



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 6DR-TL-L15-840-EM10W-DIM-UNV-LW-OF-CS_(EMER MODE).IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]GEN FROM 12326812.07
 [TESTLAB] UL Verification Services Inc.
 [ISSUE DATE] 02-20-2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 6DR-TL-L15-840-EM10W-DIM1-UNV-LW-OF-CS
 [LUMINAIRE] Black formed aluminum housing, specular 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	860
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	10
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	14292	14292	14292
55	11898	11898	11898
65	9039	9039	9039
75	6555	6555	6555
85	4272	4272	4272

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CANDELA TABULATION

	<u>0</u>
0.0	546.887
0.5	546.777
1.0	546.337
1.5	545.676
2.0	544.850
2.5	543.749
3.0	542.648
3.5	541.382
4.0	540.225
4.5	539.069
5.0	538.243
5.5	537.473
6.0	536.757
6.5	536.041
7.0	535.270
7.5	534.554
8.0	533.839
8.5	533.178
9.0	532.517
9.5	531.967
10.0	531.416
10.5	530.976
11.0	530.590
11.5	530.370
12.0	529.985
12.5	529.599
13.0	529.049
13.5	528.333
14.0	527.452
14.5	526.461
15.0	525.415
15.5	524.094
16.0	522.662
16.5	521.231
17.0	519.799
17.5	518.312
18.0	516.716
18.5	514.899
19.0	512.862
19.5	510.604
20.0	508.017
20.5	505.209
21.0	501.740
21.5	497.611
22.0	492.931
22.5	487.645
23.0	481.864
23.5	475.588
24.0	468.650
24.5	461.163
25.0	453.069
25.5	444.645
26.0	435.671
26.5	426.311

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6DR-TL-L15-840-EM10W-DIM-UNV-LW-OF-CS_(EMER MODE).IES****CANDELA TABULATION - (Cont.)**

27.0	416.346
27.5	406.105
28.0	395.314
28.5	383.917
29.0	372.079
29.5	359.636
30.0	346.863
30.5	333.704
31.0	320.545
31.5	307.277
32.0	294.393
32.5	282.060
33.0	270.223
33.5	259.156
34.0	248.971
34.5	239.721
35.0	231.462
35.5	223.864
36.0	217.202
36.5	211.091
37.0	205.640
37.5	200.740
38.0	196.280
38.5	192.206
39.0	188.352
39.5	184.883
40.0	181.525
40.5	178.387
41.0	175.469
41.5	172.606
42.0	169.853
42.5	167.320
43.0	164.732
43.5	162.200
44.0	159.722
44.5	157.300
45.0	154.822
45.5	152.455
46.0	150.032
46.5	147.609
47.0	145.132
47.5	142.709
48.0	140.232
48.5	137.754
49.0	135.277
49.5	132.689
50.0	130.211
50.5	127.679
51.0	125.146
51.5	122.558
52.0	119.971
52.5	117.383
53.0	114.795
53.5	112.207
54.0	109.730
54.5	107.197

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55.0	104.554
55.5	101.967
56.0	99.379
56.5	96.956
57.0	94.534
57.5	92.001
58.0	89.469
58.5	86.991
59.0	84.569
59.5	82.146
60.0	79.834
60.5	77.521
61.0	75.264
61.5	73.006
62.0	70.859
62.5	68.712
63.0	66.620
63.5	64.528
64.0	62.490
64.5	60.508
65.0	58.526
65.5	56.599
66.0	54.678
66.5	52.789
67.0	50.923
67.5	49.095
68.0	47.300
68.5	45.500
69.0	43.754
69.5	42.025
70.0	40.346
70.5	38.722
71.0	37.131
71.5	35.589
72.0	34.103
72.5	32.660
73.0	31.256
73.5	29.880
74.0	28.558
74.5	27.265
75.0	25.993
75.5	24.765
76.0	23.559
76.5	22.375
77.0	21.225
77.5	20.096
78.0	19.000
78.5	17.927
79.0	16.875
79.5	15.862
80.0	14.855
80.5	13.880
81.0	12.917
81.5	11.959
82.0	11.023
82.5	10.092

