



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6RCD-LS-9CS-WH-DIM-UNV_17W_4000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 14879730.01
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 2023-07-21
 [TESTDATE] 7/10/2023
 [MANUFAC] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6RCD-LS-9CS-WH-DIM-UNV_17W_4000K
 [LUMINAIRE] 6 INCH DIAMETER LED DOWNLIGHT
 [MORE] WHITE TRIM WITH FLAT DIFFUSED LENS
 [LAMP] White LEDs
 [BALLAST] 0-10V DIMMING DRIVER

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1789
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	17.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.50 ft (Diameter)
Luminous Width (90-270)	0.50 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	34508	34508	34508
55	28804	28804	28804
65	21062	21062	21062
75	10036	10036	10036
85	6215	6215	6215

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CANDELA TABULATION

	<u>0</u>
0.0	783.160
0.5	783.317
1.0	783.160
1.5	783.239
2.0	782.845
2.5	782.609
3.0	782.136
3.5	781.428
4.0	780.640
4.5	779.774
5.0	778.593
5.5	777.333
6.0	775.916
6.5	774.656
7.0	773.396
7.5	772.215
8.0	771.034
8.5	769.931
9.0	768.593
9.5	767.412
10.0	765.916
10.5	764.341
11.0	762.530
11.5	760.482
12.0	758.435
12.5	756.073
13.0	753.711
13.5	751.270
14.0	748.908
14.5	746.230
15.0	743.789
15.5	740.876
16.0	738.277
16.5	735.285
17.0	732.608
17.5	729.616
18.0	726.624
18.5	723.395
19.0	720.324
19.5	716.939
20.0	713.553
20.5	710.167
21.0	706.545
21.5	702.923
22.0	698.907
22.5	694.891
23.0	690.482
23.5	685.915
24.0	681.269
24.5	676.781
25.0	672.056
25.5	667.647
26.0	663.237
26.5	658.906

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CANDELA TABULATION - (Cont.)

27.0	654.733
27.5	650.402
28.0	646.229
28.5	641.898
29.0	637.489
29.5	632.764
30.0	627.961
30.5	622.843
31.0	617.646
31.5	611.977
32.0	606.150
32.5	600.165
33.0	593.945
33.5	587.646
34.0	581.268
34.5	574.811
35.0	568.275
35.5	561.976
36.0	555.677
36.5	549.771
37.0	546.385
37.5	541.346
38.0	535.519
38.5	529.771
39.0	523.550
39.5	517.487
40.0	511.345
40.5	505.204
41.0	498.904
41.5	492.605
42.0	486.069
42.5	479.455
43.0	472.605
43.5	465.833
44.0	458.982
44.5	452.289
45.0	445.518
45.5	438.825
46.0	432.053
46.5	425.360
47.0	418.352
47.5	411.502
48.0	404.494
48.5	397.564
49.0	390.399
49.5	383.233
50.0	375.989
50.5	368.745
51.0	361.343
51.5	354.020
52.0	346.540
52.5	338.981
53.0	331.422
53.5	323.863
54.0	316.382
54.5	308.980

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55.0	301.658
55.5	294.413
56.0	287.169
56.5	280.004
57.0	272.996
57.5	265.830
58.0	258.744
58.5	251.657
59.0	244.649
59.5	237.483
60.0	230.397
60.5	223.310
61.0	216.302
61.5	209.215
62.0	202.207
62.5	195.278
63.0	188.428
63.5	181.735
64.0	175.199
64.5	168.900
65.0	162.522
65.5	156.223
66.0	149.845
66.5	143.388
67.0	136.852
67.5	130.238
68.0	123.545
68.5	116.852
69.0	110.159
69.5	103.545
70.0	97.088
70.5	90.789
71.0	84.804
71.5	79.135
72.0	73.694
72.5	68.576
73.0	63.749
73.5	59.221
74.0	55.024
74.5	51.103
75.0	47.426
75.5	43.985
76.0	40.772
76.5	37.796
77.0	35.024
77.5	32.473
78.0	30.095
78.5	27.914
79.0	25.922
79.5	24.134
80.0	22.559
80.5	21.134
81.0	19.882
81.5	18.725
82.0	17.481
82.5	16.158

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CANDELA TABULATION - (Cont.)

