



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L10-840-(L8)-DIM-UNV-LW-OF-WH-WET-CC_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM 12326812.07
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 05-13-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6DR-TL-L10-840-(L8)-DIM-UNV-LW-OF-WH
 [LUMINAIRE] Black formed aluminum housing, white reflector, clear glas
 [MORE] s 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	675
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	90
Total Luminaire Watts	7.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.08
Spacing Criterion (90-270)	1.08
Spacing Criterion (Diagonal)	0.98
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.46 ft (Diameter)
Luminous Width (90-270)	0.46 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	11217	11217	11217
55	9339	9339	9339
65	7095	7095	7095
75	5145	5145	5145
85	3353	3353	3353

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CANDELA TABULATION

	<u>0</u>
0.0	429.243
0.5	429.157
1.0	428.811
1.5	428.292
2.0	427.644
2.5	426.780
3.0	425.916
3.5	424.922
4.0	424.014
4.5	423.107
5.0	422.458
5.5	421.853
6.0	421.292
6.5	420.730
7.0	420.125
7.5	419.563
8.0	419.001
8.5	418.483
9.0	417.964
9.5	417.532
10.0	417.100
10.5	416.754
11.0	416.452
11.5	416.279
12.0	415.976
12.5	415.674
13.0	415.242
13.5	414.680
14.0	413.988
14.5	413.211
15.0	412.390
15.5	411.352
16.0	410.229
16.5	409.105
17.0	407.982
17.5	406.815
18.0	405.562
18.5	404.136
19.0	402.537
19.5	400.765
20.0	398.734
20.5	396.530
21.0	393.808
21.5	390.567
22.0	386.893
22.5	382.745
23.0	378.207
23.5	373.281
24.0	367.836
24.5	361.959
25.0	355.607
25.5	348.995
26.0	341.951
26.5	334.605

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6DR-TL-L10-840-(L8)-DIM-UNV-LW-OF-WH-WET-CC_.IES****CANDELA TABULATION - (Cont.)**

27.0	326.783
27.5	318.745
28.0	310.275
28.5	301.330
29.0	292.039
29.5	282.273
30.0	272.247
30.5	261.919
31.0	251.591
31.5	241.176
32.0	231.064
32.5	221.384
33.0	212.093
33.5	203.407
34.0	195.413
34.5	188.153
35.0	181.671
35.5	175.707
36.0	170.479
36.5	165.682
37.0	161.404
37.5	157.558
38.0	154.057
38.5	150.859
39.0	147.835
39.5	145.112
40.0	142.476
40.5	140.013
41.0	137.722
41.5	135.475
42.0	133.315
42.5	131.327
43.0	129.296
43.5	127.308
44.0	125.363
44.5	123.462
45.0	121.517
45.5	119.659
46.0	117.758
46.5	115.856
47.0	113.912
47.5	112.010
48.0	110.066
48.5	108.121
49.0	106.176
49.5	104.145
50.0	102.201
50.5	100.213
51.0	98.225
51.5	96.194
52.0	94.163
52.5	92.132
53.0	90.101
53.5	88.070
54.0	86.125
54.5	84.137

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55.0	82.063
55.5	80.032
56.0	78.001
56.5	76.100
57.0	74.198
57.5	72.210
58.0	70.222
58.5	68.278
59.0	66.376
59.5	64.475
60.0	62.660
60.5	60.845
61.0	59.073
61.5	57.302
62.0	55.616
62.5	53.931
63.0	52.289
63.5	50.647
64.0	49.048
64.5	47.492
65.0	45.936
65.5	44.424
66.0	42.916
66.5	41.433
67.0	39.968
67.5	38.534
68.0	37.125
68.5	35.712
69.0	34.342
69.5	32.985
70.0	31.667
70.5	30.392
71.0	29.143
71.5	27.933
72.0	26.767
72.5	25.634
73.0	24.532
73.5	23.452
74.0	22.415
74.5	21.399
75.0	20.401
75.5	19.438
76.0	18.491
76.5	17.562
77.0	16.659
77.5	15.773
78.0	14.913
78.5	14.070
79.0	13.245
79.5	12.450
80.0	11.659
80.5	10.894
81.0	10.138
81.5	9.386
82.0	8.651
82.5	7.921

