



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CRDI-TL-P29-8TWU-P29-8TWD-XXX-POE PR-LW-CSU-LW-WHD-WM 4000K\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13537338.04 & #12326812.07

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 25-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CRDI-TL-P29-8TWU-P29-8TWD-xxx-PoE PR-LW-CSU-LW-WHD-WM 4000k

[LUMINAIRE] White formed aluminum housing, wide distribution reflector

[MORE] trims, flush upright frosted 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	4528
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	91
Total Luminaire Watts	50
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	3602	3602	3602
55	2226	2226	2226
65	1182	1182	1182
75	514	514	514
85	114	114	114

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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>
0.0	1445.436	1445.436	1445.436	1445.436	1445.436
2.5	1437.142	1437.142	1437.142	1437.142	1437.142
5.0	1422.590	1422.590	1422.590	1422.590	1422.590
7.5	1412.840	1412.840	1412.840	1412.840	1412.840
10.0	1404.545	1404.545	1404.545	1404.545	1404.545
12.5	1399.743	1399.743	1399.743	1399.743	1399.743
15.0	1388.684	1388.684	1388.684	1388.684	1388.684
17.5	1369.912	1369.912	1369.912	1369.912	1369.912
20.0	1342.700	1342.700	1342.700	1342.700	1342.700
22.5	1288.858	1288.858	1288.858	1288.858	1288.858
25.0	1197.473	1197.473	1197.473	1197.473	1197.473
27.5	1073.345	1073.345	1073.345	1073.345	1073.345
30.0	916.767	916.767	916.767	916.767	916.767
32.5	745.492	745.492	745.492	745.492	745.492
35.0	611.760	611.760	611.760	611.760	611.760
37.5	530.561	530.561	530.561	530.561	530.561
40.0	479.775	479.775	479.775	479.775	479.775
42.5	442.231	442.231	442.231	442.231	442.231
45.0	409.198	409.198	409.198	409.198	409.198
47.5	377.184	377.184	377.184	377.184	377.184
50.0	344.151	344.151	344.151	344.151	344.151
52.5	310.246	310.246	310.246	310.246	310.246
55.0	276.340	276.340	276.340	276.340	276.340
57.5	243.162	243.162	243.162	243.162	243.162
60.0	211.002	211.002	211.002	211.002	211.002
62.5	181.607	181.607	181.607	181.607	181.607
65.0	154.686	154.686	154.686	154.686	154.686
67.5	129.759	129.759	129.759	129.759	129.759
70.0	106.636	106.636	106.636	106.636	106.636
72.5	86.322	86.322	86.322	86.322	86.322
75.0	68.699	68.699	68.699	68.699	68.699
77.5	53.114	53.114	53.114	53.114	53.114
80.0	39.261	39.261	39.261	39.261	39.261
82.5	26.674	26.674	26.674	26.674	26.674
85.0	15.076	15.076	15.076	15.076	15.076
87.5	5.253	5.253	5.253	5.253	5.253
90.0	6.163	6.163	6.163	6.163	6.163
92.5	8.236	8.236	8.236	8.236	8.236
95.0	14.392	14.392	14.392	14.392	14.392
97.5	24.410	24.410	24.410	24.410	24.410
100.0	36.338	36.338	36.338	36.338	36.338
102.5	48.862	48.862	48.862	48.862	48.862
105.0	62.363	62.363	62.363	62.363	62.363
107.5	77.602	77.602	77.602	77.602	77.602
110.0	95.347	95.347	95.347	95.347	95.347
112.5	115.299	115.299	115.299	115.299	115.299
115.0	137.884	137.884	137.884	137.884	137.884
117.5	163.186	163.186	163.186	163.186	163.186
120.0	191.500	191.500	191.500	191.500	191.500
122.5	223.000	223.000	223.000	223.000	223.000
125.0	257.811	257.811	257.811	257.811	257.811
127.5	294.956	294.956	294.956	294.956	294.956
130.0	333.588	333.588	333.588	333.588	333.588
132.5	372.431	372.431	372.431	372.431	372.431

