



IES INDOOR REPORT

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #13537338.04 & #12326812.09

[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-LM-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	4714
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
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	1044	1044	1044
55	567	567	567
65	323	323	323
75	158	158	158
85	35	35	35

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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	5785.573	5785.573	5785.573	5785.573	5785.573
2.5	5724.223	5724.223	5724.223	5724.223	5724.223
5.0	5558.845	5558.845	5558.845	5558.845	5558.845
7.5	5286.771	5286.771	5286.771	5286.771	5286.771
10.0	4882.661	4882.661	4882.661	4882.661	4882.661
12.5	4330.511	4330.511	4330.511	4330.511	4330.511
15.0	3638.323	3638.323	3638.323	3638.323	3638.323
17.5	2895.454	2895.454	2895.454	2895.454	2895.454
20.0	2184.594	2184.594	2184.594	2184.594	2184.594
22.5	1592.433	1592.433	1592.433	1592.433	1592.433
25.0	1129.640	1129.640	1129.640	1129.640	1129.640
27.5	796.750	796.750	796.750	796.750	796.750
30.0	566.154	566.154	566.154	566.154	566.154
32.5	406.377	406.377	406.377	406.377	406.377
35.0	295.414	295.414	295.414	295.414	295.414
37.5	220.593	220.593	220.593	220.593	220.593
40.0	172.314	172.314	172.314	172.314	172.314
42.5	140.572	140.572	140.572	140.572	140.572
45.0	118.566	118.566	118.566	118.566	118.566
47.5	102.428	102.428	102.428	102.428	102.428
50.0	89.891	89.891	89.891	89.891	89.891
52.5	79.488	79.488	79.488	79.488	79.488
55.0	70.419	70.419	70.419	70.419	70.419
57.5	62.284	62.284	62.284	62.284	62.284
60.0	55.215	55.215	55.215	55.215	55.215
62.5	48.547	48.547	48.547	48.547	48.547
65.0	42.278	42.278	42.278	42.278	42.278
67.5	36.410	36.410	36.410	36.410	36.410
70.0	30.942	30.942	30.942	30.942	30.942
72.5	25.874	25.874	25.874	25.874	25.874
75.0	21.072	21.072	21.072	21.072	21.072
77.5	16.538	16.538	16.538	16.538	16.538
80.0	12.270	12.270	12.270	12.270	12.270
82.5	8.269	8.269	8.269	8.269	8.269
85.0	4.668	4.668	4.668	4.668	4.668
87.5	1.867	1.867	1.867	1.867	1.867
90.0	5.748	5.748	5.748	5.748	5.748
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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135.0	411.233	411.233	411.233	411.233	411.233
137.5	451.689	451.689	451.689	451.689	451.689
140.0	498.387	498.387	498.387	498.387	498.387
142.5	558.244	558.244	558.244	558.244	558.244
145.0	638.903	638.903	638.903	638.903	638.903
147.5	743.335	743.335	743.335	743.335	743.335
150.0	872.813	872.813	872.813	872.813	872.813
152.5	1007.811	1007.811	1007.811	1007.811	1007.811
155.0	1144.931	1144.931	1144.931	1144.931	1144.931
157.5	1267.193	1267.193	1267.193	1267.193	1267.193
160.0	1362.710	1362.710	1362.710	1362.710	1362.710
162.5	1426.812	1426.812	1426.812	1426.812	1426.812
165.0	1463.321	1463.321	1463.321	1463.321	1463.321
167.5	1482.849	1482.849	1482.849	1482.849	1482.849
170.0	1493.886	1493.886	1493.886	1493.886	1493.886
172.5	1501.952	1501.952	1501.952	1501.952	1501.952
175.0	1509.169	1509.169	1509.169	1509.169	1509.169
177.5	1512.565	1512.565	1512.565	1512.565	1512.565
180.0	1511.812	1511.812	1511.812	1511.812	1511.812

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Zone	Lumens	%Lamp	%Fixt
0-20	1489.85	N.A.	31.60
0-30	2034.39	N.A.	43.20
0-40	2232.52	N.A.	47.40
0-60	2390.63	N.A.	50.70
0-80	2455.17	N.A.	52.10
0-90	2461.65	N.A.	52.20
10-90	1952.2	N.A.	41.40
20-40	742.67	N.A.	15.80
20-50	837.21	N.A.	17.80
40-70	200.22	N.A.	4.20
60-80	64.54	N.A.	1.40
70-80	22.43	N.A.	0.50
80-90	6.48	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.	9.70
90-150	1181.48	N.A.	25.10
90-180	2252.64	N.A.	47.80
110-180	2166.99	N.A.	46.00
0-180	4714.3	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	509.45
10-20	980.41
20-30	544.54
30-40	198.13
40-50	94.54
50-60	63.57
60-70	42.11
70-80	22.43
80-90	6.48
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	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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	58	58	58	52
1	101	98	95	92	93	91	88	86	78	76	75	66	65	64	55	55	54	49
2	94	89	84	80	88	83	79	76	72	69	67	62	60	58	53	51	50	46
3	89	81	76	71	82	76	72	68	67	64	61	58	56	54	50	49	47	44
4	83	75	69	64	78	71	65	61	62	59	56	55	52	50	48	46	45	41
5	78	70	63	59	73	66	60	56	59	54	51	52	49	47	46	44	42	39
6	74	65	58	54	69	61	56	52	55	51	48	49	46	44	44	42	40	37
7	70	61	54	50	66	58	52	48	52	48	45	47	44	41	42	40	38	36
8	67	57	51	47	63	54	49	45	49	45	42	45	41	39	40	38	36	34
9	63	54	48	44	60	51	46	42	47	43	40	43	39	37	39	36	35	33
10	60	51	45	41	57	49	43	40	45	40	38	41	38	35	37	35	33	32