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6DR-TL-L10-840-(L8)-DIM-UNV-LW-OF-WH-WET-CC_.IES****CANDELA TABULATION - (Cont.)**

83.0	7.208
83.5	6.508
84.0	5.817
84.5	5.138
85.0	4.477
85.5	3.837
86.0	3.219
86.5	2.623
87.0	2.044
87.5	1.560
88.0	1.193
88.5	0.873
89.0	0.605
89.5	0.380
90.0	0.242
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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6DR-TL-L10-840-(L8)-DIM-UNV-LW-OF-WH-WET-CC_.IES****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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6DR-TL-L10-840-(L8)-DIM-UNV-LW-OF-WH-WET-CC_.IES****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
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
155.0	0.000
155.5	0.000
156.0	0.000
156.5	0.000
157.0	0.000
157.5	0.000
158.0	0.000
158.5	0.000
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

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6DR-TL-L10-840-(L8)-DIM-UNV-LW-OF-WH-WET-CC_.IES****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
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	156.36	N.A.	23.20
0-30	316.07	N.A.	46.80
0-40	434.49	N.A.	64.40
0-60	601.70	N.A.	89.20
0-80	669.43	N.A.	99.20
0-90	674.78	N.A.	100.00
10-90	634.61	N.A.	94.00
20-40	278.13	N.A.	41.20
20-50	371.97	N.A.	55.10
40-70	213.00	N.A.	31.60
60-80	67.73	N.A.	10.00
70-80	21.94	N.A.	3.30
80-90	5.35	N.A.	0.80
90-110	0.01	N.A.	0.00
90-120	0.01	N.A.	0.00
90-130	0.01	N.A.	0.00
90-150	0.01	N.A.	0.00
90-180	0.01	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	674.79	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	40.17
10-20	116.19
20-30	159.71
30-40	118.42
40-50	93.84
50-60	73.37
60-70	45.79
70-80	21.94
80-90	5.35
90-100	0.01
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	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	78
3	96	87	80	75	93	85	79	74	83	77	73	80	75	72	77	74	70	69
4	89	79	71	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38
10	61	49	42	37	60	49	42	37	48	42	37	47	41	37	46	41	37	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	17.6	19.0	18.0	19.3	19.6	17.6	19.0	18.0	19.3	19.6
	3H	18.8	20.1	19.2	20.4	20.7	18.8	20.1	19.2	20.4	20.7
	4H	19.2	20.4	19.6	20.7	21.1	19.2	20.4	19.6	20.7	21.1
	6H	19.5	20.5	19.9	20.9	21.3	19.5	20.5	19.9	20.9	21.3
	8H	19.6	20.6	20.0	21.0	21.4	19.6	20.6	20.0	21.0	21.4
	12H	19.6	20.6	20.0	20.9	21.4	19.6	20.6	20.0	20.9	21.4

