



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-L20-8TWU-L20-8TWD-XXX-DALI-UNV-OW-CSU-LW-WHD-WM 4000K\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN from UL #13537338.03  
 [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-LW-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	4119
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
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	3112	3112	3112
55	1924	1924	1924
65	1021	1021	1021
75	444	444	444
85	98	98	98

**IES INDOOR REPORT**

**PHOTOMETRIC FILENAME : 8CRDI-TL-L20-8TWU-L20-8TWD-XXX-DALI-UNV-OW-CSU-LW-WHD-WM 4000K\_.IES**

**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>
<b>0</b>	1248.938	1248.938	1248.938	1248.938	1248.938	1248.938	1248.938	1248.938	1248.938
<b>5</b>	1229.197	1229.197	1229.197	1229.197	1229.197	1229.197	1229.197	1229.197	1229.197
<b>10</b>	1213.606	1213.606	1213.606	1213.606	1213.606	1213.606	1213.606	1213.606	1213.606
<b>15</b>	1199.901	1199.901	1199.901	1199.901	1199.901	1199.901	1199.901	1199.901	1199.901
<b>20</b>	1160.168	1160.168	1160.168	1160.168	1160.168	1160.168	1160.168	1160.168	1160.168
<b>25</b>	1034.683	1034.683	1034.683	1034.683	1034.683	1034.683	1034.683	1034.683	1034.683
<b>30</b>	792.138	792.138	792.138	792.138	792.138	792.138	792.138	792.138	792.138
<b>35</b>	528.595	528.595	528.595	528.595	528.595	528.595	528.595	528.595	528.595
<b>40</b>	414.552	414.552	414.552	414.552	414.552	414.552	414.552	414.552	414.552
<b>45</b>	353.570	353.570	353.570	353.570	353.570	353.570	353.570	353.570	353.570
<b>50</b>	297.366	297.366	297.366	297.366	297.366	297.366	297.366	297.366	297.366
<b>55</b>	238.773	238.773	238.773	238.773	238.773	238.773	238.773	238.773	238.773
<b>60</b>	182.317	182.317	182.317	182.317	182.317	182.317	182.317	182.317	182.317
<b>65</b>	133.658	133.658	133.658	133.658	133.658	133.658	133.658	133.658	133.658
<b>70</b>	92.139	92.139	92.139	92.139	92.139	92.139	92.139	92.139	92.139
<b>75</b>	59.360	59.360	59.360	59.360	59.360	59.360	59.360	59.360	59.360
<b>80</b>	33.924	33.924	33.924	33.924	33.924	33.924	33.924	33.924	33.924
<b>85</b>	13.026	13.026	13.026	13.026	13.026	13.026	13.026	13.026	13.026
<b>90</b>	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920	4.920
<b>95</b>	4.785	4.785	4.785	4.785	4.785	4.785	4.785	4.785	4.785
<b>100</b>	5.789	5.789	5.789	5.789	5.789	5.789	5.789	5.789	5.789
<b>105</b>	7.162	7.162	7.162	7.162	7.162	7.162	7.162	7.162	7.162
<b>110</b>	9.035	9.035	9.035	9.035	9.035	9.035	9.035	9.035	9.035
<b>115</b>	11.846	11.846	11.846	11.846	11.846	11.846	11.846	11.846	11.846
<b>120</b>	16.397	16.397	16.397	16.397	16.397	16.397	16.397	16.397	16.397
<b>125</b>	24.830	24.830	24.830	24.830	24.830	24.830	24.830	24.830	24.830
<b>130</b>	39.453	39.453	39.453	39.453	39.453	39.453	39.453	39.453	39.453
<b>135</b>	62.843	62.843	62.843	62.843	62.843	62.843	62.843	62.843	62.843
<b>140</b>	250.337	250.337	250.337	250.337	250.337	250.337	250.337	250.337	250.337
<b>145</b>	889.783	889.783	889.783	889.783	889.783	889.783	889.783	889.783	889.783
<b>150</b>	1574.772	1574.772	1574.772	1574.772	1574.772	1574.772	1574.772	1574.772	1574.772
<b>155</b>	1867.574	1867.574	1867.574	1867.574	1867.574	1867.574	1867.574	1867.574	1867.574
<b>160</b>	1829.761	1829.761	1829.761	1829.761	1829.761	1829.761	1829.761	1829.761	1829.761
<b>165</b>	1731.714	1731.714	1731.714	1731.714	1731.714	1731.714	1731.714	1731.714	1731.714
<b>170</b>	1659.434	1659.434	1659.434	1659.434	1659.434	1659.434	1659.434	1659.434	1659.434
<b>175</b>	1514.538	1514.538	1514.538	1514.538	1514.538	1514.538	1514.538	1514.538	1514.538
<b>180</b>	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-LW-WHD-WM 4000K\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	454.68	N.A.	11.00
0-30	916.07	N.A.	22.20
0-40	1267.91	N.A.	30.80
0-60	1755.58	N.A.	42.60
0-80	1954.12	N.A.	47.40
0-90	1971.79	N.A.	47.90
10-90	1854.78	N.A.	45.00
20-40	813.23	N.A.	19.70
20-50	1086.98	N.A.	26.40
40-70	621.65	N.A.	15.10
60-80	198.55	N.A.	4.80
70-80	64.56	N.A.	1.60
80-90	17.67	N.A.	0.40
90-110	13.23	N.A.	0.30
90-120	25.38	N.A.	0.60
90-130	48.89	N.A.	1.20
90-150	680.69	N.A.	16.50
90-180	2147.22	N.A.	52.10
110-180	2133.99	N.A.	51.80
0-180	4119.01	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	117.01
10-20	337.67
20-30	461.39
30-40	351.84
40-50	273.76
50-60	213.91
60-70	133.99
70-80	64.56
80-90	17.67
90-100	5.53
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