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<b>135.0</b>	411.233	411.233	411.233	411.233	411.233
<b>137.5</b>	451.689	451.689	451.689	451.689	451.689
<b>140.0</b>	498.387	498.387	498.387	498.387	498.387
<b>142.5</b>	558.244	558.244	558.244	558.244	558.244
<b>145.0</b>	638.903	638.903	638.903	638.903	638.903
<b>147.5</b>	743.335	743.335	743.335	743.335	743.335
<b>150.0</b>	872.813	872.813	872.813	872.813	872.813
<b>152.5</b>	1007.811	1007.811	1007.811	1007.811	1007.811
<b>155.0</b>	1144.931	1144.931	1144.931	1144.931	1144.931
<b>157.5</b>	1267.193	1267.193	1267.193	1267.193	1267.193
<b>160.0</b>	1362.710	1362.710	1362.710	1362.710	1362.710
<b>162.5</b>	1426.812	1426.812	1426.812	1426.812	1426.812
<b>165.0</b>	1463.321	1463.321	1463.321	1463.321	1463.321
<b>167.5</b>	1482.849	1482.849	1482.849	1482.849	1482.849
<b>170.0</b>	1493.886	1493.886	1493.886	1493.886	1493.886
<b>172.5</b>	1501.952	1501.952	1501.952	1501.952	1501.952
<b>175.0</b>	1509.169	1509.169	1509.169	1509.169	1509.169
<b>177.5</b>	1512.565	1512.565	1512.565	1512.565	1512.565
<b>180.0</b>	1511.812	1511.812	1511.812	1511.812	1511.812

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 8CRDI-TL-P29-8TWU-P29-8TWD-XXX-POE PR-LW-CSU-LW-WHD-WM 4000K\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	526.46	N.A.	11.60
0-30	1063.32	N.A.	23.50
0-40	1464.13	N.A.	32.30
0-60	2027.58	N.A.	44.80
0-80	2256.06	N.A.	49.80
0-90	2275.03	N.A.	50.20
10-90	2139.72	N.A.	47.30
20-40	937.67	N.A.	20.70
20-50	1253.89	N.A.	27.70
40-70	717.85	N.A.	15.90
60-80	228.49	N.A.	5.00
70-80	74.08	N.A.	1.60
80-90	18.97	N.A.	0.40
90-110	85.71	N.A.	1.90
90-120	224.02	N.A.	4.90
90-130	455.68	N.A.	10.10
90-150	1181.54	N.A.	26.10
90-180	2252.7	N.A.	49.80
110-180	2166.99	N.A.	47.90
0-180	4527.73	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	135.31
10-20	391.15
20-30	536.85
30-40	400.82
40-50	316.22
50-60	247.22
60-70	154.41
70-80	74.08
80-90	18.97
90-100	18.58
100-110	67.13
110-120	138.31
120-130	231.66
130-140	318.00
140-150	407.86
150-160	518.30
160-170	409.34
170-180	143.53

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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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	99	95	91	88	91	88	85	82	75	73	71	63	61	60	51	50	50	44
2	91	84	79	74	84	78	73	69	67	63	60	56	54	52	47	45	43	39
3	84	75	68	63	77	70	64	59	60	56	52	51	48	45	42	40	38	34
4	77	67	60	54	71	63	56	51	54	49	46	46	43	40	39	36	34	31
5	71	61	53	48	66	57	50	45	49	44	40	42	38	35	36	33	31	28
6	66	55	47	42	61	52	45	40	45	40	36	39	35	32	33	30	28	25
7	62	50	43	38	57	47	40	36	41	36	32	36	32	29	30	27	25	23
8	58	46	39	34	53	43	37	32	38	33	29	33	29	26	28	25	23	21
9	54	42	35	31	50	40	33	29	35	30	26	31	27	24	26	23	21	19
10	51	39	32	28	47	37	31	27	33	28	24	29	25	22	25	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	8.4	9.2	9.4	10.2	11.5
	3H	9.2	9.9	10.2	10.9	12.2
	4H	9.4	10.1	10.4	11.1	12.4
	6H	9.5	10.1	10.5	11.1	12.4
	8H	9.5	10.0	10.5	11.1	12.4
	12H	9.4	10.0	10.4	11.0	12.3

### UGR Viewed Endwise

8.4	9.2	9.4	10.2	11.5
9.2	9.9	10.2	10.9	12.2
9.4	10.1	10.4	11.1	12.4
9.5	10.1	10.5	11.1	12.4
9.5	10.0	10.5	11.1	12.4
9.4	10.0	10.4	11.0	12.3

4H	2H	8.6	9.3	9.6	10.2	11.6	8.6	9.3	9.6	10.2	11.6
	3H	9.5	10.1	10.5	11.1	12.4	9.5	10.1	10.5	11.1	12.4
	4H	9.8	10.3	10.8	11.3	12.6	9.8	10.3	10.8	11.3	12.6
	6H	9.9	10.3	10.9	11.4	12.7	9.9	10.3	10.9	11.4	12.7
	8H	9.9	10.3	10.9	11.3	12.7	9.9	10.3	10.9	11.3	12.7
	12H	9.9	10.2	10.9	11.3	12.6	9.9	10.2	10.9	11.3	12.6

8H	4H	9.8	10.2	10.8	11.2	12.5	9.8	10.2	10.8	11.2	12.5
	6H	9.9	10.3	11.0	11.3	12.7	9.9	10.3	11.0	11.3	12.7
	8H	10.0	10.2	11.0	11.3	12.7	10.0	10.2	11.0	11.3	12.7
	12H	9.9	10.2	11.0	11.2	12.7	9.9	10.2	11.0	11.2	12.7

