



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 8CR-TL-L30-830-XXX-DIM-UNV-RW-WH-XX_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM 12326812.12

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 1-FEB-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMCAT] 8CR-TL-L30-830-xxx-DIM-UNV-RW-WH-xx

[LUMINAIRE] 8" DIA. SURFACE CYLINDER

[LAMP] One white LED

[_SEARCH_SOURCE TYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Downlight

[_SEARCH_MOUNTING] Surface

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2073
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	77
Total Luminaire Watts	26.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.04
Spacing Criterion (90-270)	1.04
Spacing Criterion (Diagonal)	0.94
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.48 ft (Diameter)
Luminous Width (90-270)	0.48 ft (Diameter)
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	27992	27992	27992
55	23344	23344	23344
65	16469	16469	16469
75	10089	10089	10089
85	7956	7956	7956

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CANDELA TABULATION

	<u>0</u>
0.0	1533.590
0.5	1532.155
1.0	1530.720
1.5	1529.286
2.0	1526.417
2.5	1522.113
3.0	1517.809
3.5	1512.071
4.0	1506.332
4.5	1502.028
5.0	1496.290
5.5	1490.552
6.0	1484.813
6.5	1479.075
7.0	1473.336
7.5	1467.598
8.0	1460.425
8.5	1454.686
9.0	1448.948
9.5	1441.775
10.0	1436.037
10.5	1429.007
11.0	1422.121
11.5	1415.235
12.0	1408.349
12.5	1401.606
13.0	1394.720
13.5	1387.547
14.0	1380.518
14.5	1373.631
15.0	1367.176
15.5	1360.577
16.0	1354.121
16.5	1347.809
17.0	1341.927
17.5	1336.045
18.0	1330.306
18.5	1324.855
19.0	1319.403
19.5	1313.809
20.0	1308.070
20.5	1301.901
21.0	1294.872
21.5	1286.838
22.0	1277.800
22.5	1267.758
23.0	1256.855
23.5	1244.517
24.0	1231.032
24.5	1216.256
25.0	1199.901
25.5	1182.256
26.0	1162.601
26.5	1141.082

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CANDELA TABULATION - (Cont.)

27.0	1118.129
27.5	1093.167
28.0	1066.627
28.5	1037.791
29.0	1007.378
29.5	974.382
30.0	939.377
30.5	902.365
31.0	863.917
31.5	824.609
32.0	784.584
32.5	744.845
33.0	705.537
33.5	667.520
34.0	631.081
34.5	596.794
35.0	565.520
35.5	536.828
36.0	511.579
36.5	489.199
37.0	469.545
37.5	452.760
38.0	437.984
38.5	424.929
39.0	413.596
39.5	403.554
40.0	394.372
40.5	386.051
41.0	378.305
41.5	371.275
42.0	364.819
42.5	358.651
43.0	352.769
43.5	347.174
44.0	341.866
44.5	336.845
45.0	331.680
45.5	326.802
46.0	321.781
46.5	316.904
47.0	311.882
47.5	306.861
48.0	301.697
48.5	296.532
49.0	291.655
49.5	286.633
50.0	281.325
50.5	275.874
51.0	270.279
51.5	264.684
52.0	259.089
52.5	253.351
53.0	247.756
53.5	242.304
54.0	236.279
54.5	230.254

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CANDELA TABULATION - (Cont.)

55.0	224.372
55.5	218.346
56.0	212.465
56.5	206.583
57.0	200.701
57.5	194.819
58.0	189.224
58.5	183.486
59.0	177.891
59.5	172.439
60.0	166.988
60.5	161.536
61.0	156.228
61.5	151.064
62.0	145.899
62.5	140.878
63.0	135.857
63.5	130.836
64.0	126.102
64.5	121.224
65.0	116.633
65.5	111.899
66.0	107.452
66.5	103.004
67.0	98.701
67.5	94.397
68.0	90.236
68.5	86.076
69.0	82.203
69.5	78.186
70.0	74.456
70.5	70.726
71.0	67.139
71.5	63.696
72.0	60.253
72.5	57.097
73.0	54.084
73.5	51.359
74.0	48.633
74.5	46.194
75.0	43.755
75.5	41.603
76.0	39.452
76.5	37.587
77.0	35.865
77.5	34.144
78.0	32.422
78.5	30.700
79.0	29.122
79.5	27.544
80.0	25.966
80.5	24.388
81.0	22.810
81.5	21.376
82.0	19.798
82.5	18.363

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CANDELA TABULATION - (Cont.)

