



## IES INDOOR REPORT

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

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13537338.04 & #12326812.15

[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-CS-RN-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	4672
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	93
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	820	820	820
55	398	398	398
65	189	189	189
75	73	73	73
85	20	20	20

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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	8920.010	8920.010	8920.010	8920.010	8920.010
2.5	8702.610	8702.610	8702.610	8702.610	8702.610
5.0	8086.203	8086.203	8086.203	8086.203	8086.203
7.5	7147.673	7147.673	7147.673	7147.673	7147.673
10.0	5977.162	5977.162	5977.162	5977.162	5977.162
12.5	4719.161	4719.161	4719.161	4719.161	4719.161
15.0	3528.766	3528.766	3528.766	3528.766	3528.766
17.5	2545.165	2545.165	2545.165	2545.165	2545.165
20.0	1800.174	1800.174	1800.174	1800.174	1800.174
22.5	1254.820	1254.820	1254.820	1254.820	1254.820
25.0	866.682	866.682	866.682	866.682	866.682
27.5	600.102	600.102	600.102	600.102	600.102
30.0	423.266	423.266	423.266	423.266	423.266
32.5	306.613	306.613	306.613	306.613	306.613
35.0	228.269	228.269	228.269	228.269	228.269
37.5	174.715	174.715	174.715	174.715	174.715
40.0	137.996	137.996	137.996	137.996	137.996
42.5	112.146	112.146	112.146	112.146	112.146
45.0	93.190	93.190	93.190	93.190	93.190
47.5	78.476	78.476	78.476	78.476	78.476
50.0	66.811	66.811	66.811	66.811	66.811
52.5	57.266	57.266	57.266	57.266	57.266
55.0	49.445	49.445	49.445	49.445	49.445
57.5	42.552	42.552	42.552	42.552	42.552
60.0	36.322	36.322	36.322	36.322	36.322
62.5	30.356	30.356	30.356	30.356	30.356
65.0	24.789	24.789	24.789	24.789	24.789
67.5	20.017	20.017	20.017	20.017	20.017
70.0	15.907	15.907	15.907	15.907	15.907
72.5	12.461	12.461	12.461	12.461	12.461
75.0	9.809	9.809	9.809	9.809	9.809
77.5	7.689	7.689	7.689	7.689	7.689
80.0	5.965	5.965	5.965	5.965	5.965
82.5	4.242	4.242	4.242	4.242	4.242
85.0	2.651	2.651	2.651	2.651	2.651
87.5	1.326	1.326	1.326	1.326	1.326
90.0	5.746	5.746	5.746	5.746	5.746
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

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 8CRDI-TL-P29-8TWU-P29-8TWD-XXX-POE PR-LW-CSU-RN-WHD-WM 4000K\_.IES****CANDELA TABULATION - (Cont.)**

<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-RN-WHD-WM 4000K\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1683.34	N.A.	36.00
0-30	2108.61	N.A.	45.10
0-40	2260.73	N.A.	48.40
0-60	2379.55	N.A.	50.90
0-80	2415.33	N.A.	51.70
0-90	2419.17	N.A.	51.80
10-90	1714.98	N.A.	36.70
20-40	577.39	N.A.	12.40
20-50	651.43	N.A.	13.90
40-70	143.83	N.A.	3.10
60-80	35.78	N.A.	0.80
70-80	10.78	N.A.	0.20
80-90	3.84	N.A.	0.10
90-110	85.66	N.A.	1.80
90-120	223.96	N.A.	4.80
90-130	455.62	N.A.	9.80
90-150	1181.48	N.A.	25.30
90-180	2252.64	N.A.	48.20
110-180	2166.99	N.A.	46.40
0-180	4671.81	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	704.19
10-20	979.15
20-30	425.27
30-40	152.12
40-50	74.04
50-60	44.79
60-70	25.00
70-80	10.78
80-90	3.84
90-100	18.53
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 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	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	52
1	101	98	95	92	94	91	89	86	78	77	75	66	65	64	55	55	54	49
2	95	89	85	81	88	84	80	77	73	70	68	62	61	59	53	52	51	47
3	89	82	77	73	83	77	73	69	68	65	62	59	57	55	51	50	48	45
4	84	76	71	66	79	72	67	63	64	60	57	56	54	52	49	47	46	43
5	80	71	65	61	75	67	62	58	60	56	53	53	51	49	47	45	44	41
6	76	67	61	56	71	63	58	54	57	53	50	51	48	46	45	44	42	40
7	72	63	57	52	68	60	54	51	54	50	47	49	46	44	44	42	40	38
8	68	59	53	49	64	56	51	48	51	47	45	47	44	42	42	40	39	37
9	65	56	50	46	62	54	49	45	49	45	43	45	42	40	41	39	37	36
10	62	53	48	44	59	51	46	43	47	43	41	43	40	38	40	38	36	35

