.5	7.7	8.1	8.7	9.1	10.5
	12H	7.6	8.0	8.7	9.0	10.4	7.6	8.0	8.7	9.0	10.4
8H	4H	7.6	8.0	8.6	9.0	10.4	7.6	8.0	8.6	9.0	10.4
	6H	7.7	8.0	8.7	9.1	10.5	7.7	8.0	8.7	9.1	10.5
	8H	7.7	8.0	8.8	9.0	10.4	7.7	8.0	8.8	9.0	10.4
	12H	7.7	7.9	8.8	9.0	10.4	7.7	7.9	8.8	9.0	10.4
12H	4H	7.5	7.9	8.6	8.9	10.3	7.5	7.9	8.6	8.9	10.3
	6H	7.6	7.9	8.7	9.0	10.4	7.6	7.9	8.7	9.0	10.4
	8H	7.6	7.9	8.7	9.0	10.4	7.6	7.9	8.7	9.0	10.4

Maximum UGR = 10.5

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POLAR GRAPH



Maximum Candela = 1867.574 Located At Horizontal Angle = 0, Vertical Angle = 155

1 - Vertical Plane Through Horizontal Angles (90 - 270)

2 - Horizontal Cone Through Vertical Angle (155) (Through Max. Cd.)