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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

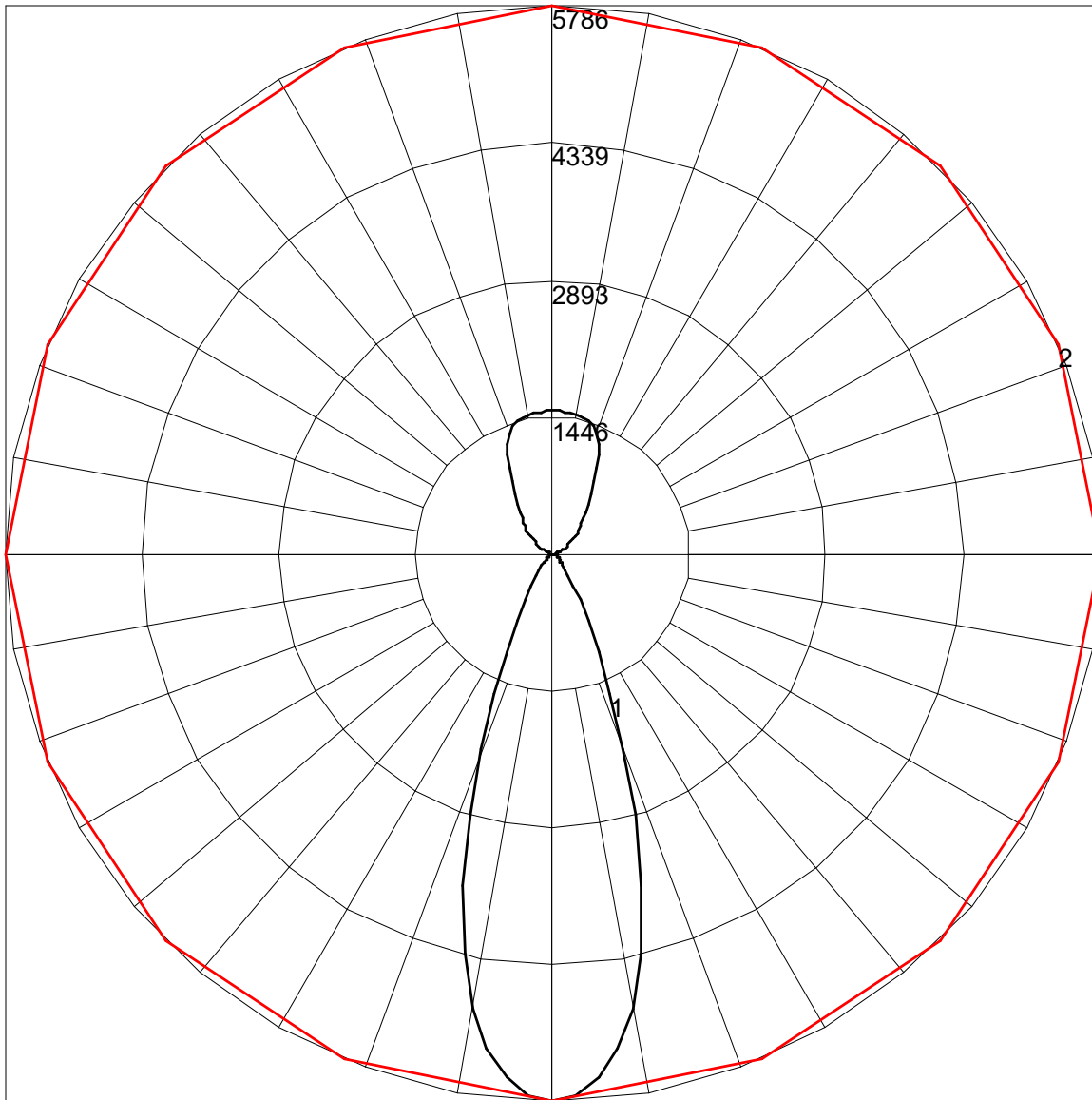
4H	2H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	3H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	4H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	6H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	8H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	12H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
8H	4H	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
	6H	5.4	5.4	5.4	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 = 5785.573 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.)