83.0	16.928
83.5	15.637
84.0	14.203
84.5	12.911
85.0	11.620
85.5	10.329
86.0	9.038
86.5	7.747
87.0	6.599
87.5	5.308
88.0	4.304
88.5	3.443
89.0	2.726
89.5	2.008
90.0	1.435
90.5	0.000
91.0	0.000
91.5	0.000
92.0	0.000
92.5	0.000
93.0	0.000
93.5	0.000
94.0	0.000
94.5	0.000
95.0	0.000
95.5	0.000
96.0	0.000
96.5	0.000
97.0	0.000
97.5	0.000
98.0	0.000
98.5	0.000
99.0	0.000
99.5	0.000
100.0	0.000
100.5	0.000
101.0	0.000
101.5	0.000
102.0	0.000
102.5	0.000
103.0	0.000
103.5	0.000
104.0	0.000
104.5	0.000
105.0	0.000
105.5	0.000
106.0	0.000
106.5	0.000
107.0	0.000
107.5	0.000
108.0	0.000
108.5	0.000
109.0	0.000
109.5	0.000
110.0	0.000
110.5	0.000

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CANDELA TABULATION - (Cont.)

111.0	0.000
111.5	0.000
112.0	0.000
112.5	0.000
113.0	0.000
113.5	0.000
114.0	0.000
114.5	0.000
115.0	0.000
115.5	0.000
116.0	0.000
116.5	0.000
117.0	0.000
117.5	0.000
118.0	0.000
118.5	0.000
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135.0	0.000
135.5	0.000
136.0	0.000
136.5	0.000
137.0	0.000
137.5	0.000
138.0	0.000
138.5	0.000

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CANDELA TABULATION - (Cont.)

139.0	0.000
139.5	0.000
140.0	0.000
140.5	0.000
141.0	0.000
141.5	0.000
142.0	0.000
142.5	0.000
143.0	0.000
143.5	0.000
144.0	0.000
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146.5	0.000
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160.5	0.000
161.0	0.000
161.5	0.000
162.0	0.000
162.5	0.000
163.0	0.000
163.5	0.000
164.0	0.000
164.5	0.000
165.0	0.000
165.5	0.000
166.0	0.000
166.5	0.000

CANDELA TABULATION - (Cont.)

167.0	0.000
167.5	0.000
168.0	0.000
168.5	0.000
169.0	0.000
169.5	0.000
170.0	0.000
170.5	0.000
171.0	0.000
171.5	0.000
172.0	0.000
172.5	0.000
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174.0	0.000
174.5	0.000
175.0	0.000
175.5	0.000
176.0	0.000
176.5	0.000
177.0	0.000
177.5	0.000
178.0	0.000
178.5	0.000
179.0	0.000
179.5	0.000
180.0	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	526.97	N.A.	25.40
0-30	1065.34	N.A.	51.40
0-40	1437.81	N.A.	69.40
0-60	1894.9	N.A.	91.40
0-80	2059.91	N.A.	99.40
0-90	2073.15	N.A.	100.00
10-90	1932.27	N.A.	93.20
20-40	910.84	N.A.	43.90
20-50	1167.82	N.A.	56.30
40-70	573.55	N.A.	27.70
60-80	165.01	N.A.	8.00
70-80	48.55	N.A.	2.30
80-90	13.23	N.A.	0.60
90-110	0.04	N.A.	0.00
90-120	0.04	N.A.	0.00
90-130	0.04	N.A.	0.00
90-150	0.04	N.A.	0.00
90-180	0.04	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2073.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	140.88
10-20	386.10
20-30	538.36
30-40	372.48
40-50	256.99
50-60	200.10
60-70	116.46
70-80	48.55
80-90	13.23
90-100	0.04
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	62	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38

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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	20.4	21.7	20.7	22.0	22.3	20.4	21.7	20.7	22.0	22.3
	3H	21.3	22.5	21.7	22.8	23.2	21.3	22.5	21.7	22.8	23.2
	4H	21.6	22.7	22.0	23.0	23.4	21.6	22.7	22.0	23.0	23.4
	6H	21.7	22.8	22.2	23.1	23.5	21.7	22.8	22.2	23.1	23.5
	8H	21.8	22.8	22.2	23.2	23.6	21.8	22.8	22.2	23.2	23.6
	12H	21.8	22.7	22.3	23.1	23.6	21.8	22.7	22.3	23.1	23.6