83.0	14.914
83.5	13.685
84.0	12.402
84.5	11.126
85.0	9.890
85.5	8.599
86.0	7.315
86.5	6.118
87.0	4.913
87.5	3.732
88.0	2.748
88.5	1.937
89.0	1.142
89.5	0.512
90.0	0.000
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
119.0	0.000
119.5	0.000
120.0	0.000
120.5	0.000
121.0	0.000
121.5	0.000
122.0	0.000
122.5	0.000
123.0	0.000
123.5	0.000
124.0	0.000
124.5	0.000
125.0	0.000
125.5	0.000
126.0	0.000
126.5	0.000
127.0	0.000
127.5	0.000
128.0	0.000
128.5	0.000
129.0	0.000
129.5	0.000
130.0	0.000
130.5	0.000
131.0	0.000
131.5	0.000
132.0	0.000
132.5	0.000
133.0	0.000
133.5	0.000
134.0	0.000
134.5	0.000
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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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
144.5	0.000
145.0	0.000
145.5	0.000
146.0	0.000
146.5	0.000
147.0	0.000
147.5	0.000
148.0	0.000
148.5	0.000
149.0	0.000
149.5	0.000
150.0	0.000
150.5	0.000
151.0	0.000
151.5	0.000
152.0	0.000
152.5	0.000
153.0	0.000
153.5	0.000
154.0	0.000
154.5	0.000
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159.0	0.000
159.5	0.000
160.0	0.000
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

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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
173.0	0.000
173.5	0.000
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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Zone	Lumens	%Lamp	%Fixt
0-20	283.54	N.A.	15.80
0-30	593.43	N.A.	33.20
0-40	949.84	N.A.	53.10
0-60	1563.03	N.A.	87.40
0-80	1778.06	N.A.	99.40
0-90	1789.14	N.A.	100.00
10-90	1715.26	N.A.	95.90
20-40	666.29	N.A.	37.20
20-50	1009.51	N.A.	56.40
40-70	773.97	N.A.	43.30
60-80	215.04	N.A.	12.00
70-80	54.25	N.A.	3.00
80-90	11.08	N.A.	0.60
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1789.14	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	73.88
10-20	209.66
20-30	309.89
30-40	356.41
40-50	343.22
50-60	269.97
60-70	160.78
70-80	54.25
80-90	11.08
90-100	0.00
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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56
5	79	67	59	53	77	66	58	53	64	57	52	62	56	51	60	55	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	41	67	55	47	41	53	46	41	52	45	41	51	45	40	39
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	47	41	36	35
9	60	47	39	34	58	46	39	34	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	29

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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	22.5	24.0	22.9	24.4	24.7	22.5	24.0	22.9	24.4	24.7
	3H	23.5	24.9	23.9	25.2	25.6	23.5	24.9	23.9	25.2	25.6
	4H	23.7	24.9	24.1	25.3	25.7	23.7	24.9	24.1	25.3	25.7
	6H	23.7	24.9	24.1	25.3	25.7	23.7	24.9	24.1	25.3	25.7
	8H	23.7	24.8	24.2	25.2	25.6	23.7	24.8	24.2	25.2	25.6
	12H	23.7	24.8	24.2	25.2	25.6	23.7	24.8	24.2	25.2	25.6