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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	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	3H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	4H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	6H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	8H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	12H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4

### UGR Viewed Endwise

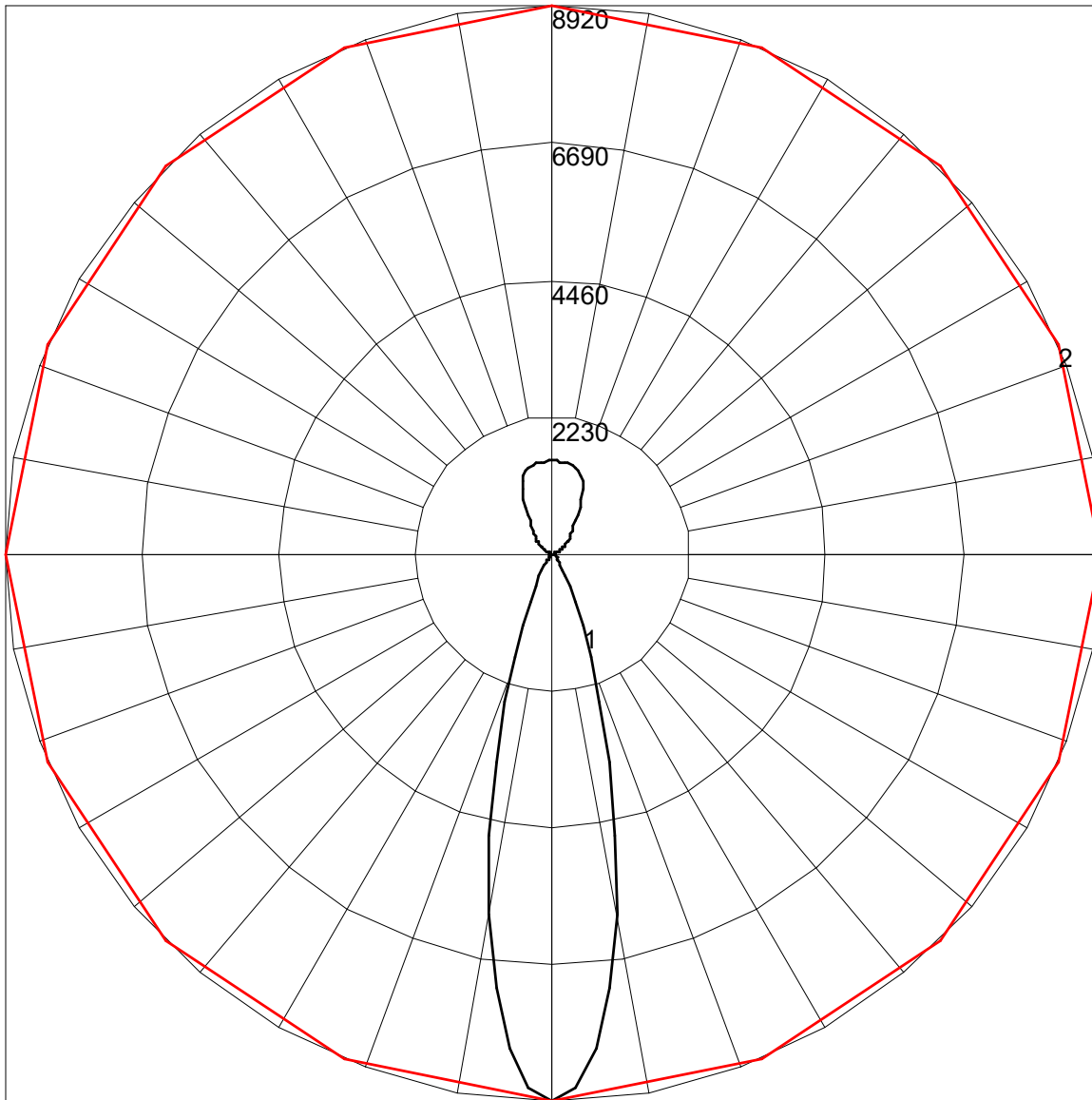
4H	2H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	3H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	4H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	6H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	8H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	12H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
8H	4H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	6H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	8H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	12H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
12H	4H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	6H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	8H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4

Maximum UGR = 5.4

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## POLAR GRAPH



Maximum Candela = 8920.01 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.)