



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L40-840-DIM-UNV-RM-OF-CS_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12326812.14
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 04/08/2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6DR-TL-L40-840-DIM-UNV-RM-OF-CS
 [LUMINAIRE] Black formed aluminum housing, white reflector, frosted pl
 [MORE] astic optic, clear glass patterned lens enclosure
 [LAMP] One white LED
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Commercial, Healthcare, Office, Downlight
 [_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3500
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	96
Total Luminaire Watts	36.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.58
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.56
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	12581	12581	12581
55	8460	8460	8460
65	6296	6296	6296
75	4347	4347	4347
85	3631	3631	3631

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CANDELA TABULATION

	<u>0</u>
0.0	8471.099
0.5	8467.170
1.0	8455.386
1.5	8435.745
2.0	8408.248
2.5	8374.858
3.0	8333.613
3.5	8286.475
4.0	8235.408
4.5	8176.486
5.0	8113.635
5.5	8044.892
6.0	7968.293
6.5	7883.837
7.0	7793.489
7.5	7695.285
8.0	7589.224
8.5	7475.307
9.0	7353.534
9.5	7221.940
10.0	7084.455
10.5	6937.148
11.0	6780.021
11.5	6615.038
12.0	6442.199
12.5	6257.575
13.0	6069.023
13.5	5870.650
14.0	5666.385
14.5	5458.192
15.0	5242.143
15.5	5026.093
16.0	4806.116
16.5	4586.138
17.0	4370.089
17.5	4163.860
18.0	3951.739
18.5	3741.582
19.0	3535.353
19.5	3338.944
20.0	3152.356
20.5	2971.661
21.0	2794.893
21.5	2625.982
22.0	2462.963
22.5	2309.764
23.0	2164.422
23.5	2026.936
24.0	1897.699
24.5	1776.515
25.0	1662.402
25.5	1555.359
26.0	1455.387
26.5	1361.504

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CANDELA TABULATION - (Cont.)

27.0	1274.102
27.5	1192.396
28.0	1115.797
28.5	1044.697
29.0	977.918
29.5	915.460
30.0	856.734
30.5	801.936
31.0	750.673
31.5	702.553
32.0	657.576
32.5	615.348
33.0	575.673
33.5	538.552
34.0	503.591
34.5	471.184
35.0	440.937
35.5	412.654
36.0	386.336
36.5	361.981
37.0	339.394
37.5	318.575
38.0	299.327
38.5	281.650
39.0	265.348
39.5	250.421
40.0	236.869
40.5	224.495
41.0	213.103
41.5	202.694
42.0	193.070
42.5	184.231
43.0	175.982
43.5	168.518
44.0	161.448
44.5	155.163
45.0	149.074
45.5	143.575
46.0	138.272
46.5	133.361
47.0	128.844
47.5	124.719
48.0	120.791
48.5	117.059
49.0	113.524
49.5	109.989
50.0	106.846
50.5	103.900
51.0	100.954
51.5	98.204
52.0	95.651
52.5	92.901
53.0	90.544
53.5	88.187
54.0	85.831
54.5	83.474

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CANDELA TABULATION - (Cont.)

55.0	81.313
55.5	79.153
56.0	77.189
56.5	75.028
57.0	73.064
57.5	71.100
58.0	69.136
58.5	67.172
59.0	65.404
59.5	63.440
60.0	61.672
60.5	59.905
61.0	58.137
61.5	56.369
62.0	54.602
62.5	52.834
63.0	51.263
63.5	49.495
64.0	47.924
64.5	46.156
65.0	44.585
65.5	43.013
66.0	41.442
66.5	39.871
67.0	38.300
67.5	36.925
68.0	35.354
68.5	33.979
69.0	32.604
69.5	31.033
70.0	29.854
70.5	28.479
71.0	27.301
71.5	25.926
72.0	24.747
72.5	23.569
73.0	22.587
73.5	21.605
74.0	20.623
74.5	19.641
75.0	18.855
75.5	17.873
76.0	17.088
76.5	16.498
77.0	15.713
77.5	14.927
78.0	14.338
78.5	13.552
79.0	12.963
79.5	12.374
80.0	11.588
80.5	10.999
81.0	10.213
81.5	9.624
82.0	9.035
82.5	8.446

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CANDELA TABULATION - (Cont.)