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 6DR-TL-L15-840-EM10W-DIM-UNV-LW-OF-CS_(EMER MODE).IES****CANDELA TABULATION - (Cont.)**

83.0	9.184
83.5	8.292
84.0	7.411
84.5	6.546
85.0	5.704
85.5	4.889
86.0	4.102
86.5	3.342
87.0	2.604
87.5	1.988
88.0	1.520
88.5	1.112
89.0	0.771
89.5	0.485
90.0	0.308
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-L15-840-EM10W-DIM-UNV-LW-OF-CS_(EMER MODE).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-L15-840-EM10W-DIM-UNV-LW-OF-CS_(EMER MODE).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

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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	199.21	N.A.	23.20
0-30	402.69	N.A.	46.80
0-40	553.57	N.A.	64.40
0-60	766.61	N.A.	89.20
0-80	852.90	N.A.	99.20
0-90	859.72	N.A.	100.00
10-90	808.55	N.A.	94.00
20-40	354.36	N.A.	41.20
20-50	473.92	N.A.	55.10
40-70	271.38	N.A.	31.60
60-80	86.29	N.A.	10.00
70-80	27.95	N.A.	3.30
80-90	6.82	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	859.73	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	51.18
10-20	148.04
20-30	203.48
30-40	150.88
40-50	119.56
50-60	93.48
60-70	58.34
70-80	27.95
80-90	6.82
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	18.5	19.9	18.9	20.2	20.5	18.5	19.9	18.9	20.2	20.5
	3H	19.7	21.0	20.1	21.3	21.6	19.7	21.0	20.1	21.3	21.6
	4H	20.1	21.3	20.5	21.6	22.0	20.1	21.3	20.5	21.6	22.0
	6H	20.4	21.4	20.8	21.8	22.2	20.4	21.4	20.8	21.8	22.2
	8H	20.4	21.5	20.9	21.9	22.3	20.4	21.5	20.9	21.9	22.3
	12H	20.5	21.5	20.9	21.8	22.3	20.5	21.5	20.9	21.8	22.3

UGR Viewed Endwise

4H	2H	18.9	20.1	19.3	20.4	20.8	18.9	20.1	19.3	20.4	20.8
	3H	20.3	21.3	20.7	21.7	22.1	20.3	21.3	20.7	21.7	22.1
	4H	20.8	21.7	21.3	22.1	22.5	20.8	21.7	21.3	22.1	22.5
	6H	21.2	21.9	21.7	22.4	22.8	21.2	21.9	21.7	22.4	22.8
	8H	21.3	22.0	21.7	22.4	22.9	21.3	22.0	21.7	22.4	22.9
	12H	21.4	22.0	21.8	22.5	22.9	21.4	22.0	21.8	22.5	22.9

8H	4H	21.0	21.7	21.4	22.1	22.6	21.0	21.7	21.4	22.1	22.6
	6H	21.4	22.0	21.9	22.5	23.0	21.4	22.0	21.9	22.5	23.0
	8H	21.6	22.1	22.1	22.6	23.1	21.6	22.1	22.1	22.6	23.1
	12H	21.7	22.2	22.2	22.7	23.2	21.7	22.2	22.2	22.7	23.2