UGR Viewed Endwise

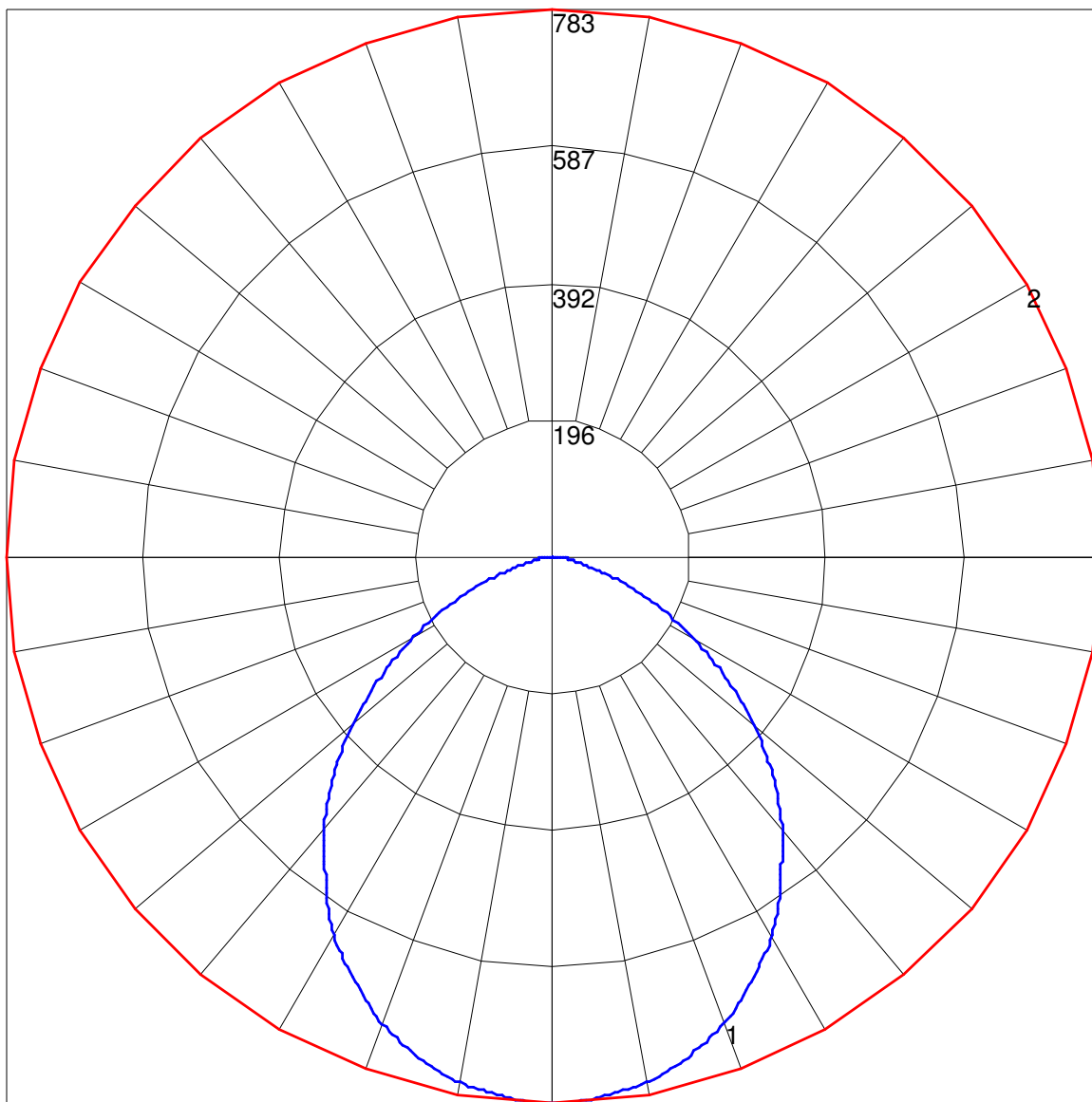
4H	2H	22.9	24.2	23.3	24.5	24.9	22.9	24.2	23.3	24.5	24.9
	3H	24.0	25.1	24.4	25.5	25.9	24.0	25.1	24.4	25.5	25.9
	4H	24.2	25.2	24.7	25.6	26.0	24.2	25.2	24.7	25.6	26.0
	6H	24.3	25.2	24.8	25.6	26.1	24.3	25.2	24.8	25.6	26.1
	8H	24.3	25.1	24.8	25.6	26.0	24.3	25.1	24.8	25.6	26.0
	12H	24.4	25.0	24.8	25.5	26.0	24.4	25.0	24.8	25.5	26.0

8H	4H	24.3	25.0	24.7	25.5	25.9	24.3	25.0	24.7	25.5	25.9
	6H	24.4	25.0	24.9	25.5	26.0	24.4	25.0	24.9	25.5	26.0
	8H	24.5	25.0	25.0	25.5	26.0	24.5	25.0	25.0	25.5	26.0
	12H	24.5	25.0	25.0	25.5	26.0	24.5	25.0	25.0	25.5	26.0

12H	4H	24.2	24.9	24.7	25.4	25.9	24.2	24.9	24.7	25.4	25.9
	6H	24.4	25.0	24.9	25.4	26.0	24.4	25.0	24.9	25.4	26.0
	8H	24.5	25.0	25.0	25.4	26.0	24.5	25.0	25.0	25.4	26.0

Maximum UGR = 26.1

POLAR GRAPH



Maximum Candela = 783.317 Located At Horizontal Angle = 0, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)