UGR Viewed Endwise

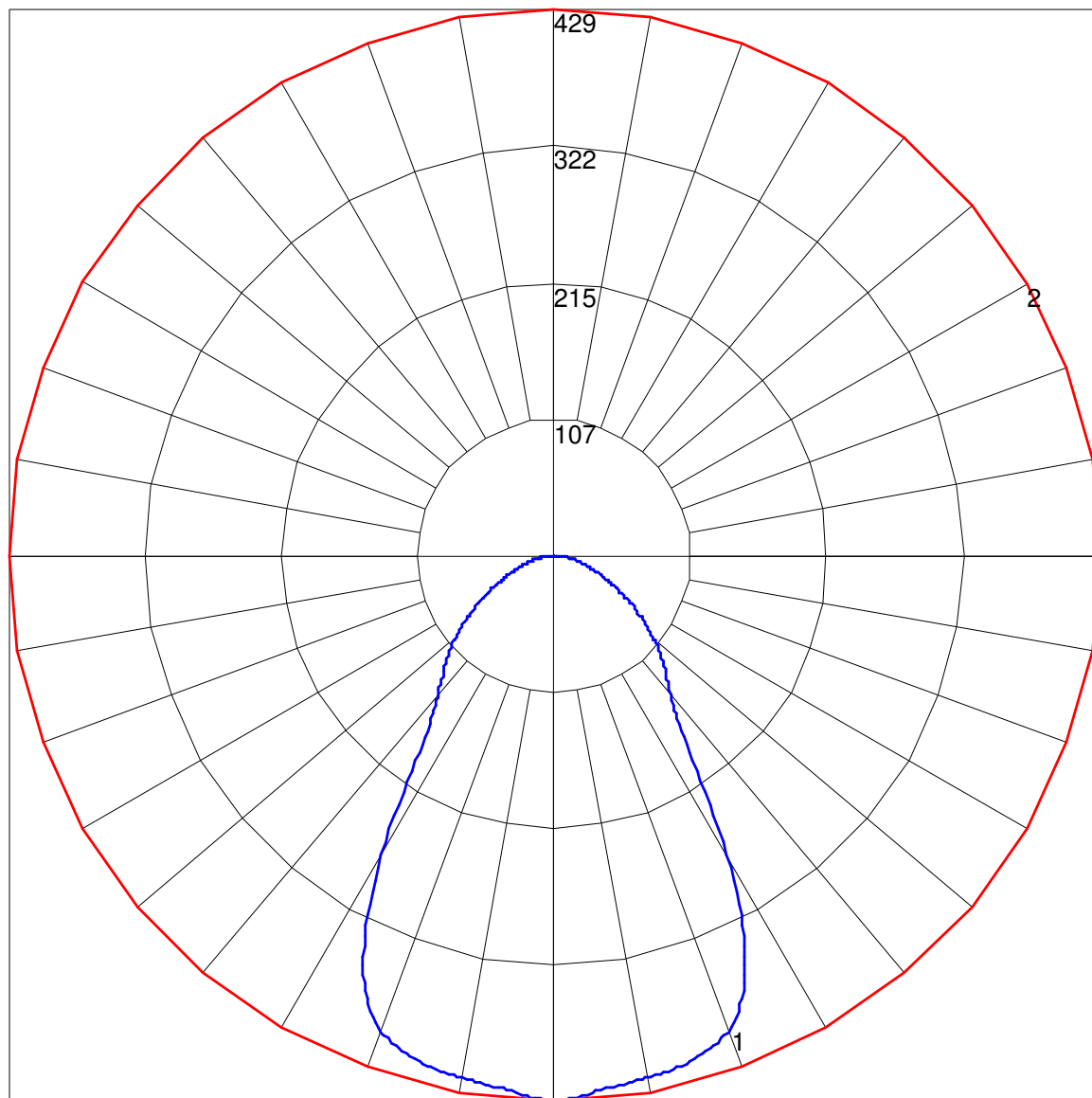
4H	2H	18.0	19.2	18.4	19.5	19.9	18.0	19.2	18.4	19.5	19.9
	3H	19.4	20.4	19.8	20.8	21.2	19.4	20.4	19.8	20.8	21.2
	4H	19.9	20.8	20.4	21.2	21.6	19.9	20.8	20.4	21.2	21.6
	6H	20.3	21.0	20.8	21.5	21.9	20.3	21.0	20.8	21.5	21.9
	8H	20.4	21.1	20.8	21.5	22.0	20.4	21.1	20.8	21.5	22.0
	12H	20.5	21.1	20.9	21.6	22.0	20.5	21.1	20.9	21.6	22.0

8H	4H	20.1	20.8	20.5	21.2	21.7	20.1	20.8	20.5	21.2	21.7
	6H	20.5	21.1	21.0	21.6	22.1	20.5	21.1	21.0	21.6	22.1
	8H	20.7	21.2	21.2	21.7	22.2	20.7	21.2	21.2	21.7	22.2
	12H	20.8	21.3	21.3	21.8	22.3	20.8	21.3	21.3	21.8	22.3

12H	4H	20.1	20.7	20.6	21.2	21.6	20.1	20.7	20.6	21.2	21.6
	6H	20.6	21.1	21.1	21.5	22.1	20.6	21.1	21.1	21.5	22.1
	8H	20.8	21.2	21.3	21.7	22.3	20.8	21.2	21.3	21.7	22.3

Maximum UGR = 22.3

POLAR GRAPH



Maximum Candela = 429.243 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.)