UGR Viewed Endwise

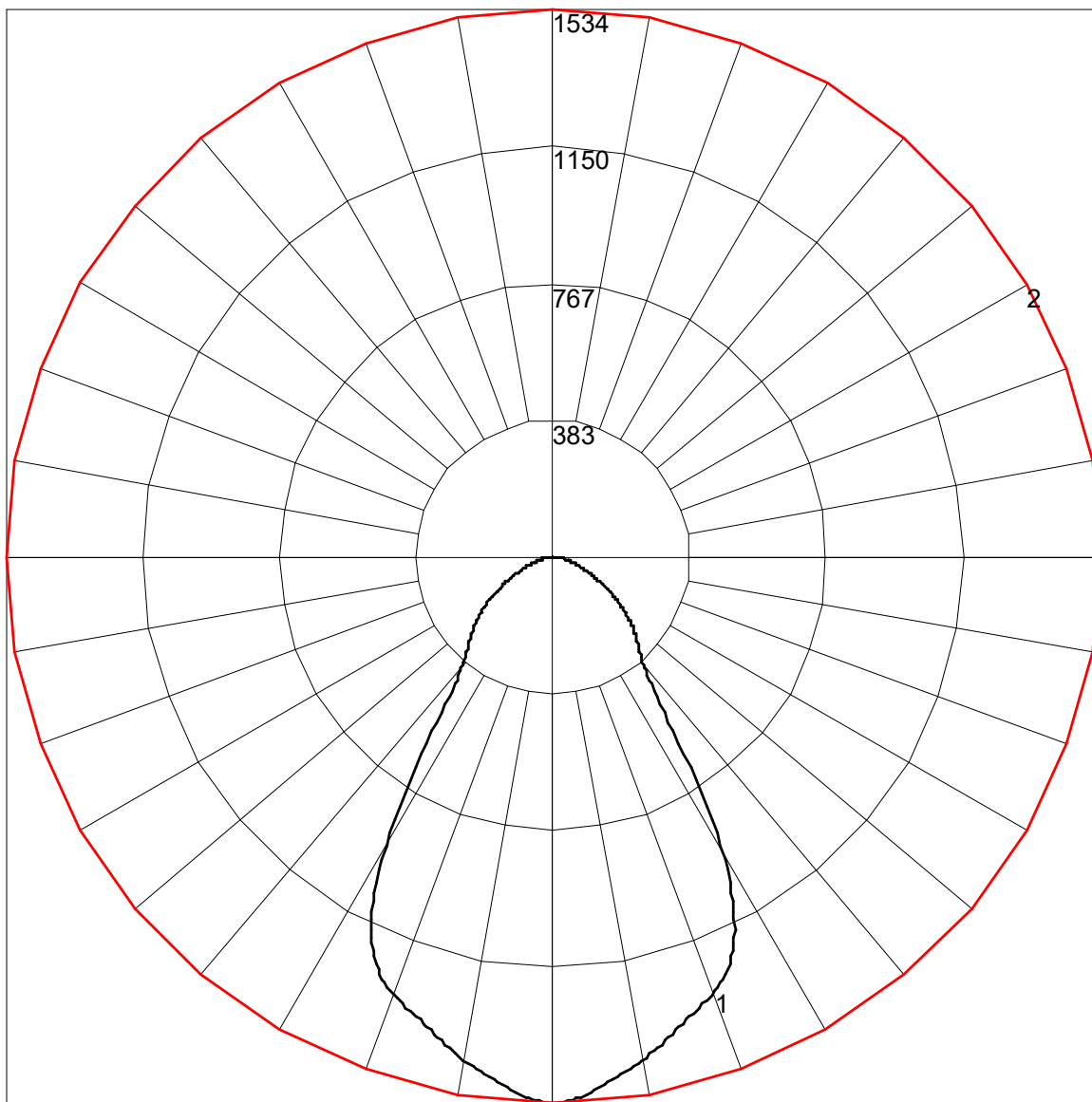
4H	2H	20.7	21.8	21.1	22.1	22.5	20.7	21.8	21.1	22.1	22.5
	3H	21.8	22.7	22.2	23.1	23.5	21.8	22.7	22.2	23.1	23.5
	4H	22.2	23.0	22.6	23.4	23.8	22.2	23.0	22.6	23.4	23.8
	6H	22.4	23.1	22.9	23.6	24.0	22.4	23.1	22.9	23.6	24.0
	8H	22.5	23.1	23.0	23.6	24.1	22.5	23.1	23.0	23.6	24.1
	12H	22.6	23.1	23.0	23.6	24.1	22.6	23.1	23.0	23.6	24.1

8H	4H	22.2	22.9	22.7	23.3	23.8	22.2	22.9	22.7	23.3	23.8
	6H	22.6	23.1	23.1	23.6	24.1	22.6	23.1	23.1	23.6	24.1
	8H	22.7	23.2	23.2	23.7	24.2	22.7	23.2	23.2	23.7	24.2
	12H	22.8	23.2	23.3	23.7	24.3	22.8	23.2	23.3	23.7	24.3

12H	4H	22.2	22.8	22.7	23.3	23.8	22.2	22.8	22.7	23.3	23.8
	6H	22.6	23.1	23.1	23.5	24.1	22.6	23.1	23.1	23.5	24.1
	8H	22.7	23.2	23.3	23.7	24.2	22.7	23.2	23.3	23.7	24.2

Maximum UGR = 24.3

POLAR GRAPH



Maximum Candela = 1533.59 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.)