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-L20-8TWU-L20-8TWD-XXX-DALI-UNV-OW-CSU-LW-WHD-WM 4000K\_.IES

## 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	98	98	98	98	82	82	82	68	68	68	54	54	54	48
1	98	94	91	88	90	87	84	81	73	71	69	61	59	58	49	48	48	42
2	90	84	78	73	83	77	73	68	66	62	59	55	52	50	45	43	42	37
3	83	74	68	62	76	69	63	59	59	55	51	49	46	44	41	39	37	33
4	77	67	59	54	71	62	56	51	53	48	45	45	41	39	37	35	33	29
5	71	60	53	47	65	56	49	44	48	43	39	41	37	34	34	31	29	26
6	66	54	47	42	61	51	44	39	44	39	35	37	34	31	31	29	27	24
7	61	50	42	37	56	46	40	35	40	35	31	35	31	28	29	26	24	22
8	57	45	38	33	53	43	36	32	37	32	28	32	28	25	27	24	22	20
9	53	42	35	30	49	39	33	29	34	29	26	30	26	23	25	22	20	18
10	50	39	32	27	46	36	30	26	32	27	24	28	24	21	24	21	19	17

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-L20-8TWU-L20-8TWD-XXX-DALI-UNV-OW-CSU-LW-WHD-WM 4000K\_.IES

## 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	7.7	8.4	8.6	9.4	10.7	7.7	8.4	8.6	9.4	10.7
	3H	8.5	9.2	9.5	10.2	11.5	8.5	9.2	9.5	10.2	11.5
	4H	8.6	9.3	9.7	10.3	11.6	8.6	9.3	9.7	10.3	11.6
	6H	8.7	9.3	9.7	10.3	11.7	8.7	9.3	9.7	10.3	11.7
	8H	8.7	9.3	9.7	10.3	11.6	8.7	9.3	9.7	10.3	11.6
	12H	8.7	9.2	9.7	10.2	11.6	8.7	9.2	9.7	10.2	11.6

### UGR Viewed Endwise

4H	2H	7.8	8.5	8.8	9.5	10.8	7.8	8.5	8.8	9.5	10.8
	3H	8.8	9.3	9.8	10.3	11.7	8.8	9.3	9.8	10.3	11.7
	4H	9.0	9.5	10.0	10.5	11.9	9.0	9.5	10.0	10.5	11.9
	6H	9.1	9.6	10.2	10.6	12.0	9.1	9.6	10.2	10.6	12.0
	8H	9.1	9.5	10.2	10.6	11.9	9.1	9.5	10.2	10.6	11.9
	12H	9.1	9.5	10.2	10.5	11.9	9.1	9.5	10.2	10.5	11.9

8H	4H	9.0	9.4	10.0	10.4	11.8	9.0	9.4	10.0	10.4	11.8
	6H	9.2	9.5	10.2	10.6	11.9	9.2	9.5	10.2	10.6	11.9
	8H	9.2	9.5	10.3	10.5	11.9	9.2	9.5	10.3	10.5	11.9
	12H	9.2	9.4	10.2	10.5	11.9	9.2	9.4	10.2	10.5	11.9