83.0	7.856
83.5	7.071
84.0	6.481
84.5	5.892
85.0	5.303
85.5	4.714
86.0	4.321
86.5	3.732
87.0	3.143
87.5	2.553
88.0	1.964
88.5	1.571
89.0	1.375
89.5	0.982
90.0	0.786
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
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102.5	0.000
103.0	0.000
103.5	0.000
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104.5	0.000
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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
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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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152.0	0.000
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153.5	0.000
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155.0	0.000
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156.0	0.000
156.5	0.000
157.0	0.000
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158.0	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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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2153.53	N.A.	61.50
0-30	2944.51	N.A.	84.10
0-40	3235.63	N.A.	92.40
0-60	3428.85	N.A.	98.00
0-80	3493.8	N.A.	99.80
0-90	3499.87	N.A.	100.00
10-90	2757.54	N.A.	78.80
20-40	1082.1	N.A.	30.90
20-50	1201.89	N.A.	34.30
40-70	237.65	N.A.	6.80
60-80	64.95	N.A.	1.90
70-80	20.52	N.A.	0.60
80-90	6.06	N.A.	0.20
90-110	0.02	N.A.	0.00
90-120	0.02	N.A.	0.00
90-130	0.02	N.A.	0.00
90-150	0.02	N.A.	0.00
90-180	0.02	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	3499.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	742.33
10-20	1411.2
20-30	790.97
30-40	291.13
40-50	119.79
50-60	73.43
60-70	44.43
70-80	20.52
80-90	6.06
90-100	0.02
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	114	111	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	94
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	104	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84
4	100	94	89	85	98	92	88	84	90	86	83	88	85	83	87	84	82	80
5	96	89	84	80	95	88	83	80	86	82	79	85	81	78	83	80	78	76
6	92	85	80	76	91	84	79	76	83	78	75	81	77	75	80	77	74	73
7	89	81	76	72	88	80	75	72	79	75	72	78	74	71	77	73	71	70
8	86	77	72	69	85	77	72	69	76	72	68	75	71	68	74	71	68	67
9	83	74	69	66	82	74	69	66	73	69	66	72	68	65	71	68	65	64
10	80	71	67	63	79	71	66	63	70	66	63	70	66	63	69	65	63	62