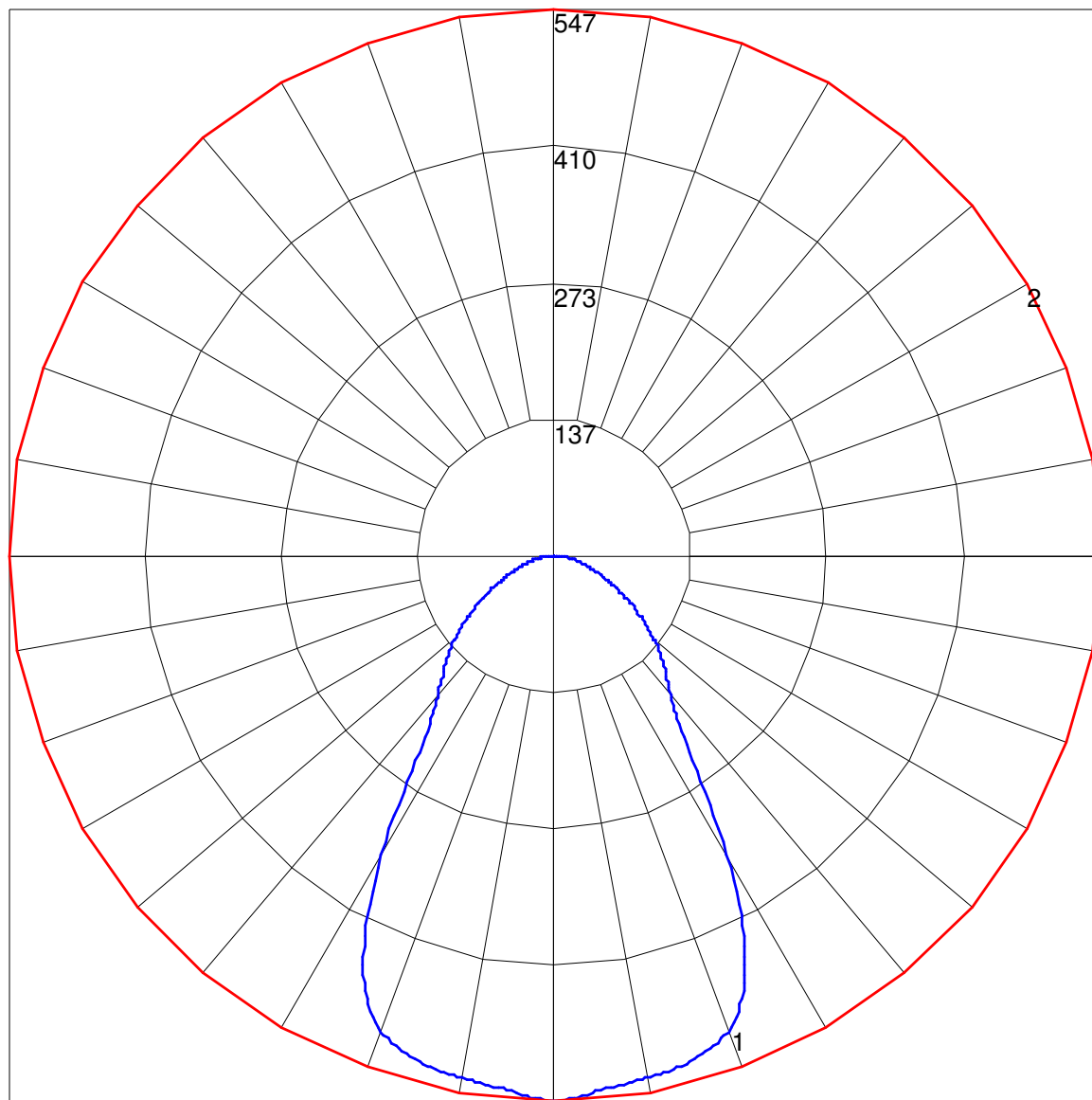
12H	4H	21.0	21.6	21.4	22.1	22.5	21.0	21.6	21.4	22.1	22.5
	6H	21.5	22.0	22.0	22.4	23.0	21.5	22.0	22.0	22.4	23.0
	8H	21.7	22.1	22.2	22.6	23.2	21.7	22.1	22.2	22.6	23.2

Maximum UGR = 23.2

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POLAR GRAPH



Maximum Candela = 546.887 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.)