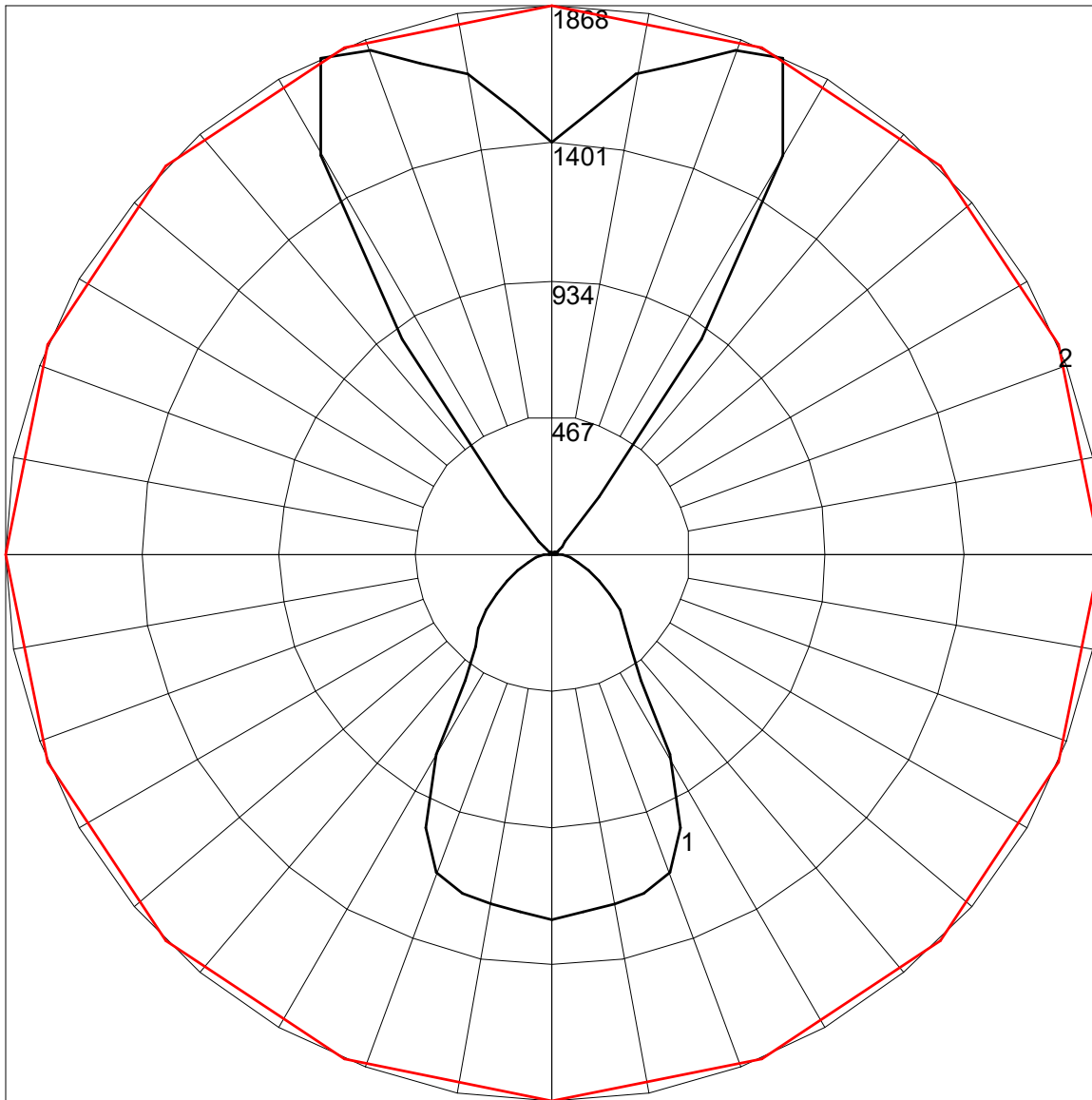
12H	4H	8.9	9.3	10.0	10.4	11.7	8.9	9.3	10.0	10.4	11.7
	6H	9.1	9.4	10.2	10.5	11.9	9.1	9.4	10.2	10.5	11.9
	8H	9.2	9.4	10.2	10.5	11.9	9.2	9.4	10.2	10.5	11.9

Maximum UGR = 12.0

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-L20-8TWU-L20-8TWD-XXX-DALI-UNV-OW-CSU-LW-WHD-WM 4000K\_.IES

## 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.)