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UGR TABLE - CORRECTED

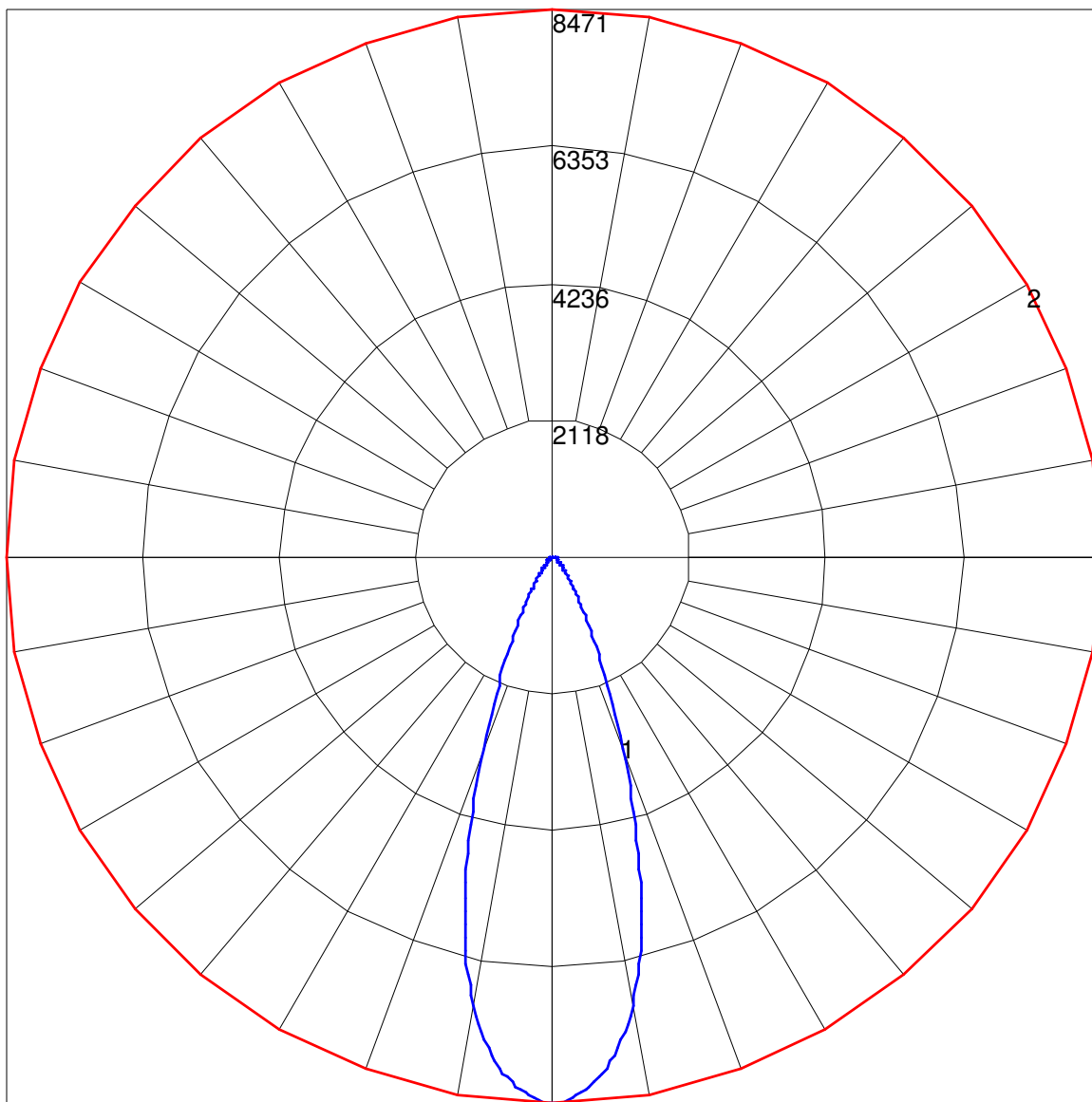
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	12.0	13.0	12.4	13.3	13.6	12.0	13.0	12.4	13.3	13.6
	3H	13.1	14.0	13.5	14.3	14.7	13.1	14.0	13.5	14.3	14.7
	4H	13.4	14.2	13.8	14.6	15.0	13.4	14.2	13.8	14.6	15.0
	6H	13.7	14.4	14.1	14.8	15.2	13.7	14.4	14.1	14.8	15.2
	8H	13.7	14.4	14.2	14.8	15.2	13.7	14.4	14.2	14.8	15.2
	12H	13.8	14.4	14.2	14.8	15.2	13.8	14.4	14.2	14.8	15.2
4H	2H	12.3	13.1	12.7	13.5	13.9	12.3	13.1	12.7	13.5	13.9
	3H	13.6	14.2	14.0	14.7	15.1	13.6	14.2	14.0	14.7	15.1
	4H	14.0	14.6	14.4	15.0	15.4	14.0	14.6	14.4	15.0	15.4
	6H	14.3	14.8	14.8	15.3	15.8	14.3	14.8	14.8	15.3	15.8
	8H	14.5	14.9	14.9	15.4	15.8	14.5	14.9	14.9	15.4	15.8
	12H	14.5	14.9	15.0	15.4	15.9	14.5	14.9	15.0	15.4	15.9
8H	4H	14.1	14.5	14.6	15.0	15.5	14.1	14.5	14.6	15.0	15.5
	6H	14.5	14.9	15.1	15.4	15.9	14.5	14.9	15.1	15.4	15.9
	8H	14.7	15.0	15.3	15.6	16.1	14.7	15.0	15.3	15.6	16.1
	12H	14.9	15.1	15.4	15.6	16.2	14.9	15.1	15.4	15.6	16.2
12H	4H	14.1	14.5	14.6	14.9	15.4	14.1	14.5	14.6	14.9	15.4
	6H	14.5	14.9	15.1	15.3	15.9	14.5	14.9	15.1	15.3	15.9
	8H	14.8	15.0	15.3	15.5	16.1	14.8	15.0	15.3	15.5	16.1

Maximum UGR = 16.2

POLAR GRAPH



Maximum Candela = 8471.099 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)