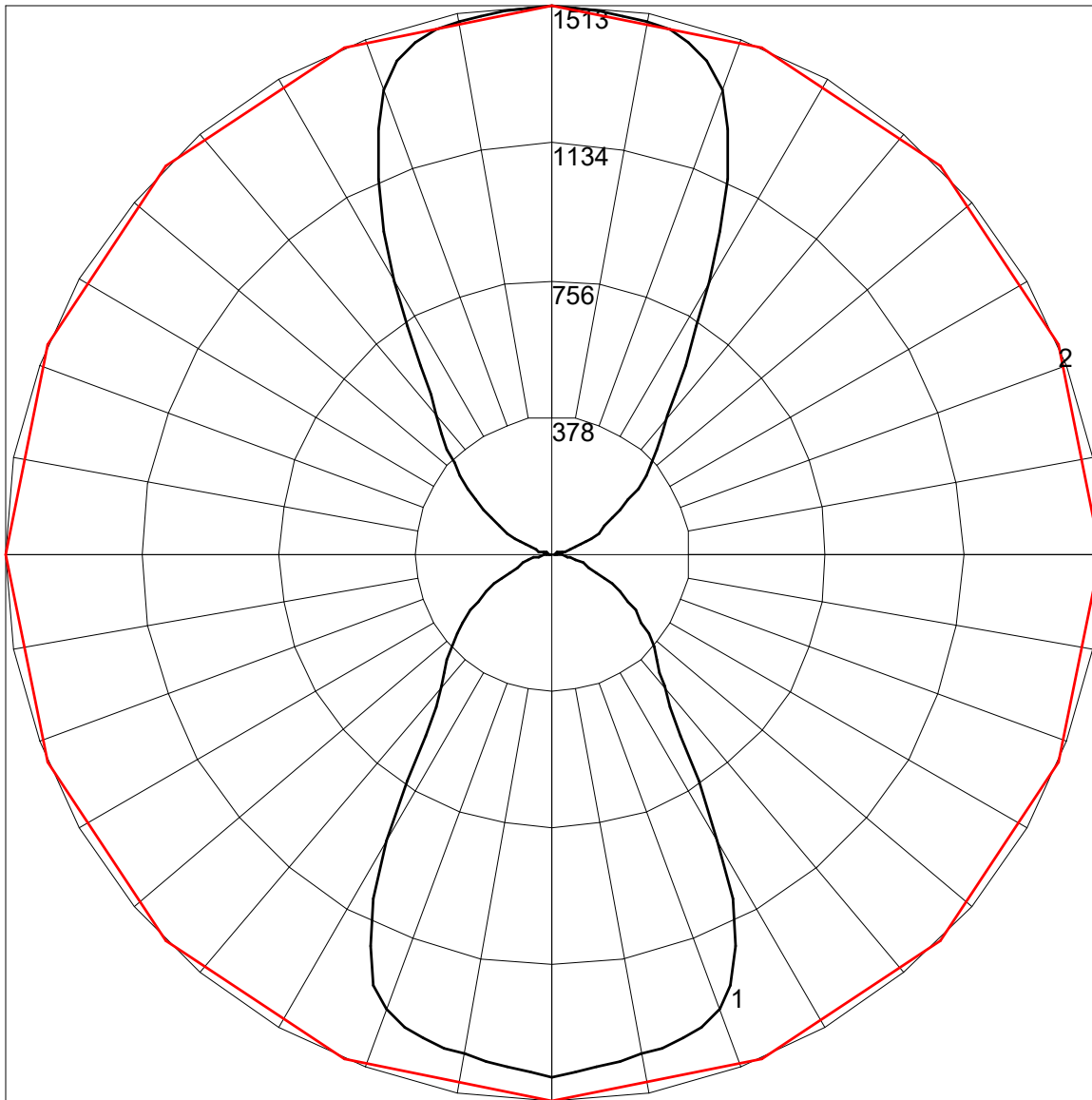
12H	4H	9.7	10.1	10.8	11.1	12.5	9.7	10.1	10.8	11.1	12.5
	6H	9.9	10.2	11.0	11.2	12.6	9.9	10.2	11.0	11.2	12.6
	8H	9.9	10.2	11.0	11.2	12.6	9.9	10.2	11.0	11.2	12.6

Maximum UGR = 12.7

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## POLAR GRAPH



Maximum Candela = 1512.565 Located At Horizontal Angle = 0, Vertical Angle = 177.5

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

# 2 - Horizontal Cone Through Vertical Angle (177.5) (Through Max. Cd.)